

Clarke®



weld



ARC ACTIVATED HEADSHIELD

MODEL NO: GWH9

PART NO: 600720

OPERATION & MAINTENANCE INSTRUCTIONS

UK
CA | CE



ORIGINAL INSTRUCTIONS

GC02/25

INTRODUCTION

Thank you for purchasing this CLARKE Headshield. Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

TECHNICAL DATA

Product dimensions (W x D x H)	230 x 330 x 238 mm
Product weight	430 g
Viewing field (W x H)	93 X 43 mm
Shade available in Light State	DIN 4
Shade available in Dark State	DIN 9-13
UV/IR protection	Max shade DIN16
Operating temperature range	- 5°C to 55°C
Switching time from light to dark	1/25,000 second or 0.04 m/s
Delay time from dark to light	0.10 - 1.0 second
Lens power control	Manual step-less control
Power supply	Solar Cells / Lithium coin type Battery type Cr2450
Construction material	Plastic (pp)

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

SAFETY PRECAUTIONS



WARNING: ARC RAYS CAN INJURE EYES AND BURN SKIN. THIS MASK IS NOT SUITABLE FOR LASER WELDING, LASER CUTTING OR OVERHEAD WELDING APPLICATIONS OR FOR OXY-ACETYLENE.

- The protective plate in this headshield is breakable and will not protect against impact hazards.
- This headshield is designed for use in grinding, arc welding or cutting applications such as MIG/MAG, TIG, MMA, Plasma Arc, and Carbon Arc.
- Use this headshield for face and eye protection against harmful rays, sparks and spatter from welding and cutting.
- **NEVER** place this product on a hot surface.
- In the event of failure, the headshield gives protection against UV and IR radiation.
- **DO NOT** make any modifications to this product. Protection can be seriously impaired if modifications are made.
- When necessary, use identical replacement parts. This will ensure that the safety of the product is maintained.
- **DO NOT** use without the protective plate installed. **DO NOT** use if any part of the headshield is cracked or broken.
- **DO NOT** use this headshield for welding outside the range of DIN 9-13. Harm to the eyes and impaired eyesight may result. **ALWAYS** select the correct setting before use.

ENVIRONMENTAL RECYCLING POLICY



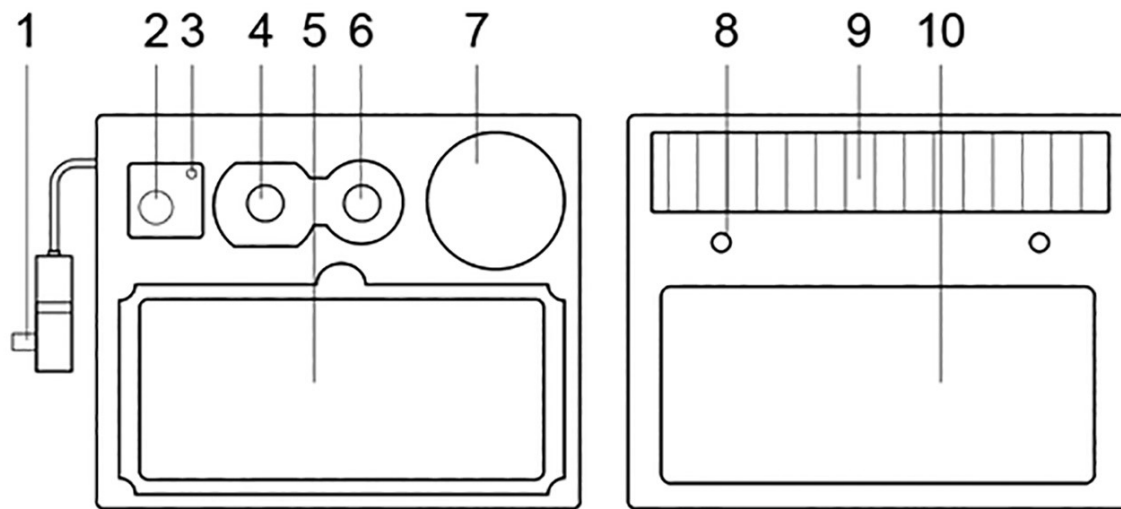
Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this product must not be disposed of with general household waste but according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

The light source contained in this worklight has a life expectancy of approximately 30,000 hours after which the worklight should be disposed of in an environmentally responsible way.

