

# ***CIGWELD***

AN **ESAB** BRAND

## **AUTO-DARKENING**



Flaming Skull, Part Number 454335



Blue, Part Number 454305



Carbon Fibre, Part Number 454314

## ***WeldSkill Welding Helmet***

### ***OPERATING MANUAL***



## **WE APPRECIATE YOUR BUSINESS!**

Congratulations on your new Cigweld 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 world-wide service network. To locate your nearest distributor or accredited service provider call +1300 654 674, or visit us on the web at [www.cigweld.com.au](http://www.cigweld.com.au)

This Operating Manual has been designed to instruct you on the correct use and operation of your CIGWELD product. Your satisfaction with this product and its safe operation is our ultimate concern. Therefore please take the time to read the entire manual, especially the Safety Precautions. They will help you to avoid potential hazards that may exist when working with this product.

We have made every effort to provide you with accurate instructions, drawings, and photographs of the product(s) while writing this manual. However errors do occur and we apologize if there are any contained in this manual.

Due to our constant effort to bring you the best products, we may make an improvement that does not get reflected in the manual. If you are ever in doubt about what you see or read in this manual with the product you received, then check for a newer version of the manual on our website or contact our customer support for assistance.

## **YOU ARE IN GOOD COMPANY!**

### **The Brand of Choice for Contractors and Fabricators Worldwide.**

CIGWELD is the Market Leading Brand of Arc Welding Products for ESAB. We are a mainline supplier to major welding industry sectors in the Asia Pacific and emerging global markets including; Manufacturing, Construction, Mining, Automotive, Engineering, Rural and DIY.

We distinguish ourselves from our competition through market-leading, dependable products that have stood the test of time. We pride ourselves on technical innovation, competitive prices, excellent delivery, superior customer service and technical support, together with excellence in sales and marketing expertise.

Above all, we are committed to develop technologically advanced products to achieve a safer working environment for industry operators.

**WARNINGS**

***Read and understand this entire Manual and your employer's safety practices before installing, operating, or servicing the equipment.***

*While the information contained in this Manual represents the Manufacturer's best judgement, the Manufacturer assumes no liability for its use.*

Auto-Darkening Welding Helmet

Instruction Manual Number 38481010-01-907 for:

WeldSkill Variable Shade 9-13 (Blue)

Part Number 454305

WeldSkill Variable Shade 9-13 (Carbon Fibre Graphic)

Part Number 454314

WeldSkill Variable Shade 9-13 (Flaming Skull)

Part Number 454335

Published by:

CIGWELD Pty. Ltd

71 Gower Street

Preston, Victoria, Australia, 3072

[www.cigweld.com.au](http://www.cigweld.com.au)

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**Record the following information for Warranty purposes:**

Where Purchased:

\_\_\_\_\_

Purchase Date:

\_\_\_\_\_

**Table of Contents**

<b>SECTION 1: ARC WELDING SAFETY INSTRUCTIONS AND WARNINGS .....</b>	<b>5</b>
1.01 Safety Instructions.....	5
1.02 Declaration of Conformity.....	7
1.03 Limited Warranty .....	8
<b>SECTION 2: INTRODUCTION .....</b>	<b>10</b>
2.01 How to Use This Manual.....	10
2.02 Equipment Identification.....	10
2.03 Receipt of Equipment.....	10
<b>SECTION 3: GENERAL INFORMATION .....</b>	<b>11</b>
3.01 WeldSkill Auto-Darkening Welding Helmet .....	11
3.02 User Responsibility .....	11
<b>SECTION 4: PERSONAL PROTECTION .....</b>	<b>12</b>
<b>SECTION 5: SPECIFICATIONS.....</b>	<b>14</b>
5.01 WeldSkill Auto-Darkening Filter Lens.....	14
5.02 Contents .....	14
<b>SECTION 6: HARNESS ADJUSTMENT .....</b>	<b>15</b>
<b>SECTION 7: INSTALLATION OF MAGNIFICATION LENS (OPTIONAL).....</b>	<b>16</b>
<b>SECTION 8: CHANGING OF FRONT COVER LENS .....</b>	<b>17</b>
<b>SECTION 9: WELDSKILL AUTO-DARKENING FILTER LENS CONTROLS .....</b>	<b>18</b>
9.01 WeldSkill Variable Shade 9-13 Auto-Darkening Filter Lens Controls.....	18
<b>SECTION 10: ROUTINE MAINTENANCE &amp; INSPECTION .....</b>	<b>19</b>
10.01 Cleaning the WeldSkill Auto-Darkening Welding Helmet.....	19
<b>SECTION 11: SPARE PARTS.....</b>	<b>20</b>
<b>SECTION 12: BASIC TROUBLESHOOTING.....</b>	<b>21</b>

