

Thank you for purchasing a Siegen Tools 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 AND CAUTIONS. USE THIS 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. RETAIN INSTRUCTIONS FOR FUTURE USE.

The S0825 Automatic Welding Helmet comes ready for use. Batteries are not necessary as operation is by means of Solar cells which automatically darkens the eye shade cartridge when the arc is struck.

1. SAFETY INSTRUCTIONS

- ✓ Ensure all workshop safety rules, regulations, and conditions are complied with when using welding equipment.
- ✗ The helmet will not offer protection against mis-use of workshop tools, equipment, or accessories.
- ✓ Maintain the helmet in good condition, and protect cartridge from liquid and dirt contact.
- ✓ Regularly replace the protective lenses and replace any damaged or worn parts. Use genuine parts only.
- ✗ *Non authorised parts may be dangerous and will invalidate the warranty.*
- ✗ NEVER open or tamper with the shade cartridge.
- WARNING!** *This helmet is not suitable for use with laser and gas-welding.*
- ✓ Ensure the front cover lens and front lens frame are securely in place before use.
- ✓ Select the shade level before use.
- ✓ Fit the helmet and adjust the head band so the helmet will sit as low and near to your face as possible.
- ✓ Use helmet only in temperatures ranging from -5°C to + 55°C .
- ✗ The eye protective plate in helmet is **NOT** unbreakable. Helmet will not protect you against severe impact hazards (**such as, but not limited to**) fragmenting abrasive discs/grinding wheels, stones and other grinding tools, explosive devices or corrosive fluids. The helmet will only protect the eyes and face from radiation and sparks.
- ✓ Remove ill fitting clothing, remove ties, watches, rings, and other loose jewellery.
- ✓ Maintain correct balance and footing. Ensure the floor is not slippery and wear non slip shoes.
- ✓ Keep children and unauthorised persons away from the working area.
- WARNING!** *DO NOT use the helmet if damaged or you suspect it may be faulty. (Contact Service Agent).*
- ✗ **DO NOT** use helmet unless you have been instructed in its use by a qualified person.
- ✗ **DO NOT** get the helmet wet or use in damp or wet locations.
- ✗ **DO NOT** leave work place with helmet in lowered position, as bright light source may darken cartridge unexpectedly.
- ✗ **DO NOT** place the helmet on a hot surface.
- ✓ Clean helmet (see chapter 6) and store the helmet in a safe, dry, childproof location.
- ▲ **DANGER!** *If, at any time, the face plate in the cartridge FAILS to darken when exposed to a welding spark, **DO NOT USE**. Remove cartridge and return to your dealer for service/inspection. Continued use of the product knowing that the auto darkening feature is not functioning may damage your eyes and cause blindness. Continued use of the helmet which is not functioning will invalidate the warranty and could prohibit a successful claim on any insurance policy.*



fig 1

2. INTRODUCTION

Welding helmet with infinitely adjustable shade control between 9 and 13. Complies with CE & DIN Standards. Fully automatic switching from light to dark on striking arc. Shade is selected by large rotary knob on side of helmet. Solar panel power supply - no batteries required. Features sensitivity and delay controls for switching light to dark. Deluxe contoured helmet with fully adjustable headband with front pad for added comfort. Suitable for MIG, TIG and ARC Welding.

3. SPECIFICATION

Shade active: 9 - 13 variable
 Shade inactive: 4
 Viewing area. 92 x 42mm
 Response time (light to dark)0.1ms

