AUTO DARKENING PANORAMIC WELDING HELMET - SHADE 9-13

MODEL NO: **PWH602**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.

1. SAFETY

- × Protectors that have been subject to impact shall not be used and shall be discarded and replaced.
- × If the impact level symbols are not equal on both the lens/filter and the frame, then it is the lower level that shall be assigned to the complete protector.
- ✓ The protections corresponding to the code numbers/letter 7, 9, CH are provided by the complete protector only if the respective symbols are equal on both the lens and the frame.
- × **DO NOT** place the helmet on hot surfaces.
- × **DO NOT** immerse the filter in water and protect it from contact with liquid and dirt.
- ✓ The material which may contact the wearer's skin can cause allergic reactions.
- ✓ Any helmet worn over standard ophthalmic spectacles may transmit impact, thus creating a hazard to the wearer.
- × **DO NOT** use this product for overhead welding or cutting.
- ✓ This product is for eye protection against high-speed particles at room temperature.
- ✓ The automatic welding filter shall always be used with a backing ocular.

IMPORTANT: Unauthorised modifications and replacement parts will void the warranty and expose the operator to the risk of personal injury.

- ❑ **WARNING!** If the auto-darkening filter does not darken when the arc ignites, stop welding immediately and inspect the ADF and its power supply. Change if necessary.
- × **DO NOT** use any solvents or abrasive cleaning detergent on the filter screen or helmet components.
- ✓ We recommend a usage period of 4 years. The period depends on various factors such as use, cleaning, storage and maintenance.
- ✓ Frequent inspections and replacement in case of damage are recommended.
- ✓ Always wear safety glasses or goggles under the welding helmet and protective clothing to protect your skin from radiation, burns and splatter.
- ✓ A visual inspection is necessary before every use.
- ✓ The protection marked in accordance with this standard is only provided when all lens and retention components are installed according top the list or other manufacturers insurrections.
- ✓ If the helmet, filter or the cover plate is in any way damaged, they must be immediately replaced.
- ✓ Replace the device after a mechanical impact.

2. INTRODUCTION

Fully digital Panoramic Welding Helmet and true colour technology give the best possible welding experience providing improved depth perception and better peripheral vision. High quality variable shade 9-13 lens manufactured and tested to ISO 16321. Fully automatic switching from light to dark on striking arc. Digital control panel easily switches between modes and set delay, sensitivity and shade settings. Also includes memory save function to preset and save up to nine personalised settings. Externally the helmet also features rotating switch and mode selector to easily switch between welding and grinding settings whilst adjusting shade without removing the mask. Battery is easily replaceable but has solar back up to prolong the battery life. Suitable for MIG, TIG, MMA, gas welding, cutting and grinding.

3. SPECIFICATION

MODEL NO.	PWH602
Grinding Function:	Yes
Operating Temperature:	-10°C to +60°C
Operating Time Light/Dark:	0.04-2.0s (Digital Control)
Power:	Lithium Cell Battery
Shade Active:	Weld- 9 -13 Cut- 4-8 Grind- 3
Shade Inactive:	3/4
Viewing Area:	Front Panel - 108 x 82mm Side Panels - 75/50 x 60mm

Auto Darkening Filter Marking

16321 YXE W3/4-8/9-13 V1 CE — **W3/7<14 M YXE V1**

3=Light State Scale Number — M=Manual offset(optional)

4-8/9-13=Protection Shade Numbers in Dark State — 16321 = EN ISO Standard

YXE= Manufacture Identification

V2=Angle of Dependence Classification

V1=Angle of Dependence Classification

Helmet Marking

16321 YXE W14 E 1-M CE UKCA

W = Welding protector

14 = Maximum filter shade number

E= Impact Resistance Level 120m/s

C= Impact Resistance Level 45m/s

1-M applicable head size

CE = European Conformity

Cover Plate Marking

YXE 1 E CE YXE 1 E CE UKCA

1 =Enhanced Optical Performance

E= Impact Level 120m/s

Notified Body; 1883
Type Examination cerificate no. C3669.1YXE
Carried out by ECS GmbH -
European certification service

Applicable standards:
EN 61000-6-3:2007+A1, EN IEC 6100-6-1:2019, ISO 16321-2:2021

4. OPERATION

NOTE: Consider environmental conditions where helmet is being used and be aware of use in these conditions, stop using if feeling fatigued or unwell.

❑ **WARNING!** Before using the helmet for welding make sure you have read and understood the safety instructions in Section 1.

✓ Make sure there is no dust on any sensor.

✓ Set the exact mode that you need.

If the battery icon is flashing, please change the battery before use. See 4.7.

