

**ULTRA VIEW**



# SV4000

## AUTO DARKENING WELDING HELMET



Please ensure you read this instruction manual carefully before using your Strata Welding Helmet

**INSTRUCTIONS FOR USE**




### TABLE OF CONTENTS


<b>Section 1. Welding Helmet Safety Precautions – Read before using</b> .....	3
1.1 Symbol Usage .....	3
1.2 Arc Welding Hazards .....	3
1.3 Proposition 65 Warnings .....	5
1.4 Lens Shade Selection Table .....	5
1.5 Principal Safety Standards .....	5
<b>Section 2. Specifications</b> .....	6
<b>Section 3. Operating Instructions</b> .....	7
3.0 Before Use .....	7
3.1 Helmet Controls .....	7
<b>Section 4. Replacing the Lens Covers</b> .....	9
4.1. Replacing Outside Lens Covers on Digital Elite and Performance Quick Release Helmets .....	10
4.2 Replacing inside lens cover – Digital Performance Series Helmets .....	10
4.3 Replacing the Lens Covers on Digital Elite Standard Helmets .....	10
<b>Section 5. Replacing the battery</b> .....	10
<b>Section 6. Parts List</b> .....	11
<b>Section 7. Maintenance</b> .....	12
<b>Section 8. Troubleshooting</b> .....	13
<b>Section 9. Limited Warranty</b> .....	14





### SECTION 1 – WELDING HELMET SAFETY PRECAUTIONS READ BEFORE USING

-  **Protect yourself and others from injury – read, follow and save these important safety precautions and operating instructions.**

#### 1-1. Symbol Usage

-  **DANGER!** – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

-  **WARNING!** - Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text

 *Indicates special instructions*



This group of symbols means Warning! Watch Out! ELECTRIC SHOCK, MOVING PARTS and HOT PARTS hazards. Consult symbols and related instructions below for necessary actions to avoid the hazards.

*NOTICE – Indicates statements not related to personal injury.*

#### 1.2 Arc Welding Hazards

-  **ONLY qualified persons should install, operate, maintain, and repair this unit.**



#### **ARC RAYS can burn eyes and skin.**

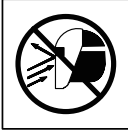
Arc rays from the welding process produce intense visible and invisible (Ultra-violet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

- Wear a welding helmet fitted with a proper shade of filter to protect your face and eyes when welding or watching (AS/NZS1338.1 listed in safety standards). Refer to Lens Shade Selection table in section 1.4.
- Wear approved safety glasses with side shields under your helmet.
- Use protective screens or barriers to protect others from flash, glare, and sparks; warn others not to watch the arc.
- Wear body protection made from durable, flame-resistant material (leather, heavy cotton, wool). Body protection included oil-free clothing such as leather gloves, heavy shirt, cuffless trousers, high shoes and a cap.
- Before welding, adjust the auto-darkening lens sensitivity setting to meet the application.
- Stop welding immediately if the auto-darkening lens does not darken when the arc is struck. See the Owner's Manual for more information.



# SV4000 **ULTRA VIEW**

## AUTO DARKENING WELDING HELMET



### **WELDING HELMETS do not provide unlimited eye, ear, and face protection.**

Arc rays from the welding process produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

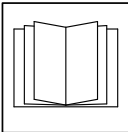
- Use impact resistant safety spectacles or goggles and ear protection at all times when using this welding helmet.
- Do not use this helmet while working with or around explosives or corrosive liquids.
- Do not weld in the overhead position while using this helmet.
- Inspect the auto-lens frequently. Immediately replace any scratched, cracked, or pitted cover lenses or auto-lenses.



### **NOISE can damage hearing.**

Noise from some processes or equipment can damage hearing.

- Wear approved ear protection if noise level is high.



### **READ INSTRUCTIONS.**

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.
- Use only genuine replacement parts from the manufacturer.
- Perform maintenance and service according to the Owner's Manuals, industry standards, and national, state, and local codes.



