

# Clarke®

## weld



## ARC ACTIVATED HEADSHIELD

MODEL NO: GWH4, 5, 6 & 7

PART NO: 6000706, 6000707, 6000708 & 6000709

## OPERATION & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC1220 - rev3

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# INTRODUCTION

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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.

## 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.

## ENVIRONMENTAL PROTECTION

If broken, do not dispose of this product with general household waste. This product contains valuable raw materials and should be disposed of appropriately at a recognised disposal facility. 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. This means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

## TECHNICAL DATA

Viewing field (W x H)	92 X 42 mm
Shade available in Light State	DIN4
Shade available in Dark State	DIN 9-13 Outside Adjustment
UV/IR protection	Max shade DIN16 at all times
Operating temperature range	-5°C - +55°C
Weight	0.46 kg (GWH5 & 7), / 058 kg (GWH4 & 6)
Switching time from light to dark	1/25,000 second or 0.04 m/s
Delay time from dark to light	0.2 - 0.8 second
Lens power control	Auto-on
Power supply	Solar Cells / Lithium Battery
Construction material	Polyamide (flame retardant)

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## **SAFETY PRECAUTIONS**

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This headshield 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 remains 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.

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## **PREPARATION & USE**

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### **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 the adjustment knob on the back of the headband and turn the nut either left or right to expand or contract the headband.
2. The top headband can be adjusted by bending the strap and positioning the peg in the appropriate hole.
3. When the headband adjusting nuts are tight, the angle of tilt can be quickly and repeatably adjusted using the adjusting tab, by placing it on the chosen peg on the headband.

## USING THE HEADSHIELD

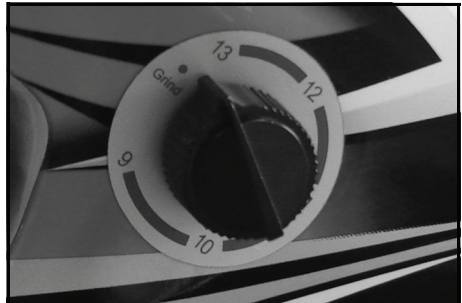
1. Remove the protective film from the lens cartridge. Remove the outer screen as on pages 5 & 6 to remove it from the forward surface.
  - The lens will be set to Light DIN 4 state, & you will be able to see the workpiece. The lens will automatically darken when an arc is struck.
2. Test the lens by 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 below. Refer to the table on page 5.

## SELECT THE SHADE SETTING

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

On striking an arc, the light created will activate the solar cell and the window will automatically darken to a preset level. The lithium battery will provide the necessary energy to operate the headshield when there is no arc light. Because the cartridge assembly is a sealed unit, the battery cannot be replaced. You can adjust this shade level using the shade adjustment knob on the side of the headshield, corresponding to the type of welding process.

- There are five levels available; 9, 10, 11, 12 and 13. Check the table to determine which you should select.
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.
  3. Adjust the 'Sensitivity' and 'Delay' using the switches inside the headshield.



## SELECT THE GRINDING SETTING

The headshield has a 'Grinding' setting, on the selector knob. When set to 'Grind' the auto darkening function is disabled. The headshield then provides eye and face protection for sparks and airborne particles created during grinding operations.





**WARNING: IT IS ESSENTIAL THAT AFTER USING THE HEADSHIELD IN GRINDING MODE, IT SHOULD BE RETURNED TO THE CORRECT SETTING BEFORE WELDING. FAILURE TO DO THIS COULD LEAD TO EYE INJURY.**

Welding Process	Arc Current (Amperes)																	
	10	20	30	40	60	80	100	125	150	175	200	225	250	275	300	350	400	450
Shielded Metal Arc Welding	9			10			11			12			13			14		
Metal Inert Gas (Heavy)	10						11			12			13			14		
Metal Inert Gas(Light)	10						11			12		13		14		15		
Tungsten Inert Gas Gas/Tungsten Active Gas	9	10		11			12		13		14							
Metal Active Gas/CO2	10						11	12	13			14		15				
Submerged-arc Welding	10									11	12	13	14	15				
Plasma-arc Cutting	11						12			13								
Plasma-arc Welding	9	10	11	12			13			14			15					

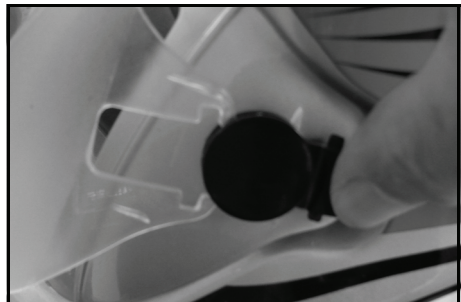
**Shade numbers according to BS 379, DIN 4647-1 and EN 169.**

## 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.

The outer screen can be removed for replacement and cleaning of the front lens.