**SECTION 1: Arc Welding Safety Instructions and Warnings****WARNING****ARC WELDING can be hazardous.**

*Protect yourself and others from possible serious injury or death. Keep children away. Do not lose these instructions. Read operating / instruction manual before installing, operating or servicing this product.*

Welding products and welding processes can cause serious injury or death, or damage to other equipment or property, if the operator does not strictly observe all safety rules and take precautionary actions.

Safe practices have developed from past experience in the use of welding and cutting. These practices must be learned through study and training before using this equipment. Anyone not having extensive training in welding and cutting practices should not attempt to weld. Certain practices apply to equipment connected to power lines; other practices apply to engine driven equipment.

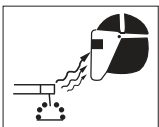
Safe practices are outlined in the American National Standard Z49.1 entitled: SAFETY IN WELDING AND CUTTING. This publication and other guides to what you should learn before operating this equipment are listed at the end of these safety precautions.

**HAVE ALL INSTALLATION, OPERATION, MAINTENANCE, AND REPAIR WORK PERFORMED ONLY BY QUALIFIED PEOPLE.****1.01 Safety Instructions****ELECTRIC SHOCK can kill.**

*Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuit is electrically live whenever the output is on. The input power circuit and machine internal circuits are also live when power is on. In semiautomatic or automatic wire welding, the wire, wire reel, drive roll housing, and all metal parts touching the welding wire are electrically live. Incorrectly installed or improperly grounded equipment is a hazard.*

1. Do not touch live electrical parts.
2. Wear dry, hole-free insulating gloves and body protection.
3. Insulate yourself from work and ground using dry insulating mats or covers.
4. Disconnect input power or stop engine before installing or servicing this equipment. Lock input power disconnect switch open, or remove line fuses so power cannot be turned on accidentally.

5. Properly install and ground this equipment according to its Owner's Manual and national, state, and local codes.
6. Turn off all equipment when not in use. Disconnect power to equipment if it will be left unattended or out of service.
7. Use fully insulated electrode holders. Never dip holder in water to cool it or lay it down on the ground or the work surface. Do not touch holders connected to two welding machines at the same time or touch other people with the holder or electrode.
8. Do not use worn, damaged, undersized, or poorly spliced cables.
9. Do not wrap cables around your body.
10. Ground the workpiece to a good electrical (earth) ground.
11. Do not touch electrode while in contact with the work (ground) circuit.
12. Use only well-maintained equipment. Repair or replace damaged parts at once.
13. In confined spaces or damp locations, do not use a welder with AC output unless it is equipped with a voltage reducer. Use equipment with DC output.
14. Wear a safety harness to prevent falling if working above floor level.
15. Keep all panels and covers securely in place.

**ARC RAYS can burn eyes and skin;  
NOISE can damage hearing.**

*Arc rays from the welding process produce intense heat and strong ultraviolet rays that can burn eyes and skin. Noise from some processes can damage hearing.*

1. Use a Welding Helmet or Welding Faceshield fitted with a proper shade of filter (see ANSI Z49.1 and AS 1674 listed in Safety Standards) to protect your face and eyes when welding or watching.
2. Wear approved safety glasses. Side shields recommended.
3. Use protective screens or barriers to protect others from flash and glare; warn others not to watch the arc.
4. Wear protective clothing made from durable, flame-resistant material (wool and leather) and foot protection.
5. Use approved ear plugs or ear muffs if noise level is high.



### **WELDING can cause fire or explosion.**

***Sparks and spatter fly off from the welding arc. The flying sparks and hot metal, weld spatter, hot work piece, and hot equipment can cause fires and burns. Accidental contact of electrode or welding wire to metal objects can cause sparks, over heating, or fire.***

1. Protect yourself and others from flying sparks and hot metal.
2. Do not weld where flying sparks can strike flammable material. Remove all flammables within 35ft (10.7 m) of the welding arc. If this is not possible, tightly cover them with approved covers.
3. Be alert that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas.
4. Watch for fire, and keep a fire extinguisher nearby.
5. Be aware that welding on a ceiling, floor, bulkhead, or partition can cause fire on the hidden side.
6. Do not weld on closed containers such as tanks or drums.
7. Connect work cable to the work as close to the welding area as practical to prevent welding current from travelling long, possibly unknown paths and causing electric shock and fire hazards.
8. Do not use welder to thaw frozen pipes.
9. Remove stick electrode from holder or cut off welding wire at contact tip when not in use.