### **FUMES AND GASES can be hazardous.**

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Keep your head out of the fumes. Do not breathe the fumes.
- If inside, ventilate the area and/or use local forced ventilation at the arc to remove welding fumes and gases. The recommended way to determine adequate ventilation is to sample for the composition and quantity of fumes and gases to which personnel are exposed.
- If ventilation is poor, wear an approved air-supplied respirator.
- Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.
- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Always have a trained watchperson nearby. Welding fumes and gases can displace air and lower the oxygen level causing injury or death. Be sure the breathing air is safe.
- Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.
- Do not weld on coated metals, such as galvanized, lead, or cadmium plated steel, unless the coating is removed from the weld area, the area is well ventilated, and while wearing an air-supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.



### 1-3. Proposition 65 Warnings (USA)

Welding or cutting equipment produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code Section 25249.5 et seq.)



This product contains chemicals, including lead, known to the state of California to cause cancer, birth defects, or other reproductive harm. Wash hands after use.

### 1-4. Lens Shade Selection Table

Process	Electrode Size in. (mm)	Arc Current in Amperes	Minimum Protective Shade No.	Suggested Shade No. (Comfort)*
Shielded Metal Arc Welding (SMAW)	Less than 3/32 (2.4) 3/32–5/32 (2.4–4.0) 5/32–1/4 (4.0–6.4) More than 1/4 (6.4)	Less than 60	7	--
		60–160	8	10
		160–250	10	12
		250–550	11	14
Gas Metal Arc Welding (GMAW)  Flux Cored Arc Welding (FCAW)		Less than 60	7	--
		60–160	10	11
		160–250	10	12
		250–500	10	14
Gas Tungsten Arc Welding (TIG)		Less than 50	8	10
		50–150	8	12
		150–500	10	14
Air Carbon Arc Cutting (CAC-A)	Light Heavy	Less than 500	10	12
		500–1000	11	14
Plasma Arc Cutting (PAC)		Less than 20	4	4
		20–40	5	5
		40–60	6	6
		60–80	8	8
		80–300	8	9
		300–400	9	12
		400–800	10	14
Plasma Arc Welding (PAW)		Less than 20	6	6–8
		20–100	8	10
		100–400	10	12
		400–800	11	14

\* Start with a shade that is too dark to see the weld zone. Then, go to a lighter shade which gives a sufficient view of the weld zone without going below the minimum.

### 1-5. Principal Safety Standards

Standards Compliance - Shell	EN 175	AS/NZS1337.1 High Impact EN 175 B, ANSI Z87.1, CSA Z94.3
Standards Compliance - Auto Darkening Filter/Lens	EN 379	AS 1338.1, EN 379, ANSI Z87.1, CSA Z94.3



### SECTION 2 – SPECIFICATIONS

Specification	Spaceview SV3000	Ultraview SV4000
Viewing Field	100x93mm	115x85mm (Main Window) 80x35x68mm (Side Windows x2)
Operating Modes	WELD – CUT- GRIND	WELD - CUT - GRIND - AUTO
Reaction Time	0.0000500 sec (1/20,000)	0.0000500 sec (1/20,000)
Available Shades All Shades Provide Continuous UV And IR Protection.	<p><b>Weld Mode</b> Darkened state: No. 9 – No. 13 Light State: No. 3</p> <p><b>Cut Mode</b> Darkened State: No.5-No.8 Light State: No. 3</p> <p><b>Grind Mode</b> Light State: No. 3</p>	<p><b>Weld Mode</b> Darkened State: No. 8 – No. 13 Light State: No. 3</p> <p><b>Cut Mode</b> Darkened State: No.4 – No.8 Light State: No. 3</p> <p><b>Grind Mode:</b> Light State: No. 3</p> <p><b>Auto Weld Mode</b> Darkened State: Fully Variable between shades No.8 – No. 13. Light State: No. 3</p>
Delay Control	Stepless (0.15 – 0.8s)	Stepless (0.06-1.0s)
Optical Class	1/1/1/1	1/1/1/1
TIG Capability	≥ 2A	≥ 2A
Grind Mode	Yes – External	Yes – External
Control Type	Digital – Dial	Digital – Push Button
True Colour Lens	Yes	Yes
Sensitivity	Stepless 0-7 Adjustable	Stepless 0-7 Adjustable + Full Auto Mode
Automatic Power	Shuts Lens Off 15 Minutes After Last Arc Is Struck. Lens Automatically Turns On When Arc Is Struck.	
Low Battery Light/ Test	Yes	Yes
Power Supply	2x CR2032 + Solar Panel	2x CR2032 + Solar Panel
Sensors	4 Independent Sensors	5 Independent Sensors
Operating Temperature	"-10°C to +55°C When Stored in Extremely cold temperatures, warm helmet to ambient temperature before welding."	
Storage Temperature	"-10°C to +55°C When Stored in Extremely cold temperatures, warm helmet to ambient temperature before welding."	
Total Weight	481g	599g
Standards	AS/NZS137.1 / AS1338.1	
Warranty	2 Year Warranty on ADF	



