Operator's Manual

VIKING PAPR FGS 3250D WELDING HELMET

POWERED AIR-PURIFYING RESPIRATOR (PAPR) WITH FGS 3250D AUTO-DARKENING HELMET

CODE NUMBER:

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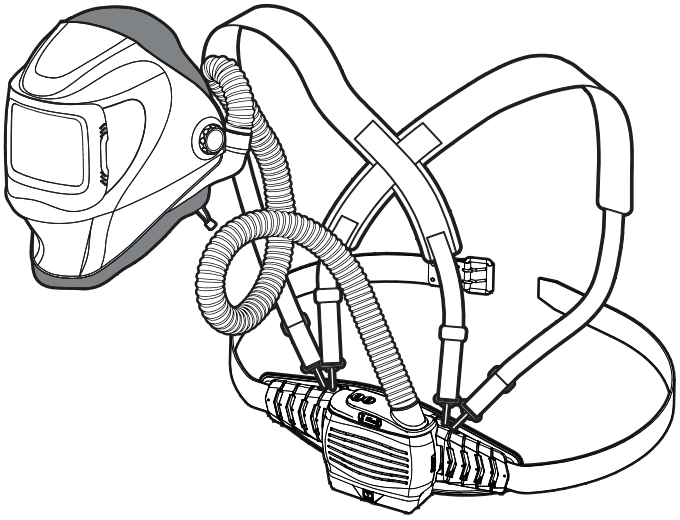

WARNING: Users must read and understand the user instructions prior to use. Use of this respirator by untrained or unqualified people, or use that is not in accordance with these user instructions, **may adversely affect respirator performance and may be dangerous to your health.** Keep this operator's manual for future reference.

GENUINE LINCOLN PARTS™

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22801 St. Clair Avenue • Cleveland, OH • 44117-1199 • U.S.A.
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SAFETY WARNINGS – READ BEFORE USING

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

FUMES AND GASES can be dangerous to your health.

- Fumes from the normal use of welding products contain significant quantities of potentially hazardous compounds. See consumable product label/insert.
- Keep your head out of fumes.
- Use enough ventilation or local exhaust to keep fumes and gases from your breathing zone and general area.
- An approved respirator should be used unless exposure assessments are below applicable exposure limits.
- When welding with electrodes which may require additional ventilation such as stainless or hard facing (see instructions on container or Safety Data Sheet (SDS) 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.

NIOSH approval

IMPORTANT: THIS RESPIRATOR IS INTENDED TO BE USED BY TRAINED INDIVIDUALS IN ACCORDANCE WITH ALL THE PROVISIONS OF AN ORGANIZED RESPIRATORY PROTECTION PROGRAM WHICH COMPLIES WITH THE REQUIREMENTS OF THE OSHA STANDARD 29 CFR 1910.134 AVAILABLE FROM THE US DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION OR IN CANADA CONFORMANCE WITH CSA Z94.4.

The Viking PAPR 3350 is approved in the USA by NIOSH for use in environments where:

- Particulate concentrations are known and characterized.
- Particulate concentrations are not Immediately Dangerous to Life or Health (IDLH).
- Atmospheres are NOT oxygen deficient.
- Contaminant concentrations do not exceed the Maximum Use Concentration (MUC) determined using the Assigned Protection Factor (APF) for specific respirator system or the APF mandated by specific government standards, whichever is lower.

The Viking PAPR 3350 respirator components and filtration media must be used only in configurations listed on the NIOSH approval label. Refer to NIOSH approval label for list of approved components.

This respirator is not capable of or approved for use in an area which includes hazardous levels of gases . It is only effective to filter out particulate contaminants.

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 with side shields 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.
- Stop welding immediately if the auto-darkening lens does not darken when arc is struck. See instruction manual for troubleshooting information.
- Do not weld in the overhead position while using this helmet.

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.

THANK YOU FOR SELECTING A QUALITY PRODUCT BY LINCOLN ELECTRIC.

PLEASE EXAMINE CARTON AND EQUIPMENT FOR DAMAGE IMMEDIATELY

When this equipment is shipped, title passes to the purchaser upon receipt by the carrier. Consequently, claims for material damaged in shipment must be made by the purchaser against the transportation company at the time the shipment is received.

SAFETY DEPENDS ON YOU

Lincoln arc welding and cutting equipment is designed and built with safety in mind. However, your overall safety can be increased by proper installation ... and thoughtful operation on your part. **DO NOT INSTALL, OPERATE OR REPAIR THIS EQUIPMENT WITHOUT READING THIS MANUAL AND THE SAFETY PRECAUTIONS CONTAINED THROUGHOUT.** And, most importantly, think before you act and be careful.

⚠ WARNING

This statement appears where the information must be followed exactly to avoid serious personal injury or loss of life.

⚠ CAUTION

This statement appears where the information must be followed to avoid minor personal injury or damage to this equipment.

KEEP YOUR HEAD OUT OF THE FUMES.

DON'T get too close to the arc. Use corrective lenses if necessary to stay a reasonable distance away from the arc.

READ and obey the Safety Data Sheet (SDS) and the warning label that appears on all containers of welding materials.

USE ENOUGH VENTILATION or exhaust at the arc, or both, to keep the fumes and gases from your breathing zone and the general area.

IN A LARGE ROOM OR OUTDOORS, natural ventilation may be adequate if you keep your head out of the fumes (See below).

USE NATURAL DRAFTS or fans to keep the fumes away from your face.

If you develop unusual symptoms, see your supervisor. Perhaps the welding atmosphere and ventilation system should be checked.

WEAR CORRECT EYE, EAR & BODY PROTECTION

PROTECT your eyes and face with welding helmet properly fitted and with proper grade of filter plate (See ANSI Z49.1).

PROTECT your body from welding spatter and arc flash with protective clothing including woolen clothing, flame-proof apron and gloves, leather leggings, and high boots.

PROTECT others from splatter, flash, and glare with protective screens or barriers.

IN SOME AREAS, protection from noise may be appropriate.

BE SURE protective equipment is in good condition.

Also, wear safety glasses in work area **AT ALL TIMES.**

SPECIAL SITUATIONS

DO NOT WELD OR CUT containers or materials which previously had been in contact with hazardous substances unless they are properly cleaned. This is extremely dangerous.

DO NOT WELD OR CUT painted or plated parts unless special precautions with ventilation have been taken. They can release highly toxic fumes or gases.

Additional precautionary measures

PROTECT compressed gas cylinders from excessive heat, mechanical shocks, and arcs; fasten cylinders so they cannot fall.

BE SURE cylinders are never grounded or part of an electrical circuit.

REMOVE all potential fire hazards from welding area.

ALWAYS HAVE FIRE FIGHTING EQUIPMENT READY FOR IMMEDIATE USE AND KNOW HOW TO USE IT.

SECTION A: WARNINGS

CALIFORNIA PROPOSITION 65 WARNINGS

WARNING: Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects, or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an exposed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P65 warnings.ca.gov/diesel

WARNING: This product, when used for welding or cutting, 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 § 25249.5 *et seq.)*

WARNING: Cancer and Reproductive Harm www.P65warnings.ca.gov

ARC WELDING CAN BE HAZARDOUS. PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH. KEEP CHILDREN AWAY. PACEMAKER WEARERS SHOULD CONSULT WITH THEIR DOCTOR BEFORE OPERATING.

Read and understand the following safety highlights. For additional safety information, it is strongly recommended that you purchase a copy of "Safety in Welding & Cutting - ANSI Standard Z49.1" from the American Welding Society, P.O. Box 351040, Miami, Florida 33135 or CSA Standard W117.2. A Free copy of "Arc Welding Safety" booklet E205 is available from the Lincoln Electric Company, 22801 St. Clair Avenue, Cleveland, Ohio 44117-1199.

BE SURE THAT ALL INSTALLATION, OPERATION, MAINTENANCE AND REPAIR PROCEDURES ARE PERFORMED ONLY BY QUALIFIED INDIVIDUALS.

FOR ENGINE POWERED EQUIPMENT.

1.a. Turn the engine off before troubleshooting and maintenance work unless the maintenance work requires it to be running.

1.b. Operate engines in open, well-ventilated areas or vent the engine exhaust fumes outdoors.

1.c. Do not add the fuel near an open flame welding arc or when the engine is running. Stop the engine and allow it to cool before refueling to prevent spilled fuel from vaporizing on contact with hot engine parts and igniting. Do not spill fuel when filling tank. If fuel is spilled, wipe it up and do not start engine until fumes have been eliminated.

1.d. Keep all equipment safety guards, covers and devices in position and in good repair. Keep hands, hair, clothing and tools away from V-belts, gears, fans and all other moving parts when starting, operating or repairing equipment.

1.e. In some cases it may be necessary to remove safety guards to perform required maintenance. Remove guards only when necessary and replace them when the maintenance requiring their removal is complete. Always use the greatest care when working near moving parts.

1.f. Do not put your hands near the engine fan. Do not attempt to override the governor or idler by pushing on the throttle control rods while the engine is running.

1.g. To prevent accidentally starting gasoline engines while turning the engine or welding generator during maintenance work, disconnect the spark plug wires, distributor cap or magneto wire as appropriate.

1.h. To avoid scalding, do not remove the radiator pressure cap when the engine is hot.

1.i. Using a generator indoors CAN KILL YOU IN MINUTES.

1.j. Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.

1.k. NEVER use inside a home or garage, EVEN IF doors and windows are open.

1.l. Only use OUTSIDE and far away from windows, doors and vents.

1.m. Avoid other generator hazards. READ MANUAL BEFORE USE.

