

# WH-1

## Light Reactive Welding and Grinding Helmet

### Instruction Guide



# WH-1 Everyday Light Reactive Welding and Grinding Helmet

## WARNING

Please read and understand all instructions prior to using the WH-1 Everyday light reactive welding and grinding helmet.

## GENERAL INFORMATION

This WH-1 Everyday Light Reactive Welding and Grinding Helmet will not protect against severe impact hazards, such as explosive devices or corrosive liquids. Machine guards or eye splash protection must be used when these hazards are present.

All light reactive welding filters are for use in Arc welding or cutting applications. This unit is suitable for all Arc processes such as MIG, MAG, TIG, SMAW, Plasma Arc and Carbon Arc.

Use this helmet only for face and eye protection against harmful rays, sparks and spatter from Welding, Grinding and Cutting.

The WH-1 everyday light reactive helmet is not suitable for "overhead" welding applications, Laser welding, Laser cutting applications, gas welding or cutting.

In the event of electronic failure, the welder remains protected against UV and IR Radiation according to Shade 16.

The light reactive welding filter should always be used with original inner and outer cover lenses.

The manufacturer is not responsible for any modifications to the welding filter or the use of the filter in any other manufacturer's helmet.

Protection can be seriously impaired if unapproved modifications are made.



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment. Take the packaging to the local amenity tip and place into the appropriate recycling bin.



Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers disposal facility please use it or alternatively use your local amenity tip and dispose in the correct manner. This will allow the recycling of raw materials and help protect the environment.

## TECHNICAL SPECIFICATIONS

Viewing Area	100 x 41mm (3.93" x 1.62")
Cartridge Size	110 x 90 x 8mm (4.33" x 3.54" x 0.31")
UV/IR Protection	Permanent DIN Shade 16
Light State	DIN Shade 4
Dark State	DIN Shade 9 to 13 Variable
Power Supply	Solar Cell with Battery (CR2032)
Power On/Off	Fully Automatic
Switching Time	Light to Dark <1/30,000s
Dark to Light	0.1 - 1.0s (Internal Variable)
Operating Temperature	-10°C to +60°C
Storage Temperature	-20°C to +70°C
Helmet Material	High Impact Polyamide Nylon
Total Weight	460g
Minimum Operating Amperage	10 Amps

### DO

Ensure the front cover lens is fitted before use and remove protective film.

Ensure that the lens is clean and there is no dirt or spatter covering the 2 sensors at the front of the filter.

Inspect all parts for signs of wear or damage. Any scratched or cracked parts should be replaced prior to use.

### DON'T

Never place the helmet on a hot surface.

Never open or tamper with the filter cartridge.

## OPERATION

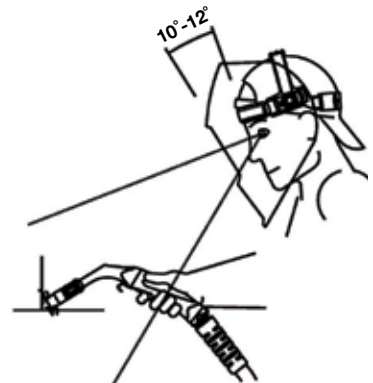
### 1. ADJUST THE WELDING HELMET ACCORDING TO INDIVIDUAL REQUIREMENTS

The headband should be adjusted both in diameter and height.

The angle between face and helmet should be adjusted and is recommended to be 10° - 12°.

### 2. ON/OFF

The solar unit automatically switches on when exposed to light.



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## 3. SELECT THE SHADE NUMBER

The shade is infinitely adjustable between shade 9 and 13.

The shade number can be selected by turning the shade knob on the side of the helmet.

The set shade is indicated by the arrow on the knob.

## 4. SELECT DELAY TIME

The delay time can be set using the delay knob on the inside of the filter (the side you look through) it can be set variably between MAX which is 1.0 second or MIN which is 0.1 second.

**MAX** – Longer delay is for most welding applications. Especially for high amperage applications.

**MIN** – Shorter delay can be used for applications such as tacking, spot welding.

Longer delay can also be used for TIG welding in order to prevent the filter returning to the clear state when the sensor is briefly covered by the hand, torch, etc. Long delay also protects against weld after glow.

## 5. SELECT THE SENSITIVITY

The sensitivity can be adjusted by rotating the knob on the inside of the helmet. This alters the sensitivity of the helmet to ambient light levels. On low sensitivity the filter will not switch due to sunlight or welders working nearby. On high sensitivity the helmet will respond better to small arcs or TIG welding. The set sensitivity is indicated by the arrow on the knob.