The Lithium Ion battery falls under the Waste Batteries and Accumulators Regulations 2009 and should be disposed of in a controlled manner.

WORKING PARTS OF THE MASK



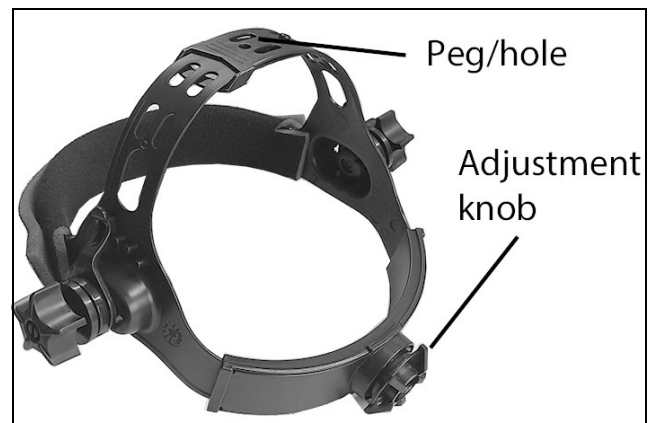
1	Shade Control knob
2	Self test button
3	Low voltage indicator
4	Sensitivity control knob
5	LCD

6	Delay time control knob
7	Lithium battery
8	Arc sensor
9	Solar panel
10	UV/IR filter

PREPARATION

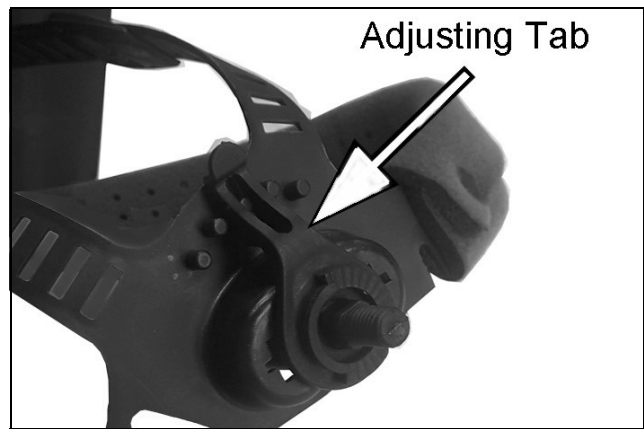
ADJUSTING THE HEADBAND TO FIT

1. The headband should be adjusted both in diameter and height to fit the wearer's head. To do this, press in and turn the adjustment knob on the back of the headband either left or right to expand or contract the headband.
2. The top headbands can be adjusted by bending the strap and positioning the pegs in the appropriate hole in each headband.
3. The working position of the headshield and its raised position can be pre-set.



4. Loosen the adjusting nuts until you can lift the adjusting tab and position it on the pins on the backing plate to set the headband range of movement. Tighten the adjusting nut when satisfied.

- You can remove the headband completely from the headshield by unscrewing the side knobs.



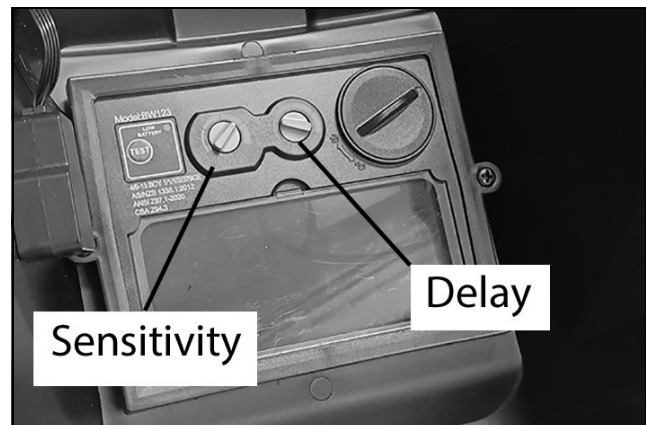
USING THE HEADSHIELD

1. The lens will be set to light DIN 4 state, & you will be able to see the workpiece. The lens will automatically darken when an arc is struck.
2. Test the lens by striking an arc on the workpiece for the first time. Check also that the outer screen and lens are clean and clear at all times.
3. Change the shade setting as required using the shade adjustment knob as described. Refer to the table on page 6.

