5000 INSTRUCTION MANUAL

5000
Lightweight welding helmet with ADF

WARNING **Read and Understand All Instructions Before Using the Equipment.**

SAFETY WARNINGS

The automatic welding mask is a new generation product for labor protection. Some new and high science and technology such as LCD, optoelectronics detection, solar power, microelectronics, etc are integrated into it.The automatic welding mask not only can efficiently protect operators eyes from injuries caused by arc, but also can make both hands free and strike arc accurately. Therefore, the quality of products and work efficiency may be raised considerably.It may be widely used for various welding,cutting, spraying and arc gouging, etc.

Read and understand all instructions before using.

- Be sure that the dark shade of the lens in the welding helmet is the correct shade number for your application.
- This helmets and lenses are not suitable for “overhead”welding application, laser welding, or laser cutting applications.
- Welding helmets are designed to protect the eyes and face from sparks, spatter, and harmful radiation under normal welding conditions.They will not protect against severe impact hazards, including fragmenting grinding disks, and they must never be used for grinding.
- This helmet will not protect against explosive devices or corrosive liquids. Machine guards or eye splash protection must be used when these hazards are present.
- Impact resistant, primary eye protection, spectacles or goggles that meet current ANSI specifications, must be worn at all times when using this welding helmet.
- Avoid work positions that could expose unprotected areas of the body to spark, spatter,direct and/or reflected radiation. Use adequate protection if exposure cannot be avoided.
- Check for light tightness before each use. Before each use, check that the protection plates are clean and that no dirt is covering the sensors on the front of the lens.
- Inspect all operating parts before each use for signs of wear or damage. Any scratched, cracked, or pitted parts should be replaced immediately.
- Do not make any modifications to either the welding lens or helmet, other than those specified in this manual.
- Do not use any replacement parts other than those specified in this manual,Unauthorized modifications and replacement parts will void the warranty and expose the user to the risk of personal injury.
- If this lens does not darken when striking arc, stop welding immediately and contact representative.
- Do not immerse this lens in water if this model is not water proof.
- Do not use any solvents on any lens or helmet components.
- The recommended operating temperature range for welding lens is -10°C-65°C (14°F-149°F). Do not use this device beyond these temperature limits.
- Failure to follow these warnings and/or failure to follow all of the operating instructions could result in severe personal injury.

CONTENTS

1. OPERATION INSTRUCTION

The 5000 automatic welding mask is equipped with a filter set that can become dark. The filter is transparent before welding, so the operators may observe the work surface clearly. When striking arc, the filter darkens automatically immediately. When arc goes out, the filter will become transparent again. The switching time from light to dark is about 0.0001 second.The switching time from dark to light may be set up within 0.1-0.9 second. The mask is equipped with continuous darkness-adjusting unit, so the operator may select an arbitrary dark shade number ranging from NO.9 to NO.13.

The 5000 automatic welding mask gives the operators permanent complete protection against UV/IR even in transparent condition. The UV/IR protection level is up to DIN15 in all time.The power is provided by solar cells, so user is exempted from changing

battery, turning on or off power and any other operation.
The mask is equipped with 2 sets of photosensors to sense arc light .In addition, the mask is also provided with an outer protection plate made of high polymer materials. The plate is wear-resistant, thermostable, and has no dregs-sticking, thus a very long service life.

2. MAIN SPECIFICATIONS

1. Filter dimension	110 x 90 x 8.5mm
2. View area	96 x 42 mm
3. Light shade number	4
4. Dark shade number	9-13
5. UV/IR protection	up to DIN15
6. Time from light to dark	1/10000 s
7. Time from dark to light	0.1-0.9s
8. Sensitivity/delay	Adjustable stepless
9. Power supply	Solar cells
10. Operating temperature	-10°C-65°C (14°F-149°F)
11. Warranty time	1 year

3. METHOD OF OPERATION

1. Assemble the mask as shown in the construction and assembly chapter.

2. The power of the 5000 helmet is provided by solar cells with two lithium batteries . Turning on or off is automatic controlled by circuit. You can use this helmet at any time yon need and take it away after working without operating any key. Using this helmet is fully free like glass filter helmet.

3. Striking the arc, the observing window darkens immediately. At this moment, according to the technical requirement, the operator adjusts the darkness knob 6 in the direction as shown by the arrow to select the optimum darkness.

4. By moving the DELAY selector knob 10 on the rear of the cartridge, the time taken for the lens to lighten after welding can be altered from 0.1~0.9 second.

- Turn to MIN: The time the lens lighten after welding changes to be shorter. The shortest time is about 0.1 second depending upon welding point temperature and shade set. This setting is ideal for track welding or production welding with short welds.
- Turn to MAX: The time the lens lighten after welding changes to be longer. The longest time is about 0.9 second depending upon welding point temperatare and shade set. This setting is ideal for welding at high amperage where there is an after glow from the weld.

5. By moving the SENSITIVITY selector knob 9 on the rear of the cartridge, the sensitivity to ambient light changes can be altered.

- Turn to MIN: The photosensitivity changes to be lower.
  - Suitable for high amperage welding and welding in bright light conditions (lamp light or sun light).
- Turn to MAX: The photosensitivity changes to be higher.
  - Suitable for low amperage welding and using in poor light conditions.
  - Suitable for using with steady arc process such as TIG welding.