### SECTION 3.1 SV4000 HELMET CONTROLS

The SV4000 Ultra View Auto Darkening Welding Helmet has 3 main operating modes, being GRIND, WELD, and CUT.

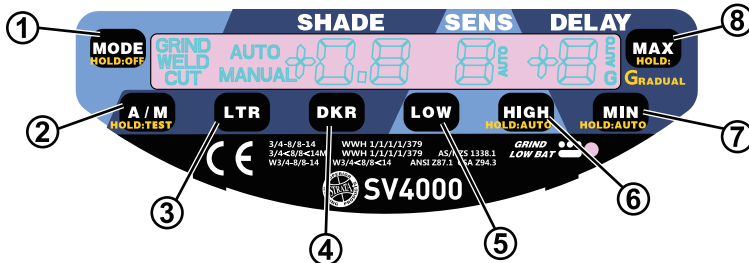
Parameter Mode	SHADE	SENS	DELAY
GRIND	3	No Display	No Display
WELD	8~14	0~7	0~9
CUT	4~8	0~7	0~9

Within these three modes, the cutting edge digital control module allows very flexible and detailed adjustment and also provides intelligent “auto” mode functionalities to ensure you are being provided with the ultimate protection and welding efficiency. Below is a list of the adjustments/ option available for selection within the three main operating modes.

Intelligent Digital Auto Features Mode	Automatic Shade Adjustment	Automatic Sensitivity Adjustment	Automatic Delay Time Adjustment	Gradual Fade
GRIND	No	No	No	No
WELD	Yes	Yes	Yes	Yes
CUT	No	Yes	No	No

These intelligent “auto” mode features will be covered in more detail later in this manual.

### Digital Control Panel



The digital control panel is the hub of the vast array of cutting edge and new technologies and features that will make your welding job so much easier and more efficient. Below is a list of the function buttons and their selection modes.