DELAY TIME ADJUSTMENT

The delay time is the time taken to switch back from fully dark to fully light and is selected using the knob in the centre of the headshield.

1. Set the minimum (0.1-0.25 sec) when spot welding, or doing short or seam welding work.
2. Set the delay to medium for most welding operations.
3. Set the maximum (0.85-1.0 sec) when doing high current welding.



SENSITIVITY

The sensitivity can be adjusted using the knob on the left hand side of the headshield according to the type of welding and the background light. The mid range selection is suitable for most indoor and outdoor welding.

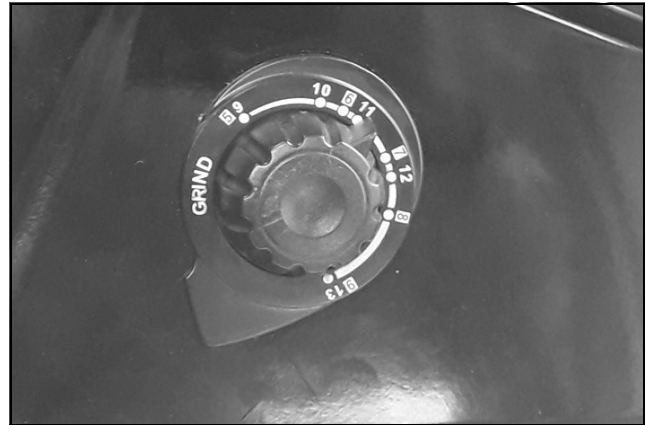
1. Select maximum for low current welding or when working in low light conditions, especially when welding argon arc with a low current.
2. Select minimum for high current welding or working in a brightly lit environment.

SELECT THE SHADE SETTING

On striking an arc, the light created will activate the solar cell and the window will automatically darken to a pre-set level. The lithium battery will provide the necessary energy to operate the headshield when there is no arc light. You can adjust this shade level using the shade adjustment knob on the side of the headshield, corresponding to the type of welding process.

1. Set the shade selector to the required setting.
2. During the welding operation the lens will automatically darken to the pre-set shade. On removal of the arc, the lens will return to the light state.

Check the table to determine which you should select



SHADE CONTROL

Shade numbers are available from DIN9-DIN13 and the user should set the shade state corresponding to welding Amperes in different applications.



WARNING: DO NOT USE FOR WELDING OUTSIDE THE RANGE OF DIN 9-13. INJURY TO THE EYES & LOSS OF EYESIGHT MAY BE CAUSED.

Welding Process	Arc Current(Amperes)																				
	1.5	6	10	15	30	40	60	70	100	125	150	175	200	225	250	300	350	400	450	500	600
⊕ SMAW					8			9		10		11		12		13		14			
⊗ MAG							8	9	10		11			12				13		14	
⊗ TIG				8			9		10		11			12		13					
⊗ MIG(heavy)									9		10			11		12		13		14	
⊗ MIG(light)											10		11		12		13		14		
⊗ PAC										9	10	11		12		13					
⊗ PAW	4	5	6	7	8	9	10			11		12									
Note	★ SMAW-Covered electrodes ★ MAG-Metal arc Welding ★ TIG-Gas Tungsten Arc Welding ★ MIG(Heavy)-MIG with heavy metals ★ MIG(light)-MIG with light alloys ★ PAC-Plasma jet cutting ★ PAW-Microplasma arc welding																				

Shade numbers according to BS 379, DIN 4647-1 and EN 169

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
Difficult to see through filters	Cover lens dirty	Clean or replace cover lens
	Filter lens dirty	Clean filter lenses
Filter does not darken when arc is struck	GRIND or CUT mode selected	Adjust Shade from 9 to 13
	Sensors or solar panel blocked or covered	Make sure sensors or solar panel are exposed to weld arc without blockage
	Set the sensitivity LOW	Adjust sensitivity to required level
	Low voltage of lithium battery	Replace with new lithium battery if indicator turns red
Filter darkens without arc	Set the sensitivity HIGH	Adjust sensitivity to required level
Filter remains dark after welding	The set delay is too high	Adjust delay to required level

CARE & MAINTENANCE

Damaged components must be replaced immediately to avoid risk of eye and face injuries. Periodically inspect the filter cartridge and lenses. Cracked, pitted or scratched lenses reduce vision and seriously reduce the level of protection and should be replaced with genuine, certified spare parts.

