

# ROSSI®



## **SOLAR AUTO-WELDING HELMET**

### **USER MANUAL**

[Revision 2.0 December 2018]

**RETAIN THIS MANUAL FOR FUTURE REFERENCE**

**PLEASE READ THIS MANUAL CAREFULLY BEFORE USE**

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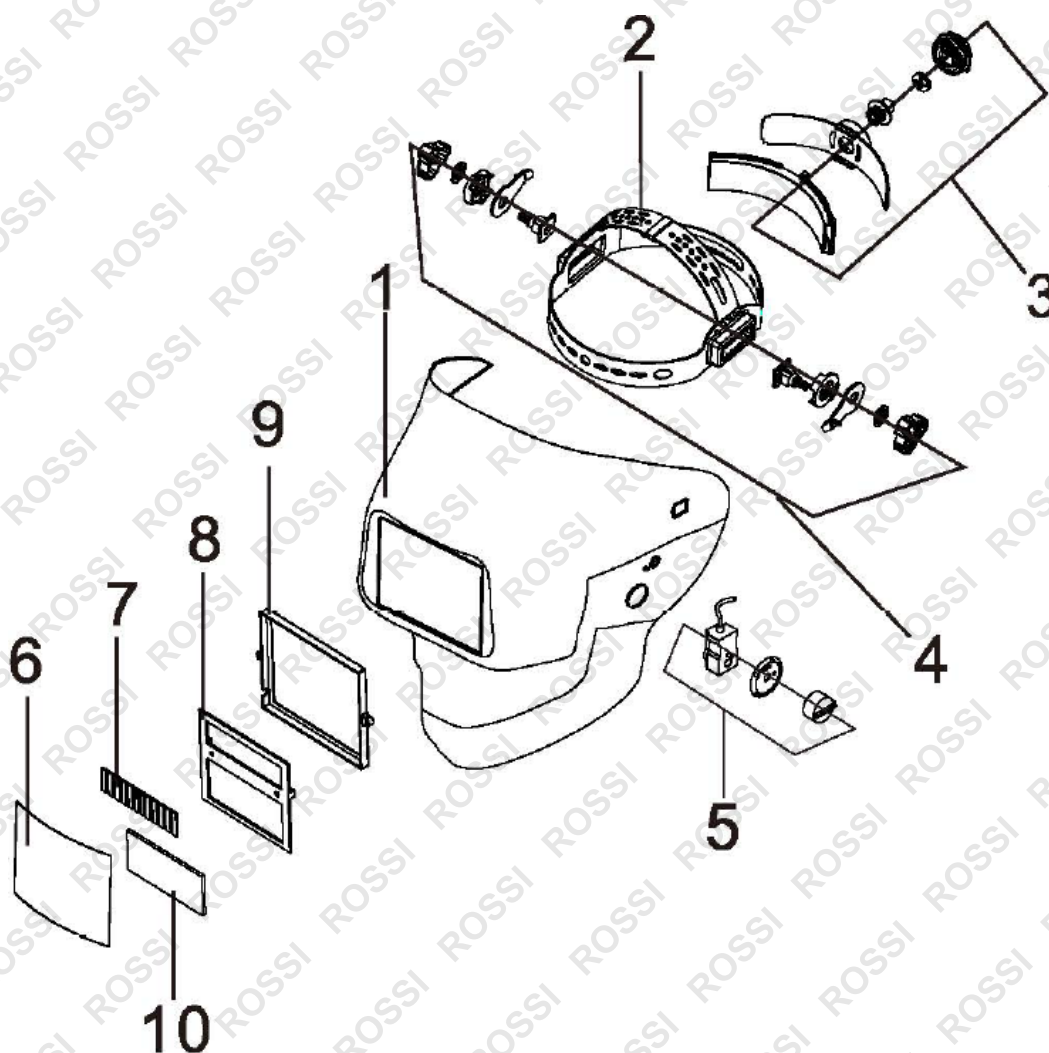
## **SAFETY**

