SHINE®

SPOTLITE AUTO-DARKENING WELDING GOGGLES

Spotlite
Professional Quality Welding Helmet

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

SAFETY WARNINGS

Please read and understand all instructions before using.

- Be sure that the dark shade of the lens in the welding goggles is in the correct shade number for your application.
- The welding goggles are not suitable for “overhead” welding applications, laser welding, or laser cutting applications.
- The welding goggles are designed to protect the eyes and face from sparks, spatter, and harmful radiation under normal welding conditions.
- The welding goggles do not provide unlimited eye, ear and face protection. If you are uncertain, do not use this product as misuse may result in serious injury. These goggles provide protection against the hazards of welding, but are not designed or intended to be used without other appropriate personal protective equipment (PPE). Additional PPE is required for all other areas of exposed skin, such as the face and neck.
- The welding goggles 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 CE/ANSI/CSA/AS/NZS specifications must be worn at all times when using these welding goggles.
- Avoid work positions that could expose unprotected areas of the body to spark, spatter, direct and/or reflect radiation. Use adequate protection if exposure cannot be avoided.
- 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 goggles, other than those specified in this manual.
- Do not use any replacement parts other than those specified in this manual. Unauthorised 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 check the lens is in weld mode and not grind mode. If the issue persists, contact your local service department.
- Do not immerse the welding goggles in water.
- Do not use any solvents on any lens or mask components.
- The recommended operating temperature range for welding lens is -10°C to 65°C (14°F - 149°F). D0 not use this device beyond these temperature limits.
- Never place these welding goggles and auto-darkening filter on a hot surface.
- The welding hood included in this kit is flame-retardant. This welding hood does not provide protection against molten metals.
- Failure to follow these warnings and/or failure to follow all of the operating instructions could result in severe personal injury.

CONTENTS

1. FEATURES

The Welding Goggles provide protection to your face and eyes from spatter and UV/IR radiation. Fitted with 2 arc sensors, the welding goggles provide 5-9/9-13 shade control at welding mode, and shade 3 at grind mode.

The Welding Goggles feature True Colour Lens Technology, ensuring you always get a clear and natural view of your surroundings and workpiece.

The Welding Goggles have been designed to be versatile in their usage. The mask itself can also be removed, so that only the goggles can be used. In addition, the goggles also feature an alternate elastic headband, giving you multiple options to wear the goggles as desired.

2. WARRANTY

The Shine Spotlite welding helmet has a warranty of 2 years from the date of purchase. The duration of use depends on various factors such as use, cleaning, storage and maintenance. Frequent inspections and replacement when damaged is recommended.

3. TECHNICAL DATA

TECHNICAL DATA	
Filter Dimensions	171.5 x 77.5 mm(6.75”x3.05”)
View Size	110x40mm(4.33”x1.57”)
Arc Sensors	2
Minimum TIG Amperage	5A
Classification	1/1/1/2
Light State	3
Dark State	5-9 / 9-13
UV/IR Protection	DIN15
Time from Light to Dark	0.08ms
Time from Dark to Light	0.1-0.9s
Shade Control	Yes (External)
Grind Mode	Yes (External)
Sensitivity	Adjustable (External)
Delay	Adjustable (External)
Power Supply	CR2450 Replaceable Battery*1
Warranty	2 Years
Operating Temperature	-10°C - 65°C
Storage Temperature	-20°C - 85°C
Standards	CE, ANSI, CSA, AS/NZS

4. OPERATION INSTRUCTIONS

BEFORE USING

- Check the inside & outside protection lens are clean and that no dirt is covering the sensors on the front of the goggles.
- Make sure the protection films on both inside & outside protection lens are removed.
- Inspect all operating parts for signs of wear or damage. Any scratched, cracked, or damaged parts should be replaced immediately.

SLEEP MODE

- The goggles have a sleep function to save power. When in WELD MODE, after 30 minutes of no activity sleep mode will be activated;
- Any movement or pushing any button will return the goggles back to an active state.

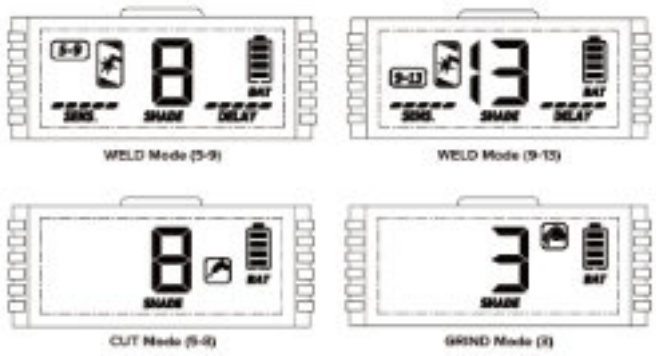
MEMORY

- The goggles will remember the last shade setting used by the operator after setting up. After returning to an active state from sleep mode, the goggles will show the last used shade.

