


SECTION 1 – PAPR SAFETY PRECAUTIONS – READ BEFORE USING

PAPR 2011-10

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

1-1. Symbol Usage



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

 Indicates special instructions.



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

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

NOTICE – Indicates statements not related to personal injury.

1-2. Arc Welding Hazards



Only qualified persons should install, operate, maintain, and repair this unit.



ARC RAYS can burn eyes and skin.

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

- Wear a welding helmet fitted with a proper shade of filter to protect your face and eyes when welding or watching (see ANSI Z49.1 and Z87.1 listed in Safety Standards). Refer to Shade and Sensitivity charts.
- Wear approved safety glasses with side shields under your helmet.
- Use protective screens or barriers to protect others from flash, glare, and sparks; warn others not to watch the arc.
- Wear protective clothing made from durable, flame-resistant material (leather, heavy cotton, and wool) and foot protection.
- Before welding, adjust the auto-darkening lens sensitivity setting to meet the application.
- Stop welding immediately if the auto-darkening lens does not darken when the arc is struck. See the Owner's Manual for more information.



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

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

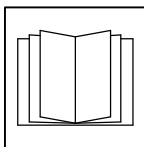
- Use impact resistant safety spectacles or goggles and ear protection at all times when using this welding helmet.
- Do not use this helmet while working with or around explosives or corrosive liquids.
- Do not weld in the overhead position while using this helmet.
- Inspect the auto-lens frequently.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



NOISE can damage hearing.

Noise from some processes or equipment can damage hearing.

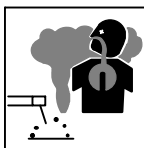
- Wear approved ear protection if noise level is high.



READ INSTRUCTIONS.

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.

- Use only genuine replacement parts from the manufacturer.
- Perform maintenance and service according to the Owner's Manuals, industry standards, and national, state, and local codes.



FUMES AND GASES can be hazardous.

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

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





RESPIRATOR (PAPR) MISUSE can be hazardous.

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

- Read and follow these instructions and the safety labels carefully. The powered air purifying respirator (PAPR) helps protect the user from specific airborne contaminants but must be used correctly to be fully effective. Have an industrial hygienist test the air in your facility to ensure the PAPR provides adequate protection from contaminants in your environment. If you have questions about the respirator, see equipment NIOSH label and consult your Safety Director and a certified Industrial Hygienist.
- Follow all applicable ANSI, OSHA, CSA, and other regulatory guidelines pertaining to the use of respirators.
- Do not use the powered air purifying respirator where there is danger of fire or explosion.
- Do not use the powered air purifying respirator in windy conditions or negative pressure inside the hood may draw in contaminants from the outside air.
- Do not use the powered air purifying respirator without a properly installed spark guard. Without the spark guard, welding sparks may ignite the filter or damage the filters and allow unfiltered air into the helmet.
- The powered air purifying respirator does not supply oxygen. Use the respirator only in atmospheres for which it is NIOSH approved. Do not use the respirator where oxygen levels are 19.5% or lower, where contaminant levels are unknown or are immediately dangerous to life or health (IDLH), or where the contaminant levels exceed the respirator specifications.
- Do not enter a hazardous area until you are sure the respirator equipment is correctly assembled, working properly, and properly worn.
- Before each use, inspect the respirator equipment for damage and verify it operates properly. Before using the respirator, test air flow to verify it is providing an adequate volume of air.
- Do not use the powered air purifying respirator without all filter components or with the blower turned off or hazardous levels of oxygen and carbon dioxide may accumulate in the helmet.
- Always wear the powered air purifying respirator when entering a contaminated area. Do not remove the respirator until outside the contaminated area.
- Dangerous contaminants may not smell or be visible. Leave the area immediately if you notice the following:
 - ... Breathing becomes difficult.
 - ... You experience dizziness, impaired vision, or eye, nose, or mouth irritation.
 - ... The powered air purifying respirator alarm sounds.
 - ... The equipment is damaged.
 - ... Air flow decreases or stops.
 - ... If you think the equipment is not supplying adequate protection.Do not remove the equipment until you are in a safe area.
- Do not repair, modify, or disassemble the powered air purifying respirator or use with parts or accessories not supplied by the manufacturer. Use only NIOSH approved components.
- Replace damaged or clogged filters. Do not wash or reuse filters. Do not clean filters by tapping or with compressed air or filter elements may be damaged. Dispose of used filter elements according to local, state, and federal requirements.
- The powered air purifying respirator must be used with the helmet, hood, and filters recommended by the manufacturer to provide a NIOSH-approved respirator system. See the NIOSH label for information on the required equipment.
- Do not use the powered air purifying respirator belt and shoulder straps as a safety harness.
- The powered air purifying respirator contains electrical parts which have not been evaluated as an ignition source in flammable or explosive atmospheres by MSHA/NIOSH.

1-3. Proposition 65 Warnings

-  Welding or cutting equipment produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code Section 25249.5 et seq.)
-  This product contains chemicals, including lead, known to the state of California to cause cancer, birth defects, or other reproductive harm. *Wash hands after use.*

1-4. Principal Safety Standards

Safety in Welding, Cutting, and Allied Processes, ANSI Standard Z49.1, is available as a free download from the American Welding Society at <http://www.aws.org> or purchased from Global Engineering Documents (phone: 1-877-413-5184, website: www.global.ihs.com).

Safe Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute, 25 West 43rd Street, New York, NY 10036 (phone: 212-642-4900, website: www.ansi.org).

1-5. NIOSH Approval Information

This System Is Approved Only In The Following Configuration:			
Protection ¹	Respirator Component	Part Number	Cautions And Limitations ²
1. PROTECTION:			
HE – High Efficiency Particulate Air Filter For Powered Air Purifying Respirators			
A –	See OM–235 936 For Reference		
B –			
S –			