# SV4000 **ULTRA VIEW**

## AUTO DARKENING WELDING HELMET

Number	Buttons	Function	The usage the Buttons
1	<b>MODE</b> <b>HOLD: OFF</b>	1.Short Press-Switching Mode: GRIND—WELD—CUT—GRIND. 2.Long Press- Shut off display.	1.Short Press-Press 0.1s to switch the mode. Release the button and press again to switch mode again. 2.Long Press-Press over 1.5s to switch OFF. (Note: In the OFF function, can press any button to wake up the display)
2	<b>A/M</b> <b>HOLD: TEST</b>	1.Short Press-In the welding mode switch automatic or manual setting the shade number. 2. Long Press-Test Function: Screen Flashes—Grind—Cut—Weld.	1. Short Press-Press 0.1s to switch automatic or manual setting the shade number. 2.Long Press-Press over 1.5s to start the TEST for one time.
3	<b>LTR</b>	1.Short Press-Decrease the shade number. 2.Long Press-In the welding mode, quickly decrease the shade number.	1.Short Press-Press 0.1s to decrease the shade number. Release the button and press again to decrease the shade number again. 2.Long Press-Press over 1.5s to decrease the shade number quickly.
4	<b>DKR</b>	1.Short Press-Increase the shade number. 2.Long Press-In the welding mode, quickly increase the shade number.	1.Short Press-Press 0.1s to increase the shade number. Release the button and press again to increase the shade number again. 2.Long Press-Press over 1.5s to increase the shade number quickly.
5	<b>LOW</b>	Decrease the sensitivity.	Press 0.1s to decrease the sensitivity. Release the button and press again to decrease the sensitivity again.
6	<b>HIGH</b> <b>HOLD: AUTO</b>	1. Short press – increase the sensitivity 2. Long Press – In the CUT or WELD mode, set sensitivity automatically. ( in the process of automatic set sensitivity. SENS area will be shown "AUTO" sensitivity numbers increase from 0 to 7 in turn)	1. Short Press-Press 0.1s to increase the sensitivity. Release the button and press again to increase the sensitivity again. 2.Long Press-Press over 1.5s to set sensitivity automatically for one time.
7	<b>MIN</b> <b>HOLD: AUTO</b>	1. Short Press – Decrease the delay time 2. Long Press – Enter or Exit automatic delay time function (When automatic delay time function is enabled, the screen of DELAY area will show "AUTO")	1. Short Press-Press 0.1s to decrease the delay time. Release the button and press again to decrease the delay time again. 2.Long Press-Press over 1.5s to enter automatic delay time function and press over 1.5s again to exit automatic delay time function.
8	<b>MAX</b>	1. Short press – Increase the delay time. 2. Long press – In the weld mode, enter or exit automatic shade number gradual fade. (when gradual fade function is enabled the screen of DELAY area will show "G")	1. Short Press – Press 0.1s to increase the delay time. Release the button again and press again to increase the delay time again. 2. Long press – Press over 1.5s to enter automatic shade number gradual fade and press over 1.5s again to exit gradual fade function.





# SV4000 ULTRA VIEW

## AUTO DARKENING WELDING HELMET

### Sensitivity control

In the WELD or CUT mode, the LED display, under the SENS tab, will Show a number between 0 and 7. This is selected up/down using the High/Low buttons. The "0" setting is the minimum (and is suitable for tack welding) and 7 is the maximum.

### Intelligent Auto Feature

This can be selected by holding down the "High" button, and the helmet will automatically select the perfect sensitivity for the welding conditions.

### Shade Control

There are two options for shade selection – Manual and Auto. In the Manual mode, the LED display will show the selected shade underneath the SHADE tab. Please see the shade selection chart on page 5 to ensure you have the correct protection level if you are using the manual setting.

### Intelligent Auto Feature

This feature can be selected by pressing the A/M (Auto/Manual) button, and the AUTO wording will display. This very clever and convenient feature allows the helmet to select exactly the right shade level for the welding job. If you feel that the protection level/shade that is being automatically selected is slightly too dark/too light, then you can fine tune this by using the LTR (lighter) and DKR (darker) buttons, which will add or subtract the selected darkness level from the helmets automatic selection i.e. if you select +0.3, this will add 0.3 of a shade level to the helmets automatic level selected. Be very careful if you are using the automatic mode and selecting a "minus" level of adjustment i.e. -0.5, as the helmets intelligent shade level protection is based on the ultimate protection from the arc it is sensing, and manually overriding this to a lower shade should only be used in exceptional circumstances or for short welding jobs.

### Delay Time

This sets the delay time from when the welding arc stops to when the auto darkening filter returns to its "open" or light state. This function is used to prevent the eyes being damaged through residual bright glow from molten weld pools, final arc flash. When using the MANUAL delay setting mode, the selected delay number (0-9) will show on the LED display under the DELAY tab.

### Intelligent Auto Feature – Fade Function

This feature allows a gradual fade out, over a set period of time, from the full welding shade selected to the "open" state shade 3. This is much easier on the eyes, as it allows for a gradual adjustment to the brighter environment, rather than a sudden shock. This feature is another of the many smart features incorporated into the STRATA SV4000 helmet, to protect your vision and ensure ultimate comfort when welding. This feature is selected by holding down the MAX button, and is indicated by a small "G" which will appear on the display beside the selected delay time indicator.

