

Air-Mate™ Belt-Mounted High Efficiency Powered Air Purifying Respirator

User Instructions for Air-Mate™ PAPR Assembly 231-01-30, Air-Mate™ PAPR Unit 520-03-63R01, Air-Mate™ PAPR Assembly 231-01-30U, Air-Mate™ PAPR Assembly AMH-12U, 3M™ Air-Mate PAPR Assembly AMH-1U

Important: Before use, the wearer must read and understand these User Instructions. Keep these User Instructions for reference.



⚠ WARNING

This product helps protect against certain airborne particles. **Misuse may result in sickness or death.** For proper use, see supervisor, *User Instructions*, or call 3M™ in U.S.A., 1-800-243-4630. In Canada, call Technical Service at 1-800-267-4414.

FORWARD

Contact Information

Read all instructions and warnings before using. Keep these *User Instructions* for reference. If you have questions regarding these products contact 3M Technical Service.

In United States

Website: www.3M.com/OccSafety

Technical Service: 1-800 243-4630

In Canada

Website: www.3m.com/CA/OccSafety

Technical Service: 1-800-267-4414

System Description

The 3M™ belt-mounted Air-Mate™ Powered Air Purifying Respirator (PAPR) Assembly is designed to be used with certain 3M™ headgear, filter, battery and breathing tube to form a complete NIOSH approved respiratory system. When used in accordance with its NIOSH approval, these systems can provide respiratory protection against certain airborne particulate contaminants including dusts, fumes, mists, radionuclides and asbestos. The Air Mate does not provide protection against vapors or gases and is not an intrinsically safe system.

3M™ headgear (respiratory inlet covering) include a loose fitting head cover and hood that serves as a respiratory protective covering for the nose and mouth area. Refer to the enclosed 3M™ Air-Mate NIOSH approval label for approved system configurations.

These systems do not contain latex.

List of Warnings and Cautions within these *User Instructions*

WARNING

This product helps protect against certain airborne particles. **Misuse may result in sickness or death.** For proper use, see supervisor, *User Instructions*, or call 3M™ in U.S.A., 1-800-243-4630. In Canada, call Technical Service at 1-800-267-4414.

Each person using this respirator must read and understand the information in these *User Instructions* before use. Use of these respirators by untrained or unqualified persons, or use that is not in accordance with these *User Instructions*, may adversely affect respirator performance and **result in sickness or death.**

Do not use with parts or accessories other than those manufactured by 3M™ as described in these *User Instructions* or on the NIOSH approval label for this respirator. Do not attempt to repair or modify any component of the system except as described in these *User Instructions*. **Failure to do so may adversely affect respirator performance and result in sickness or death.**

Failure to conduct an inspection and complete all necessary repairs before use **may adversely affect respirator performance and result in sickness or death.**

Failure to pass a user performance check and complete all necessary repairs before use may adversely affect respirator performance and **result in sickness or death.**

Use of this respirator in atmospheres for which it was not NIOSH certified or designed **may result in sickness or death.** Do not use this respirator where:

- Atmospheres contain hazardous vapors or gases
- Atmospheres are oxygen deficient
- Contaminant concentrations are unknown
- Contaminant concentrations are Immediately Dangerous to Life or Health (IDLH)
- Contaminant concentrations exceed the maximum use concentration (MUC) determined by using the assigned protection factor (APF) recommended for the applicable headgear or the APF mandated by specific government standards, whichever is lower. Refer to the *User instructions* provided with the applicable headgear.

Do not enter a contaminated area until properly donning the respirator system. Do not remove the respirator before leaving the contaminated area. **Doing so may result in sickness or death.**

Contaminants that are dangerous to your health include those that you may not be able to see or smell. Leave the contaminated area immediately if any of the following conditions occur. **Failure to do so may result in sickness or death.**

- Airflow decreases or stops
- Any part of the system becomes damaged
- Airflow into the respirator decreases or stops
- Breathing becomes difficult
- You feel dizzy or your vision is impaired
- You taste or smell contaminants
- Your face, eyes, nose or mouth become(s) irritated
- You suspect that the concentration of contaminants may have reached levels at which this respirator may no longer provide adequate protection.

