



USER INSTRUCTION MANUAL

Auto-Darkening Filters



INDUSTRIAL

Personal Protection



X54DI



X54V



X60VX



X81VX



**INTELLIGENT
DARKENING
FILTER™**



iDF81

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ArcONE® auto-darkening filters protect your eyes against harmful ultra-violet and infrared rays, both in the dark and light state. No matter what shade the filter is set to, the filter will provide UV/IR protection. When used properly, the filter will prevent your eyes from being burned due to optical radiation. User's eyes can be severely burned if welding with a damaged lens (cracked, pitted, etc.).

For complete safety, primary protection, such as spectacles or goggles, should be used in conjunction with welding helmets. Protective clothing and accessories such as leather bibs attached to the welding helmet will protect the user from spatter and optical radiation indirectly entering from areas underneath and behind the helmet. Protection for those near you while welding should also be considered.

Not for use in overhead welding.

Shade

X54Di: Press (Do Not Hold) the SHADE button until the LED indicates the desired shade setting (see Figure 1).

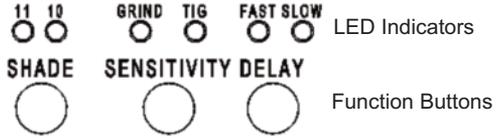


Figure 1: Controls with LED (X54Di)

X54V, X60VX, and X81VX: Press the “M” Mode button until “Shade” flashes then use the +/- buttons to adjust the shade number (see Figure 2). **Note:** the function buttons may be located to either side of the digital display depending on the model. Refer to the front cover of this manual for the configuration of each model.



Figure 2: Controls with LCD Readout (X54V, X60VX, and X81VX)

iDF81: Adjust the shade using the shade adjustment knob (see Figure 3) on the helmet. The LCD readout will indicate the shade number.

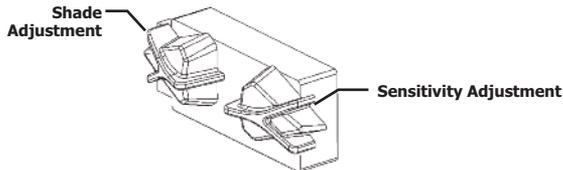


Figure 3: External Controls (iDF81)

Sensitivity and Delay

These filters have arc detection sensitivity and delay. Delay mode is normally used in most welding applications except spot welding. Longer delay can be used at very low amps (<20A) to ensure filter stays dark.

X54Di: Press the SENSITIVITY button until the LED indicates the desired shade setting. The LED below “TIG” indicates when the filter is in TIG mode. Press Delay button to change between fast and slow delay (see Figure 1).

X54V, X60VX, and X81VX: Press “M” Mode button until “Sensitivity” flashes. Use +/- buttons to change. More bars equals higher sensitivity. At the highest sensitivity setting the X60VX and X81VX will display “X-TIG” to designate the filter is in X-TIG mode (not available on the X54V). Press “M” button till “Delay” flashes. Use +/- to change delay from 0.1 to 3.5 seconds.

iDF81: Change the sensitivity with external analog control (See Figure 3). Sensitivity Level is not displayed on iDF81 LCD readout. Press Delay button to change delay bars from 0.1 to 2 seconds.

Grind Mode

X54Di: Press and hold Sensitivity button until the Grind LED flashes. Press again (do not hold) to turn off.

X54V, X60VX, and X81VX: Press the "M" Mode button until "Sensitivity" flashes and decrease it using the "-" button until the LCD readout indicates "Grind".

iDF81: Turn sensitivity knob counter-clockwise until it clicks and the LCD readout displays "Grind".
(***NOTE: Other modes will not work when in Grind Mode).

Intelligent Darkening Filter (iDF) Modes

The iDF comes equipped with two modes: Auto-Variable and iTIG. To switch from one mode to the other Press AND Hold down the "M" Mode button for two seconds. To cycle through modes continue depressing the Mode button.