ELECTRIC AND MAGNETIC FIELDS MAY BE DANGEROUS

2.a. Electric current flowing through any conductor causes localized Electric and Magnetic Fields (EMF). Welding current creates EMF fields around welding cables and welding machines

2.b. EMF fields may interfere with some pacemakers, and welders having a pacemaker should consult their physician before welding.

2.c. Exposure to EMF fields in welding may have other health effects which are now not known.

2.d. All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

- 2.d.1. Route the electrode and work cables together - Secure them with tape when possible.
- 2.d.2. Never coil the electrode lead around your body.
- 2.d.3. Do not place your body between the electrode and work cables. If the electrode cable is on your right side, the work cable should also be on your right side.
- 2.d.4. Connect the work cable to the workpiece as close as possible to the area being welded.
- 2.d.5. Do not work next to welding power source.

ELECTRIC SHOCK CAN KILL.

3.a. The electrode and work (or ground) circuits are electrically “hot” when the welder is on. Do not touch these “hot” parts with your bare skin or wet clothing. Wear dry, hole-free gloves to insulate hands.

3.b. Insulate yourself from work and ground using dry insulation. Make certain the insulation is large enough to cover your full area of physical contact with work and ground.

In addition to the normal safety precautions, if welding must be performed under electrically hazardous conditions (in damp locations or while wearing wet clothing; on metal structures such as floors, gratings or scaffolds; when in cramped positions such as sitting, kneeling or lying, if there is a high risk of unavoidable or accidental contact with the workpiece or ground) use the following equipment:

- Semiautomatic DC Constant Voltage (Wire) Welder.
- DC Manual (Stick) Welder.
- AC Welder with Reduced Voltage Control.

3.c. In semiautomatic or automatic wire welding, the electrode, electrode reel, welding head, nozzle or semiautomatic welding gun are also electrically “hot”.

3.d. Always be sure the work cable makes a good electrical connection with the metal being welded. The connection should be as close as possible to the area being welded.

3.e. Ground the work or metal to be welded to a good electrical (earth) ground.

3.f. Maintain the electrode holder, work clamp, welding cable and welding machine in good, safe operating condition. Replace damaged insulation.

3.g. Never dip the electrode in water for cooling.

3.h. Never simultaneously touch electrically “hot” parts of electrode holders connected to two welders because voltage between the two can be the total of the open circuit voltage of both welders.

3.i. When working above floor level, use a safety belt to protect yourself from a fall should you get a shock.

3.j. Also see Items 6.c. and 8.

ARC RAYS CAN BURN.

4.a. Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing open arc welding. Headshield and filter lens should conform to ANSI Z87. I standards.

4.b. Use suitable clothing made from durable flame-resistant material to protect your skin and that of your helpers from the arc rays.

4.c. Protect other nearby personnel with suitable, non-flammable screening and/or warn them not to watch the arc nor expose themselves to the arc rays or to hot spatter or metal.

FUMES AND GASES CAN BE DANGEROUS.

5.a. Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. When welding, keep your head out of the fume. Use enough ventilation and/or exhaust at the arc to keep fumes and gases away from the breathing zone. **When welding hardfacing (see instructions on container or SDS) 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 unless exposure assessments indicate otherwise. In confined spaces or in some circumstances, outdoors, a respirator may also be required. Additional precautions are also required when welding on galvanized steel.**

5. b. The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.

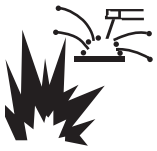
5.c. Do not weld in locations near chlorinated hydrocarbon vapors coming from degreasing, cleaning or spraying operations. The heat and rays of the arc can react with solvent vapors to form phosgene, a highly toxic gas, and other irritating products.

5.d. Shielding gases used for arc welding can displace air and cause injury or death. Always use enough ventilation, especially in confined areas, to insure breathing air is safe.

5.e. Read and understand the manufacturer’s instructions for this equipment and the consumables to be used, including the Safety Data Sheet (SDS) and follow your employer’s safety practices. SDS forms are available from your welding distributor or from the manufacturer.

5.f. Also see item 1.b.

WELDING AND CUTTING SPARKS CAN CAUSE FIRE OR EXPLOSION.



6.a. Remove fire hazards from the welding area. If this is not possible, cover them to prevent the welding sparks from starting a fire. Remember that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas. Avoid welding near hydraulic lines. Have a fire extinguisher readily available.

6.b. Where compressed gases are to be used at the job site, special precautions should be used to prevent hazardous situations. Refer to "Safety in Welding and Cutting" (ANSI Standard Z49.1) and the operating information for the equipment being used.

6.c. When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact can cause overheating and create a fire hazard.

6.d. Do not heat, cut or weld tanks, drums or containers until the proper steps have been taken to insure that such procedures will not cause flammable or toxic vapors from substances inside. They can cause an explosion even though they have been "cleaned". For information, purchase "Recommended Safe Practices for the Preparation for Welding and Cutting of Containers and Piping That Have Held Hazardous Substances", AWS F4.1 from the American Welding Society (see address above).

6.e. Vent hollow castings or containers before heating, cutting or welding. They may explode.

6.f. Sparks and spatter are thrown from the welding arc. Wear oil free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes and a cap over your hair. Wear ear plugs when welding out of position or in confined places. Always wear safety glasses with side shields when in a welding area.

6.g. Connect the work cable to the work as close to the welding area as practical. Work cables connected to the building framework or other locations away from the welding area increase the possibility of the welding current passing through lifting chains, crane cables or other alternate circuits. This can create fire hazards or overheat lifting chains or cables until they fail.

6.h. Also see item 1.c.

6.I. Read and follow NFPA 51B "Standard for Fire Prevention During Welding, Cutting and Other Hot Work", available from NFPA, 1 Batterymarch Park, PO box 9101, Quincy, MA 022690-9101.

6.j. Do not use a welding power source for pipe thawing.

CYLINDER MAY EXPLODE IF DAMAGED.

7.a. Use only compressed gas cylinders containing the correct shielding gas for the process used and properly operating regulators designed for the gas and pressure used. All hoses, fittings, etc. should be suitable for the application and maintained in good condition.

7.b. Always keep cylinders in an upright position securely chained to an undercarriage or fixed support.

7.c. Cylinders should be located:

- Away from areas where they may be struck or subjected to physical damage.
- A safe distance from arc welding or cutting operations and any other source of heat, sparks, or flame.

7.d. Never allow the electrode, electrode holder or any other electrically "hot" parts to touch a cylinder.

7.e. Keep your head and face away from the cylinder valve outlet when opening the cylinder valve.

7.f. Valve protection caps should always be in place and hand tight except when the cylinder is in use or connected for use.

7.g. Read and follow the instructions on compressed gas cylinders, associated equipment, and CGA publication P-I, "Precautions for Safe Handling of Compressed Gases in Cylinders," available from the Compressed Gas Association, 14501 George Carter Way Chantilly, VA 20151.

FOR ELECTRICALLY POWERED EQUIPMENT.

8.a. Turn off input power using the disconnect switch at the fuse box before working on the equipment.

8.b. Install equipment in accordance with the U.S. National Electrical Code, all local codes and the manufacturer's recommendations.

8.c. Ground the equipment in accordance with the U.S. National Electrical Code and the manufacturer's recommendations.

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

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NIOSH CAUTIONS AND LIMITATIONS

A – Not for use in atmospheres containing less than 19.5% oxygen.

B – Not for use in atmospheres immediately dangerous to life or health.

C – Do not exceed maximum use concentrations established by regulatory standards.

F – Do not use powered air-purifying respirators if airflow is less than four cfm (115 lpm) for tight fitting facepieces or six cfm (170 lpm) for hoods and/or helmets.

I – Contains electrical parts that may cause an ignition in flammable or explosive atmospheres.

J - Failure to properly use and maintain this product could result in injury or death.

L – Follow the manufacturer's User's Instructions for changing cartridges, canister and/or filters.

M – All approved respirators shall be selected, fitted, used, and maintained in accordance with MSHA, OSHA, and other applicable regulations.

N – Never substitute, modify, add, or omit parts. Use only exact replacement parts in the configuration as specified by the manufacturer.

O - Refer to User's Instructions, and/or maintenance manuals for information on use and maintenance of these respirators.

P - NIOSH does not evaluate respirators for use as surgical masks.

POWERED AIR-PURIFYING RESPIRATOR SECTION

RESPIRATOR SPECIFICATIONS

Size of Blower Assembly	8" W x 7.5" T x 3" D (203 x 191 x 76 mm)
Weight of Blower (including battery, belt, and filters)	47 oz. (1338 g)
Weight of Helmet Assembly	32 oz. (899 g)
Air Flow	Low Speed: 170+ lpm (6+ cfm) High Speed: 210+ lpm (7.4+ cfm)
Operating Temperature	23°F to 131°F (-5°C to 55°C)
Storage Temperature	23°F to 131°F (-5°C to 55°C)
Battery Type	Lithium Ion (Rechargeable)
Battery Charge Time	About three hours
Battery Life	Approximately 500 charges
Belt Size(3)	29 to 52 in. (736 to 1321 mm)
Helmet Compliance	ANSI Z87.1-2015, CSA Z94.3,
Respirator Approval (1)	NIOSH 42 cfr 84 Approved Powered Air-Purifying Respirator (PAPR)
Assigned Protection Factor (2)	25

(1) Refer to NIOSH respirator approval label for system configuration.

(2) APF=25 for loose fitting Powered Air-Purifying Respirator according to OSHA 3352-02 2009, when the employer implements a continuing, effective respirator program in compliance with the Respiratory Protection Standard (29 CFR 1910.134).