Do not expose blower/filter assembly directly to sparks or molten metal spatter. Direct contact with sparks or molten metal spatter may damage the filter, allowing unfiltered air into the breathing zone, **which may result in sickness or death**, and may cause the filter or blower housing to ignite, **resulting in serious injury, sickness or death.**

Do not clean respirator with solvents. Cleaning with solvents may degrade some respirator components and reduce respirator effectiveness. Inspect all respirator components before each use to ensure proper operating conditions. **Failure to do so may result in sickness or death.**

Never attempt to clean filters by knocking or blowing out accumulated material. This may result in damage to the filter membrane allowing hazardous particles to enter the breathing zone, **resulting in sickness or death.**

Limitations of Use

Do not wear this respirator system to enter areas where:

- o Atmospheres are oxygen deficient
- o Contaminant concentrations are unknown
- o Contaminant concentrations are Immediately Dangerous to Life or Health (IDLH)
- o Contaminant concentrations exceed the maximum use concentration (MUC) determined using the Assigned Protection Factor (APF) for the specific respirator system or the APF mandated by specific government standards, whichever is lower.

Refer to the *User Instructions* provided with the applicable headgear and the additional cautions and limitations under the NIOSH Cautions and Limitations in this *User Instructions*.

Respirator Program Management

Occupational use of respirators must be in compliance with applicable health and safety standards. By United State regulation employers must establish a written respirator protection program meeting the requirements of the Occupational Safety and Health Administration (OSHA) Respiratory Protection standard 29 CFR 1910.134 and any applicable OSHA substance specific standards. For additional information on this standard contact OSHA at www.OSHA.gov. In Canada, CSA standard Z94.4 requirements must be met and /or requirements of the applicable jurisdiction as appropriate. The major sections of 29 CFR 1910.134 are listed here for reference. Consult and industrial hygienist or call 3M™ Technical Service with questions concerning applicability of these products to your job requirements.

Major Sections of OSHA 29 CFR 1910.134

Section	Description
A	Permissible Practice
B	Definitions
C	Respiratory Protection Program
D	Selection of Respirators
E	Medical Evaluation
F	Fit Testing
G	Use of Respirators
H	Maintenance and Care of Respirators
I	Breathing Air Quality and Use
J	Identification of Cartridges, Filters, and Canisters
K	Training and Information
L	Program Evaluation
M	Recordkeeping

WARNING

Each person using this respirator must read and understand the information in these *User Instructions* before use. Use of these respirators by untrained or unqualified persons, or use that is not in accordance with these *User Instructions*, may adversely affect respirator performance and **result in sickness or death**.

NIOSH – Approval, Cautions and Limitations

NIOSH Approval

For a listing of the components of NIOSH approved 3M™ Air-Mate™ PAPR respiratory systems, refer to the NIOSH approval label included with the product or contact 3M™ Technical Service at 1-800-243-4630.

NIOSH Cautions and Limitations

- A– Not for use in atmospheres containing less than 19.5 percent 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.

Operating Instructions

Assembly

Breathing Tube

To connect the BE-224 breathing tube to the PAPR unit, insert the breathing tube (male end with pins) into the PAPR unit and twist clockwise to lock in place. To connect the breathing tube to the headgear, see the appropriate headgear *User Instructions*.

Battery Pack Installation

1. Remove the back cover and the filter from the PAPR unit.
2. Insert the battery pack into its compartment and press it down to seat in place. This action will engage the battery terminals in the socket on the side of the battery pack. (Fig. 1)
3. Slide the battery pack clip under the slot on the housing to hold in place.
4. Confirm that the filter gasket is properly installed in the groove on the housing. (Fig. 1)
5. Replace the filter with arrows pointing in towards the battery pack. (Fig.2)
6. Snap the back cover into place.
7. Charge the battery before use following the Battery Charging Instructions below.