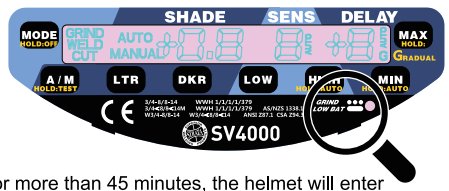
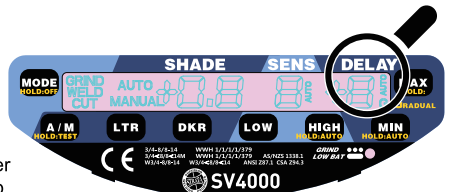
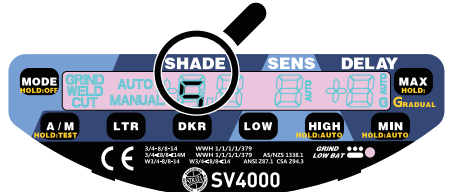
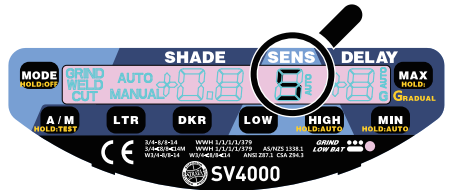
### LED Status Indicators

There are two modes of LED indicator signals that you will see on your control panel

- 1) Grind Mode Indicator – Red LED will flash on for 2s and off for 0.3s
- 2) Low Battery Indicator – Red LED will remain on.

### Sleep Mode

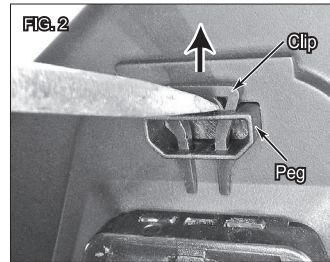
To preserve battery life, if the helmet remains unused for more than 45 minutes, the helmet will enter "sleep mode". To reactivate the helmet, the MODE (On/Off) button will need to be activated again.



### SECTION 4 – REPLACING THE LENS COVERS

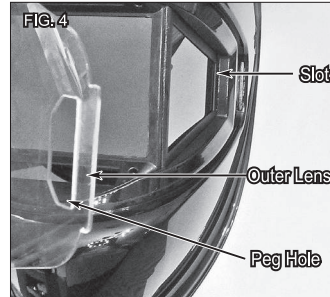
#### REPLACE OUTER SHIELD

1. Using a straight-blade screwdriver, pry the two Lens Peg Retaining Clips outward then remove Pegs and Outer Shield from Helmet(FIGS 2 & 3)
2. Reverse to install while noting irregular shape of the Pegs and location of short tabs on ends of Shield.



#### REPLACE INNER SHIELD

1. Place the Helmet face-down on a soft surface and grip the lower edge of the Inner Shield with a fingernail, pull inward curling the Inner Shield inward and remove (FIG 4)
2. Reverse to install making sure to slip the side edges of Shield under the four tabs of frame(FIG 4)

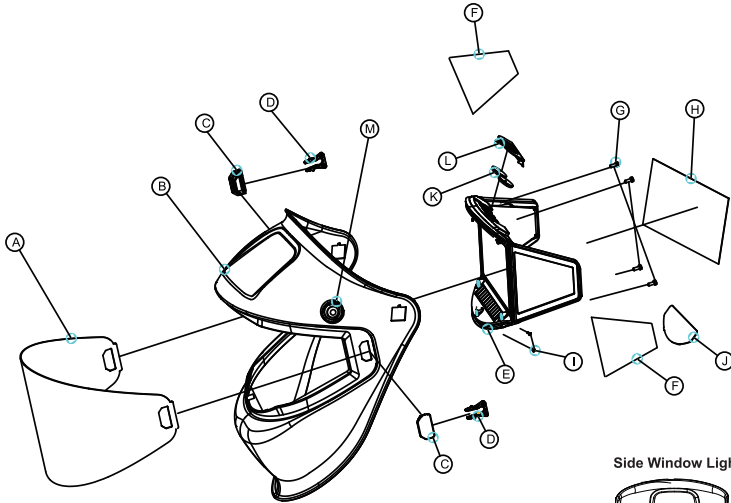


### SECTION 5 – REPLACING THE BATTERY

Slide back the battery cover and replace the batteries (2x CR2032)