(3) Belt size maximum of 60 in.(1524 m) with belt extension accessory (see Parts Page in this manual)

BATTERY OPERATION

⚠ WARNING

Battery Safety

- **Keep battery away from fire or heat as this may cause the battery to explode and may result in serious injury or death.**
- **Battery should be charged with supplied Li-ion charger only. Charge in an open, well-ventilated location.**
- **The charger is designed only for use indoors.**
- **Do not allow the battery to get wet.**
- **Do not attempt to disassemble or repair the battery. There is no maintenance on Li-ion batteries.**
- **Battery disposal – battery must be disposed of properly or recycled.**

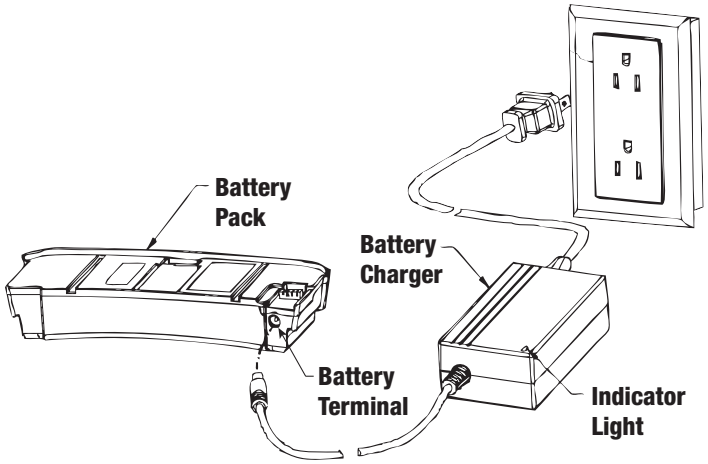
Charging of battery pack

- **Charge battery before first use or if battery has not been used for one week. Always recharge the battery before it becomes fully discharged.**
- **Batteries not in use should be charged at least once a year.**

Remove battery pack from blower assembly. Connect charger cord to battery terminal. Plug charger into 120/240 VAC receptacle. The battery pack does not need to be discharged before it is charged.

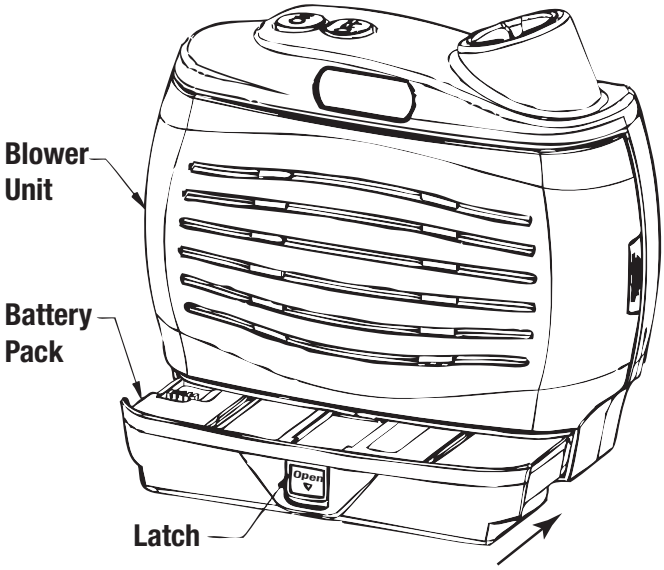
The charger indicator light will turn red in color when battery pack is being charged. When battery pack is finished charging, the indicator light will turn green letting the user know that the battery is fully charged (normal charge time approximately 3 hours). Although it is okay to leave the battery pack connected to the charger, it is recommended that once the battery pack is fully charged to disconnect battery pack from charger.

FIGURE 1



INSTALLING BATTERY PACK

FIGURE 2



Slide battery pack into blower unit just below filter cover until battery pack latch snaps into position. It is very important that the battery pack snaps into position. This makes sure the battery pack is locked in place and will not slide out causing possible nuisance shutoffs while in use.

To remove battery pack, simply push down on latch to release and slide battery pack out from blower unit.

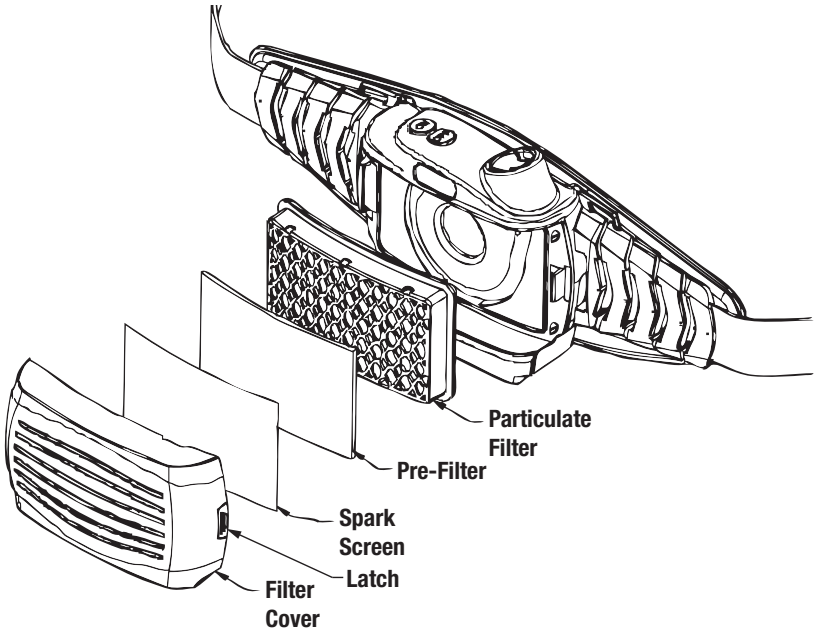
FILTER INSTALLATION

⚠ WARNING

Filter Safety

- **Do not use the respirator without the spark screen, pre-filter, and the HE particulate filter (HEPA) installed. The NIOSH approval of this PAPR is with the spark screen, pre-filter and HE particulate filter installed using respirator without any of these items is not in accordance with NIOSH approval and may be dangerous to your health.**
- **Replace air filters when damaged or clogged. DO NOT wash, clean with compressed air or reuse dirty air filters.**
- **Use specific replacement filters specified in this manual. Use of other filters is in violation of the NIOSH approval of the respirator system. Refer to NIOSH respirator approval label for system configuration.**

FIGURE 3



Install the spark screen, pre-filter, and particulate filter in filter cover exactly as shown.

Install the filter cover assembly to the blower unit by engaging tabs on filter cover into bracket on blower unit and rotate assembly to close. Push filter cover assembly down until latch clicks into position securing filter cover assembly. Make sure the filter cover assembly is secure to the blower unit body. Inspect both latching side of cover and opposite side to see that the filter cover is properly secured.

To replace filter, push latch into release filter cover and replace filter as shown in figure 3. Refer to NIOSH respirator approval label and/or parts page at the back of this operator's manual for proper filters to be used with this respirator.

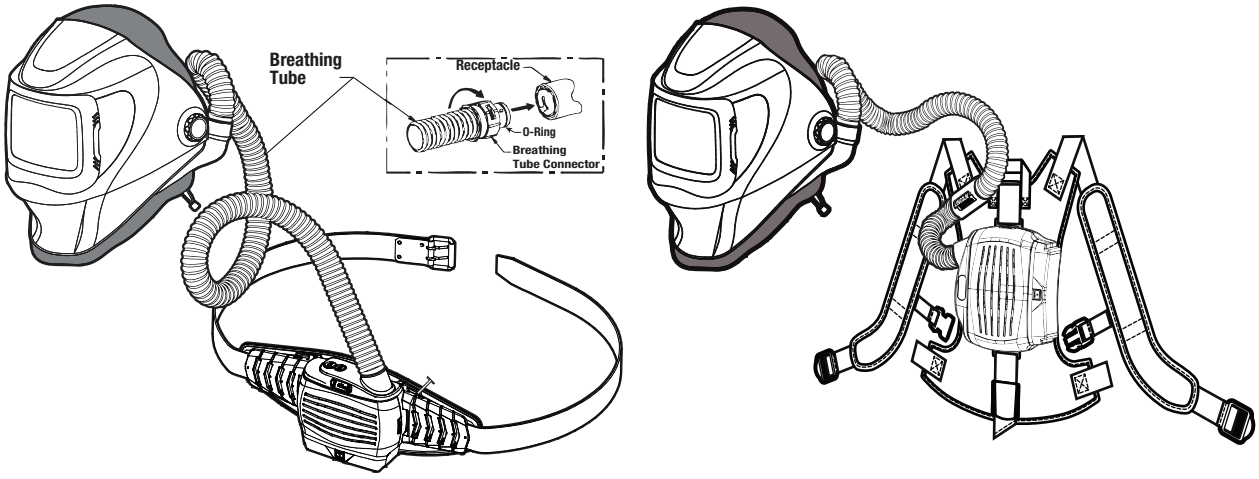
BREATHING TUBE INSTALLATION

⚠ WARNING

Breathing tube safety

- **Be sure breathing tube is properly installed or non-filtered air may enter the helmet.**
- **Be sure o-ring is properly installed on tube connector and there are no visible signs of cuts or tears on o-ring. Replace o-ring if damaged.**
- **Do not use respirator if o-ring is missing.**

FIGURE 4



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Align pins of tube connector with channels in blower unit receptacle. Insert connector as far as it will go into blower unit and the turn connector 1/8 of a turn clockwise to secure this end of breathing tube.

For the PAPR backpack model, KP5309-1, use the KP5311-1 hose assembly. Secure the hose with the velcro strap located on the left shoulder strap.

