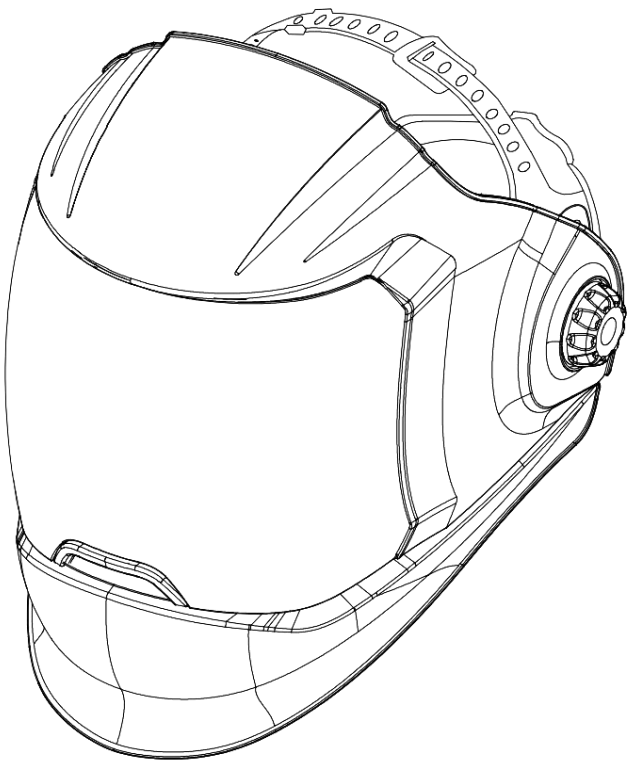
User's Manual



YC10-K

Flip Up Grind Shield Auto-Darkening Helmet

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SAFETY WARNINGS- READ BEFORE USING

WARNING

ARC Rays can injure eyes and burn skin



- Before welding, always inspect helmet and filter lens to be sure they are fitted properly, in good condition and not damaged.
- Check to see that the clear lens is clean and securely attached to the helmet.
- Always wear safety glasses or goggles under the welding helmet and protective clothing to protect your skin from radiation, burns and spatter.
- Ensure that optical radiation from other welder's arcs in the immediate area does not enter in from behind the helmet and auto-darkening filter.

Note: Auto-darkening filters in helmets are designed to protect the user against harmful ultra-violet and infrared rays both in the dark and light states. No matter what shade the filter is set to, the UV/IR protection is always present.

FUMES AND GASES can be dangerous to your health.

- Keep your head out of fumes.
- Use enough ventilation or exhaust at the arc or both to keep fumes and gases from your breathing zone and general area.
- When welding with electrodes which require special ventilation such as stainless or hard facing (see instructions on container or MSDS) or on lead or cadmium plated steel and other metals or coatings which produce highly toxic fumes, keep exposure as low as possible and within applicable OSHA PEL and ACGIH TLV limits using local exhaust or mechanical ventilation. In confined spaces or in some circumstances, outdoors,a respirator may be required. Additional precautions are also required when welding on galvanized steel.

ALWAYS TEST TO BE SURE THE ADF CARTRIDGE IS CHARGED BEFORE WELDING.

The TEST button is for the user to verify the ADF cartridge is darkening properly. If cartridge is not darkening properly, replace batteries with fresh batteries and test again before use. While welding, the arc and solar cell will keep the ADF charged.

