Warning

The auto-darkening filters fitted in the **Aristo®Tech** helmets only resist a certain amount of heat. Please do not place them near naked flames or hot work areas etc. Operating temperature of electronic filter minus 10°C to plus 55°C. Materials that may get in contact with the wearers skin could cause Allergic reactions to susceptible individuals

Certification and Control labels

The **Aristo®Tech** welding filters are tested for eye protection by the following notified body: DIN Prüf-und Zertifizierungsstelle für Augenschutz, Westliche 56, D 75172 Pforzheim, notified body 0196, that provides approval and continual quality system under the control of the European Commission, the German Ministry for Work and the Central Office of the Provinces.

We are therefore allowed to use the following marks:

CE

European Conformity mark.
This confirms that the product fulfils the requirements of the Directive 89/686/EWG

EN 379

Address from DIN CERTCO as Notified Body 0196
DIN CERTCO Gesellschaft für
Konformitätsbewertung mbH
Gartenstraße 133
D-73430 Aalen
GERMANY

ADF Marking Explaination:

CE 4/5-13 ESAB 1/1/1/2 EN379

4 - light state scale number
5- lightest dark state scale number
13 darkest state scale number
ESAB - Manufactures identification
1 - Optical class
1 - Diffusion of light class
1 - variation in luminous transmittance class
2 – angle dependency class
379 - Number of the standard

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ESAB®

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Aristo® Tech

WELDING HELMET
USER INSTRUCTIONS

ATECH-01-UI-Ra

Aristo®Tech User Manual

Information manual for the **Aristo®Tech** welder protective helmets complying with Par. 1.4 of Appendix II of the EC regulations.
The **Aristo®Tech** welding helmets are high quality products that contribute to the comfort and safety of the welder.
Aristo®Tech welding helmets may be used only in connection with arc welding. The chart below shows how to choose the most suitable shade level:

Welding process Or related techniques	Current internally in amperes (0.5 1 2.5 5 10 15 20 30 40 60 80 100 125 150 175 200 225 250 275 300 350 400 450 500)
E manual Flux core electrodes Fluxed stick electrodes	9 10 11 12 13 14
MIG / Metal-Inert-Gas Argon (Ar/He) Steels, alloyed steels, Copper & its alloys etc.	10 11 12 13 14
MIG / Metal-Inert-Gas Argon (Ar/He) Aluminium, copper, nickel And other alloys	10 11 12 13 14 15
TIG / Tungsten-Inert Gas Argon (Ar/H_2) (Ar/He) All weldable metals such as: steels, aluminium, Copper, nickel and their alloys.	9 10 11 12 13
MAG / Metal-active Gas($Ar/Co_2/O_2$) ($Ar/Co_2/He/H_2$) Construction Steel, hardened & tempered steels Cr-Ni-steel, Cr-steel & other alloyed steels.	10 11 12 13 14 15
Electric arc compressed air joining (Melt joining) carbon electrodes (C_{22}) Flame grooving compressed air (C_{22})	10 11 12 13 14 15
Plasma cutting (fusion cutting) All weldable metals see TIG Centre and outer gas: Argon (Ar/H_2) (Ar/He)	11 12 13
Plasma cutting (Fusion cutting) Micro-plasma welding Centre and outer gas: Argon (Ar/H_2) (Ar/He)	2.5 4 5 6 7 8 9 10 11 12 13 14 15

Depending upon the application conditions, the next highest or next lowest protection level can be used.
The darker fields correspond to those areas in which the corresponding welding process cannot be used.

Information

Aristo®Tech welding helmets afford reliable protection for the eyes whilst electric arc welding. They offer permanent protection against UV/IR rays, heat & sparks in any state from the clear to dark. The protection shades of the **Aristo®Tech** welding helmets have been chosen to avoid eye damage caused by the welding arc.
Do not look directly at welding rays with unprotected eyes when the arc strikes. This can cause a painful inflammation of the cornea and irreparable damage to the lens of the eye leading to cataracts. **Aristo®Tech** welding helmets allow the welder to see the point of arc strike more precisely. This leads to a real time saving. The helmet does not have to be flipped up and down during welding, both hands are kept free and because of the helmets lightweight fatigue is reduced.