### **Flying sparks and hot metal can cause**

#### ***Injury.***

***Chipping and grinding cause flying metal. As welds cool, they can throw off slag.***

1. Wear approved face shield or safety goggles. Side shields recommended.
2. Wear proper body protection to protect skin.



### **CYLINDERS can explode if damaged.**

***Shielding gas cylinders contain gas under high pressure. If damaged, a cylinder can explode. Since gas cylinders are normally part of the welding process, be sure to treat them carefully.***

1. Protect compressed gas cylinders from excessive heat, mechanical shocks, and arcs.
2. Install and secure cylinders in an upright position by chaining them to a stationary support or equipment cylinder rack to prevent falling or tipping.
3. Keep cylinders away from any welding or other electrical circuits.
4. Never allow a welding electrode to touch any cylinder.
5. Use only correct shielding gas cylinders, regulators, hoses and fittings designed for the specific application; maintain them and associated parts in good condition.
6. Turn face away from valve outlet when opening cylinder valve.
7. Keep protective cap in place over valve except when cylinder is in use or connected for use.
8. Read and follow instructions on compressed gas cylinders, associated equipment, and CGA publication P-1 listed in Safety Standards.



### **KEEP BATTERIES OUT OF REACH OF CHILDREN**

1. Swallowing may lead to serious injury in as little as 2 hours or death, due to chemical burns and potential perforation of the oesophagus.
2. If you suspect your child has swallowed or inserted a button battery immediately call the 24-hour Poisons Information Centre in Australia on 13 11 26 for fast, expert advice.
3. Examine devices and make sure the battery compartment is correctly secured, e.g. that the screw or other mechanical fastener is tightened. Do not use if compartment is not secure.
4. Dispose of used button batteries immediately and safely. Flat batteries can still be dangerous.
5. Tell others about the risk associated with button batteries and how to keep their children safe.

## 1.02 Declaration of Conformity

Manufacturer: CIGWELD  
Address: 71 Gower St, Preston  
Victoria 3072  
  
Australia

Description of equipment: Safety Equipment. CIGWELD WeldSkill Auto-Darkening Welding Helmet.

### National Standard and Technical Specifications

The product is designed and manufactured to a number of standards and technical requirements among them are:

- a. AS/NZS 1337.1:2010 Section 4 - Eye Protectors for industrial applications.
- b. AS/NZS 1338.1:2012 Filters for Eye Protectors.

\* Extensive product design verification is conducted at the manufacturing facility as part of the routine design and manufacturing process, to ensure the product is safe and performs as specified. Rigorous testing is incorporated into the manufacturing process to ensure the manufactured product meets or exceeds all design specifications.

CIGWELD has been manufacturing and merchandising an extensive equipment range with superior performance, ultra safe operation and world class quality for more than 30 years and will continue to achieve excellence.

### 1.03 Limited Warranty

LIMITED WARRANTY: CIGWELD Pty Ltd, An ESAB Brand, hereafter, "CIGWELD" warrants to customers of its authorized distributors hereafter "Purchaser" that its products will be free of defects in workmanship or material. Should any failure to conform to this warranty appear within the time period applicable to the CIGWELD products as stated below, CIGWELD shall, upon notification thereof and substantiation that the product has been stored, installed, operated, and maintained in accordance with CIGWELD's specifications, instructions, recommendations and recognized standard industry practice, and not subject to misuse, repair, neglect, alteration, or accident, correct such defects by suitable repair or replacement, at CIGWELD's sole option, of any components or parts of the product determined by CIGWELD to be defective.

CIGWELD MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHERS, INCLUDING, BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

LIMITATION OF LIABILITY: CIGWELD SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO, LOST PROFITS AND BUSINESS INTERRUPTION. The remedies of the Purchaser set forth herein are exclusive and the liability of CIGWELD with respect to any contract, or anything done in connection therewith such as the performance or breach thereof, or from the manufacture, sale, delivery, resale, or use of any goods covered by or furnished by CIGWELD whether arising out of contract, negligence, strict tort, or under any warranty, or otherwise, shall not, except as expressly provided herein, exceed the price of the goods upon which such liability is based. No employee, agent, or representative of CIGWELD is authorized to change this warranty in any way or grant any other warranty.

