

11 Cleaning and Disinfection



WARNING

- DO NOT use any cleaning substances that can or might attack any part of the SCBA.
- DO NOT use alcohol because it may deteriorate rubber parts.
- If not rinsed thoroughly, cleaning agent residue may irritate the wearer's skin.

Failure to follow these warnings can result in serious injury or death.

Depending on the cleaning policy adopted, either a designated person or the user should clean each device after each use. ANSI standards suggest that users should be trained in the cleaning procedure. Confidence Plus® Cleaning Solution (P/N 10009971) from MSA is recommended. It cleans and disinfects in one operation. It retains its germicidal efficiency in hard water to inhibit the growth of bacteria. It will not deteriorate rubber, plastic, glass, or metal parts. Refer to the label for user instructions.

If the SCBA is soiled (i.e. heavy smoke residue or dirt accumulation) use a sponge damp with mild soap solution or use a soft/medium bristle brush to remove deposits that may interfere with normal operation of:

- Harness (straps and buckles)
 - Carrier (band and latch assembly)
 - Cylinder (handwheel, gauge, outlet connection)
 - Pressure reducer (bell and coupling nut connection)
 - Control module/power module/battery module/speaker module
- Inspect the entire SCBA as it is reassembled. Follow the Inspection Instructions.

Preparing Solution

Follow the instructions with the Confidence Plus® Cleaning Solution.

If the Confidence Plus Cleaning Solution is not used, wash in a mild cleaning solution, rinse thoroughly, and submerge in a germicide solution for the manufacturer's recommended time.

11.1 Cleaning and Disinfection Facepiece



WARNING

- Do not use cleaning products containing hydrocarbons or solvents [e.g. nitro-thinner].
- Cleaned parts must not be dried in radiant heat [sun, radiators].
- When using a drying cabinet, the temperature must not exceed 140 °F (+60 °C).
- Perform a tightness test after every cleaning, disinfection and maintenance or after every exchange of parts.

Failure to follow these warnings can result in serious injury or death.

In general, only the facepiece requires cleaning and disinfecting after each use.

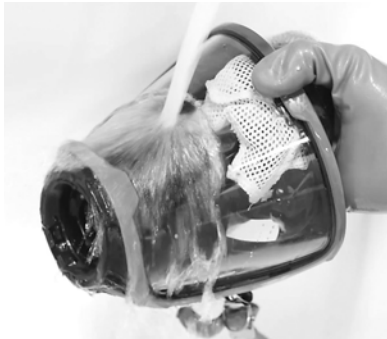


- (1) Remove the facepiece mounted regulator from the facepiece.



The power supply for the HUD is not part of the G1 facepiece and is therefore not damaged during cleaning of the facepiece.

Cleaning and Disinfecting by Hand



- (1) Prepare a bucket or sink with Confidence Plus® Cleaning Solution as described on the container.
- (2) The head harness can be removed to separate cleaning or as part of the facepiece.
- (3) Submerge the facepiece in Confidence Plus Cleaning Solution for a minimum of 30 seconds. A soft brush or sponge can be used to clean the soiled facepiece.
- (4) Rinse the facepiece and components in clean, warm (110°F (43°C)) water (preferably running and draining).
- (5) Be sure to clean and rinse the pressure-demand exhalation valve by pressing in on the stem with a blunt object and flushing it with clean water.
- (6) Allow the facepiece to air dry. Do not dry the parts by placing them near a heater or in direct sunlight.
- (7) Operate the exhalation valve by hand to be sure it works properly.
- (8) Perform a tightness test before putting the facepiece back in service.

