

# **AUTO-DARKENING WELDING HELMET**

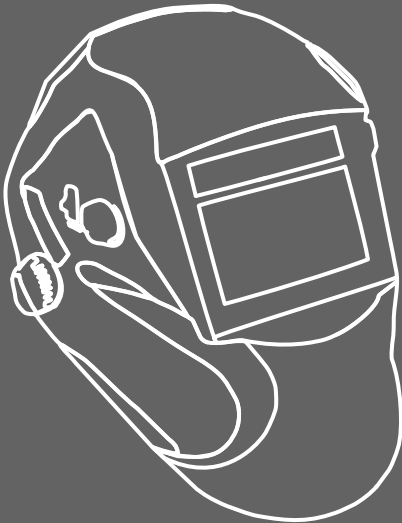
**STELLA**


**Art. 0 984 915010**

**Art. 0 984 915020**

**Art. 0 984 915030**

**Art. 0 984 915040**



 User's Manual



# AUTO-DARKENING WELDING HELMET STELLA

**WARNING:** Read carefully all the instructions before using the product for the first time!  
The personal injuries may occur if the user fails to comply with all the warnings and fails to follow the instructions specified herein.

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- Make sure that the Front Cover Lens is clean, and that no dirt is covering the surfaces of four sensors on the front part of the Filter Cartridge. Also check the Front/Inside Cover Lens and the Front Lens Retaining Frame and make sure that they are secure in place.
- Frame and make sure that they are secure in place. Inspect all operating parts before each use for signs of wear or damage. Any cracked or pitted parts should be replaced immediately to avoid severe injuries during the work.
- Check light tightness level before each use.
- Select the shade number you need by turning a shade knob (See Table No. 1 Shade Number Guide). Finally, make sure that the shade number is correct for your application.
- Adjust the headband so that the helmet is placed as low as possible on the head and close to your face. When in the lowered position, adjust the helmet's angle by turning the adjustable limitation washer.

## SHADE NUMBER SELECTION

The shade number can be set manually between 9 - 13. See the Shade Number Guide Table to determine the correct shade number suitable for your application. Set the selected shade number by turning the shade knob until the arrow points to the required shade number (See Shade Number Guide Table No. 1).

## BEFORE WELDING

- The Auto-Darkening Welding Helmet comes completely ready for use. It is only necessary to adjust the headband and select the correct shade number suitable for your application.

**Table No. 1 Shade Number Guide**

Welding	Welding 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 (lighth)						10	11	12	13	14	15			
TIG, GTAW			9	10	11	12	13			14				
MAG/CO <sub>2</sub>					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	

Note: \* SMAW- Shielded Metal Arc Welding. \*TIG, GTAW-Gas Tungsten Arc Welding (GTAW) (TIG).  
\* MIG(heavy)-MIG on heavy metals. \*SAW-Shielded Semi-Automatic Arc Welding.  
\*MIG (light)-MIG on light alloys. \*PAC-Plasma Arc Cutting. \*PAW-Plasma Arc Welding.

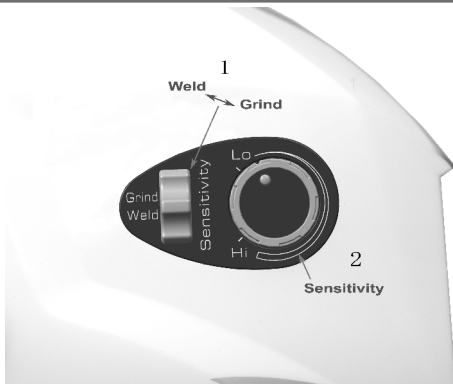
## TECHNICAL SPECIFICATIONS

Viewing area:	98 x 55mm/3.86" x 2.17"
UV/IR protection:	sve do stepena DIN 16 permanentno
Clear state:	DIN 4
Variable shade:	from DIN9 to DIN13
Reaction time:	0.000033 sec. (1/30000 s)
Delay time:	long-middle-short (outside adjustment) (it may vary between 0.3s ~ 0.9 s)
Sensitivity:	can be continually adjusted using the outside controls
Sensors:	four infrared detectors
Power supply:	solar cells + lithium battery (battery service life is 5-7 years).
Power On/Off:	fully automatic
Mode:	"WELDING"/"GRINDING" can be selected using the outside controls

Operating temperature:	- 5°C do + 55°C ( 23°F do 131°F )
Storing temperature:	- 20°C do + 70°C (-4 ° F do 158° F)
Shell Material:	High-impact resistant plastic/polyamide (Nylon) DIN EN 175 BCE
Total weight:	470 g

- This product is in full conformity with the DIN EN 379, DIN EN 175 safety standards, as well as with the ANSI /ISEA Z87.1-2010 standard.
- Before welding it is necessary to clean the Filter, Front Cover Lens, Inside Cover Lens and four optical sensors. If the Front Cover Lens and Inside Cover Lens are soiled and cannot be cleaned, it is necessary to replace them immediately.

## USER-SELECTABLE VARIABLE SHADE/ DELAY TIME SENSITIVITY ADJUSTMENT WELDING OR GRINDING MODE SELECTION



- 1) **Welding/grinding selection switch:** when grinding, the helmet cannot provide adequate protection if the particles coming out from the metal surface are heavier than 43 grams and if their speed exceeds 120 m/s. The welding helmet is in conformity with the DIN EN 175:1997 standard (impact resistance level B). This helmet cannot provide the protection for other body parts so that users should wear appropriate protective equipment.
- 2) **Sensitivity adjustment knob:** Before welding, set the sensitivity at the highest level, and if the interference with the ambient light is taken into account (the filter darkens even before welding is started), it is necessary to set the sensitivity at lower values, until the filter returns to a clearer state (do not expose the helmet to the source of light in the room during welding, but turn it only towards the work piece). During welding, the sensitivity adjustment knob should be set at the highest level, otherwise the filter will not have a quick shading response.  
**Warning:** The operator must immediately stop using this helmet if the filter does not darken, if darkening speed is low or if the filter flickers. In this case, you should contact your supplier.
- 3) **Shade Number Selection Knob** - before welding is started, set the shade number selection knob at the correct value, depending on the type of welding process and welding current, in order to carry out the test welding (See Table No. 1 for Shade Number Selection). If the filter's shade is too dark or too clear, gently set the shade knob so that you can see a weld and though it does not glow you can still notice the melted zone. Please consider the fact that using the helmet with the incorrectly set shade number (too dark or too clear) may cause severe damages to the eyes over long time period.  
**WARNING:** In the case that the filter does not darken, or the shade number is insufficient, or darkening is too slow or the filter flickers, please find out the causes. If the operator

cannot solve the problem on his own, it is necessary to stop using this helmet and contact the supplier.

#### 4) Delay time switch –

- 1) there are three positions (long, medium, short) by which you can set the time of switching from dark to clear state in order to avoid the possible damages to the eyes in the event of the residual arc, when switching to the clear state is performed too quickly from the moment when the arc finishes. Delay time is: 0.3s-0.5s (in the SHORT position); 0.4s-0.6s (in the MEDIUM position); 0.6 s-0.9s (in the LONG position). Delay time may vary depending on the type of welding process as well as different sensitivity adjustments, even though the delay time switch is placed in the same position.

If the filter flickers at low welding currents, it is necessary to set this switch to the LONG position in order to remedy this problem.



### HEADBAND ADJUSTMENT

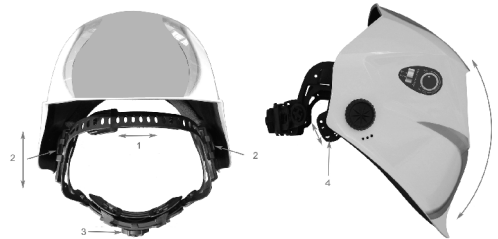
### TESTING



#### 1) Testing button –

- 1) by which you can check the condition of the Lithium battery as well as if the filter functions properly. If the battery indicator is red and if it darkens when the testing button is pressed, the filter is considered to be in normal working condition.

If the battery indicator flashes but the filter does not darken, it means that there is a problem with the filter, so do not use it.



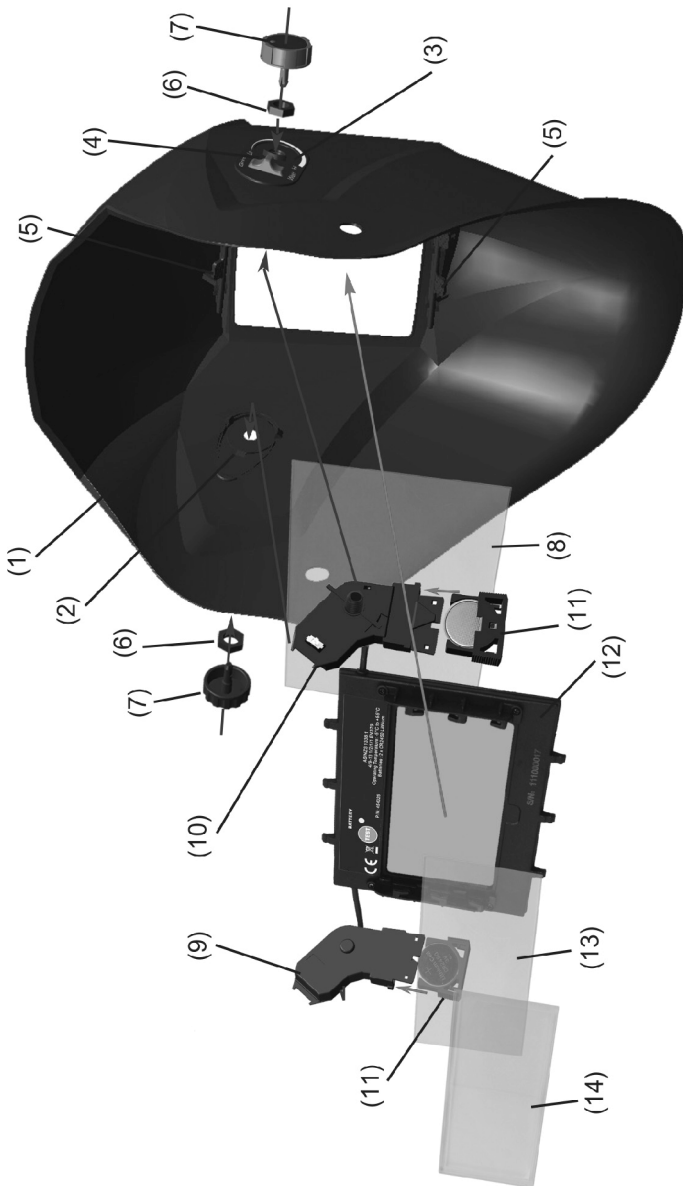
- 1) The Headband strap over the top of the head – by moving this strap in the arrow direction (shown in the Figure) you can adjust the width of this strap. Depending on the shape of the welder's head it is possible to adjust it in the most suitable position.
- 2) The distance between the headband and the Filter Lens – in this way, the distance from the Filter Lens in relation to the welder's eyes can be adjusted (vertical left-right movement).
- 3) The headband adjustment on the back of the head – it is possible to adjust this width depending on the shape of the head (loose or fasten).
- 4) The incline angle adjustment – it is possible to adjust the helmet's inclination in relation to the user's face, and thus adjust the distance between the Filter Lens and the user's eyes.

### MAGNIFIER/CHEATER LENS

The filter can be installed together with the magnifier/cheater lens that, if necessary, may be ordered via our sales network.

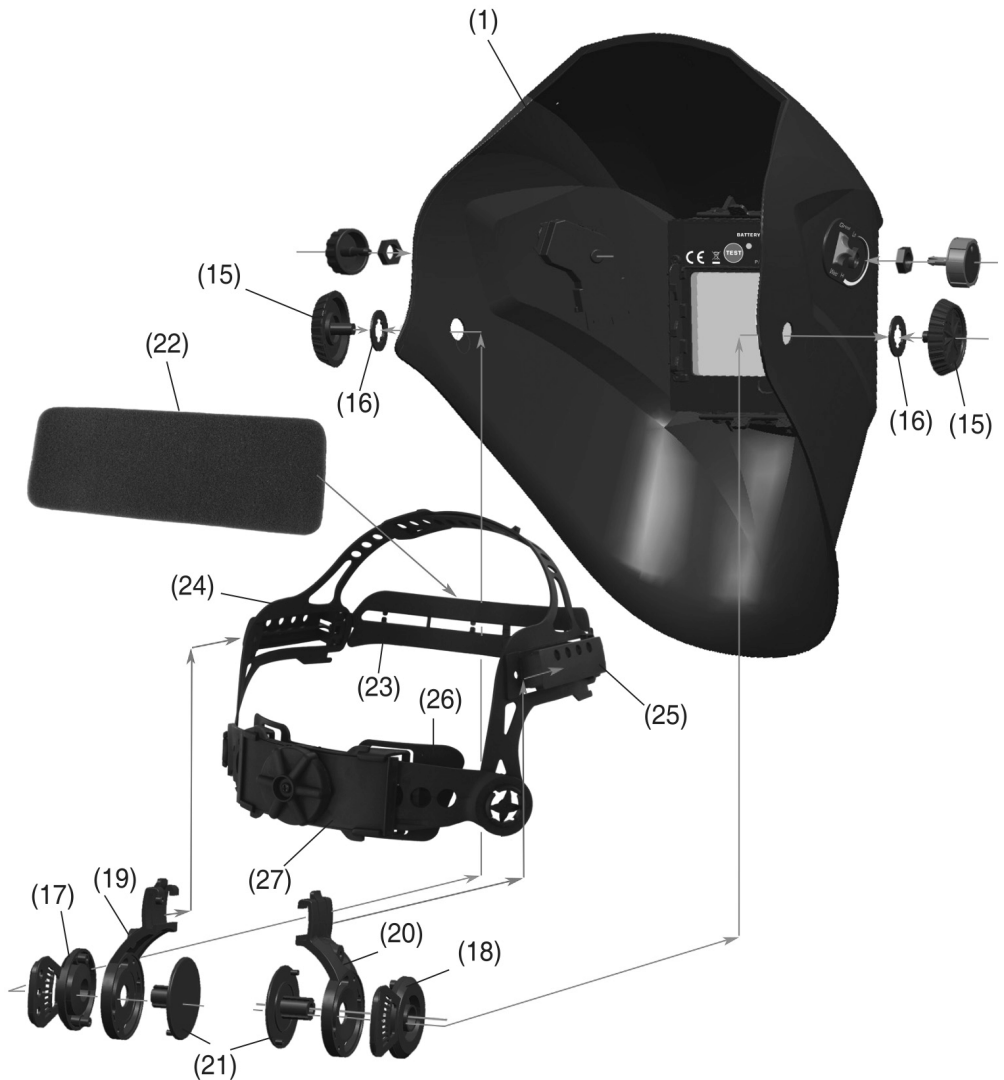
- This model is equipped with a special turnover (up & down) mechanism. When the welder turns over the helmet to his head top, the headband mechanism makes the helmet's gravity center lower to fit the center of the welder's head. Such a design of the helmet greatly reduces the fatigue of welder's head (and neck) and ensures more comfortable work.
- The headband has been set unevenly so that there is an unequal distance between the eyes and the filter's lens (Reset the initial headband adjustment to reduce the distance to the filter)

## COVER LENS REPLECEMENT WITH PARTS LIST



(1) Shell, (2) Shade scale window, (3) Sensitivity scale window, (4) Grinding/Welding Switch, (5) Filter Setting Frame, (6) 2x Fixing Nut, (7) Shade knob/Sensitivity knob, (8) Front Cover Lens, (9) Shade box, (10) Sensitivity box, (11) Lithium battery case, (12) Auto-Darkening Filter, (13) Inside Cover Lens, (14) Magnifier/Cheater Lens (can be ordered if necessary).

## PARTS LIST



(1) Shell (15) 2x fixing nut, (16) 2x lock washer, (17) Adjustment limitation washer (left) (18) Adjustment limitation washer (right) (19) Headband lever (left) (20) Headband lever (right) (21) Headband lever fixing screws (22) Sweat band (cloth) (23) Front headband (24) Left headband (25) Right headband (26) Back elastic strap (27) Headband fastening mechanism (loosing - fastening)



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