PURCHASER'S RIGHTS UNDER THIS WARRANTY ARE VOID IF REPLACEMENT PARTS OR ACCESSORIES ARE USED WHICH IN CIGWELD'S SOLE JUDGEMENT MAY IMPAIR THE SAFETY OR PERFORMANCE OF ANY CIGWELD PRODUCT. PURCHASER'S RIGHTS UNDER THIS WARRANTY ARE VOID IF THE PRODUCT IS SOLD TO PURCHASER BY NON-AUTHORIZED PERSONS.

The warranty is effective for the time stated below beginning on the date that the authorized distributor delivers the products to the Purchaser. Notwithstanding the foregoing, in no event shall the warranty period extend more than the time stated plus one year from the date CIGWELD delivered the product to the authorized distributor.

Any claim under this warranty must be made within the warranty period which commences on the date of purchase of the product. To make a claim under the warranty, take the product (with proof of purchase from a Cigweld Accredited Seller) to the store where you purchased the product or contact Cigweld Customer Care 1300 654 674 for advice on your nearest Service Provider. CIGWELD reserves the right to request documented evidence of date of purchase. CIGWELD or our Accredited Distributor must be notified in writing of its claim within seven (7) days of becoming aware of the basis thereof, and at its own expense returning the goods which are the subject of the claim to CIGWELD or nominated Accredited Distributor/Accredited Service Provider

This warranty is given.

Cigweld Pty Ltd

A.B.N. 56007226815

71 Gower Street, Preston

Victoria, Australia, 3072

Phone: 1300 654 674

Email: [enquiries@cigweld.com.au](mailto:enquiries@cigweld.com.au)

Website: [www.cigweld.com.au](http://www.cigweld.com.au)

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Please note that the information detailed in this statement supersedes any prior published data produced by CIGWELD.

## WARRANTY SCHEDULE- WELDSKILL AUTO-DARKENING WELDING HELMET

CIGWELD reserves the right to request documented evidence of date of purchase.

<b>CIGWELD SAFETY EQUIPMENT</b>	<b>WARRANTY PERIOD</b>
WeldSkill Auto-Darkening Welding Helmet.....	2 years
<b>ACCESSORIES</b>	
Cover Lenses.....	1 month
Sweat Band .....	1 month

CIGWELD Limited Warranty does not apply to;

- Obsolete goods sold at auction, second-hand goods and prototype goods.
- Consumable Parts for MIG, TIG, Plasma welding, Plasma cutting and Oxy fuel torches, O-rings, fuses, filters or other parts that fail due to normal wear.

Note:

- No employee, agent, or representative of CIGWELD or ESAB is authorized to change this warranty in any way or grant any other warranty, and CIGWELD/ESAB shall not be bound by any such attempt. Correction of nonconformities, in the manner and time provided herein, constitutes fulfilment of CIGWELD/ESAB's obligations to purchaser with respect to the product.
- This warranty is void, and seller bears no liability hereunder, if purchaser used replacement parts or accessories which, in CIGWELD/ESAB's sole judgment, impaired the safety or performance of any CIGWELD/ESAB product and if the unit is altered or serviced by an unauthorised CIGWELD/ESAB Service Provider. Purchaser's rights under this warranty are void if the product is sold to purchaser by unauthorized persons.

Please note that the information detailed in this statement supersedes any prior published data produced by CIGWELD.



**WARNING**

*For the purpose of safety and performance and to protect your CIGWELD Equipment Warranty always use genuine CIGWELD replacement parts and accessories.*

## SECTION 2: Introduction

### 2.01 How to Use This Manual

This Owner's Manual usually applies to just the underlined specification or part numbers listed. If none are underlined, they are all covered by this manual.

To ensure safe operation, read the entire manual, including the chapter on safety instructions and warnings.

Throughout this manual, the word **WARNING**, **CAUTION** and **NOTE** may appear. Pay particular attention to the information provided under these headings. These special annotations are easily recognised as follows:



#### **WARNING**

*Gives information regarding possible personal injury. Warnings will be enclosed in a box such as this.*



#### **CAUTION**

*Refers to possible equipment damage. Cautions will be shown in bold type.*

#### **NOTE**

*Offers helpful information concerning certain operating procedures. Notes will be shown in italics.*

### 2.02 Equipment Identification

The product identification number is printed on the outer shipping carton. Record this number for future reference.