SHADE GUIDE SETTINGS

GUIDE FOR SHADE NUMBERS

OPERATION	ELECTRODE SIZE 1/32 in. (mm)	ARC CURRENT (A)	MINIMUM PROTECTIVE SHADE	SUGGESTED① SHADE NO. (COMFORT)
Shielded metal arc welding	Less than 3(2.5) 3-5(2.5-4) 5-8(4-6.4) More than8(6.4)	Less than 60 60-160 160-250 250-500	7 8 10 11	- 10 12 14
Gas metal arc welding and flux cored arc welding		Less than 60 60-160 160-250 250-500	7 10 10 10	- 11 12 14
Gas tungsten arc welding		Less than 50 50-150 150-500	8 8 10	10 12 14
Air carbon Arc cutting	(Light) (Heavy)	Less than 500 500-1000	10 11	12 14
Plasma arc welding		Less than 20 20-100 100-400 400-800	6 8 10 11	6 to 8 10 12 14
Plasma arc cutting	(Light)② (Medium)② (Heavy)②	Less than 300 300-400 400-800	8 9 10	9 12 14
Torch brazing		-	-	3 or 4
Torch soldering		-	-	2
Carbon arc welding		-	-	14
PLATE THICKNESS				
In.	**mm**			
Gas welding Light Medium Heavy	Under 1/8 1/8 to 1/2 Over 1/2	Under 3.2 3.2 to 12.7 Over 12.7		4 or 5 5 or 6 6 or 8
Oxygen cutting Light Medium Heavy	Under 1 1 to 6 Over 6	Under 25 25 to 150 Over 150		3 or 4 4or 5 5or 6

①As a rule of thumb, start with a shade that is too dark, then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum.In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium of the visible light in the sodium light spectrum.

②These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the workpiece.

Data from ANSI 49.1-2005

If your helmet does not include any one of the shades referenced above, it is recommended you use the next darker shade.

HELMET INFORMATION

This auto darkening welding helmet with integrated clear face shield is an all in-one solution for welding, cutting and grinding. It is designed to provide protection from harmful UV and IR radiation from welding/cutting process with the lens flip down, and help protect against flying particles from grinding with the lens flip up. This Helmet can be used for GMAW, GTAW, MMAW welding, or Plasma Arc and air carbon arc cutting.

This Auto-Darkening Welding Helmet will change from a light state (shade 3) a dark state (Shade 4-15) when arc welding starts. The filter automatically returns to a light state when the arc stops. Match your welding application to the shade indicated on the shade chart.

- The lens must be flipped down before welding.
- Do not use the auto-darkening filter if damaged by shock, vibration or pressure.
- Do not use the helmet without inside and outside cover lenses properly installed.
- If cover lens is spattered or covered with dirt, it should be replaced immediately.
- Do not use helmet if lens does not function as described.

The cartridge contains four sensors to detect the light from the welding arc, resulting in the lens darkening to a selected welding shade. Keep the sensors and solar cell clean. Clean the filter cartridge using a soapy water solution and soft cloth which should be damp but not saturated.

- Do not use solvents or abrasive cleaning detergent.
- Use only replacement parts specified in this manual.

SPECIFICATIONS

Optical Class	1/1/1/1
LCD Viewing Area	75×112mm(2.95×4.41in.)
Arc Sensors	4
Light State Shade	DIN 3
Grind State	DIN 3
Cutting Shades	4 to 8
Variable Welding Shades	9 to 12 / 13 to 15
Shade Control	Variable Shade, Digital Display Control
Power On/Off	Auto-ON, Auto-OFF
Sensitivity Control	Variable 1 to 10, Digital Display Control
UV/IR Protection	Up to Shade DIN16 at all times
Power Supply	Solar cell with battery assist
Battery	2xCR2450 lithium batteries
Light to Dark Switching Time	0.00004 sec. (1/25,000 sec.)
Dark to Light Switching Time	Variable 0 to 10,Digital Display Control (0.1 sec.to 1.0 sec.)
Oxyfuel Gas Welding	Yes
Oxygen Cutting	Yes
Grinding	Yes
TIG Rating	DC ≥ 3 amps AC ≥ 3 amps
Operating Temperature	14°F～131°F (-10℃～55℃)
Storage Temperature	-4°F～158°F (-20℃～70°℃)
Compliance	CE EN379 EN175/ANSI Z87.1

