



AH7-780-0000

Auto-Darkening Welding Helmet

User Manual

AH7-780- 0000 Auto-Darkening Welding Helmet 2017

⚠ 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:



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



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



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



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

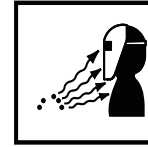
⚠ IMPORTANT SAFETY INSTRUCTIONS **FUMES AND GASES can be hazardous !**



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.



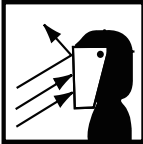
WELDING can cause fire or explosion !

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 workpiece, 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.

⚠ 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.



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.

GENERAL INFORMATION

AH7-780-0000 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 16.

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.

Protection can be seriously impaired if unapproved modifications are made

TECHNICAL SPECIFICATIONS

Model	AH7-780
ADF Model	AF 780
Optical Class	1/1/1/1
Viewing Area	98mm x 82mm/3.86" x 3.23"
Weight	5.8 OZ (164g)
Cartridge Size	133mm x 114mm x 9mm/5.24" x 4.5" x 0.35"
UV/IR Protection	Permanent Shade DIN 16
Light State	Shade DIN 4
Dark State	DIGITAL 5-9/9-13
Sensors	4
Grinding	Yes
Sensitivity Control	DIGITAL(1-9)
Reaction Time	0.00003 sec (1/30.000)
Delay Control	DIGITAL(1-9)/0.1-0.9S
TIG Rating	>2Amp
Battery Type	2 x CR 2032 (Lithium 3 Volt)
Solar Cell	Yes
Power On/Off	Auto Off
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	ANSI Z87.1-2010 & CSA Z94.3-2007 & CE EN379:2009-07 & AS/NZS1338.1-2012

▲ NOTICE

When stored in extremely cold temperature, the helmet should be warmed up to ambient temperature before welding.

▲ WARNING

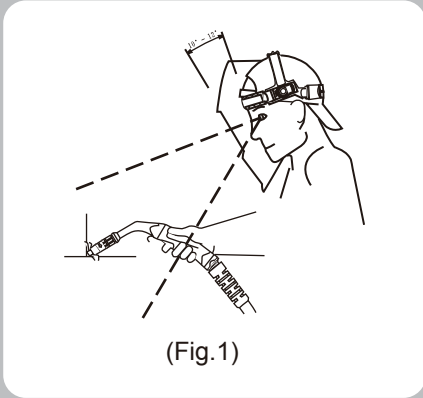
Ensure the front cover lens is mounted before using and the protective film on the lens cover is removed

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

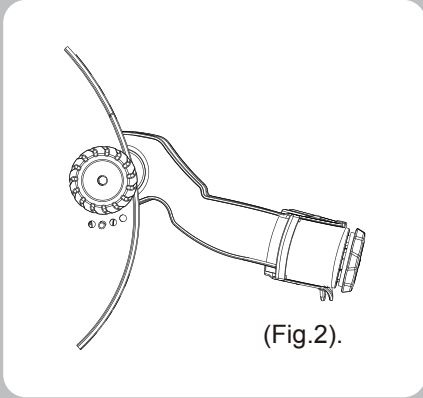
Inspect all parts for signs of wear or damage. Any scratched or cracked parts should be replaced prior to use.

NEVER place the helmet on a hot surface.

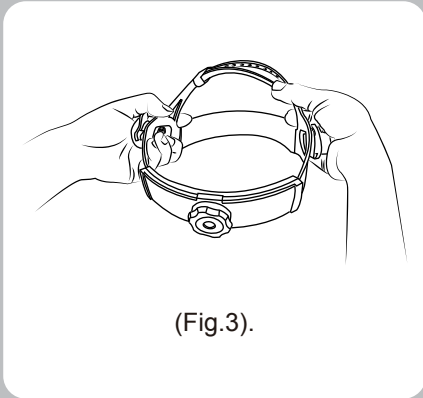
NEVER open or tamper with the filter cartridge.



(Fig.1)



(Fig.2).



(Fig.3).

1.OPERATION

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).