- The welding helmet is not suitable for laser and oxygen acetylene welding operations.
- Do not store the welding helmet and filter near sources of high heat or in damp places.
- Do not remove the filter from the welding helmet or open the filter box on your own.
- Before operating with the welding helmet, confirm if the welding or grinding function selection is correct.
- The protective plate must be installed to protect the filter from damage.
- Do not make any changes or replacements to the welding helmet on your own.
- Stop using the welding helmet immediately if the filter isn't changing to its dark shading. Contact the manufacturer.
- Do not use alcohol, petrol or thinner to clean the filter. Never immerse the welding helmet in water.
- Operating temperature should be between -5 – 55°C. ADF reaction will slow down if the ambient temperature is too low. However, it will not affect the protective capabilities of the welding helmet.
- Replace the protective films immediately if it is broken or scratched, since it may affect your view and seriously reduce the protective capabilities of the welding helmet.
- Replace the protector immediately if it is broken or scratched. Do not use hard, abrasive objects on the filter lens surface in order to prevent damaging the filter.
- Clean the filter surface, sensors and solar cells regularly.
- The welding helmet cannot prevent any damages from serious impacts, explosions or from corrosive liquids.

**NOTE:** Serious personal injury can occur if the user does not follow the safety precautions listed above!

## PARTS DIAGRAM

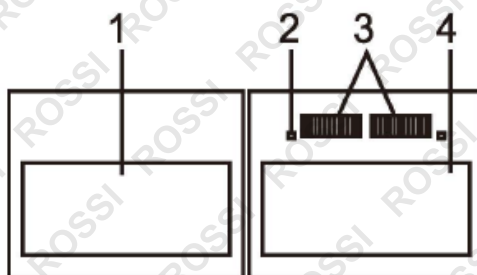
## HELMET



No.	PART
1.	Helmet body
2.	Headgear
3.	Headgear adjusting knob
4.	Headgear angle adjusting knobs
5.	Shade number adjuster
6.	Protective plate

No.	PART
7.	Solar panel
8.	Fixed plate
9.	Press card
10.	UV/IR filter
11.	Protection plate buckle

## WELDING



No.	PART
1.	LCD
2.	Arc sensor

No.	PART
3.	Solar cell
4.	UV/IR filter

## OPERATION

### BEFORE WELDING

- Please check if the protective film has been removed from the internal and external screen.
- Please check if there is sufficient power before using.
- Please check if the filter display is normal.
- Please check whether the protective films are complete and whether the solar cell is damaged or blocked by dust. Check especially if the arc sensor is polluted.
- Please check if there are operating parts that are worn-off or damaged. If there are any worn or damaged parts, they should be replaced immediately to avoid any personal injuries.
- Please check tightness every time before each use.
- Choose the right shade number according to the machine type and welding current.

## SHADE NUMBER SELECTION

- Shade number can be manually set from 9-13 by rotating the adjusting knob to set the proper shading number. The adjusting knob is on the outside/inside of the mask,
- Adjust the helmet to the correct shade for the welding process by referring to the table below.

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			
MIG(heavy)						10	11		12		13			
MIG(light)						10	11		12		13			
TIG,GTAW			9	10		11	12		13					
MAG/GO <sub>2</sub>					10	11	12		13					
PAC						11		12			13			
PAW		8	9	10	11	12	13							

**Note:** \*SMAW–Shielded Metal Arc Welding. \*TIG, GTAW–Gas Tungsten Arc Welding(GTAW)(TIG).

\*MIG(heavy)–MIG on heavy metals \*PAC–Plasma Arc Cutting. \*PAW–Plasma Arc Welding

\*MIG(light)–MIG on light alloys

## HEADBAND ADJUSTMENT

- The headband size can be manually-adjusted to fit different head widths. Press the rotary gear moderately and adjust for the tightness that feels comfortable. The rotating gear has a self-locking function; do not rotate it forcefully to avoid damaging the gear.
- There are positioning holes on each side of the helmet. By adjusting the fixed plate in a lateral hole location, you can change the angle of sight and adjust for the viewing angle.
- By adjusting the tightness of the screw, you can change the angle of the face mask. It can also be turned up or down. The ideal angle in welding is when the eyes and the joints are connected by a straight line, perpendicular to the filter.