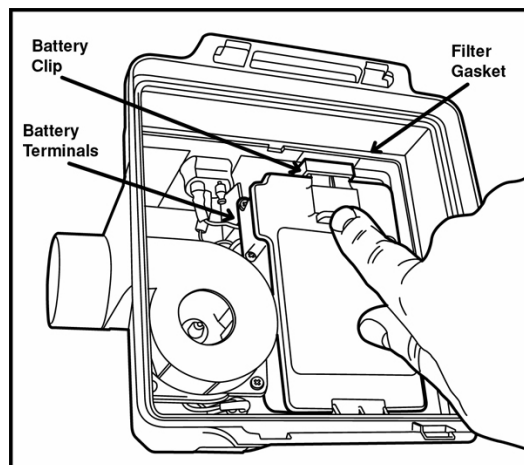


Fig. 1

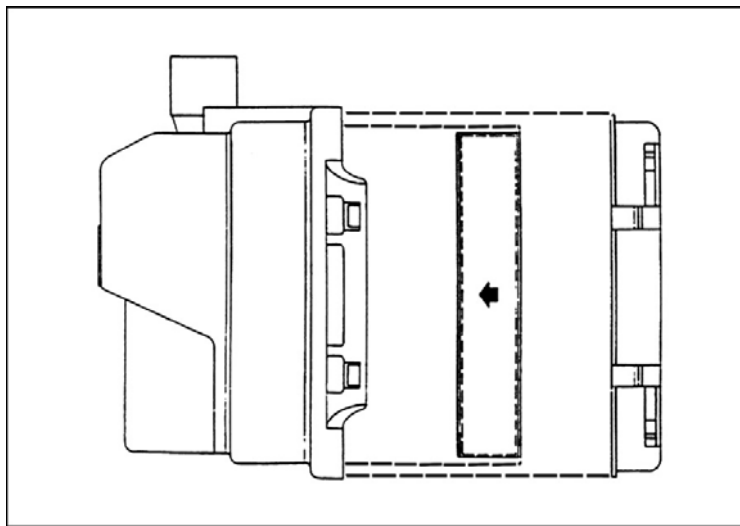


Fig. 2

Battery Charging

1. To use the 3M™ smart battery charger, place the charging station horizontally on a flat surface and plug the station AC power cord into a regulated 120v-60Hz outlet.
2. The green LED light will turn on.
3. Insert the charging lead into the socket in the side of the blower unit. Alternatively, the battery can be removed from the blower unit and charged using the external charging adapter (part number 520-04-24) (Fig. 3).
4. The LED will turn off, indicating that the battery pack is attached and being charged in a high rate mode.
5. After approximately eight hours (depending on the amount of charging required) the LED will turn back on, indicating that the charger has switched to a trickle rate mode. For Canada chargers, when in trickle mode, the LED light will cycle on and off every 3 – 5 seconds.
6. The Air-mate battery can provide up to 500 charge/discharge cycles. However, the life of the battery will be significantly reduced when exposed to high heat over an extended period of time.

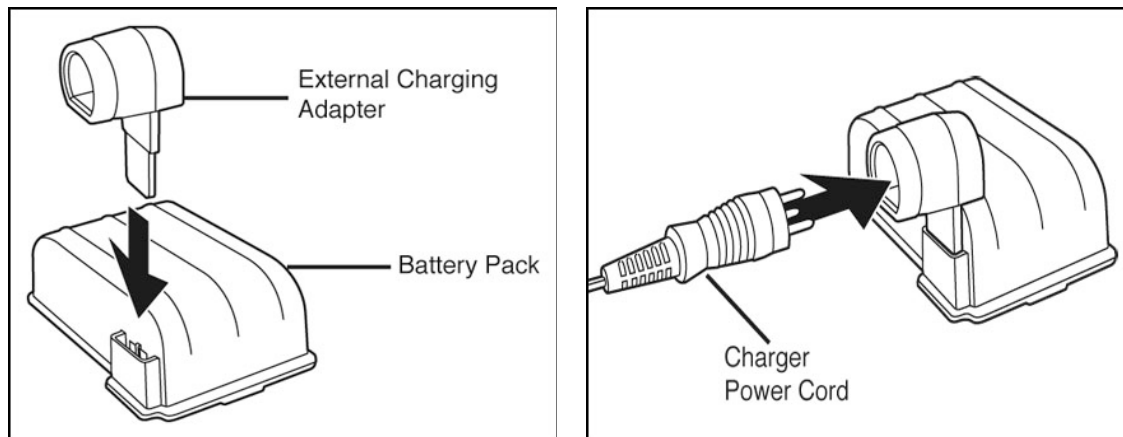


Fig. 3

To maximize battery life, these guidelines should be followed:

- Charge 3M™ battery packs before they are completely discharged. Damage may occur if the battery pack is completely discharged (“deep discharged”) frequently.
- 3M™ battery packs may be charged any time during the discharge cycle. Unlike some NiCd batteries, 3M™ battery packs do not develop a “memory”. Whether it has been used 30 minutes or 8 hours, the battery pack may be charged.
- Always charge batteries at a temperature of 77° F (25° C) or less. At higher temperatures, the battery pack may not accept a full charge. If a battery pack feels hot, let it cool for 1/2-hour before charging.