FRONT COVER LENS

NEVER use sharp tools to remove foreign material sticking to the outer lens cover. This may cause damage leading to poor function and invalidate the warranty.

The outer screen can be removed for replacement and cleaning of the front lens. Place your finger or thumb into the recess and flex the inside cover lens upwards until it releases from one edge. Remove any protective film before installing the new one.

The outer lens cover may need replacing regularly.



Two replacement outer lens covers are supplied with the headshield.

INSIDE COVER LENS

The inner lens cover may also require cleaning. Lift the inside lens cover (on the operators side of the filter cartridge) free from the filter cartridge.

- A single replacement is supplied with this headshield.

CARTRIDGE CLEANING

Clean the headshield shell and sweat bands with detergent if necessary.

Clean the filter surface, sensors and solar cells regularly by wiping with a household glass cleaner. Apply the cleaner with a clean cloth or paper towel. **DO NOT USE ALCOHOL TO CLEAN. DO NOT APPLY CLEANER DIRECTLY TO THE CARTRIDGE.**

Clean all lenses with a soft tissue and suitable lens cleaning fluid. **DO NOT** use solvents. **NEVER** use tools or other sharp objects to remove material from the lens or screen. This may cause damage which may cause incorrect function and invalidate the warranty.

Store the unit in its box or similar safe place out of reach of children.

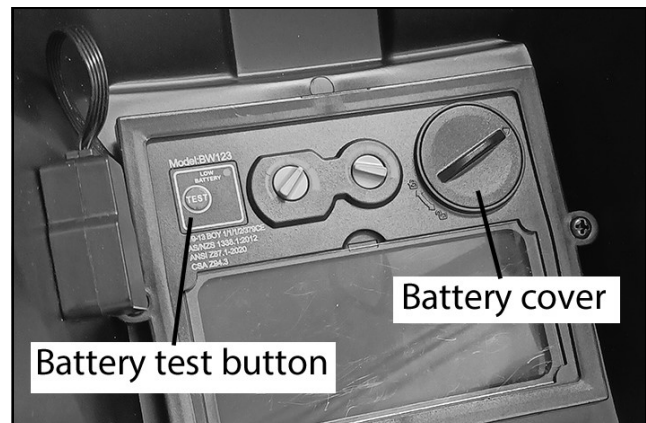
BATTERY REPLACEMENT

The battery should last approximately 5000 hours of normal use. Test the battery condition by pressing the TEST button.

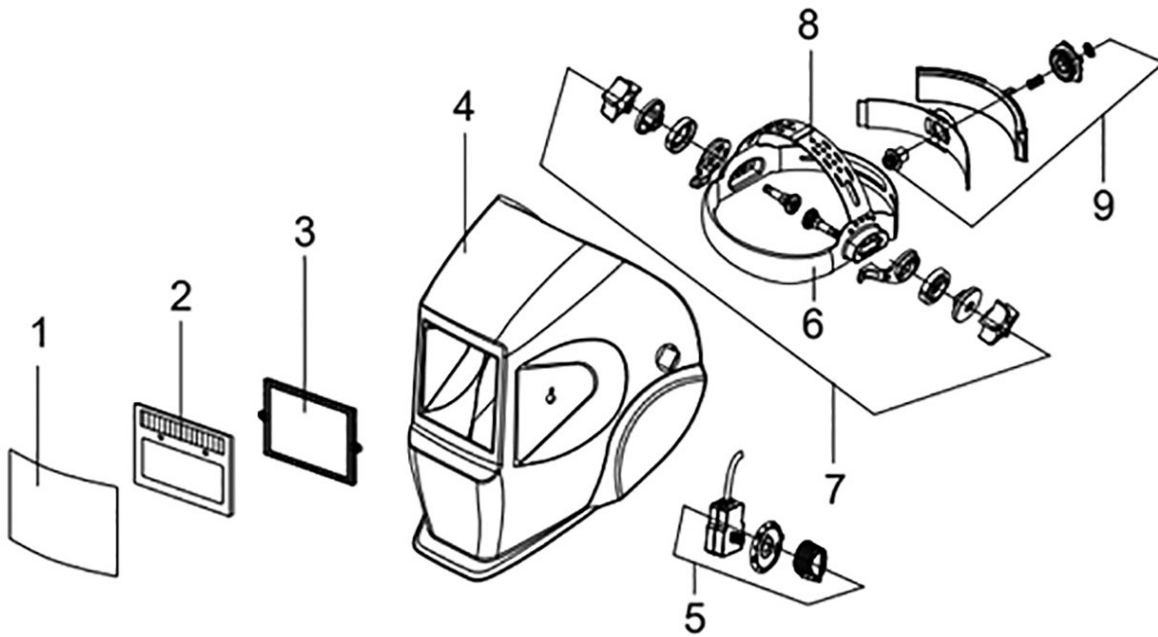
If the LOW BATTERY lamp comes on, the battery should be replaced.