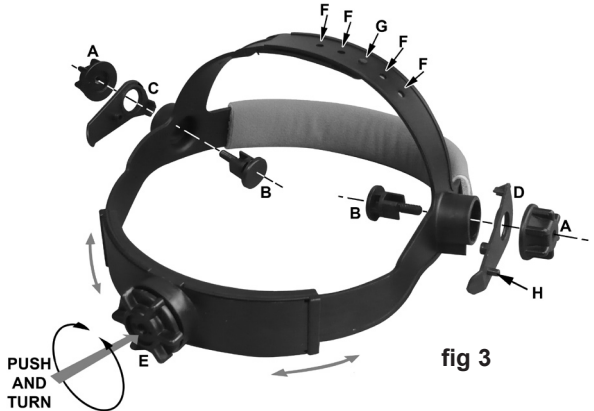
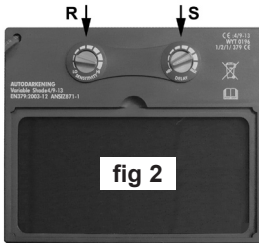
Operating temperature -5°C to +55°C
 Storing temperature -20°C to +70°C
 Power Solar Cells
 weight. 0.420g

4. INSTRUCTIONS FOR USE

IMPORTANT: This auto darkening welding helmet is designed to protect the eyes and face from spark, spatter and harmful radiation under normal welding conditions. NOTE: The helmet comes ready assembled.

⚠ WARNING! Ensure that you have read and understood section 1. SAFETY INSTRUCTIONS.

- 4.1 Check that the front lens cover and retaining frame are securely in place. See 'N & P' in fig.4.
- 4.2 Select the shade level you require according to the welding process you will use by referring to the "Selection Chart" below for settings. Turn the potentiometer control on the side of the helmet to the number required. See 'M' in fig.4.
- 4.3 Adjust the switching time of the shade cartridge (the time it will take for the shade to turn from light to dark and dark to light) by means of the delay control inside the helmet. See 'S' in fig.2. Again, adjust the time according to the welding process you will use, in order to protect your eyes against the residual light of the after glow or work materials. See technical data for response times.
- 4.4 Adjust the headband strap that passes over the head so that the helmet is seated on the head as low as possible. See fig.3. Snap the spigot 'G' over the lower strap into one of the holes 'F' on the upper strap.
- 4.5 Adjust the size of the headband by using the ratchet knob at the rear (see 'E' in fig.3). Depress and turn the knob until the headband sits firmly in place, but not too tight.
- 4.6 Use the two knobs 'A' on either side of the helmet to adjust the amount of friction that occurs as you raise and lower the helmet.
- 4.7 When the helmet is in the lowered position, adjust its relationship to your face using the locating plate 'D' seen in fig.3. The spigot 'H' should be placed in one of 3 holes on the other side of the helmet from the shade control knob.
- 4.8 The distance from each eye to the shade cartridge can also be adjusted by loosening the knobs 'A' and sliding the plastic bolts 'B' within the slotted openings either side of the helmet.
- 4.9 You are now ready to use the helmet. The shading may be adjusted during use by re-setting the shade control knob.



Welding process	Arc Current (Amperes)													
	0.5	2.5	10	20	40	80	125	175	225	275	350	450		
	1	5	15	30	60	100	150	200	250	300	400	500		
SMAW				9	10		11		12		13	14		
MIG (heavy)						10	11		12		13	14		
MIG (light)						10	11		12	13	14	15		
TIG, GTAW			9	10	11		12		13		14			
MAG/CO²					10	11	12		13		14	15		
SAW							10	11	12	13	14	15		
PAC						11		12		13				
PAW		8	9	10	11	12		13		14		15		

SMAWShielded metal arc welding
MIG.....(heavy) MIG on heavy metals
MIG(light) MIG on light alloys
TIG, GTAWGas tungsten arc welding

MAG/CO².....Metal active gas welding
SAW.....Shielded semi-automatic welding
PACPlasma arc cutting
PAW.....Plasma arc welding

5. PROBLEM SOLVING

▲ **DANGER!** If, at any time, the face plate in the cartridge **FAILS** to darken when exposed to a welding spark, **DO NOT USE**. Remove cartridge and return to your dealer for service/inspection. Continued use of the product knowing that the auto darkening feature is not functioning may damage your eyes and cause blindness. Continued use of the helmet which is not functioning will invalidate the warranty and could prohibit a successful claim on any insurance policy.