- Batteries may be left on trickle rate mode to maintain optimum capacity for up to 30 days. Batteries should not be stored long term connected to the charger. Without periodic charging, a NiCd battery in storage loses approximately 1% of its charge each day. Infrequently used battery packs should be fully charged, initially, then charged overnight once per week or one hour each day to maintain a full charge. Batteries subjected to prolonged storage (longer than 6 months) may lose their capacity to hold a full charge. Battery capacity can be checked by running the PAPR motor/blower unit for eight hours and checking that airflow is maintained at six CFM or greater. Several charge/run-down cycles may restore battery capacity.
- For infrequently used batteries, battery capacity should be checked regularly by running the PAPR motor blower unit and noting how long the required airflow is maintained using the air flow indicator.
- Do not charge multiple battery packs in an enclosed cabinet without ventilation.
- To properly dispose of the battery pack, follow local solid waste disposal regulations or call the RBRC Battery Recycling Information Helpline at 1-800-8-BATTERY (1-800-822-8837).



Filter and Filter Gasket Replacement

The high efficiency (HE) filter must be changed:

- When an airflow check of the PAPR unit reveals that the airflow indicator does not rise to the specified level (with a properly charged battery pack powering the PAPR unit);
- When the filter has been physically damaged;
- When water has entered the high efficiency filter; or
- In order to comply with local administrative procedures.

Removal of Filter and Gasket

1. Pull the belt through the belt retainers to form a loop, which is clear of the PAPR unit. (Fig. 4)

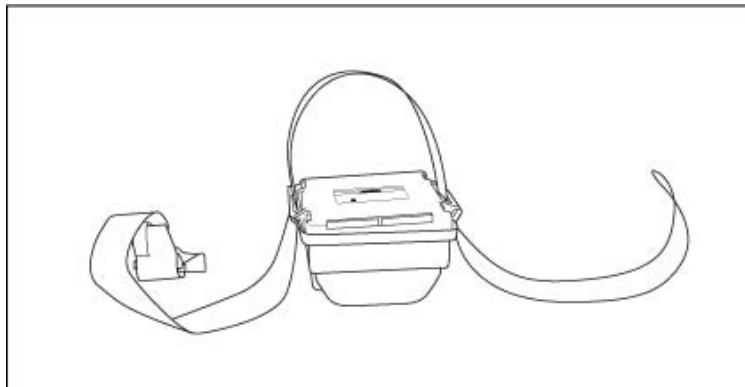


Fig. 4

2. Release the back cover's locking tabs and remove the back cover.
3. Remove and discard the high efficiency filter and filter gasket (located in the supporting groove inside the PAPR – See Fig.1) in accordance with local, state, and federal guidelines. Gasket can be removed using a tweezers (Fig. 5). Gaskets must be replaced when a new filter is installed.



Fig. 5

Replacement of Filter and Gasket

1. Inspect the new filter gasket and ensure that it is not torn or damaged before proceeding.
2. Fit the new filter gasket into the filter support groove ensuring that the gasket is flush against the sides of the PAPR unit, leaving no gaps.
3. Fit the replacement filter into the PAPR unit with the arrows pointing into the PAPR unit. (Fig. 2)
4. Snap the back cover's locking tabs into the rear of the PAPR unit.
5. Pull the belt through the belt retainers.

Installation of Waist Belts

021-41-02, GVP-117, GVP-127 Belts

Thread belts as shown in Figure 6.

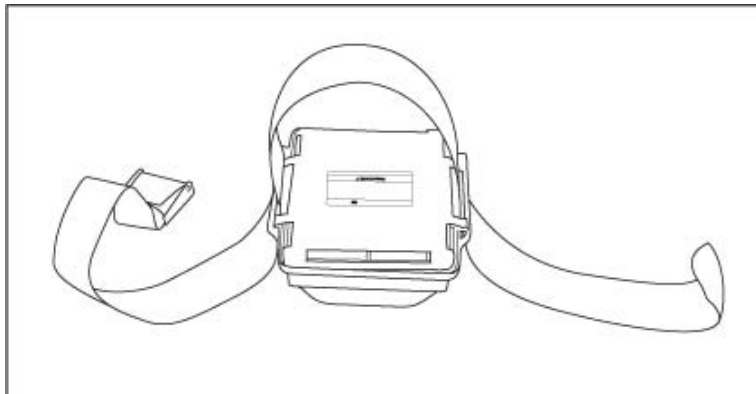


Fig. 6

CB-1000 BELT

1. Unlock the cam lock on Strap 2. (Fig.7)
2. Pull Strap 2 out of the plastic ring on the end of Strap 1.
3. Pull Strap 1 back through Loops 3-5.
4. Insert strap 1 through the belt slot on the back of the Airmate Blower Unit, then through loops 3, 4 and 5.

