

VIKING™ 5X4 SHADE 11 HELMET
4.50 x 5.25 STANDARD REPLACEMENT LENS

IM10170

February 2014



OPERATOR'S MANUAL



Copyright © Lincoln Global Inc.

• World's Leader in Welding and Cutting Products •

• Sales and Service through Subsidiaries and Distributors Worldwide •

Cleveland, Ohio 44117-1199 U.S.A. TEL: 216.481.8100 FAX: 216.486.1751 WEB SITE: www.lincolnelectric.com

TABLE OF CONTENTS	Page
SAFETY WARNINGS – READ BEFORE USING	1
OPERATING INSTRUCTIONS	2
HELMET CARE AND MAINTENANCE	3
SHADE GUIDE SETTINGS AND LENS REPLACEMENT	3
FILTER PLATE AND LENS REPLACEMENT	4
WARRANTY INFORMATION	5
REPLACEMENT PARTS	5

SAFETY WARNINGS – READ BEFORE USING

WARNING

ARC Rays can injure eyes and burn skin



- Before welding, always inspect helmet and filter lens to be sure they are fitted properly, in good condition and not damaged.
- Check to see that the clear lens is clean and securely attached to the helmet.
- Always wear safety glasses or goggles under the welding helmet and protective clothing to protect your skin from radiation, burns and spatter.
- Ensure that optical radiation from other welder's arcs in the immediate area does not enter in from behind the helmet and auto-darkening filter.

Note: Auto-darkening filters in Lincoln helmets are designed to protect the user against harmful ultra-violet and infrared rays both in the dark and light states. No matter what shade the filter is set to, the UV/IR protection is always present.

FUMES AND GASES can be dangerous to your health.

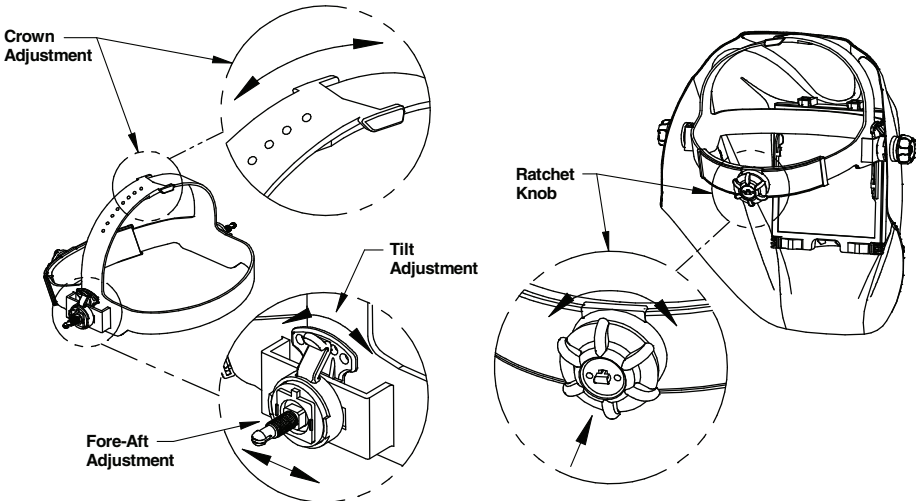


- Keep your head out of fumes.
- Use enough ventilation or exhaust at the arc or both to keep fumes and gases from your breathing zone and general area.
- **When welding with electrodes which require special ventilation such as stainless or hard facing (see instructions on container or MSDS) or on lead or cadmium plated steel and other metals or coatings which produce highly toxic fumes, keep exposure as low as possible and within applicable OSHA PEL and ACGIH TLV limits using local exhaust or mechanical ventilation. In confined spaces or in some circumstances, outdoors, a respirator may be required. Additional precautions are also required when welding on galvanized steel.**

Refer to <http://www.lincolnelectric.com/safety>
for additional safety information.

OPERATING INSTRUCTIONS

Headgear Adjustment



HEAD SIZE ADJUSTMENT: HEADGEAR TIGHTNESS is adjusted by pushing in the Ratchet Knob and turning to adjust for the desired head size. This knob is located at the back of the helmet. **HEADGEAR CROWN ADJUSTMENT** is made by adjusting for comfort and snapping the pin into the hole to lock securely in place.