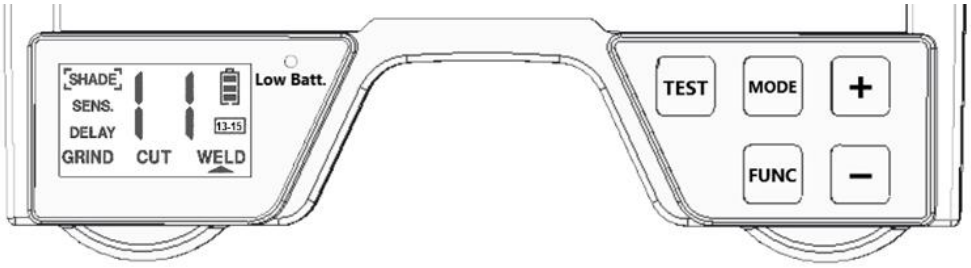
CARTRIDGE OPERATION/FEATURES

ON: ADF can automatically turn on. In a normal lighting environment, move the helmet, the system will automatically turn on and enter the standby state, the status data of the last shutdown will be displayed on the LCD screen. When no button is pressed for 1 minute, the LCD screen will automatically turn off. After thatthe LCD screen will stay in the off state when working in auto-darkening or grind mode, unless manually operated the button again.

OFF: ADF can automatically turn off. The system will automatically turn off and enter the power-saving state after the welding helmet has not been used for 10 minutes. In a dark environment, the system is always in the shutdown state, whether the product is moved or not.

Button operation: There are 5 operation buttons on the filter, "TEST", "MODE", "FUNC", "+" and "-". Operation mode and functions are as follows:

FIGURE 1



A. TEST: This button is used to check the product status. Press the TEST button：

-If the filter is off, the system has no response;

-If the filter is in the standby state, the LCD screen will turn on, and the lens will automatically darken. The shade number will be consistent with the LCD screen display. Release the TEST button and the system will resume the standby state.

B. MODE: Users can select the mode appropriate for the work activity through this button. Press the MODE button in the standby state, the LCD screen will turn on, press it continuously, the check mark "▁▂▃" will cyclically move under the four symbols GRIND, CUT, WELD, 13-15, corresponding to grinding (GRIND), cutting (CUT), welding (WELD), high dark state (shade NO.13-NO.15) four working modes. The shade range for each mode is as follows:

GRIND: NO. 3　　CUT : NO. 4 - NO. 8

WELD : NO. 9 - NO. 12　　13-15: NO. 13 - NO. 15

C. FUNC: This button is a function adjustment selection button. Press the FUNC button in the standby state, the LCD screen will turn on, press this button continuously, the selection

box “ ” will cyclically move on the three symbols SHADE, SENS., DELAY, respectively for shade number adjustment (SHADE) , sensitivity adjustment (SENS.), Delay adjustment (DELAY) three function settings. In GRIND mode, this button has no effect on selection, and the selection box “ ” will stay on the SHADE symbol and no longer move. The selection ranges for each function are as follows:

- **SHADE:** In GRIND mode, the lens shade is fixed shade NO. 3, shade number cannot be adjusted; in CUT mode, the adjustment range is NO. 4 - NO. 8; in WELD mode, the adjustment range is NO. 9 - NO.12; in 13-15 mode, the adjustment range is NO.13 - NO.15.

- **SENS.:** Except that it cannot be adjusted in GRIND mode, the adjustment range in other modes is NO.1 - NO.10. These 10 different sensitivity levels, users can adjust according to the ambient light, welding type, and welding current.

- **DELAY:** Except that it cannot be adjusted in GRIND mode, the adjustment range in other modes is 1 - 10. Corresponding to 10 different delay levels (0.1-1 second), users can adjust the delay level according to the needs.