PROBLEM	CAUSE	REMEDY
Irregular darkening/dimming	Headband has been set unevenly and there is an uneven distance from the eyes to the filter's lens.	Reset headband so that each eye is the same distance from the lens.
Slow response	Operating temperature is too low	Do not use at temperature below -5°
Auto-darkening filter does not darken or flickers	Sensitivity set too low	Turn the sensitivity knob to 'HI' position. See 'R' in fig.2.
	Front cover lens is soiled or damaged	Change lens cover
	Sensors are dirty	Clean surface with lint free cloth/tissue
	Welding current is too low	Reassess welding current
Poor vision	Protective film on front cover lens is not peeled off.	Remove film
	Front/inside cover lens and/or filter lens are dirty	Change lens
	Insufficient ambient light.	Increase light source
	Shade number is incorrectly set	Reset the shade number.
Welding helmet Slips	Headband is not properly adjusted	Readjust headband

6. MAINTENANCE

6.1 Replacing front cover lens. (See 'N' in fig.4.) Firstly remove the front frame which is held in place by four pairs of legs which pass through four slots in the front recess. Reach into the back of the helmet and release each pair of legs in turn by squeezing the legs together and pushing them forwards. Once the frame is removed you can lift out the front cover lens and place a new one into the recess designed for it. Refit front frame and press into place.

6.2 Replacing inside cover lens. (See 'J' in fig.4.) The inside cover lens is located within the back of the shade cartridge. There is a finger access point along the top edge of the cover. Pull the top edge of the lens away from the cartridge until the top corners release then lift the lens out. Locate the short edge of the new lens in one side of the cartridge recess. Flex the material upwards until the other end can be snapped into place.

6.3 Changing the shade cartridge. Loosen the grub screw in the side of the shade control knob 'M' and remove the knob. Undo the nut which retains the potentiometer 'L' and remove the nut and washer, allowing the potentiometer to hang loose within the helmet. Remove the front frame and lens cover as described above. Place your hand over the cartridge opening and tip the helmet forwards allowing the cartridge to fall into hand. Drop the new cartridge into the recess followed by the lens cover and snap the front frame into place. Refix the potentiometer to the side of the helmet and refix the knob.

6.4 Cleaning. Clean the helmet by wiping with a soft clean cloth. Clean the cartridge surfaces with a lint free cloth or tissue. Do not use any chemicals for cleaning purposes.

6.5 Sweat Band. Regularly remove the sweat band wash and replace.

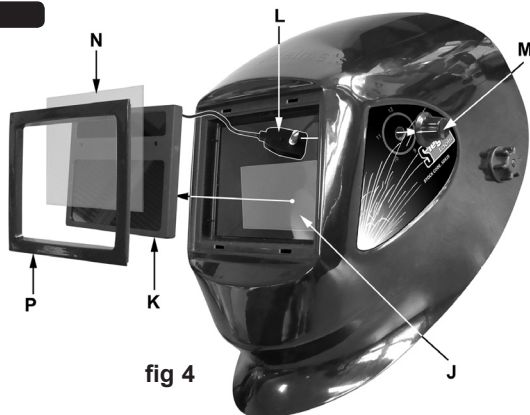
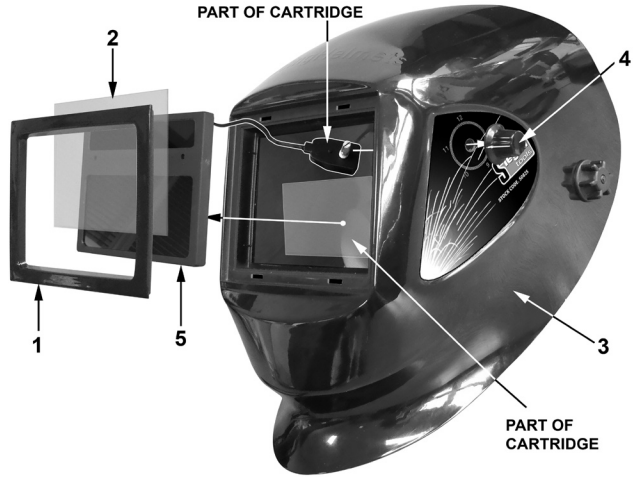