12 Cylinders

12.1 Safety Precautions for MSA Self-Contained Breathing Apparatus Cylinders



WARNING

- This system must be supplied with respirable [Quality Verification Level (Grade) D, see ANSI/CGA G-7.1-1989] or higher quality air; and a dew point not to exceed -65°F/-54°C (24ppm v/v) [Compressed Gas Association Specification G-7.1 for Quality Verification Level (Grade) D Gaseous Air]. In fire service applications, MSA recommends breathing air quality in accordance with NFPA 1989.
- DO NOT drop the cylinder or bump the valve knob. An unsecured cylinder can become an airborne projectile under its own pressure if the valve is opened even slightly.
- Never carry or move a cylinder by the handwheel. If a cylinder is removed from a horizontal shelf by grasping the handwheel, the weight of the cylinder can cause the cylinder to rotate downward causing the valve to open slightly.
- Avoid dropping the cylinder or bumping the handwheel.
- Use the handwheel only to open and close the cylinder valve.
- A valve could partially open causing the cylinder to become an airborne projectile under its own pressure and result in serious personal injury or death.
- Remove from service if cylinder shows evidence of exposure to high heat or flame: e.g., paint turned to a brown or black color, decals charred or missing, gauge lens melted, or elastomeric materials distorted.
- Use this device only after receiving proper training in its use. Use in accordance with this label and MSA apparatus instructions.
- To maintain NIOSH approval, the cylinder must be fully charged with respirable air meeting the requirements of the Compressed Gas Association specification G-7.1 1989 for Quality Verification Level (grade) D air or equivalent specification. In fire service applications, MSA recommends breathing air quality in accordance with NFPA 1989.
- Do not use unless the cylinder is filled to the maximum working pressure.
- Do not alter, modify, or substitute any components without approval of the manufacturer.
- Inspect frequently. Maintain according to manufacturer's instructions. Repair only by properly trained personnel.

Misuse can result in serious injury or death.

Breathing apparatus cylinders should be fully recharged as soon as possible after use.

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Cylinders should not be stored partially charged:

- If used partially charged, the duration of the SCBA is reduced.
- The pressure relief device is only designed to protect a fully charged cylinder from the effects of a fire.

For maximum safety, the cylinders should be stored full or at a pressure above ambient but less than 100 psi.

Prior to recharging, cylinders must be examined externally for evidence of high heat exposure, corrosion, or other evidence of significant damage.

Additional information of value when performing external and internal inspections of cylinders may be found in the latest editions of CGA Publication C-6.2: "Guidelines for Visual Inspection and Requalification of Fiber Reinforced High Pressure Cylinders" available from the Compressed Gas Association, Inc., 1725 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202-4102.

If there is any doubt about the suitability of the cylinder for recharge, it should be returned to a certified hydrostatic test facility for expert examination and testing.

Always check to be sure the retest date is within the prescribed period and that the cylinder is properly labeled to indicate its gaseous service. New labels are restricted items which are not available except through certified hydrostatic test facilities.

When replacing cylinder valves or after the retesting of cylinders, make sure the proper cylinder valve, burst disc, and o-ring are installed prior to cylinder recharging. Determine the maximum service pressure of the cylinder. All cylinders shall be filled to the designated service pressure only (as found on the DOT approval or stamping). For cylinders manufactured under a U.S. DOT exemption (i.e., DOT-E- #####), the exemption should be consulted and is available from the Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, U.S. Department of Transportation, 400 7th Street, SW, Washington, D.C. 20590-0001.

12.2 Preparing Cylinder for Use

For remote connection, the cylinder must have the dove tail bracket attached prior to use. If the dove tail is not equipped, the following instructions must be followed.

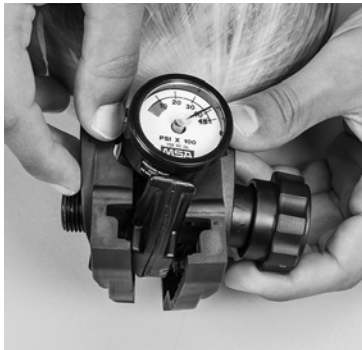


- (1) Remove the old cylinder boot and insert (if present) from the cylinder.



- (2) Determine which cylinder retainer kit is needed (if you already have existing MSA cylinders). New cylinders with retainer kits already installed are available for purchase. Contact the local MSA Sales Manager or local distributor for more information and part numbers.