D. “+”: This button is used to increase the number on the screen. Press the + button in the standby state, the LCD screen will turn on, press this button continuously, the number displayed on the LCD screen will plus one in turn, until the highest adjustable range. (Can not be adjusted in GRIND mode)

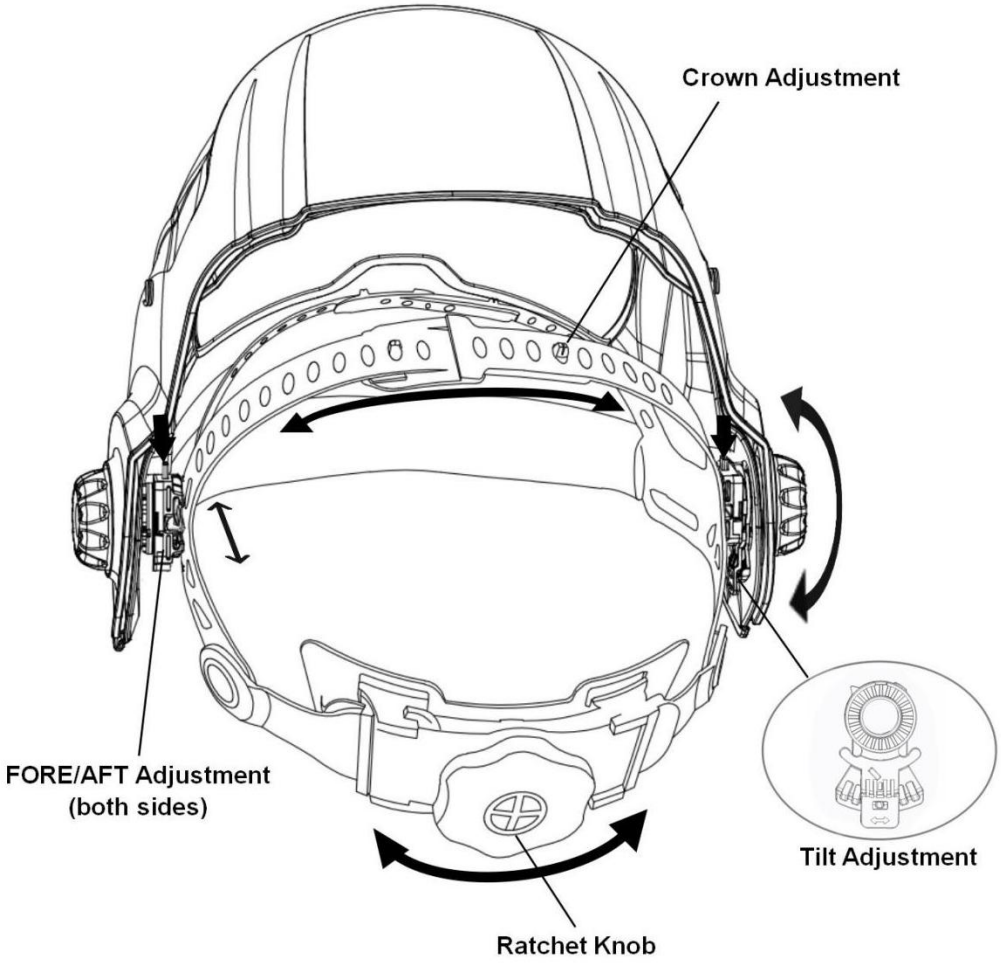
E. “-”: This button is used to decrease the number on the screen. Press the -button in the standby state, the LCD screen will turn on, press this button continuously, the number displayed on the screen will minus one in turn, until the lowest adjustable range. (Can not be adjusted in GRIND mode)

Battery Indicator and Low battery alarm function: The volume of batteries has four level symbols displayed on the LCD screen. shows batteries in full state(high level), shows batteries in second level, shows batteries in low level, flashing symbol indicates that the battery voltage is lower than normal operation. The battery needs to be charged. And the LED low battery warning light "Low Batt." will flash at the same time.

OPERATING INSTRUCTIONS

Headgear Adjustment

FIGURE 2



HEAD SIZE ADJUSTMENT: HEADGEAR TIGHTNESS is adjusted by turning the Ratchet Knob to adjust for the desired head size. This knob is located at the back of the helmet.

