

PremAire[®] *System*

INTRODUCTION

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MINE SAFETY APPLIANCES COMPANY
CRANBERRY TWP., PENNSYLVANIA, U.S.A. 16066

INTRODUCTION

MAINTENANCE

The maintenance procedures authorized in this manual need no special training, although the user must have a thorough understanding of the apparatus. All maintenance procedures are for prior or current designs, unless specified. Additional, advanced training is available. Contact your MSA representative for details.

⚠ WARNING

This manual is intended for use with PremAire System MMR respirators and Combination Apparatus. This includes the PremAire Cadet. Do not use the procedures in this manual for maintaining self-contained breathing apparatus (SCBA) regulators. Air-line regulators are designed for pressures up to 100 psig. Their use with an air source in excess of 100 psig may result in air-line regulator rupture, causing serious personal injury or death.

⚠ WARNING

Do not attempt repairs beyond those specified in this manual. Only CARE trained or CARE certified personnel, authorized by MSA, are permitted to maintain and repair this apparatus. Apparatus must not be repaired beyond the manufacturer's recommendations. 29 CFR Part 1910.134, Par. (f) (4) makes these requirements clear:

Replacement or repairs shall be done only by experienced persons with parts designed for the respirator. No attempt shall be made to replace components or to make adjustment or repairs beyond the manufacturer's recommendations. Regulators shall be returned to the manufacturer or to a trained technician for adjustment or repair. Failure to follow this warning may result in serious personal injury or death.

⚠ WARNING

Do not inspect the apparatus before cleaning if there is a danger of contacting hazardous contaminants. Clean and sanitize first, then inspect. Failure to follow this precaution may cause inhalation or skin absorption of the contaminant and result in serious personal injury or death.

1. This Combination Breathing Apparatus and PremAire Supplied Air Respirator (SAR) will perform as designed only if used and maintained according to the manufacturer's instructions. You must read and understand these instructions before trying to use or service this product. We encourage our customers to write or call for information on this product before using it.
2. If the Combination Breathing Apparatus and PremAire does not perform as specified in this manual, it must not be used until it has been checked by authorized personnel.

3. Do not alter, modify, or substitute any components without the approval of the manufacturer. Such alterations will void the NIOSH approval.
4. Inspect the Combination Breathing Apparatus and PremAire regularly and maintain it according to the manufacturer's instructions. Repairs must only be made by properly trained personnel. Any additional repairs NOT covered by this manual.

ANSI Standard Z88. 5, Practices for Respiratory Protection for the Fire Service; and, ANSI Standard Z88. 2, Practices for Respiratory Protection. Both publications are available from the American National Standards Institute.

OSHA Safety and Health Standards (29 CFR 1910) (see specifically Part 1910. 134), available from the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.

GENERAL NOTES

The inspection and maintenance procedures authorized in this manual are classified User Maintenance. Additional, advanced training is available. Contact your MSA representative for details. Refer to the appropriate Illustrated Parts List.

Note 1: Other than specified, torque are calculated for dry threads, applying any lubricant causes additional stress on the threads when the nut is tightened. This additional stress could cause the threads to fail, causing the possible separation of components. Lubricants, adhesives, and sealants must be used only as stated in our written Maintenance Procedures. Any deviation from the written procedures must be approved in writing by MSA corporate office personnel.

Note 2: Be sure to calibrate your torque wrenches, gauges, and other test instruments regularly. It's good quality assurance practice.

Note 3: Test gauges and regulator testers are sold separately.

Note 4: Adhesive has an unopened shelf life. Check with the Manufacture for shelf life.

Note 5: All o-rings and gaskets which are removed must be replaced with new ones.

Note 6: Follow the torques specified in MSA written Maintenance Procedures. It's good repair procedure.

Note 7: Lubricate all designated O-rings with a very thin film of Christo-Lube lubricant (P/N 604070) before they are installed. Christo-Lube lubricant is compatible with brass and aluminum.

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Note 8: When installing o-rings over threads, use transparent tape, a thin piece of paper, or other thread protector to avoid damage to the o-ring.

Note Pipe-sealing tape is used on fittings with tapered threads. Wrap 1 to 1-1/2 turns of tape in a clockwise direction (looking into the threaded end of the fitting). Start at the second thread. Do not put tape on the first thread. Pieces of tape can break off and reduce air flow.

IMPORTANT

Note: A thorough understanding of the Combination Breathing Apparatus, PremAire System and PremAire Cadet is essential before attempting to service or maintain this apparatus. A user's instruction manual is supplied with each new apparatus. Refer to the user's instructions for specific user information, such as NIOSH Approval Information, donning and doffing, or cleaning and disinfecting.

You must read and understand the General Notes, Warnings, and Cautions below before performing Disassembly and Repair. General Notes is a collection of procedures common to many repairs. Details for each procedure are listed. Details are not repeated each time the procedure is done. Instead, a reference to the General Note appears in the text.

⚠ CAUTION

Do not attempt repairs beyond those specified in this manual. Apparatus must not be repaired beyond the manufacturer's recommendations. Apparatus must be returned for any additional repairs not covered by this manual.

⚠ CAUTION

Do not over-tighten parts or you may damage the part or the fitting threads.

Note: All repair procedures assume that the air source is fully closed and depressurized.

⚠ WARNING

Wear eye or face protection to avoid eye injury. Failure to observe this precaution may result in serious personal injury.

Required Equipment

You must have the equipment listed to perform the test and repair procedures included in this manual.

- A complete PremAire or Combination apparatus
- A fully charged cylinder or Air Source
- The MSA Apparatus Tester, Posichek 3 We cannot over-emphasize how important it is for all repair personnel to follow Maintenance Procedures to the letter when working on MSA regulators or other PremAire components. Why? Failure to perform any part of any procedure, or doing something contrary to the instructions in the Maintenance Procedures, could have serious implications. Follow the Maintenance Procedures exactly, and understand that any deviation from the written repair manual is absolutely unacceptable, unless approved by MSA corporate office personnel.

MSA FLOW TEST POLICY

MSA recommends using an MSA approved Test Bench to flow test SCBA at a minimum:

- Before putting a new SCBA into service. (Note: MSA flow tests every new SCBA before it leaves our factory. The flow test results are shipped with the product.)
- At least annually
- After a repair or user reported condition before returning the SCBA into service:
 - o Facepieces: If a lens or parts within the component housing and /or nose cup are replaced, perform a facepiece flow test and function test.
 - o Pneumatics: If a 1st stage regulator, 2nd stage regulator, or Audi-Larm is repaired, adjusted or replaced, perform a flow test and function test.
 - o Other Assemblies: If a Hose or Control Module is replaced, perform a leak test and a function check. If a power module is replaced, perform a function check.

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