TILT: Tilt adjustment is located on the right side of helmet. Loosen the right headgear tension knob and push the top end of the adjustment lever outward until the lever's Stop Tab clears the notches. Then rotate the lever forward or back to the desired tilt position. The Stop will automatically engage again when released locking the helmet into position.

FORE / AFT ADJUSTMENT: Adjusts the distance between the user's face and the lens. To adjust, loosen the outside tension knobs and slide forward or back to the desired position and retighten. **NOTE:** Make sure both sides are equally positioned for proper operation.

HELMET CARE AND MAINTENANCE

- Periodic cleaning with soapy water solution or standard glass cleaner is suggested. Air dry or use soft cloth to dry.
- * Change or clean polycarbonate impact resistant clear lens when it becomes dirty or cloudy

Storage: Store in a clean, dry location.

SHADE GUIDE SETTINGS

GUIDE FOR SHADE NUMBERS				
OPERATION	ELECTRODE SIZE 1/32 in. (mm)	ARC CURRENT (A)	MINIMUM PROTECTIVE SHADE	SUGGESTED ⁽¹⁾ SHADE NO. (COMFORT)
Shielded metal arc welding	Less than 3 (2.5) 3-5 (2.5-4) 5-8 (4-6.4) More than 8 (6.4)	Less than 60	7	–
		60-160	8	10
		160-250	10	12
		250-550	11	14
Gas metal arc welding and flux cored arc welding		Less than 60	7	–
		60-160	10	11
		160-250	10	12
		250-500	10	14
Gas tungsten arc welding		Less than 50	8	10
		50-150	8	12
		150-500	10	14
Air carbon Arc cutting	(Light) (Heavy)	Less than 500	10	12
		500-1000	11	14
Plasma arc welding		Less than 20	6	6 to 8
		20-100	8	10
		100-400	10	12
		400-800	11	14
Plasma arc cutting	(Light) ⁽²⁾ (Medium) ⁽²⁾ (Heavy) ⁽²⁾	Less than 300	8	9
		300-400	9	12
		400-800	10	14
Torch brazing		–	–	3 or 4
Torch soldering		–	–	2
Carbon arc welding		–	–	14
PLATE THICKNESS				
	in.	mm		
Gas welding Light Medium Heavy	Under 1/8	Under 3.2		4 or 5
	1/8 to 1/2	3.2 to 12.7		5 or 6
	Over 1/2	Over 12.7		6 or 8
Oxygen cutting Light Medium Heavy	Under 1	Under 25		3 or 4
	1 to 6	25 to 150		4 or 5
	Over 6	Over 150		5 or 6

⁽¹⁾ As a rule of thumb, start with a shade that is too dark, then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line the visible light of the (spectrum) operation.

⁽²⁾ These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the workpiece.

Data from ANSI Z49.1-2005

If your helmet does not include any one of the shades referenced above, it is recommended you use the next darker shade.

FILTER PLATE AND LENS REPLACEMENT

Replacing Front Clear Cover Lens: Replace the front cover lens if it is damaged. Remove ADF holder assembly per Figure 1. Remove front cover lens from helmet assembly. Carefully remove gasket from cover lens. Install new cover lens into gasket and assemble to helmet shell. Make sure to assemble cover lens and gasket into helmet shell the same way as it was removed.

Change the Filter Plate: Remove ADF holder assembly from helmet shell. See figure 1 for removal. Flex top end of the ADF holder to allow for Retaining Frame and Filter plate to be removed from ADF assembly. Install new Filter Plate into ADF holder per figure 2 below. Install Retaining Frame into ADF holder making sure Retaining Frame Holding tabs are facing towards the Filter Plate. Install ADF holder assembly into helmet shell.

INSTALLING AN AFTERMARKET MAGNIFYING LENS:

Simply slide the magnifying lens into the short rail located on the sides of the ADF holder per Figure 3.