HEADGEAR CROWN ADJUSTMENT is made by adjusting for comfort and snapping the pins into the holes to lock securely in place.

TILT: Tilt adjustment is located on the right side of the helmet.Loosen the right headgear tension knob，insert the pins on the adjusting piece into different holes on the connecting piece, and adjust to the desired tilt position.

FORE/AFT ADJUSTMENT: Adjusts the distance between the user's face and lens.To adjust, press the button down and slide forward or back to desired position, and then released the button. **NOTE:** Make sure both side are equally positioned for proper operation.

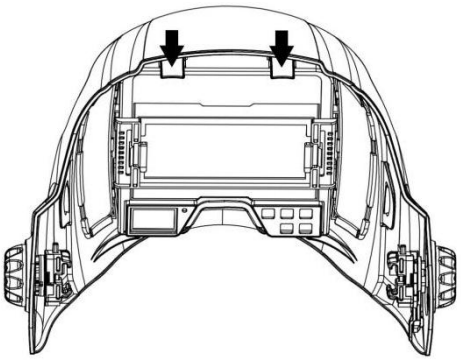
HELMET CARE AND MAINTENANCE

Cleaning: Clean helmet by wiping with a soft cloth. Clean cartridge surfaces regularly. Do not use strong cleaning solutions. Clean sensors and solar cells with soapy water solution and a clean cloth and wipe dry with a lint-free cloth.

Do **NOT** submerge shade cartridge in water or other solution.

Storage: Store in a clean, dry location.

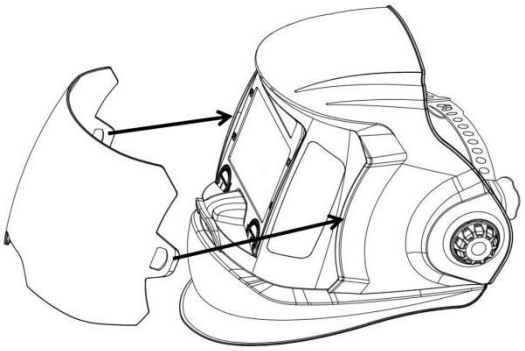
FIGURE 3



Change the ADF

Remove Front Lens per Figure 4. Flip up the lens, carefully release the locks on top per Figure 3. Tilt the cartridge and gently push the ADF from the inside per Figure 5 to remove from the shell. Install new ADF cartridge into shell by first insert it into the slot at the bottom, and then carefully push the ADF till the locks click.

FIGURE 4



Replacing Outside Cover Lens

Replace the front cover lens if it is damaged. Flip up the lens, carefully pull the ear buckle out of the pin from the inside of the helmet per Figure 6. Remove outside cover lens per Figure 4. Carefully install the new cover lens and make sure it slide into the side slots on both sides, then gently push it until the ear buckles are firmly locked. Make sure to assemble cover lens into helmet shell the same way as it was removed.