5. Pass strap 2 through the plastic fitting at the end of strap 1 and back through the cam lock—adjust to remove slack and lock in place.

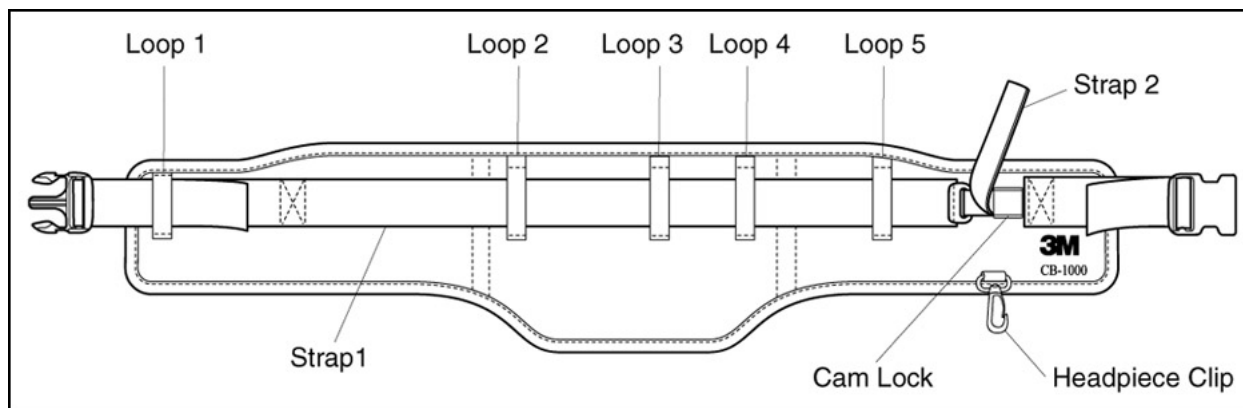


Fig. 7

Adjusting 3M™ Comfort Belt Length

The CB-1000 belt can be adjusted at either side of the snap-buckle. The CB-1000 is a one-size-only belt and will accommodate waist sizes from 26 to 54 inches (66 to 137 centimeters). For waist sizes less than 34 inches (86 centimeters), take the left side of strap 1 out of loop 1.

INSPECTION

⚠️ WARNING

Failure to conduct an inspection and complete all necessary repairs before use may adversely affect respirator performance **and result in sickness or death.**

An inspection must always be performed prior to each use of the respirator as follows:

1. Remove the back cover and filter.
2. Check that the filter gasket is clean, in good condition and properly installed. If not, do not use the PAPR until a replacement gasket can be installed per these *User Instructions*.
3. Examine the blower housing for cracks or warping.
4. Check that the battery latch is fully extended under the retaining ledge in the blower housing.
5. Examine the inside of the blower housing and fan assembly. The presence of dust or other particulate matter inside the blower may indicate a damaged filter or improper seating of the filter/cartridge to the gasket. Contact 3M™ Technical Service for assistance.
6. Examine the outside of the battery for cracks. Replace if damaged.
7. Inspect the breathing tube and replace if punctured, cracked or worn.
8. Bend the breathing tube to verify that it is flexible.
9. Successfully complete the User Performance Check

! WARNING

Failure to pass a user performance check and complete all necessary repairs before use may adversely affect respirator performance and **result in sickness or death.**

User Performance Check

Prior to entry into a contaminated area an air flow check should be performed to ensure the system is providing adequate air flow.

1. Ensure that the breathing tube is connected to the PAPR unit and the HE filter and fully charged battery pack are in place.
2. Confirm which breathing tube is being used, the newer BE-224 or older 008-00-14. A sticker on one end of the BE-224 breathing tube will say BE-224 (formerly 008-00-14). The sticker for the 008-00-14 breathing tube will just say 008-00-14.
3. Holding the air flow indicator as shown in Fig. 8, locate the two (lower and upper) etched circular bands.
4. Grasp the free end of the breathing tube below the raised ring on the slotted connector. Ensure that the slots on the connector are open and not covered. (Fig. 9)
5. Place the 021-14-00R01 air flow indicator (pointed end first) into the slotted connector. See Fig. 11
6. Suspend the Air-Mate PAPR by the breathing tube so the breathing tube is vertical with no bends or turns. (Fig. 10) The slotted connector should be held at eye level (Fig. 10a)
7. Switch the PAPR unit on. The indicator should “float” on the air coming out. (Fig. 11)
 - a. **BE-224 Breathing Tube (formerly 008-00-14):** The top of the lower band on the indicator should be at or above the top of the connector rim.
 - b. **008-00-14R01 Breathing Tube:** The upper band on the indicator should be at or above the top of the connector rim.