Note: CUT MODE and GRIND MODE won’t be recorded.

5. DISPLAY

DISPLAY SCREEN



DISPLAY ICONS

6. MODES, CONTROLS & SELECTIONS

MODES

- The goggles have 4 function modes:
  - WELD MODE (Shade range 5-9).
  - WELD MODE (Shade range 9-13).
  - GRIND MODE.
  - CUT MODE.
- In WELD MODE, 3 functions can be adjusted;
  - Sensitivity
  - Shade
  - Delay
- Press the MODE button on the goggles to cycle between WELD MODE and CUT MODE.
- Within any mode, press and hold the GRIND button for 2 seconds and release to change to GRIND MODE.
- Press and hold the GRIND button for 2 seconds and release to change back to welding and cutting modes.

VARIABLE SHADE CONTROL

- To change the shade in welding and cutting modes, press the SHADE button once and Icon 7 will start flashing. Once Icon 7 is flashing, press the SHADE button again to cycle through the different shades.

Note: Choose an optimum Shade number for the required welding process or application (see page 4).

If the goggles do not darken when striking an arc, stop welding immediately and contact the service department.

SENSITIVITY CONTROL

- The responsiveness to different light levels in various welding processes can be adjusted in the range 1-5 (from low to high). Sensitivity only can adjusted be in welding modes.
- To change the sensitivity in WELD MODE, press the SENS. button once and Icon 5 will start flashing.
- Once Icon 5 is flashing, press the SENS. button again to cycle through the different shades.
  - **1 (Low):** The photo-sensitivity changes to be lower.
    - Suitable for high amperage welding and welding in bright light conditions (lamp light or sun light).
  - **5 (High)**: The photo-sensitivity changes to be higher.
    - Suitable for low amperage welding and welding in poor light conditions.
    - Suitable for welding with steady arc process such as TIG welding.

Under normal use, a higher sensitivity setting is recommended.

DELAY CONTROL

- The length of time delay for the goggles to return to a light state after welding can be adjusted in the range 1-5 (for 0.1-0.9s). The time delay is for the protection of welder's eyes from strong residual rays after welding.
- To change the delay in WELD MODE, press the DELAY button once and Icon 6 will start flashing.
- Once Icon 6 is flashing, press the DELAY button again to cycle through the different shades.
  - **1 (0.1s):** The time taken for the goggles to lighten after welding becomes shorter.
    - The shortest time is about 0.1s depending upon welding point temperature and shade set.
    - This setting is ideal for track welding or production welding with short welds.
  - **5 (0.9s):** The time taken for the goggles to lighten after welding becomes longer.
    - The longest time is about 0.9s depending upon welding point temperature and shade set.
    - This setting is ideal for welding at high amperage where there is an afterglow from the weld.

GRIND MODE SELECTION

- Select GRIND mode by pressing and holding the "GRIND" button for 2 seconds and releasing, on the right side of the goggles. Icon 9 will display when GRIND mode is active. An orange light on the inside of the goggles will also start to flash.

Note: Do not weld in the GRIND mode, the goggles will not darken.

CUT MODE SELECTION

- Press the MODE button to cycle to the CUT MODE. Icon 8 will display when CUT mode is active.
- To change the shade in CUT MODE, press the SHADE button once and Icon 7 will start flashing.
- Once Icon 7 is flashing, press the SHADE button again to cycle through the different shades (5-8).

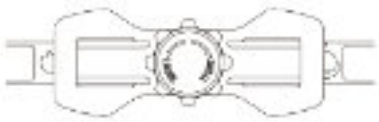
Note: Do not weld in the cutting mode.

7. POWER SUPPLY & BATTERY CHANGE

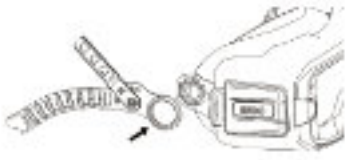
- The power of the goggles is provided by a replaceable battery, CR2450.
- Icon 1 will flash when the battery is low and a replacement is needed.
- Loosen the screw on battery cover with a screwdriver to remove the battery cover. Take the battery out and replace with a new battery; Replace the cover and tighten the screw with a screwdriver.

8. HEADGEAR

- Headgear of the goggles can be adjust by turning the Headband tightness adjusting knob.



- Plastic headgear of the goggles can be changed to elastic headgear.
  - Pull out the lock catch of the plastic headgear on both sides of the goggles, then remove the plastic headgear from the goggles.
  - Push the lock catch on both sides of the elastic headgear on to the goggles.
  - Elastic headgear can be changed back to plastic headgear in the same way.