In the case of the GWH5, lift the front cover lens from the bottom edge with one finger and spring it away from the side retaining clips. When refitting, bend it until it can be sprung back under the side retaining clips, first on one side, then the other.



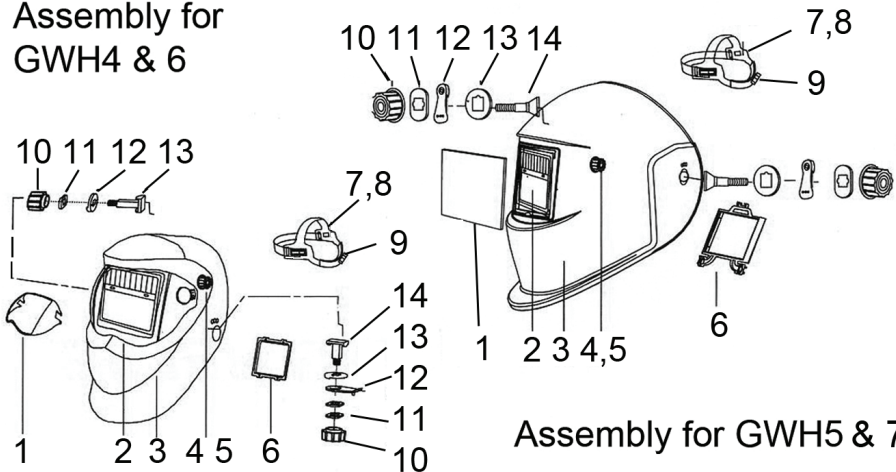
In the case of the GWH4 and 6, press the textured buttons on each side of the headshield and ease the lens forward, unclipping it from the buttons. Reverse the process to replace or re-fit. Due to the small size of the components, the lithium battery cannot be replaced.

The cartridge can be wiped with a household glass cleaner when dirty. 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 it's box or similar safe place.

## COMPONENT PARTS

### Assembly for GWH4 & 6



### Assembly for GWH5 & 7

1	Outer Screen
2	Auto darkening welding filter
3	Headshield Shell
4.	Shade Adjustment Knob
5	Shade Adjuster
6	Lens Cartridge Assembly
7	Headband

8	Headband Adjusting Nut
9	Sweatband
10	Adjustment Nut
11	Washer
12	Position Washer
13	Limitation Washer
14	Angle Adjusting Bolt

# DECLARATION OF CONFORMITY



Hemnal Street, Epping, Essex CM16 4LG

## DECLARATION OF CONFORMITY

This is an important document and should be retained.

**Product Description:** Arc Activated Head Shield  
**Model number(s):** GWH4, GWH5, GWH6, GWH7  
**Serial / batch Number:** N/A  
**Date of Issue:** 10/12/2020  
**Notified body:** NB: 0196  
DIN CERTCO GESELLSCHAFT FÜR KONFORMITÄTBEWERTUNG MBH  
Alboinstraße 56  
2103 BERLIN  
Germany

**We hereby declare that this product(s) complies with the following directive(s):**

2016/425 Regulation (EU), Personal Protective Equipment.  
2011/65/EU Restriction of Hazardous Substances, (amended by 2015/863).

**The following standards have been applied to the product(s):**

DIN EN 175:1997-08, DIN EN 166:2002-04, DIN EN 379:2009-07.

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

Where applicable, the notified body (See details above) performed the EU type examination (Module B) and issued the EU type-examination certificate(s): C4803JS/R1, C4800JS/R1, C4891JS/R1, C4015JS/R1.

Where applicable, the PPE is subject to the conformity assessment procedure conformity to type based on internal production control plus supervised product checks at random intervals (Module C2) under surveillance of the notified body (see details above).

**The CE mark was first applied in: 2009**

**Signed:**

J.A. Clarke  
Director



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# Clarke®

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## PARTS & SERVICE:

## 0208 988 7400

### Parts Enquiries

[Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com)

### Servicing & Technical Enquiries

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