## 6. SELECT GRINDING MODE

To select the grinding mode rotate the shade knob clockwise to the top position once the arrow has gone past shade 13 a click should be felt this means the filter is now set to grind mode.

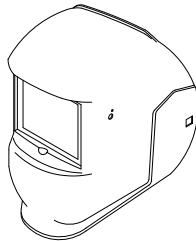
## Recommended Shade Numbers

	CURRENT AMPERES																							
WELDING PROCESS	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
Covered Electrodes	Shade 9								10	Shade 11				Shade 12				Shade 13				14		
MIG Plate Welding	Shade 10								Shade 11				Shade 12				Shade 13				14			
MIG Sheet Welding	Shade 10								Shade 11				Shade 12		Shade 13		Shade 14				15			
TIG	Shade 9								10	Shade 11				Shade 12		Shade 13		Shade 14						
MAG	Shade 10								11	12		Shade 13				Shade 14		Shade 15						
Arc Gouging	Shade 10								11		12		13		14		Shade 15							
Plasma Cutting	Shade 11								Shade 12				Shade 13											
Plasma Welding	4	5	6	7	8	9	10	11	Shade 12				Shade 13				Shade 14		Shade 15					

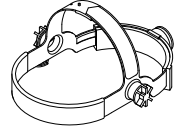
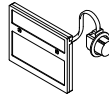
**PLEASE NOTE** Grind mode is intended for grinding and not for welding. Before you restart welding please set the filter back to weld mode and select the required shade for your application to do this rotate the shade knob anti-clockwise.

## PARTS LIST

### WH520 Front Cover Lens



### WH430 Inside Cover Lens



## MAINTENANCE

### REPLACEMENT OF FRONT COVER LENS

- Remove the front cover lens by pulling outwards at the base of the lens using the finger slot provided.
- Make sure the protective films are removed from new cover lenses.
- Place the new cover lens in the recess at the front of the helmet.
- Locate the cover lens under the lugs at the left of the filter and then flex the lens so that it can be inserted under the lugs on the right hand side of the filter.
- Only use genuine cover lenses, using lower grade lens may cause warping and allow spatter to damage the filter so invalidating the warranty. This may also reduce the impact rating.

**NOTE-** Do not use the helmet without the cover lens in place.

### REPLACEMENT OF INNER COVER LENS

- The welding inner cover lens is removed by pulling out the top edge.
- The new inner cover lens is assembled after the protective film is removed. Locate one of the sides by inserting the edge under the frame at the side and bend the lens in the middle part and locate the lens under the frame at the other side.

## INSPECTION

- Carefully inspect your Auto Darkening Welding Filter regularly.
- Cracked, pitted or scratched filter glass or cover lenses reduce vision and seriously impair protection.
- These should be replaced immediately to avoid damage to the eyes.
- Inspect the complete helmet frequently and replace any worn or damaged parts.

## CLEANING

- Clean the helmet with mild soap and a damp cloth.
- Clean the welding filter with clean lint-free tissue or cloth.
- Do not immerse in water.
- Do not use solvents.

## FAULT FINDING

### IRREGULAR DARKENING

- Headband has been set unevenly so the distance between the eyes and the lens is different from the left to the right.

### AUTO DARKENING FILTER DOES NOT DARKEN OR FLICKERS

- Front cover lens is soiled, clean or replace.
- Photo sensors are dirty, wipe clean with a soft lint-free cloth.
- Welding current is too low, select the slow position on the filter and ensure the view of the weld is unobstructed.
- Change to high sensitivity.

### POOR VISION

- Ensure the cover lens and the filter cartridge are clean.
- Ensure the shade number is correct and adjust accordingly.
- Ensure ambient light is not too low.

## WARRANTY

We warrants to the purchaser that the product will be free from defects in material and workmanship for the period of 12 months from the date of sale to the buyer. The manufacturer's sole obligation under this warranty is limited to making replacement or repairs, or to refund the purchase price of the product with defects.

This warranty does not cover product malfunctions or damages. Which result from the product being tampered with, misused or abused. The operating instructions must be followed: failure to do will void warranty. The manufacturer is not responsible for any indirect damage, which arises out of the use of the product.

## MARKINGS

The filter is marked with the shade range and optical classification.

The following in an example of EN379:

