

Instruction Manual

Autodim automatic welding helmets

General Information

The Autodim automatic welding helmets are protective safety products of recent generation. Modern and well developed technologies as there are LCD, opto-electronic capture, solar cells and microelectronic technology are integrated in the filter of the helmets. The filter in the helmets protect the eyes effectively against injuries by the radiation of the arc. The automatic control of the darkening and brightening of the filter enables the weldor to keep both hands free for precise work. The use of the automatic welding helmet substantially increases productivity and quality of the welding results. The autodim automatic welding helmets may be applicated diversively in the welding process and with disc splitting. The Autodim automatic welding helmets of the types XA-1010, XA-1011 and XA-5001 are suitable for grinding.

Features

The autodim automatic welding helmets are furnished with a filter which reacts and darks automatically by the ignition of the arc. The power supply of the filter takes place by solar cells. No battery change is necessary. Before ignition of the arc the filter is transparent, so that the weldor has a clear view on the workpiece. The photosensors react on the radiadion of the arc within 0,0001 sec. and dark the view to the adjusted darking stage (9-13). The filter brightens after deleting the arc adjustable within 0,1-0,9 millisec. (Delay). The Autodim protective welding helmets protect the weldor in bright- and dark stage for UV-/IR radiation (DIN 13). The filter is protected by an external window disc against pollution and weldspatter.

Please, read this manual carefully before using the helmet.

Warnings

The Autodim helmets are constructed for the protection of the eyes and for the face against arc- and heat radiation, welding spatters and sparks under regular circumstances.

Protective clothing and welders gloves must be worn according regulations. Avoid work positions which expose parts of your body to sparks, spatters and heat radiation or adapt your protective cloth accordingly.

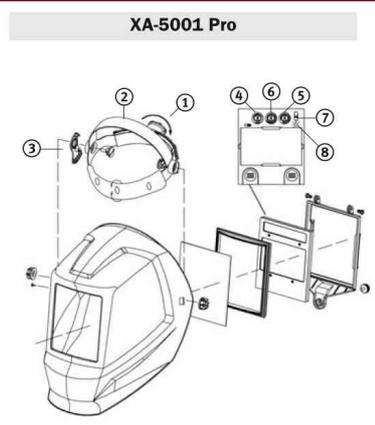
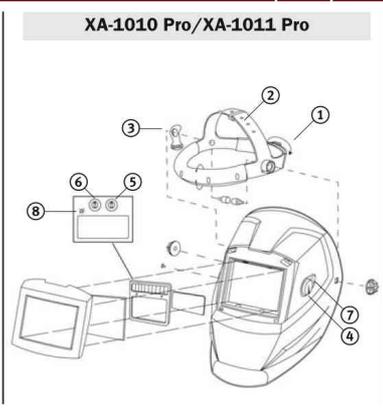
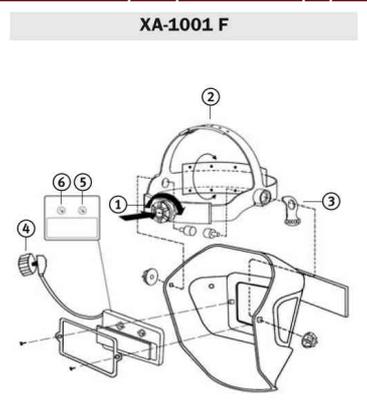
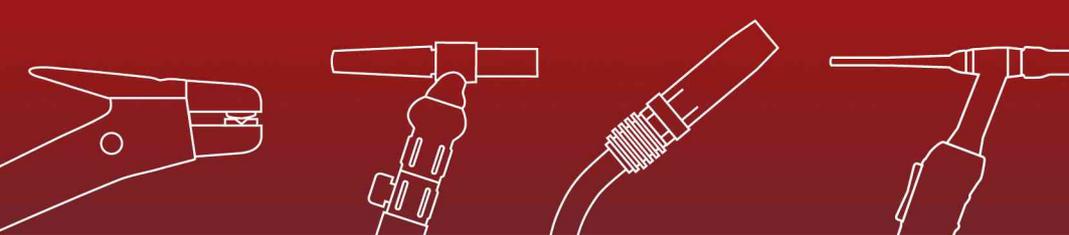
The helmet gives **no** protection against heavy mechanic blows, explosives or against caustic liquids! The helmet is **not** eligible for laser welding and -cutting or for overhead welding.

The Autodim welding helmet XA-1001 F is **not** suitable for grinding. Please, verify the darking range before any use and inspect the protection windows on purity and prove the sensors so they are not covered with dirt.

Inspect all parts of the helmet on wear and damage before use. All worn parts must be exchanged immediately. Do not dip the helmet or the filter in water. Do not rinse the filter or other parts with solvents. The permitted working temperature of the filter is -5 °C to +55 °C. Do not use the helmet beyond this temperature range.

Do not modify the helmet, filter or other parts. Use original spare parts! With the use of unauthorized changes or unlicensed spare parts, the warranty expires and there is danger for the user of the helmet

	Autodim XA-1001 F	Autodim XA-1010 Pro	Autodim XA-1011 Pro	Autodim XA-5001 Pro
Filter dimension	100 x 90 x 8,5 mm 4,33" x 3,54" x 0,33"	110 x 90 x 8,5 mm 4,33" x 3,54" x 0,33"	110 x 90 x 8,5 mm 4,33" x 3,54" x 0,33"	114 x 133 x 9 mm 4,49" x 5,24" x 0,35"
Viewing range	96 x 42mm 3,78" x 1,65"	97 x 47 mm 3,82" x 1,85"	97 x 47 mm 3,82" x 1,85"	100 X 60 mm 3,94" x 2,36"
Brightness level	4	4	4	4
Adjustment of Dark level	9 - 13 External	9 - 13 External	9 - 13 External	9 - 13 Internal
Response time	0,1 ms (CE) 0,05 ms (ANSI)			
Delay	adjustable 0,1 - 0,9 ms Internal			
Working temperature	-10 °C bis +55 °C +14 °F bis +131 °F	-10 °C bis +55 °C +14 °F bis +131 °F	-10 °C bis +55 °C +14 °F bis +131 °F	-10 °C bis +55 °C +14 °F bis +131 °F
Power supply	Solar cell Litium-Battery	Solar cell Litium-Battery	Solar cell Litium-Battery	Solar cell Litium-Battery Battery exchangeable
UV-/IR protection	permanent DIN 13	permanent DIN 13	permanent DIN 13	permanent DIN 13
Weight	500 g	550 g	550 g	550 g



Operation

- 1 Assemble the helmet according the illustration.
 - 2 Adjust headband with rotary knob ① and locking band ② to your necessity, so that the helmet fits your head agreeable. The grid ③ controls the lowering level of the helmet.
 - 3 Select the right protection level (dark level) which complies the requirements of the job. The dark level is continuously adjustable with rotary knob ④. The table below gives information.
 - 4 With the rotary knob ⑤ "Delay" the brightness level can be adjusted between 0,1 (MIN) and 0,9 millisec. (MAX).
Turn to MIN: the view gets quiker brighter after the welding. This position is ideal for tack welds.
Turning to MAX: the view gets slower brighter. This position is ideal with higher welding currents or with strong after glowing of the work piece.
 - 5 With the rotary knob ⑥ the "Sensitivity" is adjusted to the ambient light.
Turning to MIN: The photo sensivity gets lesser. To be applicated with welding at higher current or with very bright ambient light (spotlight or sunlight).
Turning to MAX: the photosensivity increases. To be used for welding with low amperage or with twilight.
- With the rotary knob or slide control 7 the helmet can be put in the grinding mode. The filter remains bright in the grinding mode. A flashing signal ⑧ informs the grinding position. (Applies only for XA-1010, XA-1011, XA-5001).

Note

Assure that the helmet is in perfect condition. Examine according warning references. The filter cassette has a liquid crystal filter as well as an external protection disc. It is important to protect these parts for surges and breaks. Furthermore the filter must be protected for welding sparks. The external protection disc must be examined and cleaned regularly, if it is broken, scratched or else the transparency is seriously affected, the filter must be exchanged. Please note that the whole arc is captured by the sensors. If not, the filter may get transparent or brighter and hurt the operator. If the filter does not dark, please stop the welding immediately and contact your distributor

Batteries

The Filter cartridges of the Autodim Weldinghelmets contain Li-Ion button cell batteries. Used batteries and accumulators do not belong in the household waste. You are committed to dispose used batteries an accumulators solely through the commerce or through special collection sites for this purpose. (legal obligation to return).

Recommended protection ranges according EN 379:2003

Arcwelding process	Current level in Amp. (A)																									
	0,5	1	2,5	5	10	15	20	30	40	50	60	100	125	150	175	200	225	250	275	300	350	400	450	500	600	
Manual arc welding								9	10						11					12					13	14
MAG										10				11	12					13					14	15
TIG						9	10										13							14		
MIG											10				11					12					13	14
MIG with aluminium												10			11					12					14	15
Arc gouging															10		11		12		13			14	15	
Plasma cutting																11		12						13		
Plasma welding	4	5	6	7	8	9	10	11	12	12	12	12	12	12	12	13	13	13	13	13	13	13	13	14	15	

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