If the indicator fails to rise to the level noted above for the breathing tube in use, airflow is insufficient and the PAPR should not be used. Refer to the “Troubleshooting” section in the Air Mate PAPR Assembly *User Instructions*.

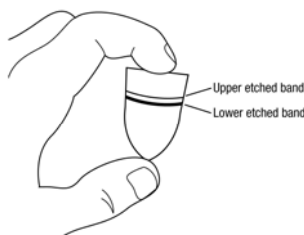


Fig. 8

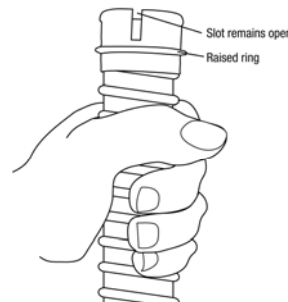


Fig. 9

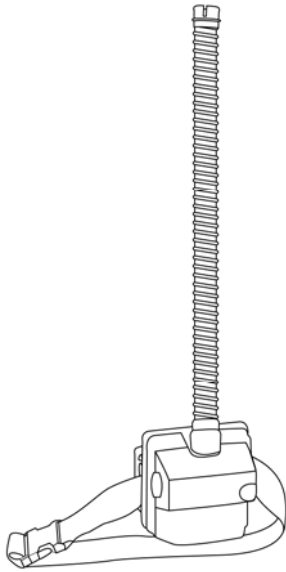


Fig. 10

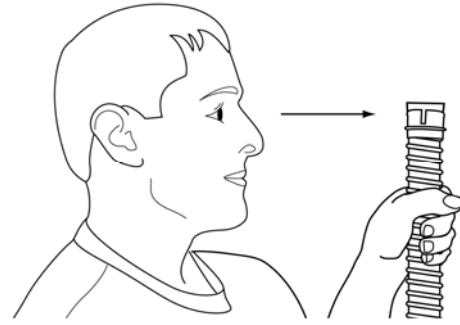


Fig. 10a

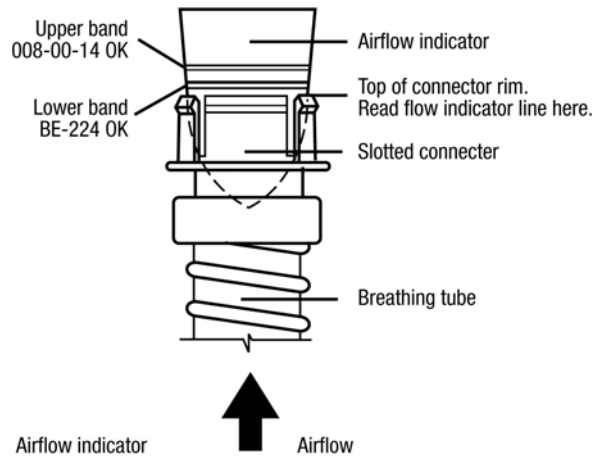


Fig. 11

Entering and Exiting the Contaminated Area

Prior to entering the contaminated area, complete the inspection procedures listed in this *User Instructions*.

1. Complete assembly, inspection and user performance check of the PAPR assembly as described in these *User Instructions*.
2. Complete assembly and fitting of the respirator headgear in accordance with the *User Instructions* provided with the respirator headgear.
3. Place the belt with PAPR assembly around the waist and snap the buckle closed.
4. Adjust the belt as needed for a comfortable and secure fit.

5. Press the power switch to turn the system on and verify that air is flowing to the headgear.
6. Don the respirator headgear, then enter the contaminated area.

Note: This PAPR unit and battery are not waterproof. They should not be submersed or subjected to heavy spraying with water or other liquids. High concentrations of mist or sprays may temporarily clog filters and cause airflow to drop below safe levels.

7. Do not remove the respirator or reach your hand into the headgear in areas where the air is contaminated.
8. Follow your specific exiting and decontamination procedures for turning off the motor blower and removing the respirator.