Amllcargle `pc_rfgle rs`c rm fcjkcr

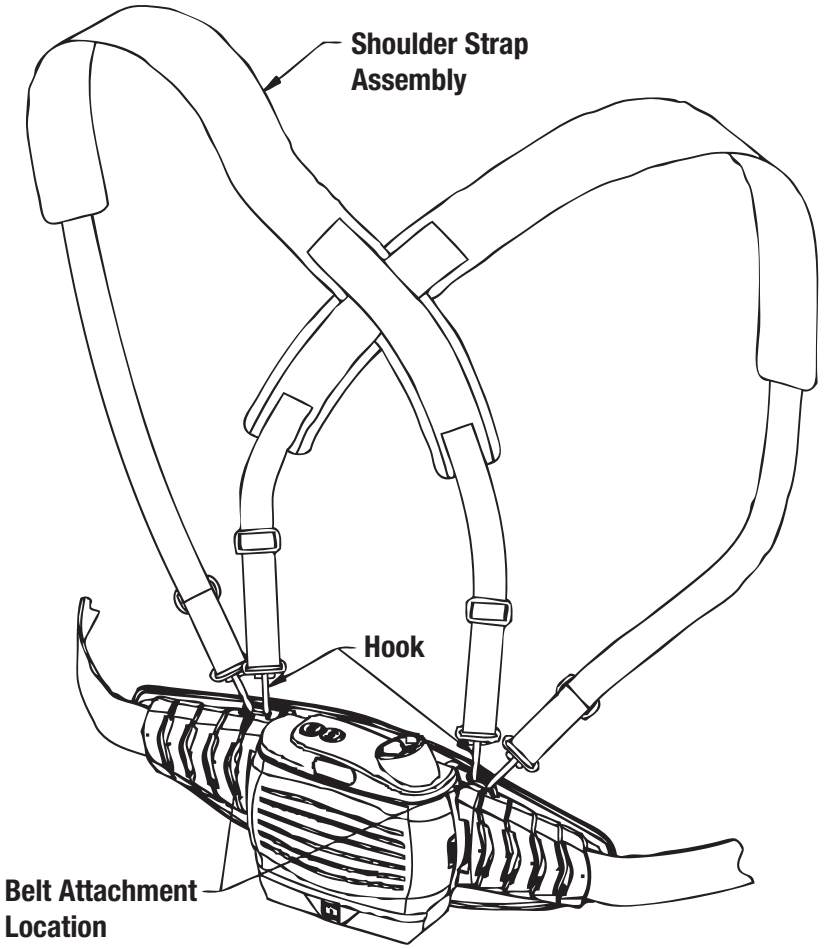
Align pins of tube connector with channels in helmet receptacle. Insert connector as far as it will go into helmet receptacle and the turn connector 1/8 of a turn clockwise to secure this end of breathing tube. If tube is twisted, disconnect one end of breathing tube. Untwist tube and re-attach.

To remove breathing tube turn connector 1/8 of a turn counter clockwise and pull connector out to release from helmet or blower unit.

SHOULDER STRAP INSTALLATION

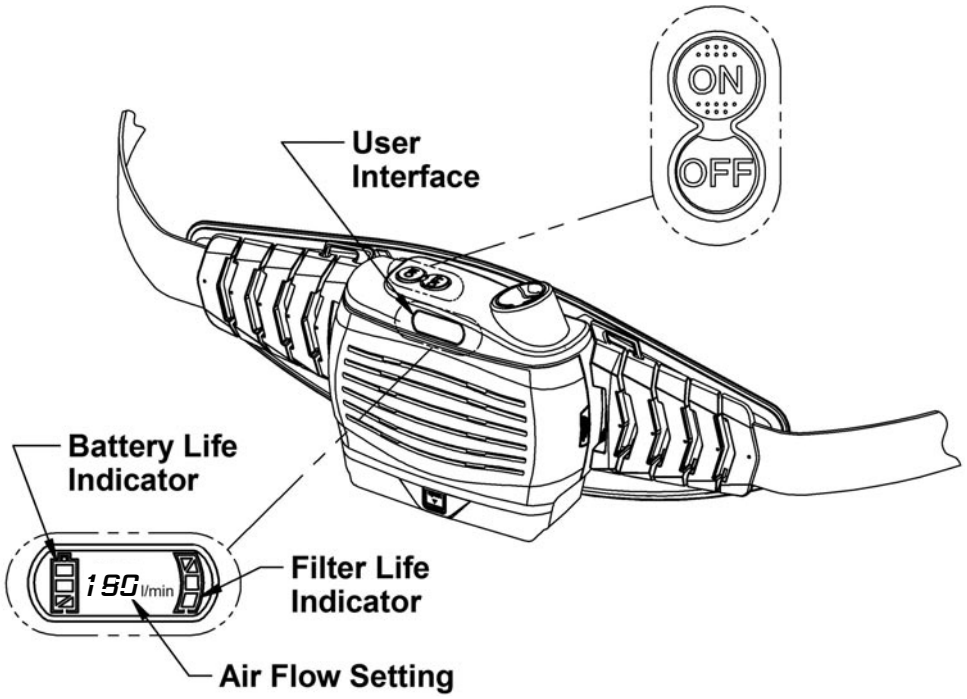
Connect hooks (4 total) on shoulder strap assembly to belt attachment points as shown.

FIGURE 5



RESPIRATOR CONTROLS

FIGURE 6



⚠ WARNING

Respirator Use

If an alarm sounds or the blower vibrates, leave the work area immediately. Do not remove the respirator until you are in a safe area.

Starting the Respirator

Press ON button for 1 to 2 seconds until the blower is activated. An audible sound will be heard and the user interface will light up. The blower will always start at the low air flow setting (180 lpm). Pressing the ON button again will switch to the high air flow setting (210 lpm). The user interface will show the air flow setting chosen.

Stopping the Respirator

Press OFF button for 2 seconds until blower stops. When pressing OFF button, an audible beeping sound indicates the OFF button has been depressed. Beeping sound will stop and the user interface will darken when blower unit is off.

Battery Level Indicator

This indicator gives the user an estimate of the battery life remaining. When three full bars show up in the display, the battery is fully charged.

Filter Life Indicator

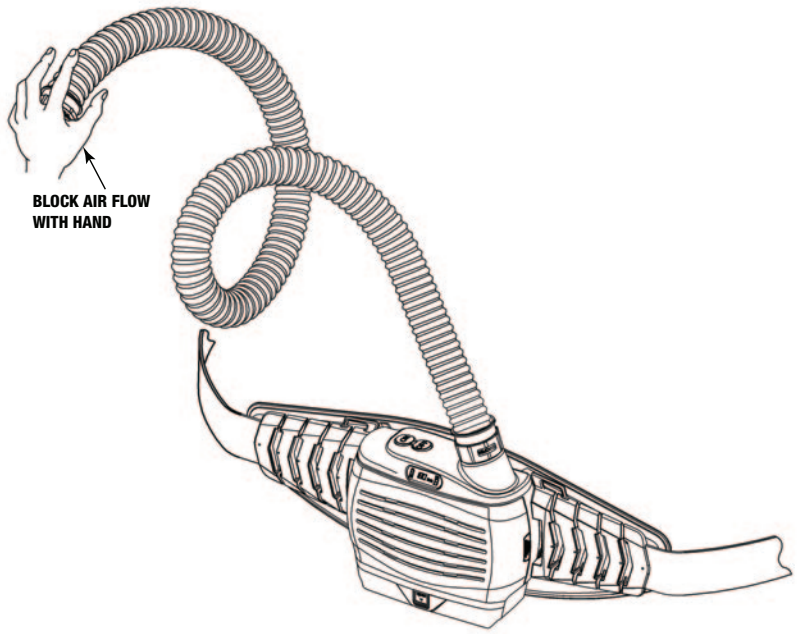
This indicator gives the user an estimate of the filter life remaining. When three full bars show up in the display, the filter is in need of changing. When zero bars show up in the display, the particulate filter is clean. As the bars appear, the filter is becoming clogged and a reduction in battery life is expected. Operating respirator with filter indicator showing a clogged filter will significantly reduce the battery life/run time.

AIR FLOW ALARM OPERATION

Air Flow Alarm

- The control system of the blower unit maintains the air flow rates consistently throughout the operating time. If the air flow alarm is activated, the filter may need to be replaced and/or breathing tube has become blocked.

FIGURE 7



- Always test air flow alarm prior to using respirator.
- If an alarm sounds or the blower vibrates, leave work area immediately. Do not remove the respirator until you are in a safe area.