### 2.03 Receipt of Equipment

When you receive the equipment, check it against the invoice to make sure it is complete and inspect the equipment for possible damage due to shipping. If there is any damage, notify the carrier immediately to file a claim. Furnish complete information concerning damage claims or shipping errors to:

CIGWELD, Customer Care Department, 71 Gower St, Preston, Victoria, Australia, 3072.

Include all equipment identification numbers as described above along with a full description of the parts in error.

Additional copies of this manual may be purchased by contacting CIGWELD, Customer Care Department, at the address given above. Include the Owner's Manual number and equipment identification numbers.

## **SECTION 3: General Information**

### **3.01 WeldSkill Auto-Darkening Welding Helmet**

The CIGWELD WeldSkill Auto-Darkening Welding Helmet is a sophisticated and modern helmet specifically engineered for welding comfort, versatility, performance and fume deflection. The WeldSkill Auto Darkening Filter is fitted with an Ultra View True Colour Lens with Blue Light Filter to assist in reducing the operator's visual fatigue if concentrating on an arc all day. Two sensors detect the arc and darken the lens in less than 0.2ms. A simple switch allows you to choose between welding and grinding modes. To ensure your complete satisfaction with your new WeldSkill Auto-Darkening Welding Helmet and to realise a safer work environment, we ask that you read the following Operating Manual thoroughly before use.

### **3.02 User Responsibility**

This product will perform as per the information contained herein when installed, operated, maintained and repaired in accordance with the instructions provided. This equipment must be checked periodically. Defective equipment should not be used. Parts that are broken, missing, plainly worn, distorted or contaminated, should be replaced immediately. Should such repairs or replacements become necessary, it is recommended that such repairs be carried out by appropriately qualified persons approved by CIGWELD. Advice in this regard can be obtained by contacting an accredited CIGWELD Distributor.

This product or any of its parts should not be altered from standard specification without prior written approval of CIGWELD. The user of this product shall have the sole responsibility for any malfunction which results from improper use or unauthorised modification from standard specification, faulty maintenance, damage or improper repair by anyone other than appropriately qualified persons approved by CIGWELD.

### SECTION 4: Personal Protection



#### **WARNING**

*Prior to welding check operation of the filter lens, if the lens does not darken DO NOT COMMENCE WELDING. If during welding the filter does not darken IMMEDIATELY STOP WELDING.*

The radiation from an electric arc during the welding process can seriously harm eyes and skin. It is essential that the following precautions be taken:

When electric arc welding, it is a requirement to use a welding helmet or welding handshield that complies to a relevant standard. Protective filter lenses are provided to reduce the intensity of radiation entering the eye thus filtering out harmful infra-red, ultra-violet radiation and a percentage of the visible light. Such filter lenses are incorporated into this Welding Helmet. To prevent damage to the filter lenses from molten or hard particles an additional hard clear glass or special plastic external cover lens is provided. This cover lens should always be kept in place and replaced before the damage impairs your vision while welding.



#### **WARNING**

*For machine disc cutting, scaling, grinding and machining of metals and the like, additional eyeshields or faceshields with appropriate impact rating should be used. Refer to AS/NZS1336 for full details of the appropriate protection for industrial applications.*



#### **WARNING**

*The indicated filter lens shade numbers are minimum. If any discomfort is felt, higher shade numbers should be selected.*

Recognised standards for recommended practices for occupational eye protection include AS/NZS 1336 and EN 175.

Gloves should be flameproof gauntlet type to protect hands and wrists from heat burns and harmful radiations. They should be kept dry and in good repair.

Protective clothing must protect the operator from burns, spatter and harmful radiation. Woollen clothing is preferable to cotton because of its greater flame resistance. Clothing should be free from oil or grease. Wear leggings and spats to protect the lower portion of the legs and to prevent slag and molten metal from falling into boots or shoes.