FIGURE 5

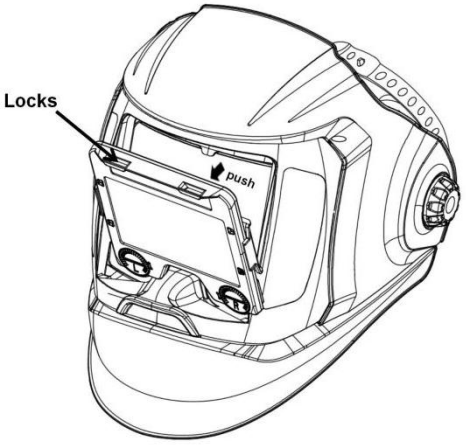


FIGURE 6



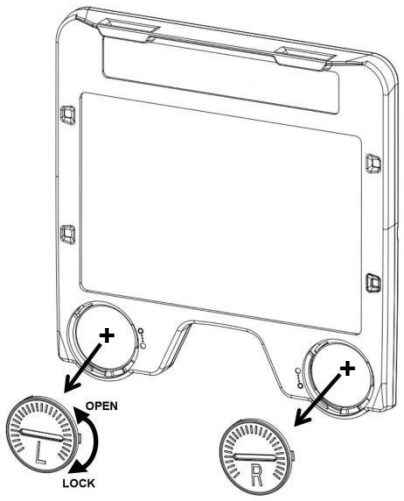
Replacing Inside Clear Lens

Replace the inside clear lens if it is damaged. Remove ADF assembly and then remove the Inside Clear Lens. Install new Inside Clear Lens into ADF and assemble to helmet shell. Make sure to assemble them into helmet shell the same way as it was removed.

Battery Replacement

After taking out the ADF, remove the battery cover and replace the battery. Tighten the battery compartment cover per Figure 7 and assemble the ADF to helmet shell. Make sure to assemble them into helmet shell the same way as it was removed.

FIGURE 7



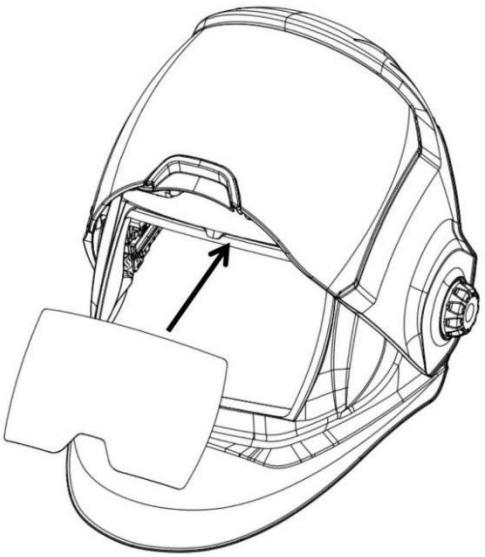
Grind Shield Replacement

Replace the Clear Grind Shield if it is damaged. Flip up the lens, carefully push from the inside of the helmet to remove Grind Shield Lens per Figure 8. Install the new Grind Shield per Figure 9 and make sure its installed into the slots securely.

FIGURE 8



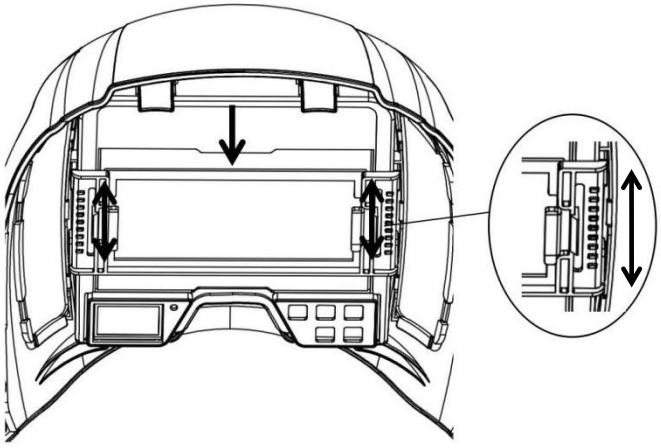
FIGURE 9



Installing Aftermarket Magnifying Lens

Magnifying lens holder is put in the accessories as a spare part, can be installed by yourself as needed. When installtion, snap the holes on both side of magnifying lens holder to the pins on the ADF holder per Figure 10. Then simply slide the magnifying lens into the short rail located on the sides of holder**.**