Range of application:

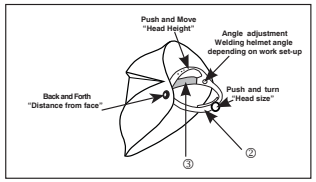
The **Aristo®Tech** welding helmets can be used for the following applications:
- Electrode
- MIG
- Mag
- Tig (>5A)

They are not suitable for use with laser systems and oxy-acetylene (gas welding) applications. The welding filter must not be used for any other purpose other than welding. They should never be used as sunglasses when driving as this could lead to incorrect identification of the colour of traffic light.
The welding filters operate well under extreme low lighting and very strong sunlight.

Operation

Adjustment of headgear:

Aristo®Tech welding helmets are equipped with a comfortable headgear that can be adjusted in Four different ways.



Servicing and maintenance

Aristo®Tech welding helmets should not be dropped. Do not place heavy objects or tools (hammers etc.) on or inside the helmet so as not to damage the electro-optical filter.

Always make sure that the helmet is equipped with an outside and inner lens (in front of the filter on the outside and on the inside behind the filter). These protection lenses must be replaced if damaged in any way (see overleaf). They are consumables and should be checked and replaced regularly. Spatter voids Warranty.

The filter should be cleaned when changing the protection lenses.
This can be done by any of the following ways:
- Wipe with a clean, dry piece of cloth.
- Clean with a piece of smooth cloth moistened with pure alcohol.
- Clean with a commercial disinfectant
- If used properly the welding filter requires no further maintenance during its lifetime.

The only AD filter that can be replaced in an **Aristo®Tech** welding helmet, is an **Aristo®Tech** AD filter. Use of any other type of AD Filter negates all approvals and may be harmful.

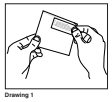
The filter itself contains no special or toxic products and can be disposed of in the same way as other electronic devices.

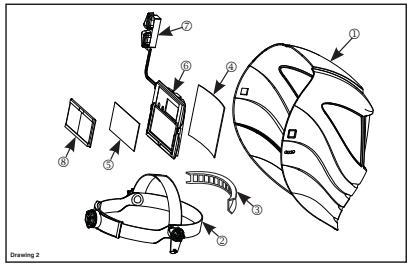
Replacing the Outer Spatter Lens

Ensure that the helmet is always equipped with an Outside Lens (before the filter, on the outside of the helmet) and an Inner Lens (behind the filter, inside the helmet).

Warning

These protection lenses must be replaced if broken, damaged or covered with welding spatter to such an extent that vision is impaired. Inner & Outer Lenses are consumables and must be replaced regularly with certified **Aristo®Tech** cover plates. Use of non - **Aristo®Tech** cover plates will void warranty.
Before using the **Aristo®Tech** helmet for the first time the protective films must be removed from the Front Spatter Lens (drawing 1), The films cannot be removed from the Front Spatter Lens with the Lens in place, Please follow the instructions below to remove the Spatter Lens.


Drawing 1



Drawing 2

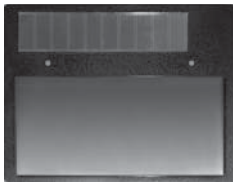
Inserting and removing a new protection lens:

To insert the new outer protection④ lens the filter must be removed by moving the 2 retainer screws ¼ turn⑧ from the inside of the helmet①. The old protection lens can then be removed and the new lens inserted. Turn the ¼ turn screws to lock in place (see drawing 2).

Aristo®Tech:

To allow the filter to switch, both sensors on the front of the filter must not be covered. The filter then switches to the dark state when the arc strikes and to the clear state when it stops.
The filter switches to the light state when the welding arc stops

How to set the shade:

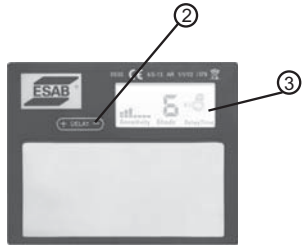


- The **Aristo®Tech** operates with a digital switching system. To set the shade turn the forward knob on the outside of the helmet 1 time and then release. All Functions are viewable with the internal LCD display.
- The most suitable setting can be found on the Chart in this brochure or chosen using your experience. This setting can also be made manually during the welding process.