Twist the cover of the battery compartment anticlockwise and lift away.

- A CR2450 battery is required.



SHELL COMPONENT PARTS



1	External protective cover lens
2	Filter cartridge
3	Cartridge holder
4.	Helmet body
5	Shade number button

6	Sweatband
7	Headgear angle adjusting control
8	Headgear height adjusting strap
9	Headgear distance adjusting control

The GWH9 is supplied with the following;

- Small inner lens cover
- Large outer lens cover



DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following legislation: The following standards have been applied to the product(s):

- | | | |
|------------|--|--|
| 2016/425 | Personal Protective Equipment (PPE) Regulation | IEC 62321-4:2013+A1:2017, EN IEC 55014-1:2021, IEC 62321-7-1:2015, IEC 62321-2:2021, |
| 2023/1542 | Battery Regulation | EN IEC 55014-2:2021, DIN EN 166:2002-04, DIN EN 175:1997-08, DIN EN 379:2009-07, |
| 2014/30/EU | Electromagnetic Compatibility Directive | IEC 62321-3-1:2013, IEC 62321-7-2:2017, IEC 62321-5:2013, IEC 62321-6:2015, |
| 2011/65/EU | Restriction of Hazardous Substances (RoHS) Directive | IEC 62321-8:2017 |

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The UKCA mark was first applied in: 2025

Manufacturer:	Clarke International Ltd, Hemnall Street, Epping, Essex, CM16 4LG, United Kingdom	Notified Body:	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH (ID Number: 0196)
Product Description:	Welding Headshield	PPE Certificate Number:	10711-PZA-22, 10721-PZA-22, 10772-PZA-22, 13494-PZA-22
Model Number(s):	GWH9	PPE Assessment Category:	II
Serial/Batch Number:	Refer to product/packaging label	PPE Assessment Module(s):	B & C

Date of Issue:	26/02/2025	Signed:	 J.A. Clarke Director
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DECLARATION OF CONFORMITY - CE

CE

Clarke[®] INTERNATIONAL

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We hereby declare that this product(s) complies with the following legislation: The following standards have been applied to the product(s):

2016/425	Personal Protective Equipment (PPE) Regulation	IEC 62321-4:2013+A1:2017, EN IEC 55014-1:2021, IEC 62321-7-1:2015, IEC 62321-2:2021,
2023/1542	Battery Regulation	EN IEC 55014-2:2021, DIN EN 166:2002-04, DIN EN 175:1997-08, DIN EN 379:2009-07,
2014/53/EU	Electromagnetic Compatibility Directive	IEC 62321-3-1:2013, IEC 62321-7-2:2017, IEC 62321-5:2013, IEC 62321-6:2015,
2011/65/EU	Restriction of Hazardous Substances (RoHS) Directive	IEC 62321-8:2017

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2025

Manufacturer:	Clarke International Ltd, Fitzwilliam Hall, Fitzwilliam Place, Dublin 2, Republic of Ireland	Notified Body:	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH (ID Number: 0196)
Product Description:	Welding Headshield	PPE Certificate Number:	10711-PZA-22, 10721-PZA-22, 10772-PZA-22, 13494-PZA-22
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Date of Issue: 26/02/2025

Signed:


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J.A. Clarke
Director

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PARTS & SERVICE: 0208 988 7400

Parts Enquiries
Parts@clarkeinternational.com

Servicing & Technical Enquiries
Service@clarkeinternational.com

SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

Clarke® INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG
www.clarkeinternational.com