Testing of Air Flow Alarm

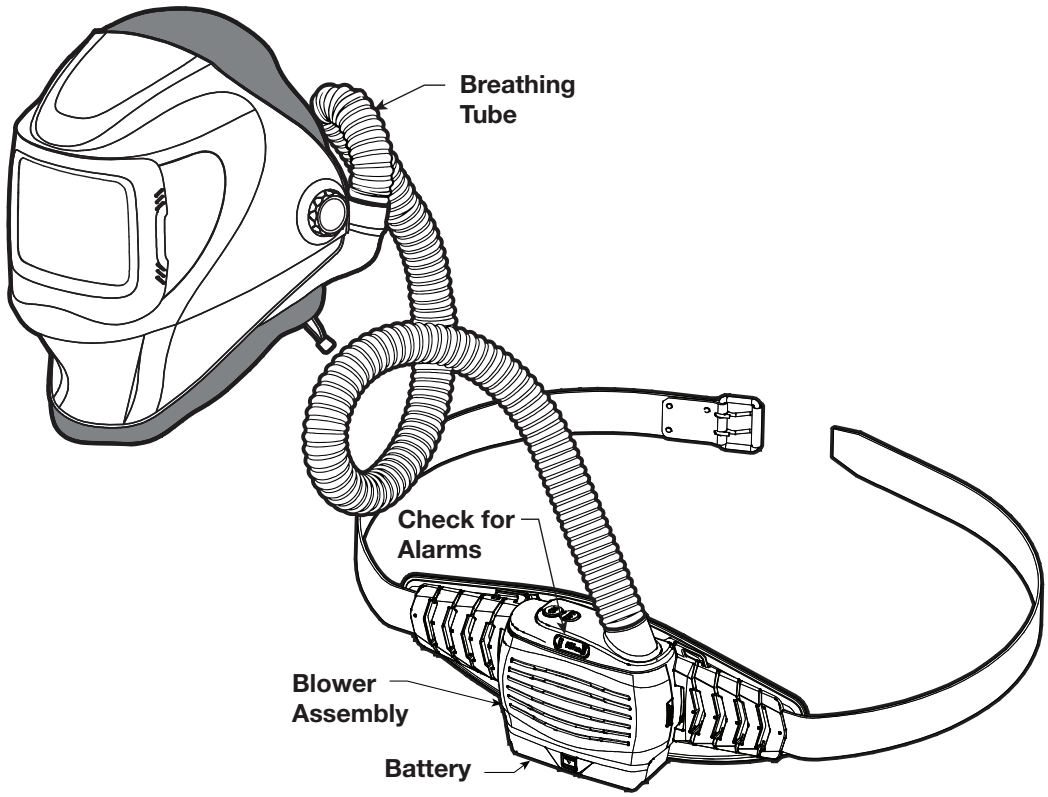
Testing of air flow alarm must always be done in a safe enviroment.

Disconnect breathing tube from helmet. Start blower unit and block air flow by placing your hand over the end of the breathing tube as shown. Hold your hand over end of tube as shown until alarm sounds and blower vibrates (approximately 15 to 30 seconds).

If the alarm does not activate return unit for repair and do not use.

PREPARING FOR USE

FIGURE 9



Before using Respirator – Check the Following Items

1. Blower Assembly
   - Verify the air filter is proper for application and is NIOSH approved for use with this respirator. Verify the spark screen, pre-filter and particulate filter are properly installed and securely latched.
2. Breathing Tube
   - Make sure tube is not damaged and connected properly to the blower unit and helmet.
3. Battery
   - Verify connection to blower unit is secure and that battery is fully charged.
4. Air Flow/Air Flow Alarms
   - Start blower unit and verify air flow rate is being maintained by checking for air flow alarm activation. Test to verify air flow alarm is working (see page 15 for procedure).
5. Helmet/Hood
   - Inspect helmet for damage and replace if necessary. If air from blower is not being supplied to helmet, see troubleshooting guide (page 15).

DONNING PROCEDURE FOR RESPIRATOR

⚠ WARNING

Respirator Safety

- **Do not enter a hazardous area until you are sure the respirator equipment is functioning correctly and properly worn.**
- **Leave the contaminated area immediately if the alarm sounds or the blower vibrates. Do not remove equipment until you are in a safe area.**
- **It is recommended that the user practice the donning and wearing of the respirator before attempting to use the respirator for respiratory protection.**
- **Do not use the powered air-purifying respirator without all filter components or with blower turned off or hazardous levels of oxygen and carbon dioxide may accumulate in the helmet.**

Donning respirator

NOTE: Make sure all procedures within preparing for use have been completed, prior to donning.

1. Put the blower assembly on against your lower back with hose extending upwards. Extend arms through shoulder straps, allow straps to go over shoulders and belt around waist. Adjust shoulder straps and belt so blower unit rests against lower back properly.
2. Start the blower unit by pressing the ON button. Adjust air flow rate.
3. Connect the hose to the helmet assembly. Put on helmet and adjust so helmet fits snug on head. Tighten drawing string of face covering to establish a seal around head.

Respirator removal

NOTE: Leave contaminated area before removing the helmet and blower unit.

1. Take off helmet and disconnect hose from helmet.
2. Turn off blower unit by pressing OFF button.
3. Release belt, remove straps from shoulders and remove blower unit off of your lower back.

After use, the respirator components must be cleaned, inspected and prepared for reuse (battery charged).

⚠ WARNING

Respirator Maintenance And Storage

- **Replace damaged or dirty air filters. Filters cannot be washed or cleaned with compressed air. Never reuse a dirty air filter.**
- **Never use solvents or abrasive cleaning solutions to clean the respirator. Keep water and other fluids out of blower assembly.**

Maintain accurate records of filter replacement and respirator maintenance.

The respirator components should be cleaned after each use. Use of a soft cloth dampened with a mild soap and water solution to wipe all external surfaces of blower unit clean. Allow to dry.

Factors including product usage and workplace contamination levels affect the life of the filters. Replace filters if air flow is reduced because of dirty filter and according to the filter change schedule established by your Safety Director and an Industrial Hygienist.

Inspection of blower assembly and breathing tube after each use is good practice. Replace breathing tube if damaged or if inside of tube is dirty.

Storage of respirator should be in a clean, dry, cool place with the filter and battery removed for blower assembly if respirator will not be used for an extended period of time.

TROUBLE SHOOTING GUIDE FOR RESPIRATOR

PROBLEMS (SYMPTOMS)	POSSIBLE CAUSE	RECOMMENDED COURSE OF ACTION
No air flow to helmet from blower.	1. Blower not ON. 2. Battery not charged. 3. Battery connection not being made. 4. Breathing tube blocked.	1. Press ON button. 2. Charge battery. 3. Verify battery pack is securely latched into blower unit. 4. Clear obstruction from blower outlet and/or hose.
Blower supplies insufficient air to helmet.	1. Breathing tube connections not properly connected. 2. Clogged filter.	1. Check breathing tube connections to blower and helmet. 2. Replace filter.
Low airflow alarm (audible & vibratory).	1. Breathing tube is blocked. 2. Filter inlet is covered. 3.Clogged filter.	1. Clear obstruction from blower outlet and/or hose 2. Make sure inlet to filter not restricted. 3. Replace filter.
Battery alarm (audible & vibratory).	1. Low battery.	1.Charge battery or replace battery as required.
User detects odor or taste of contaminants or feels eye or throat irritation.	1. Incorrect respirator for application. 2. Hose connections loose allowing air to enter downstream of blower. 3. Filter	1. Consult onsite Industrial Hygienist or safety director for proper equipment for work environment. 2. Check hose connections to blower and helmet. 3. Leave area wearing respirator. Check filter and replace if necessary.
Battery run time is too short.	1. Inadequate charging. 2. Clogged filter. 3. Battery faulty.	1. Fully charge battery. 2. Replace filter. 3. Replace battery with new one.
The motor runs “faster than normal” (increased sound level).	1. Filter is getting clogged.	1. Replace filter and pre-filter as required.

AUTO-DARKENING HELMET SECTION

HELMET INFORMATION

This auto darkening welding helmet with integrated clear face shield is an all-in-one solution for welding, cutting and grinding. It is designed to provide protection from harmful UV and IR radiation from welding/cutting process with the lens flip down, and help protect against flying particles from grinding with the lens flip up. This Helmet can be used for GMAW, GTAW, MMAW welding, or Plasma Arc and air carbon arc cutting.

This Auto-Darkening Welding Helmet will change from a light state (shade 4) to a dark state (Shade 5-13) when arc welding starts. The filter automatically returns to a light state when the arc stops. Match your welding application to the shade indicated on the shade chart.

- The lens must flip down before welding.
- Do not use the auto-darkening filter if damaged by shock, vibration or pressure.
- Do not use the helmet without inside and outside cover lenses properly installed.
- If cover lens is spattered or covered with dirt, it should be replaced immediately.
- Do not use helmet if lens does not function as described.

The cartridge contains four sensors to detect the light from the welding arc, resulting in the lens darkening to a selected welding shade. Keep the sensors and solar cell clean. Clean the filter cartridge using a soapy water solution and soft cloth which should be damp but not saturated.

- Do not use solvents or abrasive cleaning detergent.
- Use only replacement parts specified in this manual.

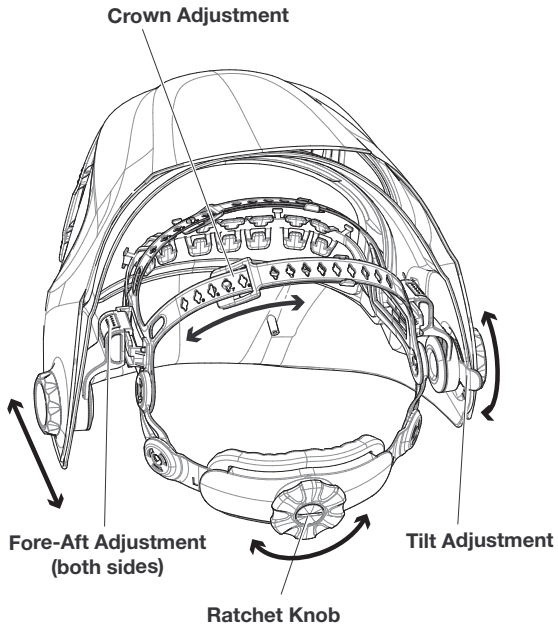
AUTO-DARKENING LENS SPECIFICATIONS

Optical Class	1/1/1/1 with 4C™ Technology
LCD Viewing Area	74 × 106 mm (2.91 x 4.17in.)
Arc Sensors	4
Light State Shade	DIN 4
Grind State	DIN 4
Cutting Shades	5 to 8
Variable Welding Shades	9 to 13
Shade Control	Variable Shade, Digital Display Control
Power On/Off	Auto-ON, Auto-OFF
Sensitivity Control	Variable 0 to 10, Digital Display Control
UV/IR Protection	Up to Shade DIN16 at all times
Power Supply	Solar cell with battery assist
Battery	2×CR2450 lithium batteries
Light to Dark Switching Time	0.00004 sec. (1/25,000 sec.)
Dark to Light Switching Time	Variable 0 to 10, Digital Display Control (0.1 sec. to 1.0 sec.)
Oxyfuel Gas Welding	Yes
Oxygen Cutting	Yes
Grinding	Yes
TIG Rating	DC ≥ 2 amps AC ≥ 2 amps
Operating Temperature	14°F ~ 131°F (-10°C ~ 55°C)
Storage Temperature	-4° ~ 158°F (-20°C ~ 70°C)
Compliance**(1)**	ANSI Z87.1-2015/CSA Z94.3

OPERATING INSTRUCTIONS

Headgear Adjustment

FIGURE 1 - View of headgear with shell, sweatband, headcovering and air inlet removed for clarity



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 pins into the holes to lock securely in place.