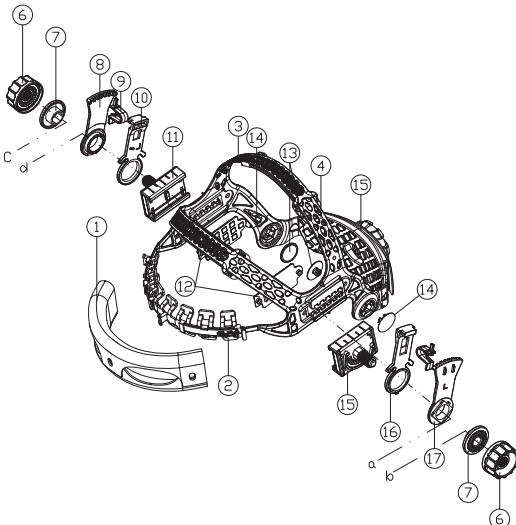
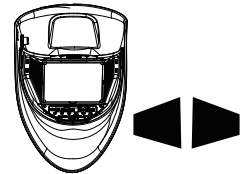


### SECTION 6 – PART LIST



- A. Front protection plate
- B. Helmet shell
- C. Snap joint of protection plate
- D. Locker for snap joint of protection plate
- E. Auto darkening lens
- F. Rear protection plate 01
- G. Screw
- H. Rear protection plate 02
- I. Screw
- J. Panel
- K. Battery
- L. Battery Cover
- M. Grinding Button

Side Window Light Barrier



Part list

ITEM	DESCRIPTION	QTY
1	Sweatband	1
2	Forehead band	1
3	Right band	1
4	Left band	1
5	Occipital pad	1
6	Headband adjusting nut	2
7	Washer	2
8	Right Limitation Washer	1
9	Angle pin	2
10	Right Adjustable Washer	1
11	Right slider	1
12	Side trim	2
13	Rotating shaft inside trim	2
14	Rotating shaft outside trim	2
15	Left slider	1
16	Left Adjustable Washer	1
17	Left Limitation Washer	1



### SECTION 7 – MAINTENANCE

---

**Notice** – *Never use solvents or abrasive cleaning detergents.*

**Notice** – *Do not immerse the lens assembly in water.*

The helmet requires little maintenance. However, for best performance clean after each use. Using a soft cloth dampened with a mild soap and water solution, wipe the cover lenses clean. Allow air to dry. Occasionally, the filter lens and sensors should be cleaned by gently wiping with a soft, dry cloth.



### SECTION 8 – TROUBLESHOOTING



Trouble	Remedy
Auto Lens not On – auto-lens does not darken momentarily when On button is pressed	<p>Check batteries and verify they are in good condition and installed properly.</p> <p>Check battery surfaces and contacts, and clean if necessary.</p> <p>Check battery for proper contact and gently adjust contact points if necessary. This is particularly important if the helmet has been dropped. Verify left and right battery trays are installed on the correct sides.</p>
Not switching – auto lens stays light and does not darken when welding or cutting	<p>Stop welding or cutting immediately: Make sure the lens is turned on. If power is On, check the mode settings. Also review sensitivity recommendations and adjust if possible. Clean lens cover and sensors of any obstructions. Make sure the sensors are facing the arc; angles of 45° or more may not allow the arc light to reach the sensors.</p>
Not Switching – auto lens stays dark after the arc is extinguished, or the auto lens stays dark when no arc is present	<p>Reduce Sensitivity Setting (see section 3.1). In extreme light conditions it may be necessary to reduce the surrounding light levels.</p>
Sections of the auto-lens are not going dark, distinct lines separate the light and dark areas	<p>Stop welding or cutting immediately: the auto-lens may be cracked which can be caused by the impact of dropping the helmet. Weld spatter on the auto lens may also cause cracking. (the lens may need to be replaced; most cracked lenses are not covered by warranty).</p>
Switching or Flickering – the auto lens darkens then lightens while the welding or cutting arc is present	<p>Review the sensitivity setting recommendations and increase the sensitivity setting if possible. Be sure the arc sensors are not being blocked from direct access to the arc light. Check the lens for dirt and spatter that may be blocking the arc sensors. Increasing Lens Delay 0.1 - 0.3 seconds may also reduce switching.</p>
Inconsistent or lighter auto lens shading in the dark-state, noticeable on the outside edges and corners.	<p>Referred to as an angle of view effect, auto-darkening lenses have an optimum viewing angle.</p> <p>The optimum viewing angle is perpendicular or 90° to the surface of the auto lens. When that angle of view varies in the dark-state welders may notice slightly lighter areas at the outside edges and corners of the lens. This is normal and does not represent any health or safety hazard.</p> <p>This effect may also be more noticeable in applications where magnifying lenses are used.</p>