fig 4

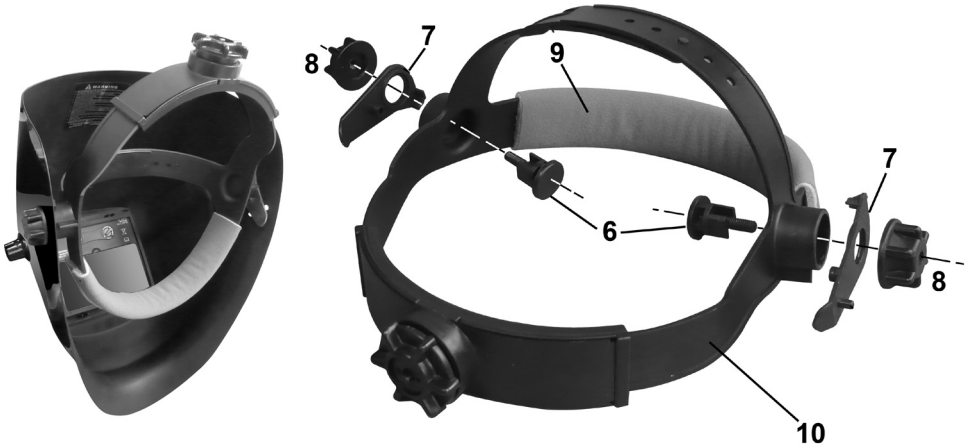
7. PARTS LIST & ASSEMBLY

CARTRIDGE
 The cartridge is powered by solar cells together with two 3 volt lithium back up batteries. No battery changing is necessary. Under normal use the batteries have a lifetime of more than 3 years.



Item No:	Part No:	Part description
1	S0825.01	Front Cover (Frame)
2	S0825.02	Front Cover Lens
3	S0825.03	Helmet
4	S0825.04	Knob for Potentiometer
5	S0825.V2-05	Auto-darkening cartridge

Item No:	Part No:	Part description
6	S0825.06	Headband pivot bolts
7	S0825.07	Locating plate
8	S0825.08	Headband adjusting knob
9	S0825.09	Foam pad for headband
10	S0825.10	Adjustable headband



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 equipment. **WARRANTY:** Guarantee 12 months from purchase date, proof of which will be required for any claim.

Sole UK Distributor, The Siegen Tool Co., Bury St. Edmunds, Suffolk **E-mail:** sales@siegen.co.uk



EC DECLARATION OF CONFORMITY

We the sole importers into the UK, hereby declare that the equipment described below

Description and Function: Welding Helmet Solar Powered Shade 9-13

Model/Type: S0825.V2

Manufacturing Date / Serial number (optional):

Manufacturer's authorised representative within the EC: **The Siegen Tool Co., Bury St.Edmunds, Suffolk**

Conforms to the requirements of the following Directives, as indicated.

- 2006/42/EC Machinery Directive
- 2000/14/EC Outdoor Noise Emissions Directive
- 2006/95/EC Low Voltage Directive
- 2002/96/EC WEEE Directive
- 2004/108/EC EMC Directive
- 2002/95/EC RoHS Directive
- 93/68/EEC CE Marking Directive
- 97/23/EC Pressure Equipment Directive

And the following harmonised standard(s): BS EN 175: 1997 BS EN 379: 2003 +A1: 2009

BS EN 169: 2002

National technical standards and specifications (if applicable):

Technical file compiled by: **The Siegen Tool Co.**

Signed: *Steve Buckle*

Date: 01-Apr-2010

Place: Bury St.Edmunds.

Name: Steve Buckle

Position: Marketing Director

Being the responsible person appointed by the manufacturer.



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