TILT: Tilt adjustment is located on the right side of the helmet. Loosen the right headgear tension knob and push the top end of the adjustment lever inward 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 lens. To adjust, press the button down and slide forward or back to desired position, and then released the button. **NOTE:** Make sure both sides are equally positioned for proper operation.

CARTRIDGE OPERATION/FEATURES

ON/MODE Button

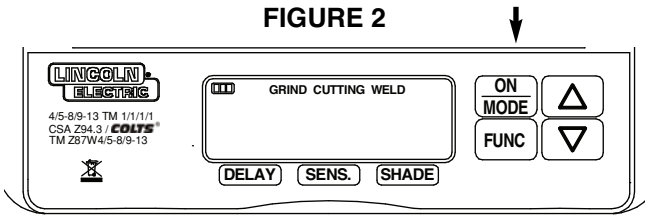
- **ON-OFF** (Lens will automatically darken when arc is present)

  The Shade Cartridge will automatically turn on, the digital display control will activate and helmet will be ready for use. It is recommended that the user review helmet settings prior to use. The welding helmet will automatically turn off after half hour of no use.

- **MODE CONTROL**

  Short press of the ON/MODE button to select the mode appropriate for the work activity:

FIGURE 2



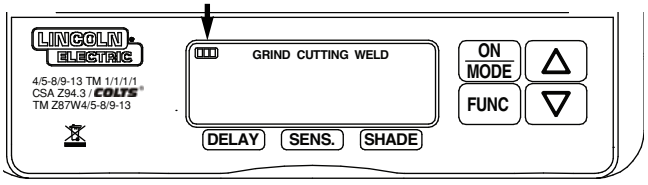
Weld Mode – used for most welding applications. Push "FUNC" button to adjust shade number, sensitivity, and delay settings before welding. In this mode, the lens turns to dark immediately when you start welding.

Cutting Mode – used for cutting applications. Push "FUNC" button to adjust shade number, sensitivity, and delay settings before cutting. In this mode the lens turns to dark immediately when you start cutting.

Grind Mode – used for grinding applications. In this mode the lens shade is fixed shade No. 4. Shade number, sensitivity, and delay settings cannot be adjusted when in grind mode.

Battery Indicator

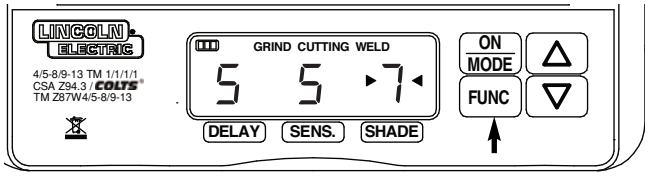
FIGURE 3



The symbol "(▮▮▮)" shows the current state of the battery. The volume of batteries has four level symbols (See Figure 3). The symbol "(▭)" appears on the display screen before 1 to 2 days of battery life remains, CR2450 lithium batteries should be replaced at this time. The symbol of the Battery Indicator is not real-time and is updated shortly after pushing the ON/MODE button.

Variable Shade Control

FIGURE 4



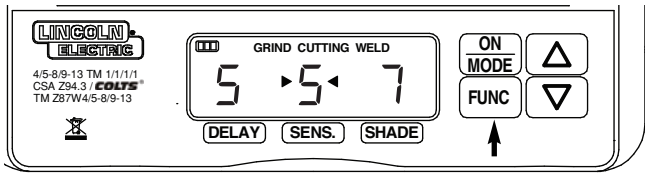
After turning on the lens, press the "FUNC" button to choose “SHADE”, adjust lens shade number. Use the shade control UP and DOWN buttons to select the lens darkened state.

The shade range for each mode is as follows:

- Weld Mode – No. 9 ~ No. 13
- Cutting Mode – No. 5 ~ No. 8
- Grind Mode - No. 4

Sensitivity Control

FIGURE 5



Press "FUNC" button to choose "SENSITIVITY". Use Sensitivity Control "UP" and "DOWN" buttons to make the lens more or less sensitive to arc light for different welding processes. Sensitivity settings 5 through 9 are the normal settings for everyday use. The sensitivity ranges for each mode are as follows:

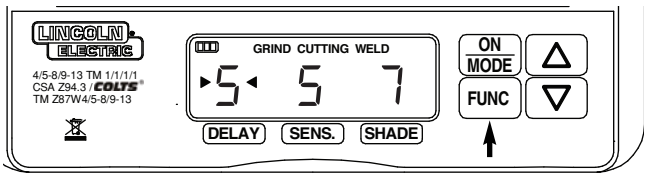
- Weld Mode / Cutting Mode – No.0 ~ No. 10
- Grind Mode – No sensitivity adjustment

It may be necessary to adjust helmet sensitivity to accommodate different lighting conditions or if lens is flashing On and Off. Adjust helmet sensitivity in lighting conditions helmet will be used in. Adjust helmet sensitivity as follows:

- Press the “DOWN” button to lower setting to 0.
- Face the helmet in the direction of use, exposing it to the surrounding light conditions.
- Press the “UP” button repeatedly until the lens darkens, then press the “DOWN” button until lens clears. Helmet is ready for use. Slight readjustment may be necessary for certain applications or if lens is flashing on and off.

Delay Control

FIGURE 6



Press "FUNC" button to choose "DELAY", begin lens delay adjustments. Use the Lens Delay Control "UP" and "DOWN" buttons to adjust the time for the lens to switch to the clear state after welding or cutting.

- Weld Mode / Cutting Mode – No.0 ~ No. 10
- Grind Mode – No delay adjustment

The delay is particularly useful in eliminating bright after-rays present in higher amperage applications where the molten puddle remains bright momentarily after welding. Use the Lens Delay Control buttons to adjust delay from 0 to 10 (0.1 to 1.0 second). When welding ceases, the viewing window automatically changes from the darkened state back to light state but with a pre-set delay to compensate for any bright afterglow on the work piece. The delay time/response can be set from Level 0 to level 10. It is recommended to use a shorter delay with spot welding applications and a longer delay with applications using higher currents. Longer delays can also be used for low current TIG welding in order to avoid the filter opening when the light path to the sensors is temporarily obstructed by a hand, torch, etc.

HELMET CARE AND MAINTENANCE

Cleaning: Clean helmet by wiping with a soft cloth. Clean cartridge surfaces regularly. Do not use strong cleaning solutions. Clean sensors and solar cells with soapy water solution and a clean cloth and wipe dry with a lint-free cloth.

Do NOT submerge shade cartridge in water or other solution.

Storage: Store in a clean, dry location.

Change the ADF

Remove Front Lens Holder per Figure 7A. Push down on the ADF to unlock the two locking pins (Figure 7B) and pull forward to remove ADF (Figure 7C).

Replacing Outside Cover Lens

Replace the front cover lens if it is damaged. Remove Front Lens Holder per Figure 7A. Remove Outside Cover Lens from the ADF assembly. Install new cover lens into ADF and assemble to helmet shell. Make sure to assemble cover lens and gasket into helmet shell the same way as it was removed.

Replacing Inside Clear Lens

Replace the inside clear lens if it is damaged. Remove Front Lens Holder per Figure 7A. Remove ADF assembly and then remove the Inside Clear Lens. Install new Inside Clear Lens into ADF and assemble to helmet shell. Make sure to assemble them into helmet shell the same way as it was removed.

FIGURE 7A

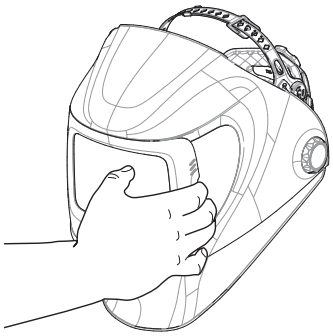


FIGURE 7B

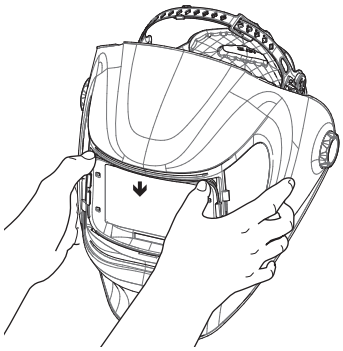
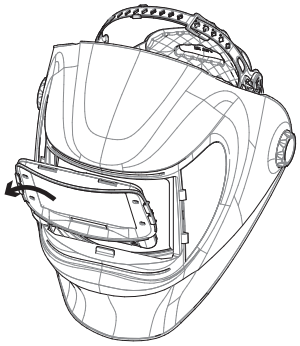


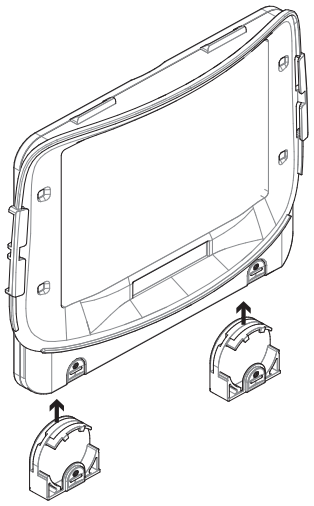
FIGURE 7C



Battery Replacement

After taking out the ADF, remove the battery tray and replace the battery. Install the battery tray and assemble the ADF to helmet shell. Make sure to assemble them into helmet shell the same way as it was removed.

FIGURE 10



Grind Shield Replacement

Replace the Clear Grind Shield if it is damaged. Remove Grind Shield Lens Holder per Figure 11 and the clear grind shield. Carefully install the new Grind Shield and make sure it slides into the side slots on both sides. Assemble the holder back into the helmet shell.

FIGURE 11

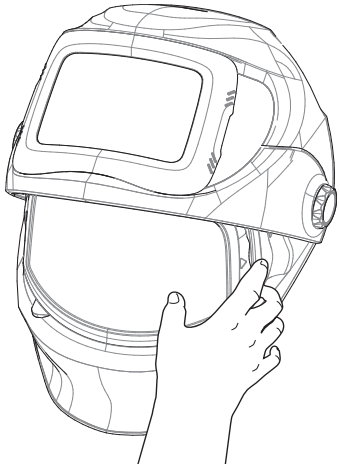


FIGURE 12

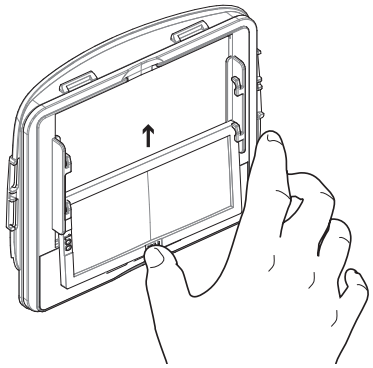
Installing Aftermarket Side Window Cover

Simply cover the Side Window with Side Window Cover, make sure the covers are line up with the lens.

Installing Aftermarket Magnifying Lens

Simply slide the magnifying lens into the short rail located on the sides of ADF holder per Figure 13.

FIGURE 13



TROUBLESHOOTING GUIDE

Test your shade cartridge prior to welding by directing the front of the cartridge toward a bright source of light. Then, using your fingers, rapidly cover and uncover the sensors. The cartridge should darken momentarily as the sensor is exposed. A torch striker can also be used.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Filter does not darken when TEST button is pushed	Low Battery	Replace Battery
Difficult to see through filter.	Front cover lens dirty.	Clean or replace front cover lens.
	Cartridge dirty.	Clean the Auto-Darkening cartridge with soapy water solution and soft cloth.
Filter does not darken when arc is struck.	Sensitivity is set too low.	Adjust sensitivity to required level.
	Front cover lens dirty.	Clean or replace front cover lens.
	Front cover lens is damaged.	Check for cracked or pitted front cover lens and replace as required.
	Sensors are blocked or Solar panel is blocked.	Make sure you are not blocking the sensors or solar panels with your arm or other obstacle while welding. Adjust your position so that the sensors can see the weld arc.
	Grind Mode Selected	Make sure proper shade is selected.
Filter darkening without arc being struck.	Sensitivity set too high.	Adjust sensitivity to required level.
Filter remains dark after completing a weld.	Delay time set too high.	Adjust delay time to required level.

⚠ WARNING

	ADF is cracked.	**Cease (STOP) using this product if this problem exists. UV/IR protection may be compromised resulting in burns to the eyes**	
	Weld spatter is damaging the filter.	**Missing, damaged, broken, cracked or distorted front cover lens.**	**Replace front cover lens as needed.**

SHADE GUIDE SETTING

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 60-160 160-250 250-550	7 8 10 11	– 10 12 14
Gas metal arc welding and flux cored arc welding		Less than 60 60-160 160-250 250-500	7 10 10 10	– 11 12 14
Gas tungsten arc welding		Less than 50 50-150 150-500	8 8 10	10 12 14
Air carbon Arc cutting	(Light) (Heavy)	Less than 500 500-1000	10 11	12 14
Plasma arc welding		Less than 20 20-100 100-400 400-800	6 8 10 11	6 to 8 10 12 14
Plasma arc cutting	(Light)(2) (Medium)(2) (Heavy)(2)	Less than 300 300-400 400-800	8 9 10	9 12 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 1/8 to 1/2 Over 1/2	 Under 3.2 3.2 to 12.7 Over 12.7		 4 or 5 5 or 6 6 or 8
Oxygen cutting Light Medium Heavy	 Under 1 1 to 6 Over 6	 Under 25 25 to 150 Over 150		 3 or 4 4 or 5 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.

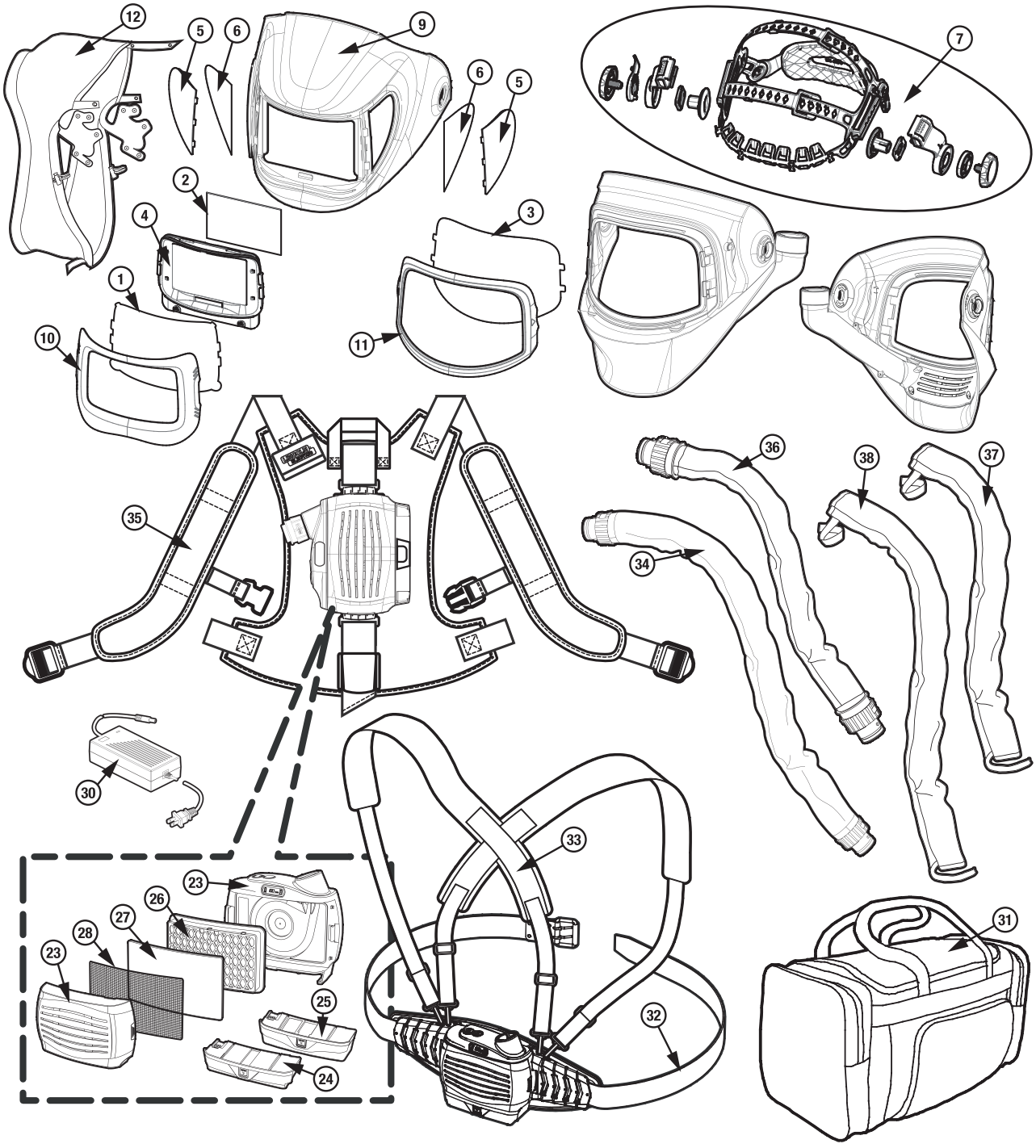
Data from ANSI Z49.1-2012

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

WARRANTY INFORMATION

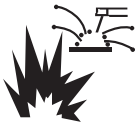
WARRANTY INFORMATION: Reference IMWS1 included in Literature.

SPATTER DAMAGE IS NOT COVERED BY WARRANTY:
Do not use this product without the correct protective clear lenses installed properly on both sides of the Auto-Darkening Lens. The clear lenses supplied with this helmet are properly sized to work with this product and substitutions from other suppliers should be avoided.



VIKING PAPR FGS 3250D WELDING HELMET ASSEMBLY (PARTS PAGES)

1	KP3700-1	FGS - OUTSIDE COVER LENS	1
2	KP3701-1	FGS - INSIDE COVER LENS	1
3	KP3702-1	FGS - CLEAR GRIND SHIELD LENS	1
4	KP3703-3	REPLACEMENT 3250D ADF	1
5	9SS32652-5	SHADE 5 SIDE LENS	1
6	KP3705-1	FGS - SIDE LENS COVERS	1
7	KP4471-1	FGS VIKING PAPR - HEADGEAR	1
8	KP3706-1	FGS SWEATBAND	1
9	KP4472-1	FGS VIKING PAPR - SHELL (W/SIDE WINDOW)	1
10	9SS32652-10	FRONT LENS HOLDER	1
11	9SS32652-3	GRIND SHIELD LENS HOLDER	1
12	KP4473-1	FGS VIKING PAPR - HEADCOVERING	1
13	KP4474-1	PAPR VIKING 3250D FGS HELMET ASSEMBLY	1
23	KP3944-1	PAPR VIKING BLOWER ASBLY	1
24	KP3937-1	PAPR VIKING BATTERY PACK 8 HR	1
25	KP3938-1	PAPR VIKING BATTERY PACK EXTENDED	1
26	KP3424-2	PAPR VIKING REPLACEMENT FILTER (PK OF 2)	1
26	KP3424-6	PAPR VIKING REPLACEMENT FILTER (PK OF 6)	1
27	KP3935-1	PAPR VIKING PRE-FILTER (PK of 6)	1
28	KP3936-1	PAPR VIKING SPARK SCREEN	1
29	9SM25062-1	FILTER COVER ASSEMBLY	1
30	KP3932-1	PAPR VIKING BATTERY CHARGER	1
31	K3096-1	LINCOLN INDUSTRIAL DUFFLE BAG	1
32	KP5123-1	PAPR VIKING BELT ASSEMBLY	1
33	KP5124-1	PAPR VIKING SHOULDER STRAP ASSEMBLY	1
34	KP5122-1	PAPR VIKING HOSE ASBLY W/COVER	1
35	KP5309-1	PAPR BACKPACK	1
36	KP5310-1	PAPR VIKING SHORT HOSE ASBLY W/ COVER	1
37	KP5311-1	PAPR VIKING SHORT HOSE FR COVER	1
38	KP5345-1	PAPR VIKING LONG HOSE FR COVER	1
	KP3046-100	1.00 MAG CHEATER LENS KIT	1
	KP3046-125	1.25 MAG CHEATER LENS KIT	1
	KP3046-150	1.50 MAG CHEATER LENS KIT	1
	KP3046-175	1.75 MAG CHEATER LENS KIT	1
	KP3046-200	2.00 MAG CHEATER LENS KIT	1
	KP3046-225	2.25 MAG CHEATER LENS KIT	1
	KP3046-250	2.50 MAG CHEATER LENS KIT	1

			
WARNING	● Do not touch electrically live parts or electrode with skin or wet clothing. ● Insulate yourself from work and ground.	● Keep flammable materials away.	● Wear eye, ear and body protection.
Spanish **AVISO DE PRECAUCION**	● No toque las partes o los electrodos bajo carga con la piel o ropa mojada. ● Aislese del trabajo y de la tierra.	● Mantenga el material combustible fuera del área de trabajo.	● Protéjase los ojos, los oídos y el cuerpo.
French **ATTENTION**	● Ne laissez ni la peau ni des vêtements mouillés entrer en contact avec des pièces sous tension. ● Isolez-vous du travail et de la terre.	● Gardez à l'écart de tout matériel inflammable.	● Protégez vos yeux, vos oreilles et votre corps.
German **WARNUNG**	● Berühren Sie keine stromführenden Teile oder Elektroden mit Ihrem Körper oder feuchter Kleidung! ● Isolieren Sie sich von den Elektroden und dem Erdboden!	● Entfernen Sie brennbarres Material!	● Tragen Sie Augen-, Ohren- und Körperschutz!
Portuguese **ATENÇÃO**	● Não toque partes elétricas e electrodos com a pele ou roupa molhada. ● Isole-se da peça e terra.	● Mantenha inflamáveis bem guardados.	● Use proteção para a vista, ouvido e corpo.
Japanese **注意事項**	● 通電中の電気部品、又は溶材にヒフやぬれた布で触れないこと。 ● 施工物やアースから身体が絶縁されている様にして下さい。	● 燃えやすいものの側での溶接作業は絶対にしてはなりません。	● 目、耳及び身体に保護具をして下さい。
Chinese **警 告**	● 皮肤或濕衣物切勿接觸帶電部件及銲條。 ● 使你自己與地面和工件絕緣。	● 把一切易燃物品移離工作場所。	● 佩戴眼、耳及身體勞動保護用具。
Korean **위 험**	● 전도체나 용접봉을 젖은 헝겁 또는 피부로 절대 접촉치 마십시요. ● 모재와 접지를 접촉치 마십시요.	● 인화성 물질을 접근 시키지 마시요.	● 눈, 귀와 몸에 보호장구를 착용하십시요.
Arabic **تحذير**	● لا تلمس الاجزاء التي يسري فيها التيار الكهربائي أو الالكترود بجلد الجسم أو بالملابس المبللة بالماء. ● ضع عازلا على جسمك خلال العمل.	● ضع المواد القابلة للاشتعال في مكان بعيد.	● ضع أدوات وملابس واقية على عينيك وأذنيك وجسمك.

READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTION FOR THIS EQUIPMENT AND THE CONSUMABLES TO BE USED AND FOLLOW YOUR EMPLOYER'S SAFETY PRACTICES.

SE RECOMIENDA LEER Y ENTENDER LAS INSTRUCCIONES DEL FABRICANTE PARA EL USO DE ESTE EQUIPO Y LOS CONSUMIBLES QUE VA A UTILIZAR, SIGA LAS MEDIDAS DE SEGURIDAD DE SU SUPERVISOR.

LISEZ ET COMPRENEZ LES INSTRUCTIONS DU FABRICANT EN CE QUI REGARDE CET EQUIPMENT ET LES PRODUITS A ETRE EMPLOYES ET SUIVEZ LES PROCEDURES DE SECURITE DE VOTRE EMPLOYEUR.

LESEN SIE UND BEFOLGEN SIE DIE BETRIEBSANLEITUNG DER ANLAGE UND DEN ELEKTRODENEINSATZ DES HERSTELLERS. DIE UNFALLVERHÜTUNGSVORSCHRIFTEN DES ARBEITGEBERS SIND EBENFALLS ZU BEACHTEN.

● Keep your head out of fumes. ● Use ventilation or exhaust to remove fumes from breathing zone.	● Turn power off before servicing.	● Do not operate with panel open or guards off.	**WARNING**
● Los humos fuera de la zona de respiración. ● Mantenga la cabeza fuera de los humos. Utilice ventilación o aspiración para gases.	● Desconectar el cable de alimentación de poder de la máquina antes de iniciar cualquier servicio.	● No operar con panel abierto o guardas quitadas.	Spanish **AVISO DE PRECAUCION**
● Gardez la tête à l'écart des fumées. ● Utilisez un ventilateur ou un aspirateur pour ôter les fumées des zones de travail.	● Débranchez le courant avant l'entretien.	● N'opérez pas avec les panneaux ouverts ou avec les dispositifs de protection enlevés.	French **ATTENTION**
● Vermeiden Sie das Einatmen von Schweibrauch! ● Sorgen Sie für gute Be- und Entlüftung des Arbeitsplatzes!	● Strom vor Wartungsarbeiten abschalten! (Netzstrom völlig öffnen; Maschine anhalten!)	● Anlage nie ohne Schutzgehäuse oder Innenschutzverkleidung in Betrieb setzen!	German **WARNUNG**
● Mantenha seu rosto da fumaça. ● Use ventilação e exhaustão para remover fumo da zona respiratória.	● Não opere com as tampas removidas. ● Desligue a corrente antes de fazer serviço. ● Não toque as partes elétricas nuas.	● Mantenha-se afastado das partes moventes. ● Não opere com os paineis abertos ou guardas removidas.	Portuguese **ATENÇÃO**
● ヒュームから頭を離すようにして下さい。 ● 換気や排煙に十分留意して下さい。	● メンテナンス・サービスに取りかかる際には、まず電源スイッチを必ず切って下さい。	● パネルやカバーを取り外したままで機械操作をしないで下さい。	Japanese **注意事項**
●頭部遠離煙霧。 ●在呼吸區使用通風或排風器除煙。	●維修前切斷電源。	●儀表板打開或沒有安全罩時不準作業。	Chinese **警 告**
● 얼굴로부터 용접가스를 멀리하십시요. ● 호흡지역으로부터 용접가스를 제거하기 위해 가스제거기나 통풍기를 사용하십시요.	● 보수전에 전원을 차단하십시요.	● 판넬이 열린 상태로 작동치 마십시요.	Korean **위 험**
● ابعد رأسك بعيداً عن الدخان. ● استعمل التهوية أو جهاز ضغط الدخان للخارج لكي تبعد الدخان عن المنطقة التي تتنفس فيها.	● اقطع التيار الكهربائي قبل القيام بأية صيانة.	● لا تشغل هذا الجهاز اذا كانت الاغطية الحديدية الواقية ليست عليه.	Arabic **تحذير**

LEIA E COMPREENDA AS INSTRUÇÕES DO FABRICANTE PARA ESTE EQUIPAMENTO E AS PARTES DE USO, E SIGA AS PRÁTICAS DE SEGURANÇA DO EMPREGADOR.

使う機械や溶材のメーカーの指示書をよく読み、まず理解して下さい。そして貴社の安全規定に従って下さい。

請詳細閱讀並理解製造廠提供的説明以及應該使用的銀焊材料，並請遵守貴方的有関勞動保護規定。

이 제품에 동봉된 작업지침서를 숙지하시고 귀사의 작업자 안전수칙을 준수하시기 바랍니다.

اقرأ بتمعن وافهم تعليمات المصنع المنتج لهذه المعدات والمواد قبل استعمالها واتبع تعليمات الوقاية لصاحب العمل.

CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation or application. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the definition of specifications, and the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

WELD FUME CONTROL EQUIPMENT

The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.

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