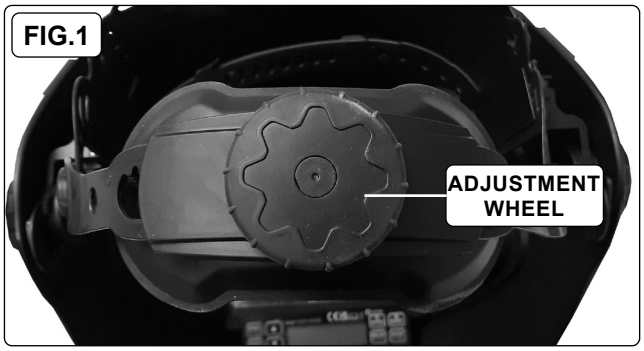
4.1. FITTING INSTRUCTIONS

4.1.1. The circumference of the headband is adjusted by turning the wheel on the rear (fig.1).

4.1.2. The two top straps can also be adjusted by releasing the pin from the top strap and adjusting as required (fig.2).

4.1.3. The distance between the headband assembly and the helmet can be adjusted by undoing the external thumbwheels both sides, and sliding the headband assembly forwards or backwards, as required. Retighten the thumbwheels.

4.1.4. Test the fit of the helmet by lifting it up and closing it a few times whilst wearing it. If the headband moves whilst tilting, readjust it until it is stable.



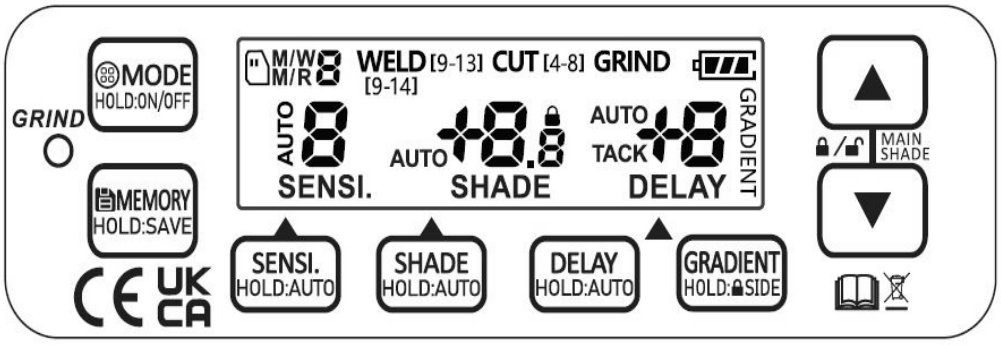
4.2. MODES

4.2.1. The ADF has 4 modes: CUT (4-8), WELD (9-14), GRIND and DARK.

4.2.2. The mode can be selected using the internal or external controls, as shown below.

❑ **WARNING! DO NOT** weld in GRIND mode.

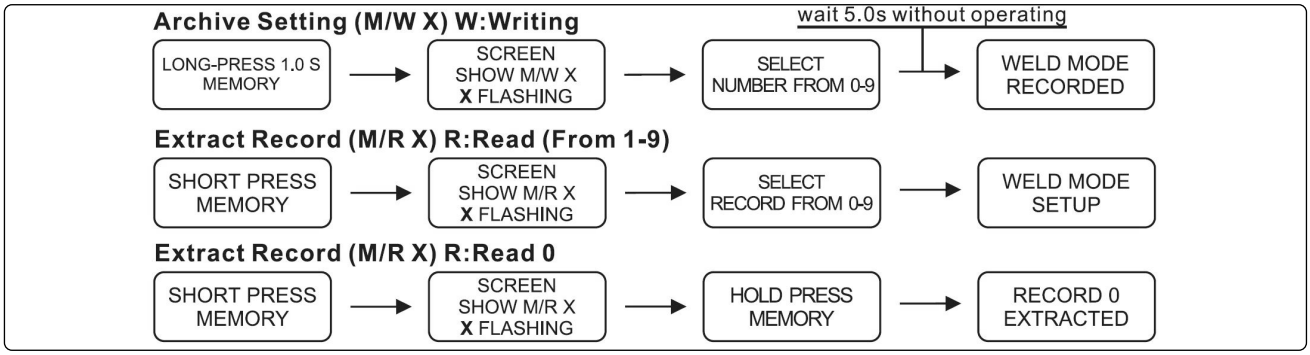
4.3. INTERNAL CONTROLS



4.4. EXTERNAL CONTROL BUTTON

Press MODE	Select the mode from WELD, CUT, DARK
Hold MODE for 1s	Automatic shade function ON/OFF
Press SILICON button	Saves the welding mode in record 0.
Hold SILICON button	Switches to grind mode
Twist the knob	Manual mode, shade will be adjusted by ±0.5
	Auto Shade mode, shade deviation ±0.1