WARNING

Use of this respirator in atmospheres for which it was not NIOSH certified or designed **may result in sickness or death**. Do not wear this respirator where:

- Atmospheres contain hazardous vapors or gases
- Atmospheres are oxygen deficient
- Contaminant concentrations are unknown
- Contaminant concentrations are Immediately Dangerous to Life or Health (IDLH)
- Contaminant concentrations exceed the maximum use concentration (MUC) determined using the assigned protection factor (APF) recommended for the applicable headgear or the APF mandated by specific government standards, whichever is lower. Refer to the *User instructions* provided with the applicable headgear.

Do not enter a contaminated area until properly donning the respirator system. Do not remove the respirator before leaving the contaminated area. **Doing so may result in sickness or death.**

Contaminants that are dangerous to your health include those that you may not be able to see or smell. Leave the contaminated area immediately if any of the following conditions occur. **Failure to do so may result in sickness or death.**

- Airflow decreases or stops
- Any part of the system becomes damaged
- Airflow into the respirator decreases or stops
- Breathing becomes difficult
- You feel dizzy or your vision is impaired
- You taste or smell contaminants
- Your face, eyes, nose or mouth become(s) irritated
- You suspect that the concentration of contaminants may have reached levels at which this respirator may no longer provide adequate protection.

Do not expose blower/filter assembly directly to sparks or molten metal spatter. Direct contact with sparks or molten metal spatter may damage the filter, allowing unfiltered air into the breathing zone, **which may result in sickness or death**, and may cause the filter or blower housing to ignite, **resulting in serious injury, sickness or death**

CLEANING AND STORAGE

Follow the hygiene practices established by your employer for the specific contaminants to which you have been exposed.

WARNING

Do not clean respirator with solvents. Cleaning with solvents may degrade some respirator components and reduce respirator effectiveness. Inspect all respirator components before each use to ensure proper operating conditions. **Failure to do so may result in sickness or death.**

Cleaning

Solvents should not be used to clean the PAPR blower unit, battery pack or smart battery chargers. Liquid solvents may chemically weaken the plastic. Use the following suggested procedures for cleaning:

1. Motor blower unit. Clean the outer surfaces of the 3M™ Air Mate PAPR Assembly with a soft cloth dampened in a solution of water and mild, pH neutral detergent. Do not immerse the Air Mate motor blower or battery pack in water. Do not use solvents or abrasive cleaners.
2. Breathing tube. Clean the connection sites on the breathing tube with the water and detergent solution. The breathing tube can be immersed in water for cleaning. The inside of the tube must be completely dried prior to use or storage. Air dry, or dry by connecting to the Air Mate unit and use it to force air through the tube until dry.
3. Comfort Belt. Machine wash in cold water with a mild detergent. Air dry.
4. Filters. Do not attempt to clean the filters. Properly dispose of used filters. Dispose of the filter according to applicable regulations

WARNING

Never attempt to clean filters by knocking or blowing out accumulated material. This may result in damage to the filter membrane allowing hazardous particles to enter the breathing zone, **resulting in sickness or death.**

Storage

Store your respirator at room temperature in a dry area that is protected from exposure to hazardous contaminants.

SPECIFICATIONS

Technical

Heat and flame resistance – This respirator system is not designed for use in high temperature environments and should not be exposed to sparks or flame.

Battery pack –	Rechargeable nickel cadmium. Up to 8 hrs of use per charge. Charge batteries at a temperature of 77° F (25° C) or less
Airflow range –	Greater than 6 cfm (170 lpm)
Weight PAPR –	Approximately 1.1 lb (0.5 kg)
Weight battery pack –	Approximately 1.7 lb (0.8 kg)

Assigned Protection Factor

Refer to the *User Instructions* for the specific headgear to be used to determine the assigned protection factor for the Air-Mate PAPR system. Consult to 3M™ Technical Data Bulletin #175 (www.3M.com/OccSafety) for additional information on APFs and supporting test data. In Canada, follow CSA standard Z94.4 or the requirements of the authority having jurisdiction in your region.