If the helmet can be used normally, we suggest using this helmet with a relative high sensitivity.

6. Because the shapes of heads vary from person to person, the work position and the observing angle is different. Therefore, the operator may adjust the headband by adjusting button 13 and the segmental positioning plate 17 to select an appropriate observing angle. By pushing and turning the adjustment screw 12, the perimeter of the headband can be adjusted.

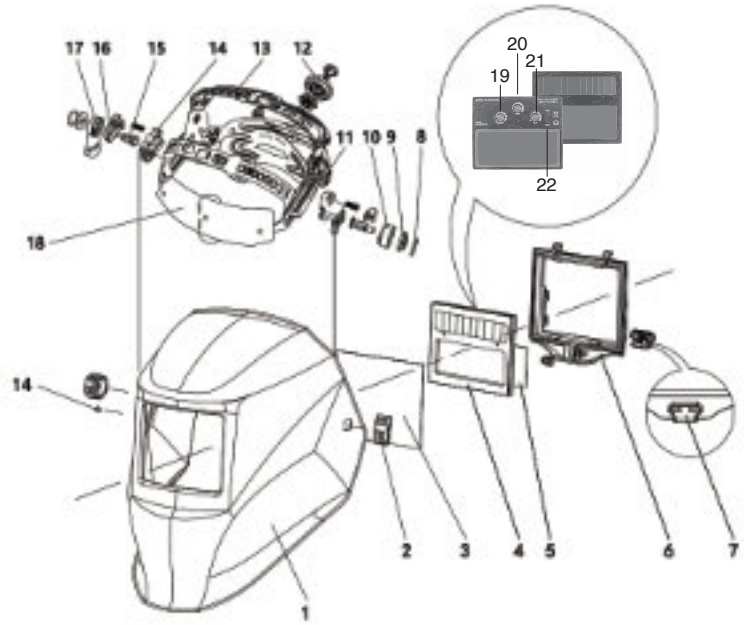
4. POINTS FOR ATTENTION

1. Be sure that the helmet is be used in correct condition and check it according to WARNING content.
2. There is liquid crystal-valve in the filter, although it has inner and outer protection plate, it is important to avoid heavy knock to break.
3. The outer protection plate of helmet should be periodically inspected and cleaned, keep it clear. In case break, crack, pitting or more serious influencing vision effect occurs, the plate must be replaced.
4. In order to operate more efficiently and safely, please select correct dark shade number.
5. If the filter is no water-proof model, please pay attention to preventing from water.
6. Be sure that the arc light must be received completely by sensor, if not, the filter will be light or unstable in darkness to damage the person.
7. Please use the automatic filter at temperature between -10°C-65°C (14°F-149°F)
8. Please don't disassemble the filter, any problems arising, please contact our company or agent.

5. PACKAGING LIST

1. Mask body (including control cassette) -------- 1 piece
2. Headband ----------1 piece
3. Operation manual ----------1 piece

6. CONSTRUCTION AND ASSEMBLY

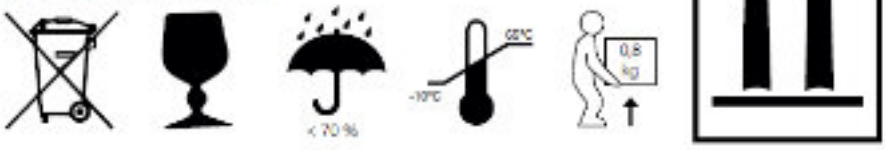


1. Helmet shell
2. Block nut
3. Outer protection plate
4. Automatic filter
5. Inner protection plate
6. Frame
7. ADF frame lock
8. O-Ring (left & right)
9. Block washer (left & right)
10. Slider (on left)
11. Headgear slider (with 5 slots)
12. Headband tightness adjusting knob
13. Headband adjustment (back and forth)
14. Slider block assembly (with #19)
15. Headgear screw (left & right)
16. Angle adjustment wheel (on right) (note: insert properly with pin facing bottom front)
17. Segmental positioning plate (on right)
18. Sweatband
19. Sensitivity
20. Shade knob
21. Delay
22. Grind

7. RECOMMENDED SHADE NUMBERS

WELDING PROCESS	CURRENT AMPERES																								
	0,5	1	2,5	5	10	15	20	30	40	50	60	100	125	150	175	200	225	250	275	300	350	400	450	500	
Covered Electrode								Shade 9		Shade10			Shade11					Shade12					Shade13		14
MIG Plate Welding										Shade10			Shade11					Shade12					Shade13		14
MIG Sheet Metal										Shade10			Shade11			Shade12			Shade13				Shade14		15
TIG						Shade 9		Shade10		Shade11			Shade12			Shade13					Shade14				
MAG										Shade10		Shade11		Shade12					Shade13			Shade14			Shade15
Arc Gouging														Shade10		11		12		13		14			16
Plasma Cutting													Shade11				Shade12						Shade13		
Plasma Welding	4		5		6		7		8		9		10		11		12		13			14			15

DIN EN 379: 2003 + A1:2009
DIN EN 175: 1997-08
DIN EN 166: 2002-04



ATTENTION **if any of these conditions is not kept or followed, the warranty is automatically invalid.**