### SECTION 10 – WARRANTY

---

As part of an on-going commitment to excellence in product support, Euroquip offers a comprehensive product warranty program.

In order to qualify for full warranty support, your product must be registered. Product not registered with Euroquip is supported by a base 12 month warranty only. Spare parts and technical support will not be available for an unregistered product outside of this base warranty period. If a Euroquip dealer has not already registered your product, please register it online or download a physical registration form at [www.euroquip.co.nz](http://www.euroquip.co.nz).

#### **Registered warranty period for**

#### **STRATA SV4000**

#### **Warranty 24 Months on ADF screen**

Warranty covers failure caused by manufacturing and material defects in the product, during the warranty period specified. The warranty period begins when the product is purchased by the end user. Warranty is not transferrable and is only claimable by the original purchaser.

Warranty does not cover parts that are subject to wear and tear from usage.

Warranty covers failure of a product caused by defective materials and/or manufacturing for the period given and the usage specified by Euroquip. The warranty period begins when the product is purchased by the end user. Warranty is not transferrable and is only claimable by the original purchaser.

Warranty also does not cover failure caused by the untimely replacement or service of the above wearing parts. Evidence must be provided that the product has been maintained and serviced suitably for a claim to be considered under warranty.

Failure caused by incorrect operation of the product, lack of proper care and maintenance of the product, external damage, external circumstances such as contaminated fuel or poor water supply, modifications to the product, attempted repair/ service by a party other than an Approved Service Agent, is not covered under warranty.

Warranty does not cover pre delivery service and adjustment, or failure that may occur as a result of lack of/ incorrect pre delivery service and adjustment.

Warranty does not cover any incidental, indirect or consequential loss, damage or expense that may result from any defect, failure or malfunction of a product.

Should any issue be found to be a combination of a warranty failure and a non-warranty issue, the repair cost component to rectify and repair the non-warranty failure is the customers' full responsibility.

The decision that an issue with a product qualifies as a warranty claim is made at the sole jurisdiction of Euroquip.

No costs incurred will be considered under warranty if repairs are carried out by a party other than a Euroquip Approved Service Agent, unless with prior consent in writing from Euroquip.

It is the responsibility of the purchaser to deliver a product under warranty to the nearest relevant service agent or product reseller. Warranty does not cover call outs, mileage and freight costs.

If a product is repaired under warranty, parts and labour required for the repair will be supplied at no charge. Warranty assessment and repair will be scheduled and executed according to the normal work flow at the service location and depending on the availability of suitable replacement parts.

This warranty policy is an additional benefit and does not affect the legal rights of any end user, reseller or service agent.



Scan here to register your product

<http://www.euroquip.co.nz/Contact+Us/Product+Registration+Form.html>



# SV4000 **ULTRA VIEW**

AUTO DARKENING WELDING HELMET

## NOTE

---



Congratulations on your new STRATA product. We are proud to have you as our customer and will strive to provide you with the best service and reliability in the industry. This product is backed by our extensive warranty and service network. To locate your nearest distributor or service agency visit [www.euroquip.co.nz](http://www.euroquip.co.nz) or email us at [customerservice@euroquip.co.nz](mailto:customerservice@euroquip.co.nz).