FIGURE 10



TROUBLESHOOTING GUIDE

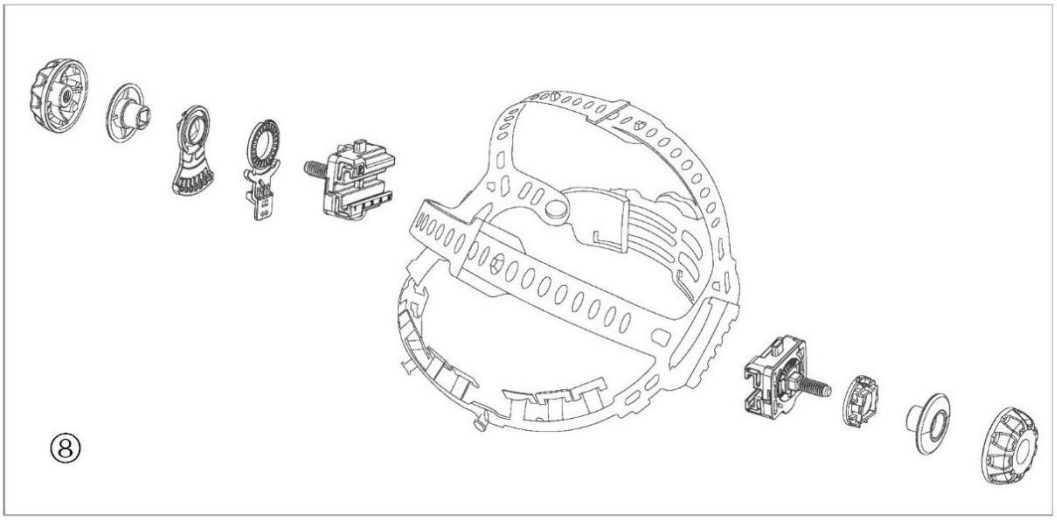
Test your shade cartridge prior to welding by directing the front of the cartridge toward a bright source of light. Then,using your fingers, rapidly cover and uncover the sensors. The cartridge should darken momentarily as the sensor is exposed. A torch striker can also be used.

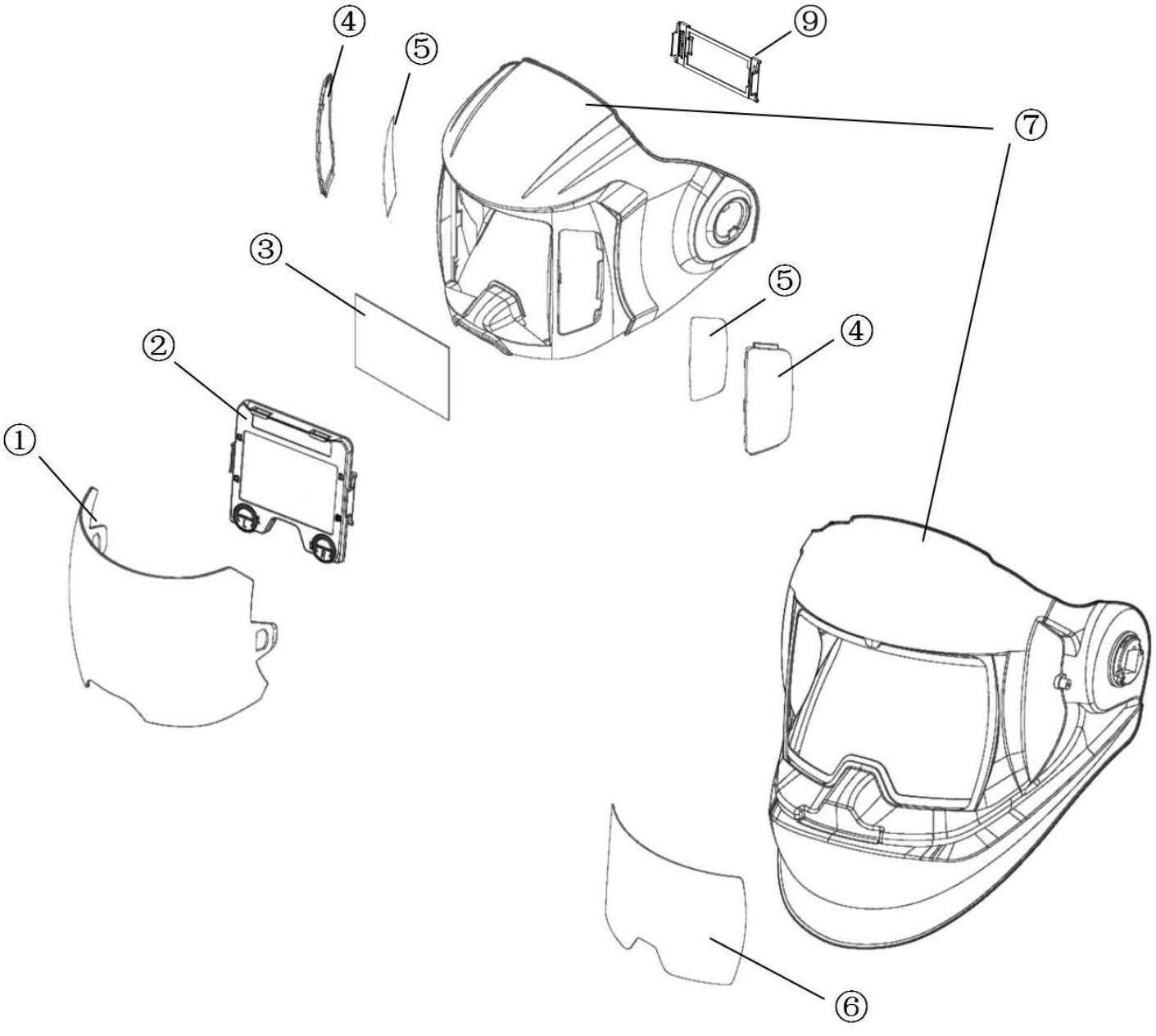
PROBLEM	POSSIBLE CAUSE	SOLUTION
Filter does not darken when TEST button is pushed	Low Battery	Replace Battery
Difficult to see through filter.	Front cover lens dirty.	Clean or replace front cover lens.
	Cartridge dirty.	Clean the Auto-Darkening cartridge with soapy water solution and soft cloth.
Filter 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.
	Grind Mode Selected	Make sure proper shade is selected.
Filter darkening without arc being struck.	Sensitivity set to 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	
Weld spatter is damaging the filter	Missing, damaged, broken, cracked or distorted front cover lens.	Replace front cover lens as needed.