4.5. MEMORY MODE



FUNCTION	ADF	OPERATING-UI PANEL	USAGE
Sensitivity	Without Auto Function	Press FUNC. and ▲▼.	**Level 9:** for special welding that needs super sensitivity. **Level 8:** for most applications but especially for low current welding work. **Level 0:** only in some specific surrounding lighting conditions in order to avoid unwanted triggering.
	With Auto Function	Press SENSI. HOLD:AUTO and ▲▼.	
		Hold SENSI. HOLD:AUTO.	Sensitivity is automatically adjusted with deviation ±2.
Delay	Without Auto Function	Press FUNC. and ▲▼.	**Level 9:** 2.0s is suitable for most applications, especially for high amps current application and longer welding interval. **Level 1 & 2:** suitable for spot welding. **Level 0:** Tack mode
	With Auto Function	Press DELAY HOLD:AUTO and ▲▼.	
		Hold DELAY HOLD:AUTO.	Delay is automatically adjusted with deviation ±2.
Shade	Without Auto Function	Press FUNC. and ▲▼.	Adjust the shade by your experience or according to chart recommended.
	With Auto Function	Press SHADE HOLD:AUTO and ▲▼.	
		Hold SHADE HOLD:AUTO.	Shade is automatically adjusted with deviation ±2.
	All Series	Hold SHADE HOLD:🔒/🔓.	Shade locked at the desired level.
		Press MODE and select **DARK** mode.	
		Press ▲▼ simultaneously, main window locked.	
		Hold press GRADIENT HOLD:🔒SIDE, side window locked.	
Gradient	Without Auto Function	Hold FUNC. HOLD:GRADIENT.	Offering a gradual recovery from dark to light (not suitable for tack mode and spot mode).
	With Auto Function	Press GRADIENT HOLD:🔒SIDE or GRADIENT.	

4.6. REPLACING AUTO DARKENING WELDING FILTER

Remove the front protection plate and put the helmet face down. Press both tabs on the top of the filter and push the ADF out.

4.7. REPLACING THE BATTERIES

Remove the two batteries from the bottom of the cassette. Insert the new batteries the correct way up.

5. MAINTENANCE

5.1. CLEANING

✓ Clean with a soft cloth in mild detergent.

× **DO NOT** use aggressive solvents such as acetone.

5.2. STORAGE

✓ Store in a clean, dry place, between -10°C-60°C.

✓ Remove the battery or turn off the ADF before long-time storage.

✓ Keep the solar cells of the auto-darkening welding filter in the dark. **DO NOT** expose to light during storage to maintain power down mode.

× **DO NOT** place any heavy items on or inside the helmet. This may damage the electro-optical filter.

5.3. MAINTENANCE

✓ Always check for damage before use. Outer and inner visors should be replaced with genuine certified spare parts.

✓ Transport the product in the original packaging away from direct sunlight.

✓ We recommend a usage period of 4 years. The period depends on various factors such as use, cleaning, storage and maintenance.

6. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Irregular darkening or dimming.	Headgear has been set unevenly so there is an uneven distance from the eyes to the filter lens.	Readjust the headband.
The filter won't darken or flickers.	Front cover lens is dirty or damaged.	Clean or replace the lens.
	Sensors are dirty/blocked.	Clean the sensors surface.
	Solar panel is blocked.	Ensure the solar panel is free from obstruction whilst welding.
	Sensitivity is set too low or the delay time is too small.	Adjust sensitivity/delay time to required level.
	Welding current too low.	Adjust weld amps.
Filter darkening without arc being struck.	Sensitivity is set too high.	Adjust sensitivity to required level.
Filter remains dark after completing a weld.	Delay time is set too long.	Adjust delay time to required level.
Slow response.	Operating temperature is too low.	Do not use at temperatures below -10°C or 14°F.
Welding helmet slips.	Headgear is not properly adjusted.	Readjust the headband.

This document has been drawn up according to Regulation (EU) 2016/425 as amended to apply to GB for Personal Protective Equipment. The declaration of conformity can be accessed at www.sealey.co.uk.

ENVIRONMENT PROTECTION
Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

REGISTER YOUR PURCHASE HERE

WEEE REGULATIONS
Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

BATTERY REMOVAL
Li-ion
Under the Waste Batteries and Accumulators Regulations 2009, Jack Sealey Ltd are required to inform potential purchasers of products containing batteries (as defined within these regulations), that they are registered with Valpak's registered compliance scheme. Jack Sealey Ltd's Batteries Producer Registration Number (BPRN) is BPRN00705.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.
Important: No Liability is accepted for incorrect use of this product.
Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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