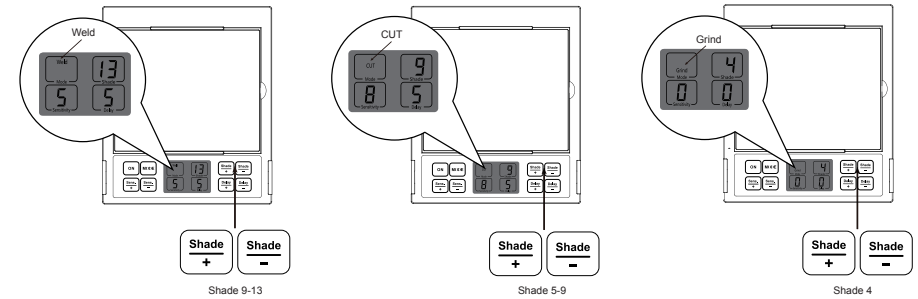
Adjust helmet's headband stop to get desired viewing angle(Fig.2).

ADJUST HEADBAND PER PERSONAL PREFERENCE.

Use the ratcheting knob on the headband to adjust width.

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

2.SELECT THE SHADE NUMBER



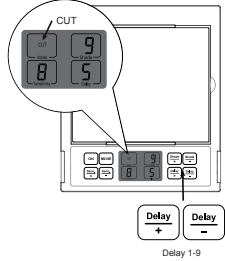
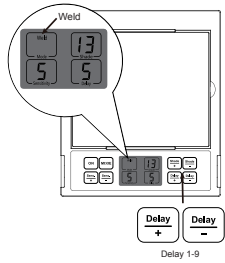
(Fig.4)

To change the shade setting, adjust the shade setting("Shade +/-" from 9 to 13) using the Button when the mode is WELD. Adjust the shade setting("Shade +/-" from 5 to 9) using the Button when the mode is CUT. GRIND mode is set to be shade 4(Fig.4).

3.RECOMMENDED SETTINGS

WELDING PROCESS	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																								
Covered Electrode	Shade 9								Shade 10				Shade 11				Shade 12				Shade 13				14																							
MIG Plate Welding	Shade 10								Shade 11				Shade 12				Shade 13				Shade 14				14																							
MIG Sheet Metal	Shade 10								Shade 11				Shade 12				Shade 13				Shade 14				15																							
TIG	Shade 8				Shade 9				Shade 10				Shade 11				Shade 12				Shade 13				Shade 14																							
MAG	Shade 8								Shade 9				Shade 10				Shade 11				Shade 12				Shade 13				Shade 14																			
Arc Gouging	Shade 10								Shade 11				Shade 12				Shade 13				Shade 14				Shade 15																							
Plasma Cutting	Shade 5				6				7				8				9				10				Shade 11				Shade 12				Shade 13				Shade 14											
Plasma Welding	4				5				6				7				8				9				Shade 10				Shade 11				Shade 12				Shade 13				Shade 14				Shade 15			

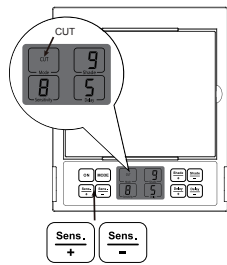
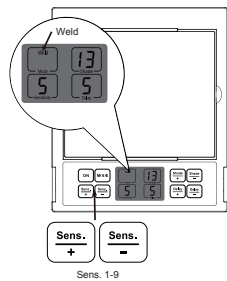
REFERENCE ANSI Z49.1-2005



(Fig.5)

4.SELECT DELAY TIME

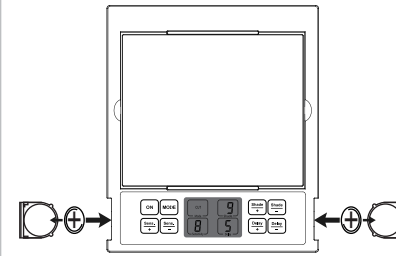
The delay mode adjusts how quickly the filter goes from dark back to light state. To change the delay setting, adjust the delay setting("Delay +/-" from 1 to 9) using the button. Delay time is set to be 0 when the MODE is GRIND. Each setting will adjust the delay in 0.1-second increments. Delay can be adjusted from 0.1 second up to 0.9 second. Use the longer setting for higher amperage welds or where the weld pool remains intense after the arc is extinguished(Fig.5).



(Fig.6)

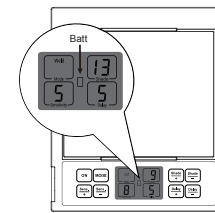
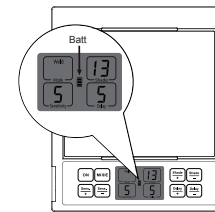
5.SELECT SENSITIVITY

The sensitivity control affects how the filter reacts to ambient light. To change the sensitivity, adjust the sensitivity setting("Sensi +/-" from 1 to 9) using button. Sensitivity is set to be 0 when the MODE is GRIND. Setting 0-3 are recommended for outdoor use, 7-9 for low amperage welding and 4-6 for other types of welding(Fig.6).



6.REPLACEMENT OF BATTERIES

Carefully open battery compartments. Always replace both batteries at the same time. The compartments snap close(Fig.7).

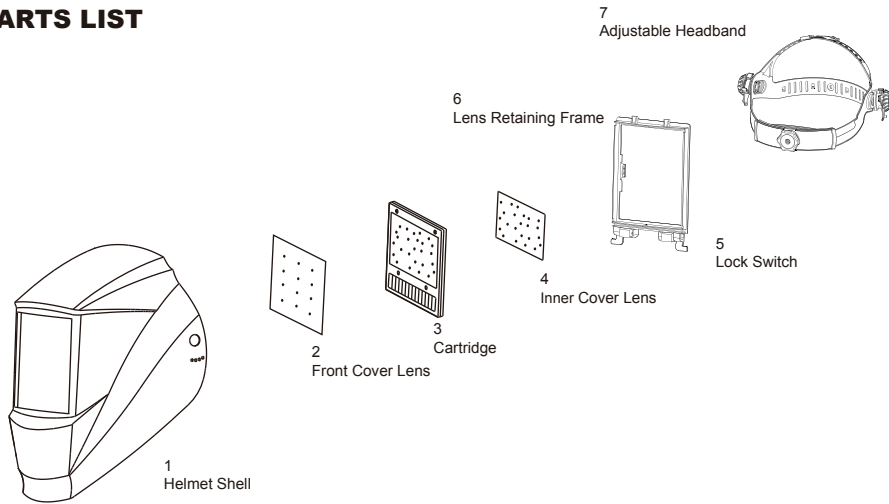


(Fig.8)

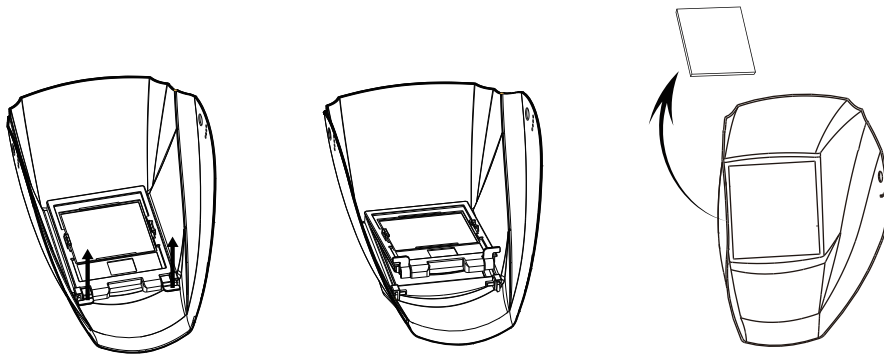
7.Battery display

In the state of darkness, or the solar is broken, the icon of battery will be shown on the LCD screen, and it will not affect the use. When the icon shows "low battery", you need to change the battery at once(Fig.8).