  Turning clockwise = darker
  Turning anti clockwise = clearer

Before using the filter we recommend the following adjustments are made:

- Insure the sensitivity is at the max. setting (pos. 2). Depending upon the surrounding light the filter will switch to the dark state or will flicker (if the surrounding light is very low, the filter may not switch to the dark state).
- Adjust the sensitivity knob (pos. 2) until the filter switches to the clear state.
- The filter is now set to its optimum sensitivity (According to the surrounding light conditions).



Range of use for the Aristo®Tech:

- All arc welding applications with the exception of TIG>5A and pulse inverter.
- Available shade - 5-13 (pos.1).

Setting the delay

- **The Delay is adjusted from the inside. You have 8 settings including grind Mode. Push the button until you reach the desired delay**

Spare parts for Aristo®Tech Welding Helmets

Items without a part number are not available as spare parts

No.	Part #	Description
COMPLETE UNITS		
	0700000353	Aristo®Tech 5-13 Black
	0700000354	Aristo®Tech 5-13 White
	0700000355	Aristo®Tech 5-13 Yellow
	0700000356	Aristo®Tech 5-13 Black prepared for fresh air
	0700000357	Aristo®Tech 5-13 White prepared for fresh air
	0700000358	Aristo®Tech 5-13 Yellow prepared for fresh air
	0700000359	Aristo®Tech 5-13 Black with internal visor
	0700000360	Aristo®Tech 5-13 White with internal visor
	0700000361	Aristo®Tech 5-13 Yellow with internal visor
	0700000362	Aristo®Tech 5-13 Black with Hard Hat & Fresh Air
	0700000363	Aristo®Tech 5-13 White with Hard Hat & Fresh Air
	0700000364	Aristo®Tech 5-13 Yellow with Hard Hat & Fresh Air
SPARES		
1	0700000365	Helmet Shell Aristo®Tech - Yellow
1	0700000366	Helmet Shell Aristo®Tech - Black
1	0700000367	Helmet Shell Aristo®Tech - White
2	0700000368	Headgear Aristo®Tech
3	0700000369	Sweat Band
4	0700000370	Front Cover Lens Aristo®Tech
5	0700000371	Inside Cover Lens Aristo®Tech
6	0700000372	Cartridge 5-13 ADF Assembly
7	0700000373	Potentiometer/Sensitivity Knobs

Filter Testing:

Before use of the welding helmet the auto darkening filter (ADF) and helmet needs to be checked according to the following procedure:

Check outer protection lens is clean and can be seen through.

Ensure the sensors are not covered in any way and are clean.

Once these checks have been carried out you can now test the ADF.

Turn the outside shade knob to the darkest setting (shade 13) and set the sensitivity to the highest setting (turning clockwise). Now point the sensor towards a light source such as an overhead light, lamp etc. The ADF should now switch to the dark state (please note if the ADF is stored in a dark area away from light it may need to be left out in strong light for 20 minutes to absorb power, if after 20 minutes if the ADF does still not react then there is an issue with the sensor). Once the filter is in the dark state you can check the shade variation is functioning correctly, simply turn the shade knob anti-clockwise. By doing this, the shade should get lighter. If the shade does not appear to alter then you have an issue with the shade variation.

To test the delay function set the delay to the maximum setting. Now move the filter sensor away from the light source it should take 1 second to return to the light state, now alter the delay setting to the minimum and repeat the process, the time taken to return to the clear state should be 0.1 second. If the ADF does not react in this way then there is an issue with the delay function.

Testing the sensitivity. Set the sensitivity to minimum setting now point the ADF at the light source you used to test the other functions (if filter switches to dark state move away until the filter returns to clear state) slowly turn the sensitivity clockwise until the filter switches to dark state (if it does not then move closer to the light until it reacts). If the ADF does not react then there is an issue with the light sensors.

If any of the functions fail during test or in use then please do not use the ADF and contact your local distributor.