<b>Recommended Protective Filters for Electric Welding</b>		
<b>Description of Process</b>	<b>Approximate range of Welding Current in Amps</b>	<b>Minimum Shade Number of Filter(s)</b>
Manual Metal Arc Welding - covered electrodes (MMAW)	Less than or equal to 100	8
	100 to 200	10
	200 to 300	11
	300 to 400	12
	Greater than 400	13
Gas Metal Arc Welding (GMAW) (MIG)  - Aluminium and Stainless Steel - other than Aluminium and Stainless Steel	Less than or equal to 250	12
	250 to 300	13
	Less than or equal to 150	10
	150 to 250	11
	250 to 300	12
	300 to 400	13
	400	14
Gas Tungsten Arc Welding (GTAW) (TIG)	Less than or equal to 100	10
	100 to 200	11
	200 to 250	12
	250 to 350	13
	Greater than 350	14
Flux-cored Arc Welding (FCAW)  - with or without shielding gas	Less than or equal to 300	11
	300 to 400	12
	400 to 500	13
	Greater than 500	14
Air – Arc Gouging	Less than or equal to 400	12
Plasma-Arc Cutting	50 to 100	10
	100 to 400	12
	400 to 800	14
Plasma-Arc Spraying	—	15
Plasma-Arc Welding	Less than or equal to 20	8
	20 to 100	10
	100 to 400	12
	400 to 800	14
Submerged-Arc Welding	—	2(5)*
Resistance Welding	—	Safety Spectacles or eye shield

\*A shade 5 filter is recommended for watching molten pool in electrosag welding.

Note: Definitions of the above processes are given in AS 2812

Table 4-1 Recommended Protective Filters for Electric Welding

Refer to standard AS/NZS 1338.1:2012 for comprehensive information regarding Table 4-1.

### SECTION 5: Specifications

#### 5.01 WeldSkill Auto-Darkening Filter Lens

Description (Refer Note 1)	Variable Shade 9-13
Auto-Darkening Filter Lens Part Number	454639 (Ultra View True Colour) (Note: Variable Shade 9-13 Auto-Darkening Lens Part Number 454639 is fitted to the WeldSkill Auto-Darkening Welding Helmet).
Filter Lens	Auto-Darkening Filter Lens - Ultra View True Colour (with Blue Light Filter)
Filter Lens Dimensions	110mm x 90mm x 9mm
Viewing Area Dimensions	98mm x 43mm
Reaction Time	0.2ms
Sensors	2 Optical Sensors
Power Supply	2 x CR2450 Lithium Batteries (replaceable) and Solar Assist
Unactivated Shade Level	4
Variable Shade Level	9 - 13
Operating Temperature	-5°C to + 55°C
Storing Temperature	-20°C to +70°C
Sensitivity Range (Light to Dark)	Low to High
Delay (Dark to Light)	Min (0.25 sec) – Max (0.8 sec)
On/Off Control	Automatic
Weight	124g

Table 5-1 Specifications

#### NOTE

*Due to variations that can occur in manufactured products, claimed performance, voltages, ratings, all capacities, measurements, dimensions and weights quoted are approximate only. Achievable capacities and ratings in use and operation will depend upon correct installation, use, applications, maintenance and service.*

#### 5.02 Contents

CONTENTS- WELDSKILL WELDING HELMET	
Description	Qty
WeldSkill Auto-Darkening Welding Helmet	1
Front Cover Lens	1
Rear Cover Lens	1
Operating Manual	1

Table 5-2 Packing List

## SECTION 6: Harness Adjustment

Prior to use, the Welding Helmet must be adjusted for maximum comfort and protection.

### NOTE

*The Helmet should be adjusted such that it is effectively positioned over the eyes and face to ensure adequate protection and comfort whilst welding.*

Please refer to the Harness adjustment instructions below.



#### 1. Top Head Band

To adjust the top of Head Band move the Head Band in the direction of either arrow (as pictured) to align the centre of the harness with centre of the Filter Lens viewing window.



#### 2. Back of Head Band

To adjust the back of Head Band push down the Knob and turn to the left or right to adjust to size.



#### 3. Distance of Harness from Filter Lens

There are 3 positions possible that the Harness can be set upon to achieve the desired distance between the welder's eyes and the Filter Lens.



#### 4. Incline Angle Adjustment

There are 3 positions available (as pictured) for adjusting the angle from the welder's eyes to the Filter lens.



#### 5. Helmet Tilt Position

The Helmet is designed to be tilted and fixed into position whilst not welding. Loosen the adjustment knobs (as pictured) located on either side of the helmet, once in desired position tighten adjustment knobs to fix into place.

### SECTION 7: Installation of Magnification Lens (Optional)

CIGWELD magnification lenses magnify the work area substantially to assist the welder in maintaining the high standard required.