8.PARTS LIST

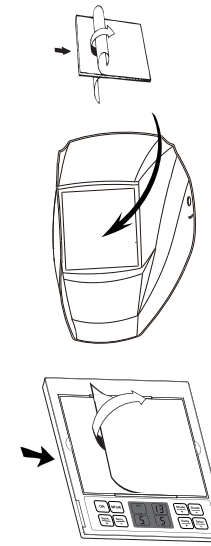


9.MAINTENANCE



(Fig.9)

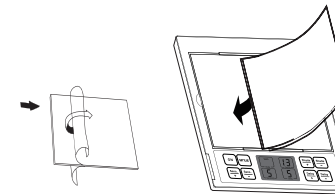
Remove the front lens by pulling out the retaining frame, pull up the lock switch upward to take out the retaining frame. Take out the old cover lens(Fig.9).



(Fig.10)

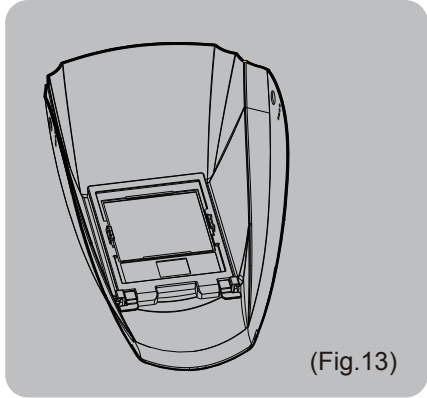
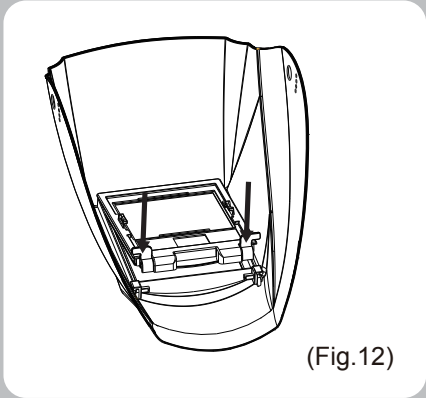
Make sure that the protective film is removed from the new cover lens. Place the new cover lens in the recess at the front of the helmet(Fig.10).

NOTICE Do Not Use the helmet without the cover lens in place.



(Fig.11)

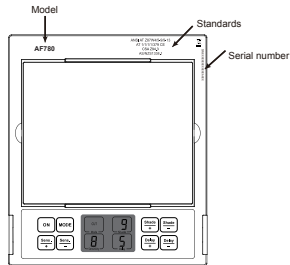
The new inner cover lens is assembled after the protective film is removed. Locate one of the sides inserting the edge under the hook at the side and bend the lens in the middle part and locate the lens under the hook at the other side(Fig.11)



Put the retaining frame into the helmet in appropriate location, and then press the lock switch downward(Fig.12).

MEANING OF THE MARKING

The meaning of the marking of the double shade is:4/5-9/9-13 AT 1/1/1/1/379 CE.



4 / 5 - 9 / 9 - 13 AT 1 / 1 / 1 / 1 / 379 CE

- Shade number in light and dark shades _____
- identification of the manufacturer _____
- optical class _____
- diffusion of light class _____
- variation in luminous transmittance class _____
- angle dependency class _____
- number of the standard _____

INSPECTION

1. Carefully inspect your Auto-Darkening Welding Filter regularly.
2. Cracked, pitted or scratched filter glass or cover lenses reduce vision will seriously impair protection.
3. These should be replaced immediately to avoid injury to the eyes.
4. Inspect the helmet frequently and replace worn or damaged parts.

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

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.

AUTO DARKENING FILTER DOES NOT DARKEN OR FLICKERS

Front cover lens is soiled, clean or replace it.
 Photo sensors are dirty, wipe them clean with a soft lint-free cloth.
 Welding current is too low, select the slow position on the filter and ensure the view of the weld is unobstructed.
 Change to high sensitivity.
 Replace the two Lithium Batteries.

POOR VISION

Ensure the cover lens and the filter cartridge is clean.
 Ensure the shade number is correct and adjust accordingly.
 Ensure ambient light is not too low.

WARRANTY

We warrants 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.

A warning that materials which may come into contact with wearer's skin could cause allergic reactions to susceptible individuals

A warning that if the symbols F and B are not common to both the ocular and the frame then it is the lower level which shall be assigned to the complete eye-protector.

Please stop using it immediately when any abnormal phenomenon happened .