## BATTERY REPLACEMENT

- This product uses 2 pieces of 3V lithium battery, or 2 pieces of AAA alkaline batteries as a backup power supply. All batteries are non-changeable.

**NOTE:** Batteries should be disposed of in accordance to local government laws and regulations. Filters should be disposed of in accordance with local electronic waste material processing laws and regulations.

- The battery can be used continuously for 5,000 hours in normal condition. The low-voltage lamp will not light-up when power is sufficient enough. When the battery needs to be replaced, the low-voltage lamp will then light-up.

## MAINTENANCE

- Please use tissues, lens paper or clean, soft cotton balls when cleaning the filter.
- Please use a chemically-neutral detergent to clean the welding helmet shell and sweat bands.
- Replace the external/internal protection plates and sweat bands regularly.
- Do not use corrosive solvents or gasoline to dilute the detergent.

## TROUBLESHOOTING

PROBLEMS	CAUSES	SOLUTIONS
Filters do not darken or flickers.	Protector is polluted or damaged	Clean or replace the protector.
	Arc sensor is not clear.	Clean the surface of the arc sensor.
	Welding current is too low.	Increase the welding current.
	Battery charge is too low.	Replace the battery with a new one.
Slow reaction	Ambient temperature is too low.	Don't use welding helmet below -5°C.
Filter is not clear.	Protector is dirty.	Clean or replace the protector.
	Protective film has not yet been removed.	Remove the protective film.
	Filter lenses are dirty.	Clean both sides of the filter lenses.
	Insufficient ambient light.	Adjust the brightness of the workplace.
	Shade number has been set incorrectly.	Set to the correct shading number.
Welding helmet is too loose.	Headband has not been adjusted properly.	Adjust the fixed nuts of the headgear.

**NOTE:** Stop using the welding helmet immediately and contact the manufacturer if the problems mentioned above cannot be solved.

## TECHNICAL SPECIFICATIONS

<b>OPTICAL CLASS</b>	1/2/1/2
<b>VIEWING AREA</b>	90x35mm
<b>CARTRIDGE SIZE</b>	110x90x9mm
<b>ARC SENSOR</b>	2
<b>LIGHT STATE</b>	DIN4
<b>DARK STATE</b>	Variable shade, 9 – 13
<b>SHADE CONTROL</b>	External, variable
<b>POWER ON/OFF</b>	Fully automatic
<b>SENSITIVITY CONTROL</b>	Not adjustable, auto
<b>UV/IR PROTECTION</b>	DIN16
<b>POWER SUPPLY</b>	Solar cell. Re-chargeable battery. No battery change required.
<b>SWITCHING TIME</b>	1/25000 seconds from light to dark
<b>DARK TO LIGHT</b>	0.25 – 0.45 seconds, auto
<b>LOW AMPERAGE TIG</b>	≥ 35amps (DC), ≥ 35amps (AC)
<b>GRINDING FUNCTION</b>	No
<b>LOW VOLUME ALARM</b>	No
<b>ADF SELF-CHECK</b>	No
<b>OPERATING TEMPERATURES</b>	-5 - 55°C
<b>STORAGE TEMPERATURES</b>	-20 - 70°C
<b>WELDING PROCESSES</b>	MMA, MIG, MAG/CO2, TIG and plasma welding Arc gouging and Plasma cutting



**Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death consult the points below and additionally, the information available at [www.datastreamserver.com/safety](http://www.datastreamserver.com/safety)**

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognised training course before being given access to the product.

- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example) there is always a small chance of a technical issue that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee or could financially affect the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error considering the points above simply contact the retailer directly for details of their returns policies if required.



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