**WARNING**

*Before installing the magnification lens, ensure that the rear cover lens is in place.*



#### 1. Magnification Lens Frame

Magnification lens frame shown on left without magnification lens installed.



#### 2. Installing Magnification Lens

To install magnification lens, slide the magnification lens from the top of the magnification lens frame and slide it down until it comes in contact with the last set of tabs on the magnification lens frame. Ensure that the lens fits firmly in between the tabs.



#### 3. Magnification Lens installed

Once the lens is installed it should sit firmly in place as shown in the picture on the left.



#### 4. Removing Magnification Lens

To remove the magnification lens slide the magnification lens from the bottom edge in an upwards motion until the magnification lens becomes free from the magnification lens frame.

### Magnification lens ordering information (optional):

Description	Part Number
1.50 diopter	454012
2.00 diopter	454010
2.25 diopter	454014
2.50 diopter	454011

Table 7-1 Magnification Lens Ordering Information

## SECTION 8: Changing of Front Cover Lens

**WARNING**

---

*Do Not Use the Welding Helmet without the Front Cover Lens installed correctly in place.*

---

If the Front Cover Lens is broken, plainly worn, distorted or contaminated it should be replaced immediately with a genuine Cigweld replacement part.



### 1. Removing the Front Cover Lens

Remove the Front Cover Lens by pulling up the central part of the lens (as pictured) and sliding one side at a time from under the tabs.



### 2. Installing the Front Cover Lens

Align the Front Cover Lens and place under the tabs (as pictured) on one side that secure the Front Cover Lens in place.

Pull up the Front Cover Lens in the centre and repeat for the other side.

**WARNING**

---

*Ensure that the Front Cover Lens is securely in place before use.*

---

### SECTION 9: Weldskill Auto-Darkening Filter Lens Controls

#### 9.01 WeldSkill Variable Shade 9-13 Auto-Darkening Filter Lens Controls



**WARNING**

Ensure that switch is set to welding mode when welding.

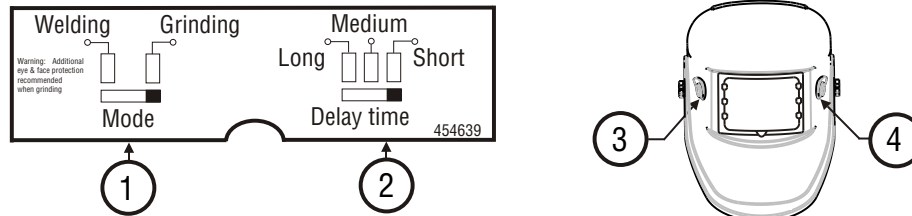


Figure 9-2 WeldSkill Variable Shade 9-13 Auto-Darkening Filter Lens Controls

1. **Mode Switch:** The Mode Switch is used to change the Filter Lens between Welding and Grinding modes. Note that additional eye and face protection is recommended when Grinding.
2. **Delay Switch:** The Delay Switch is used to adjust the hold time of the Filter lens after welding is completed. Manually adjust delay time to desired level as required for application.
3. **Sensitivity Control:** The Sensitivity Control is used to make the Filter Lens more responsive to different light levels. Manually adjust the sensitivity level as required for the application.
4. **Variable Shade Control:** The Variable Shade Control is used to adjust the Shade level between 9-13. Manually adjust shade to desired level as required for the application.



Figure 9-3 Battery Compartment

#### 1. Battery Compartment

To replace batteries remove the lithium batteries from the control/battery housing on each side. This can be done by removing the retaining screw, depressing the two grooved sections of the housing and pulling outwards. Replace with 2 x CR2450 Lithium Batteries.



**WARNING**

Swallowing batteries may lead to serious injury in as little as 2 hours or death, due to chemical burns and potential perforation of the oesophagus.

If you suspect your child has swallowed or inserted a button battery immediately call the 24-hour Poisons Information Centre in Australia on 13 11 26 for fast, expert advice.

Examine devices and make sure the battery compartment is correctly secured, e.g. that the screw or other mechanical fastener is tightened. Do not use if compartment is not secure.

Dispose of used button batteries immediately and safely. Flat batteries can still be dangerous.

Tell others about the risk associated with button batteries and how to keep their children safe.

## SECTION 10: Routine Maintenance & Inspection

This equipment must be checked periodically. Defective equipment should not be used. Parts that are broken, missing, plainly worn, distorted or contaminated, should be replaced immediately. Should such repairs or replacements become necessary, it is recommended that such repairs be carried out by appropriately qualified persons approved by CIGWELD. Advice in this regard can be obtained by contacting an accredited CIGWELD Distributor.