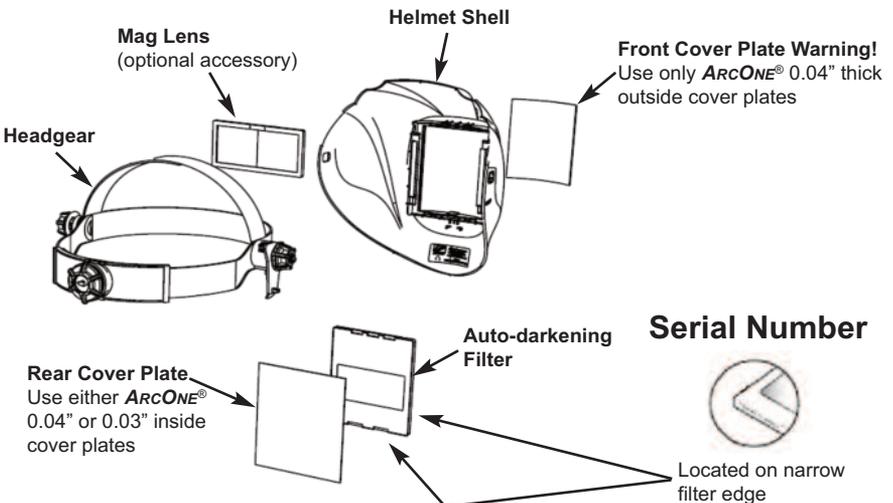
Auto-Variable Mode: LCD displays "AUTO" (see Figure 4). Filter automatically responds to the intensity of the welding arc and sets the filter to the appropriate dark shade. The user can further adjust the dark shade up or down for comfort while the "(•)" flashes. The setting will be saved in a memory slot. This mode has 8 memory slots, one for each shade number 7 thru 14; i.e. shade 7 = memory 1, shade 8 = memory 2, etc. The user can reset all memory slots by Pressing and Holding both Mode and Delay buttons for two seconds.

iTIG Mode: Upon entering iTIG mode, where LCD displays "TIG" icon and flashing "(•)" (see Figure 4) user first sets the lower desired shade while the "(•)" flashes. After approximately 5 seconds of not turning the shade knob the flashing stops and the user can then set the desired upper shade. The user can reset memory by Pressing and Holding both Mode and Delay buttons for two seconds.



Figure 4: LCD Readout (iDF81)

Vision® 5X4 Exploded View



Care and Maintenance

Your new filter requires virtually no maintenance other than periodic cleaning when the lens becomes dirty or clouded from smoke. **ARCONE**[®] auto-darkening filters are water-resistant and may be cleaned by using a soft cloth with soapy water solution, or standard window cleaner. Welding helmet may be cleaned with soft cloth and soapy water, also. By changing cover plates frequently you will extend the life of your filter and guarantee the best operation possible. Additional front and rear cover plates are available from your **ARCONE**[®] distributor. Do not submerge filter or welding helmet in water or solution. Store in original or similar packaging and store in a safe dry place away from direct heat.

Storage Temperature 14 - 100°F (-10 - 38°C).

idf81: The battery located in the external control center will last 3-6 months depending on usage. When the battery voltage is low, a low battery symbol will appear in the upper left corner of the digital display (see Figure 5). Replace with battery of same size (typically AA) and voltage (1.5 V).



Figure 5: Low Battery Indicator

SPATTER DAMAGE IS NOT COVERED BY WARRANTY

WARNING! Using the wrong cover plates may damage your product, compromise UV/IR protection, and may VOID WARRANTY. Use genuine **ARCONE**[®] replacement parts to ensure quality and fit.

NOTE: Change your cover plate when it loses its flexibility and/or becomes bowed or distorted. Clean any welding residue from the area where the cover plate is retained and the cover plate push out button and cover (not available on all welding helmets) to ensure proper fit and function.

LIMITED WARRANTY

ARCONE[®] warrants all Digital auto-darkening filters listed in this manual for a period of three (3) years and all Non-digital auto-darkening filters listed in this manual for a period of two (2) years from the date of purchase against all manufacturing defects resulting from materials or workmanship. Other components are warranted for a period of ninety (90) days. Proof of purchase establishing the date of sale and filter serial number must be provided, should a warranty claim be submitted. The purchaser's only remedy under this limited warranty shall be limited to **ARCONE**[®] sole option to repair, replace or refund (not to exceed the purchase price). This warranty is void in the case of unauthorized modification, tampering, and damage due to misuse, abuse, inadequate maintenance or improper storage. Some indications of operator abuse include, but are not limited to, spatter, chips, dents or cracks. This limited warranty is not transferable from the original purchaser to a secondary owner. **ARCONE**[®] shall in no event be liable or responsible for any injury, damage or loss resulting either directly or indirectly from the use or misuse of this product. This limited warranty is exclusive and is in lieu of any other warranty implied either oral or written. Please read the instruction manual carefully to avoid certain situations which may void this limited warranty.

RETURN PROCEDURE

Please do not contact the distributor or retailer from whom you purchased the filter

1. Remove the Auto-Darkening filter from the helmet. Record the model number and serial number which are located on the filter edge or back. Also record the date of purchase from your sales receipt.
2. Contact **ARCONE**[®] Technical Service (800-223-4685) for a Return Authorization Number.
3. Return the lens only, freight pre-paid, in a box with packaging material to prevent damage, no envelopes, please. Reference the Return Authorization Number on the box and any accompanying paperwork. Include your contact information and return address (no PO Boxes, please).



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