9. RECOMMENDED SHADE SETTINGS

Welding process or related techniques	Current internally in 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
E manual Flux core electrodes Fluxed stick electrodes				8				9	10			11				12				13			14	
MIG / Metal-inert-gas Argon (Ar/He) Steels, alloyed steels Copper & its alloys etc.											10		11			12				13			14	
MIG / Metal-inert-gas Argon (Ar/He) Aluminium, copper, nickel and other alloys											10		11			12			13			14		
TIG / Tungsten-Inert gas Argon (Ar/H_2) (Ar/He) All weldable metals such as: steels, aluminium, copper, nickel and their alloys				8				9	10				11			12			13					
MAG / Metal-active gas (Ar/Co_2O_2) ($Ar/Co_2/He/H_2$) Construction steel, hardened & tampered steels Cr-Ni-steel, Cr-steel & other alloyed steels									10		11		12			13				14				
Electric arc compressed air joining (Melt joining) carbon electrodes (O_2) Flame grooving compressed air (O_2)														10	11		12	13		14				
Plasma cutting (fusion cutting) All weldable metals see WIG Centre and outer gas: Argon (Ar/H_2) (Ar/He)													11			12			13					
Plasma cutting (fusion cutting) Micro-plasma welding Centre and outer gas: Argon (Ar/H_2) (Ar/He)	4	5	6	7	8	9	10		11		12			13				14						
		1		5		15		30		60		100		150		200		250		300		400		500
	0.5		2.5		10		20		40		80		125		175		225		275		350		450	