### NOTE

*Inspect lenses frequently. Immediately replace any scratched, cracked, or pitted lenses as they may impair visibility and reduce protection.*

*Inspect Helmet Shell and Harness Assembly frequently. Immediately replace any damaged or worn components.*



### WARNING

*Do not attempt to open filter lens.*

## 10.01 Cleaning the WeldSkill Auto-Darkening Welding Helmet



### WARNING

*When cleaning the Welding Helmet or Filter Lens Do Not use solvents or abrasive cleaning agents.*

In order to ensure the continued safe and reliable operation of your WeldSkill Auto-Darkening Welding Helmet it should be cleaned with a soft, clean lint-free cloth after use.

### NOTE

*Keep the Sensors and the Solar Cell clean at all times.*

### SECTION 11: Spare Parts



#### WARNING

*Cigweld cannot be held responsible for the continuing performance of this Welding Helmet if non-genuine spare parts are used.*

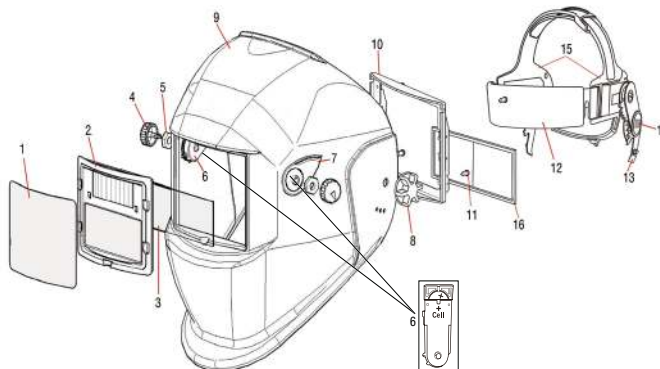


Figure 11-1 Exploded View of WeldSkill Auto-Darkening Welding Helmet

SPARE PARTS – WELDSKILL WELDING HELMET			
Item No	Part Number	Description	Qty
1	454308	Front Cover lens	1
2		Not available as a spare part.	1
3	454309	Rear Cover Lens	1
4		Not available as a spare part.	2
5		Not available as a spare part.	
6		Battery Compartment itself not available as a separate item. Only supplied with 454639. Replacement Batteries 2 x CR2450 Lithium (Not available as a spare part).	2
7		Not available as a spare part.	
8, 12, 13, 14, & 15	454310	Harness Assembly (available as complete assembly only)	1
9		Not available as a spare part.	
10	454320	Magnification Lens Frame	1
11		Not available as a spare part.	
12	454311	Sweat Band	1
16		Magnification Lens (Optional- refer to page 13 of operating manual)	1

Table 11-1 Spare Parts

**SECTION 12: Basic Troubleshooting**

FAULT	CAUSE	REMEDY
1. The Filter Lens does not operate.	A. WeldSkill Variable Shade 9-13 Helmet Batteries may be discharged and may need replacement.  B. Filter Lens is faulty.	A. Check battery condition and change if necessary. Check batteries are installed correctly. Also, check battery surfaces and contacts and clean if necessary. Refer to Section 9.02 pg 17 and Figure 11-1 pg 18 for further details.  B. Replace the Filter Lens.
2. The Filter Lens flickers or does not darken.	A. Front Cover Lens is dirty or damaged.  B. Sensors are obstructed.	A. Clean Cover Lens with a soft cloth. Replace if necessary.  B. Clean the Sensors with a soft cloth.
3. Filter Lens stays dark after the weld is extinguished or the Filter Lens is dark when no arc is present.	A. Sensors are obstructed.  B. Sensitivity and or Delay Switch not set correctly.  C. Ambient light level is too bright.	A. Clean the Sensors with a soft cloth.  B. Adjust the Sensitivity and or Delay Switch accordingly.  C. Reduce the ambient light level in the area.
4. The centre of the Filter Lens viewing area appears darker than the sides of the Filter Lens viewing area.	A. This is a normal characteristic of the LCD Lens.	A. Keep the viewing angle from the object being welded as close as possible to 90 degrees.

Table 12-1 Basic Troubleshooting

**WARNING**

*If the above troubleshooting recommendations do not resolve the problem, do not use the Auto-Darkening Welding Helmet. Contact CIGWELD for further information.*



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