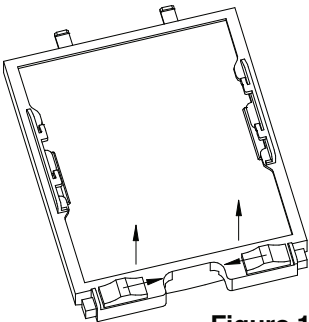


Figure 1

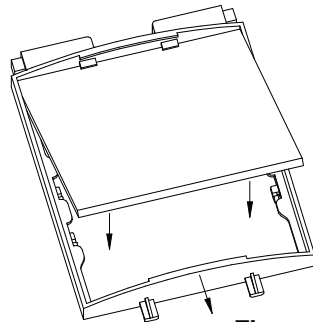


Figure 2

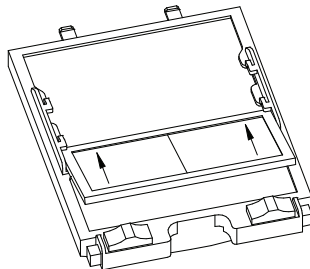


Figure 3

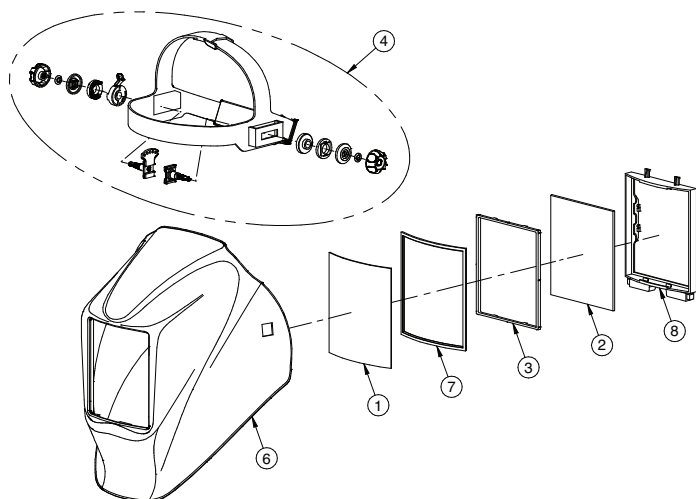
WARRANTY INFORMATION

WARRANTY INFORMATION: Reference IMWS1 included in Literature.

SPATTER DAMAGE IS NOT COVERED BY WARRANTY:

Do not use this product without the correct protective outside clear lens installed. The outside clear lens supplied with this helmet is properly sized to work with this product and substitutions from other suppliers should be avoided.

REPLACEMENT PARTS



ITEM	PART NO.	DESCRIPTION	QTY
1	KP2898-1	OUTSIDE CLEAR LENS (PKG. QTY: 5)	1
2	KP4003-1	SHADE 11 FILTER PLATE	1
3	KP4004-1	RETAINING FRAME	1
4	KP4100-1	HEADGEAR ASSEMBLY (INCLUDING SWEATBAND)	1
5*	KP2930-1	SWEATBAND (PKG. QTY: 2)	1
6	S27978-31	REPLACEMENT SHELL	1
7	S27978-32	OUTSIDE CLEAR LENS SEAL	1
8	S27978-33	ADF HOLDER	1

OPTIONAL ACCESSORIES		
PART NO.	DESCRIPTION	QTY
KP3046-100	CHEATER LENS 1.00 MAGNIFICATION	1
KP3046-125	CHEATER LENS 1.25 MAGNIFICATION	1
KP3046-150	CHEATER LENS 1.50 MAGNIFICATION	1
KP3046-175	CHEATER LENS 1.75 MAGNIFICATION	1
KP3046-200	CHEATER LENS 2.00 MAGNIFICATION	1
KP3046-225	CHEATER LENS 2.25 MAGNIFICATION	1
KP3046-250	CHEATER LENS 2.50 MAGNIFICATION	1
KP3047-1	HARD HAT ADAPTER	1

*Not illustrated



• World's Leader in Welding and Cutting Products •

• Sales and Service through Subsidiaries and Distributors Worldwide •

Cleveland, Ohio 44117-1199 U.S.A. TEL: 216.481.8100 FAX: 216.486.1751 WEB SITE: www.lincolnelectric.com