10. MAINTENANCE & TROUBLESHOOTING

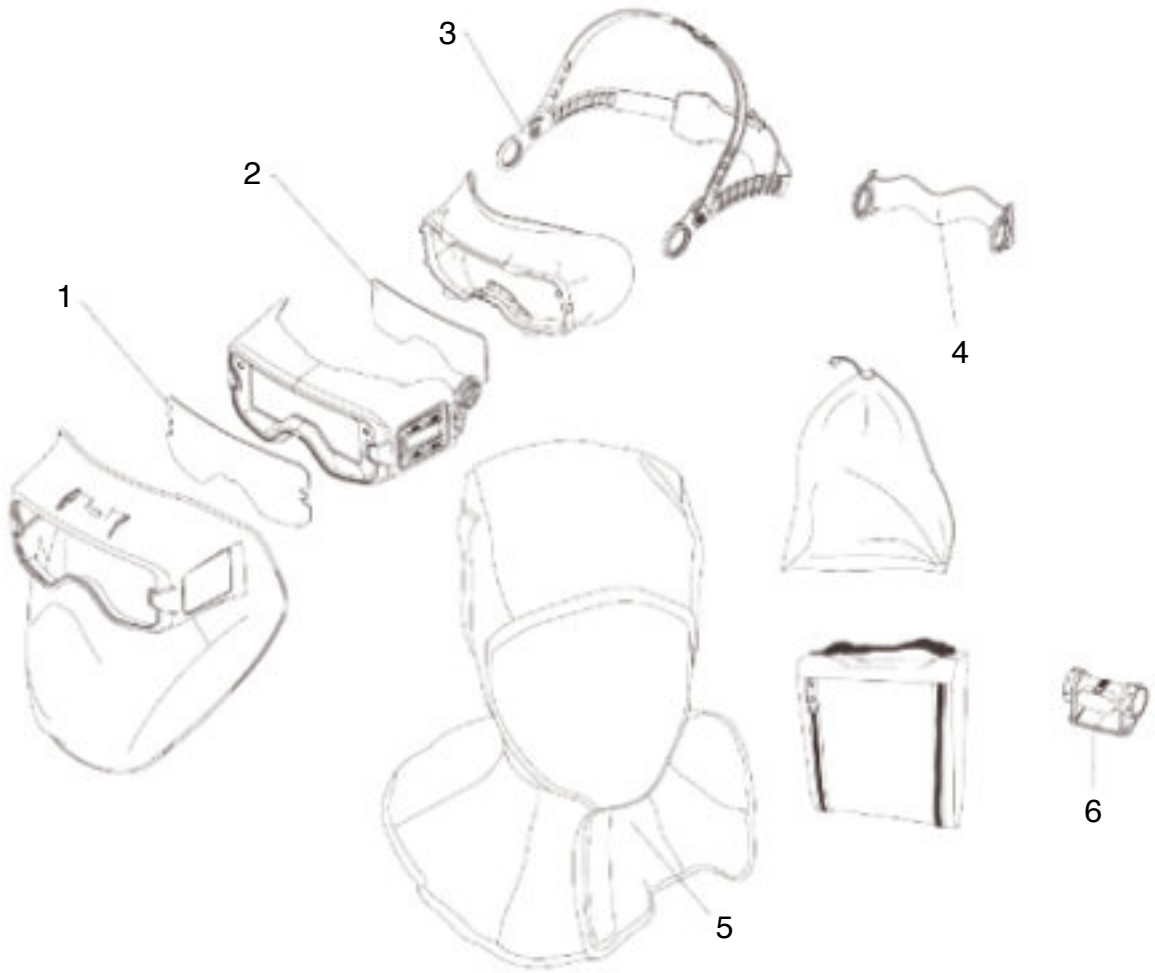
MAINTENANCE

The Welding Goggles need little maintenance. Use a clean, soft piece of cloth, moistened with soap / commercial disinfectant to wipe the inside and the outside of the goggles then dry.
Note: Do not immerse the Goggles or Mask in water directly.

TROUBLESHOOTING

PROBLEM	RESOLUTION
The goggles do not darken when welding.	• Stop welding or cutting immediately. • Make sure the sensors are facing the arc and there are no obstructions. • Check the mode that is on WELD, not GRIND. • Review sensitivity recommendations and adjust sensitivity if possible. • Replace the battery if necessary.
The goggles stay dark after welding or if there is no arc present.	• Adjust the sensitivity to a lower level (Level 1). • If the work place is extremely bright, it is recommended to reduce the surrounding light level.
The goggles switch during the welding.	• Increase the sensitivity if possible. • Make sure the sensors are facing the arc and there are no obstructions. • Increase Delay 0.1 - 0.3 second may also reduce switching.
Inconsistent shade number on the corner of the goggles.	• It is a natural feature and will not be dangerous for the eyes. • In order to get a maximum comfort, try to keep a view angle at around 90°.

11. PARTS BREAKDOWN



NUMBER	PART NO.	DESCRIPTION
1	13.01.006	SHINE SPOTLITE Outer protection lens 143x61.1x1mm
2	13.01.007	SHINE SPOTLITE Inner protection lens (anti fog) 113.5x42.8x1mm
3	13.05.053	SHINE SPOTLITE Headgear
4	13.05.052	SHINE SPOTLITE Elastic headband
5	13.05.050	SHINE Flame retardant hood
6	13.05.051	SHINE LED headlight

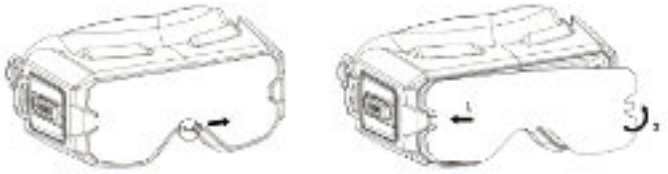
11. REPLACEMENT

THE INNER LENS

The Inner lens is a protective lens and must be replaced if broken, damaged or covered with welding spatter to the extent that vision is impaired.

- Remove inner lens from the goggles.
- Insert a new inner lens to position 1 and position 2 of the goggles.
- The user must always make sure the lens is fitted properly and there are no visible gaps.

THE OUTER PROTECTION LENS



The outer lens is a protective lens and must be replaced if broken, damaged or covered with welding spatter to the extent that vision is impaired.

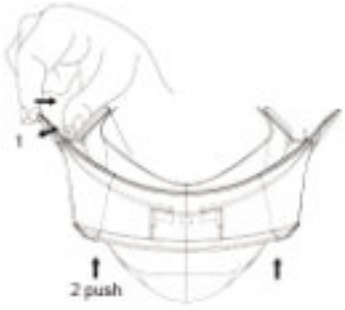
- Remove outer lens from the goggles.
- Insert a new outer lens to position 1 and position 2 of the goggles.
- The user must always make sure the lens is fitted properly and there are no visible gaps.

THE SILICONE PADDING

The silicone padding can be replaced if broken, damaged or covered with welding spatter.

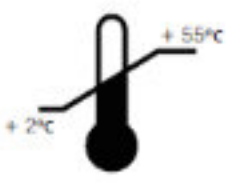
- Pull the silicone padding at position 1 and position 3 towards the centre of the goggles, then pull up the silicone padding at position 2 and position 4.
- Insert a new silicone padding into the goggles and lock well.
- The user must always make sure the silicone padding is fitted properly.

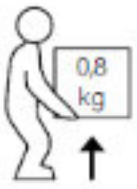
ASSEMBLY GOGGLES INTO MASK



- Goggles can be assembled into the mask
- As the direction in the picture shows, aim the buckle (Position 1 and position 3) on mask with the gap (Position 2 and Position 4) on both side of the goggles
- Press Goggles in the direction of the picture shown.
- Goggles will be assembled in mask.

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.