SYSTEM COMPONENTS AND REPLACEMENT PARTS

WARNING

Do not use with parts or accessories other than those manufactured by 3M™ as described in these *User Instructions* or on the NIOSH approval label for this respirator. Do not attempt to repair or modify any component of the system except as described in these *User Instructions*. **Failure to do so may adversely affect respirator performance and result in sickness or death.**

3M™ Components, Replacement Parts

Product Number	Description
231-01-30	Air-Mate™ PAPR Assembly (includes PAPR unit, battery, filter, web belt and airflow indicator)
231-01-30U	Air-Mate™ PAPR Assembly (includes PAPR unit, battery, filter, vinyl belt and airflow indicator)
AMH-1U	Air-Mate™ PAPR Assembly (includes PAPR unit, battery, filter, vinyl belt and airflow indicator, smart battery charger, external charge adapter, breathing tube BE-224 and breathing tube covers)
AMH-12U	Air-Mate™ PAPR Assembly (includes PAPR assembly 231-01-30U, battery, filter, vinyl belt, , airflow indicator, plus smart battery charger, external charge adapter, breathing tube BE-224, breathing tube covers, headcover BE-12-3 regular and storage bag)
520-03-63R01	Air-Mate™ PAPR Unit (does not include battery pack, belt and airflow indicator) (Fig. 1)
007-00-15R01	Battery Pack
451-02-01R01	High Efficiency Filter (includes gasket)
GVP-127	Waist Belt, Web
021-41-02R01	Waist Belt, Nylon, 59" long (150 cm)
GVP-117	Waist Belt, Vinyl (Deconable)
CB-1000	Comfort Belt (fits waist sizes from 26 – 52 in (66 to 132 centimeters))
021-14-00R01	Airflow Indicator – for use with BE-224 breathing tube
021-10-07R01	Back Cover (for PAPR unit)
520-03-73	Smart Battery Charger

520-04-24 External Charge Adaptor
 BE-224 Breathing tube – for use with BE-series headgear

Consult the NIOSH approval label(s) supplied with the product or contact 3M Technical Service for information on any additional breathing tubes, headgear, or other system components that may be approved for use with the Air- Mate™ blower unit.

3M™ Accessories

Product Number	Description
W-3228-10	Breathing Tube Cover
520-03-72	Smart Battery Charger, 5-Unit
520-01-61	Smart Battery Charger, 10-Unit
520-01-61SGL:	Smart Battery Charger, Single Unit (Canada only)
520-01-61FIV	Smart Battery Charger, 5-Unit (Canada only)

TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
You smell or taste contaminants or an irritation occurs.	Misuse, improper assembly or malfunction of equipment.	Leave work area immediately and contact your supervisor. Do not use the PAPR until the cause is identified and corrected.
Blower does not run when switch is depressed	Battery is discharged Faulty power switch Faulty motor	Recharge 14-16 hours Replace battery pack Replace motor/blower
Battery does not accept charge, but PAPR unit runs when plugged into charger.	Faulty battery connection or terminals dirty/damaged.	Check that battery terminals are clean and battery is properly attached and locked into the PAPR housing.
PAPR fails airflow test	Clogged filter Battery needs charging Battery does not hold charge Breathing tube blocked	Replace filter Charge battery Replace battery Locate and remove restriction

APPENDIX 1

Performance Check With AFI-200 Air Flow Indicator

1. Ensure the HE filter is in place and the battery pack is installed and fully charged. The breathing tube should be disconnected from the Air Mate™ PAPR.
2. Insert the AFI-200 into the air outlet on the top of the Air Mate™ PAPR. (Fig. A-1).
3. Switch the PAPR unit on. Hold the PAPR so the AFI-200 is vertical and at eye level.

4. The ball in the AFI-200 should rise above the line indicated on the side of the tube. If the ball rises above the line this indicates sufficient airflow.
5. If the ball fails to rise to this level, airflow is insufficient. This may be the result of a low battery charge, a clogged filter or another malfunction. Refer to the “Troubleshooting” section. Do not enter a contaminated area until the malfunction is corrected and air flow test is passed.

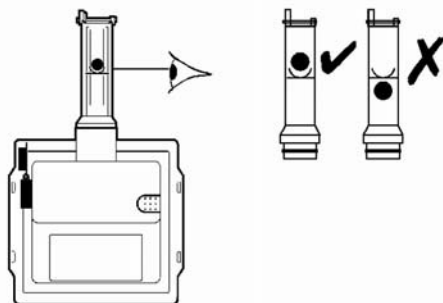


FIG. A-1

IMPORTANT NOTICE

WARRANTY: In the event any 3M™ OH&ESD product is found to be defective in material, workmanship, or not in conformation with any express warranty for a specific purpose, 3M™’s only obligation and your exclusive remedy shall be, at 3M™’s option, to repair, replace or refund the purchase price of such parts or products upon timely notification thereof and substantiation that the product has been stored, maintained and used in accordance with 3M™’s written instructions.

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FOR MORE INFORMATION

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