SPATTER DAMAGE IS NOT COVERED BY WARRANTY:

Do not use this product without the correct protective clear lenses installed properly on both sides of the Auto-Darkening Filter cartridge (ADF). The clear lenses supplied with this helmet are properly sized to work with this product and substitutions from other suppliers should be avoided.

REPLACEMENT PARTS





ITE	DESCRIPTION	QTY
1	Outside Cover Lens	**1**
2	ADF	**1**
3	Inside Clear Lens	**1**
4	Side Lens (1 pair)	**1**
5	Side Lens Cover (1 pair)	**1**
6	Grind Shield Clear Lens	**1**
7	Replacement Shell (Including Side Window installed)	**1**
8	Headgear	**1**
9*	Magnifying lens holder	**1**

***It is put in the accessories as a spare part.**

OPTIONAL ACCESSORIES		
ITE	DESCRIPTION	**QTY**
1	Cheater Lens 1.00 Magnification	**1**
2	Cheater Lens 1.25 Magnification	**1**
3	Cheater Lens 1.50 Magnification	**1**
4	Cheater Lens 1.75 Magnification	**1**
5	Cheater Lens 2.00 Magnification	**1**
6	Cheater Lens 2.50 Magnification	**1**
7	Cheater Lens 3.00 Magnification	**1**
8	Powered Air Purifying Respirator(YC-PR01)	**1**
9	Powered Air Purifying Respirator(YC-PR02)	**1**

CUSTOMER ASSISTANCE POLICY

The business of our company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion,purchasers may ask us for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time.We are not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Our company is a responsive manufacturer, but the selection and use of specific products sold by us are solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of us affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change-This information is accurate to the best of our knowledge at the time of printing.