P/N	Cylinder	NIOSH Service Life Rating	Pressure	Retainer Type	Retainer Kit P/N
807586	L-30 Carbon	30 minutes	2216 psig	Type 4	10158401
807587	H-30 Carbon	30 minutes	4500 psig	Type 2	10158389
807570	H-45 Carbon	45 minutes	4500 psig	Type 4	10158401
10035644	H-45 LP Carbon	45 minutes	4500 psig	Type 3	10158390
807588	H-60 Carbon	60 minutes	4500 psig	Type 5	10158402



- (3) Attach the retainer halves to the cylinder valve.



- (4) Apply 3 screws to retainer.
▷ The screws must be torqued to 4 inch-pounds.
- (5) Place the new rubber boot (P/N 10146897) over cylinder valve gauge and attach to retainer.



- (6) Ensure retainer is not loose on cylinder valve.

12.3 Installing Quick Connect Adapter to Cylinder

NOTE: A torque wrench with 24 mm open end is required for installation.



- (1) Use only a fully charged cylinder and inspect the external thread of the cylinder valve to ensure they are not damaged and free of dirt and debris.
 - ▷ The bore of the cylinder valve must be undamaged and free from dirt and debris.
 - ▷ If the cylinder valve is damaged, remove from service and return it to a MSA trained or certified repair technician.



- (2) Inspect the internal threads and nipple of the male adapter to ensure it is not damaged and free of dirt and debris.
 - ▷ Ensure that the o-ring is installed on the nipple and free of dirt and debris.



- (3) Thread the adapter onto the cylinder valve.
 - ▷ Securely hold the cylinder assembly and tighten the male adapter to the valve to a torque of 14 - 15 lbf ft (18 - 20 Nm) using the torque wrench.

12.4 Changing the Cylinder

Removing the Cylinder

- (1) Lay the backplate of the SCBA horizontal with cylinder facing up.
- (2) Ensure there is no pressure in the system before replacing a cylinder.
- (3) Close the cylinder valve.
- (4) Turn the regulator bypass counter-clockwise or press purge until air no longer discharges from the regulator.
- (5) Close the bypass by turning the knob clockwise.
- (6) Disconnect the the handwheel assembly:
 - Threaded connect:
 - ▷ Unthread handwheel from cylinder valve assembly.
 - Quick connect:
 - ▷ Turn the handgrip fully clockwise until it stops - hold in position.
 - ▷ Pull back on the handgrip while pushing in on the handwheel manifold to release the quick connect from the cylinder.
- (7) Press the two side button on the cylinder band latch and lift to release the cylinder band from the cylinder



WARNING

The band will snap open quickly when the latch is released. Ensure your hands are not between the latch and the band when this occurs. Failure to follow this warning can result in serious injury.

- (8) Slide the empty cylinder out of the carrier.
 - ▷ Be sure that the adjustable cylinder band and latch is in the proper slot before inserting a new cylinder

Attaching the Cylinder

- (1) Lay the backplate of the SCBA horizontal with cylinder facing up.
- (2) Ensure the cylinder band latch is open and the band is set for the correct cylinder size.
- (3) Slide the fully charged cylinder into the carrier, with cylinder valve gauge facing away from the backplate, then align the retainer into the dove tail (if equipped).
- (4) Close the latch mechanism until the buttons lock in place.

NOTE: Be sure that the latch is closed when a cylinder is installed.

- (5) To check that the cylinder is secure, place one hand on the backplate and grasp the cylinder valve with the other hand. Try to pull the cylinder and valve down and out away from the carrier. Make sure that the band and latch holds the cylinder securely in the carrier.

NOTE: If the cylinder feels loose, check that the latch engages with the proper slot on the band. Ensure that the latch is fully tightened. Do not use the SCBA if the cylinder is not held securely in the carrier.

- (6) Align the handwheel assembly to the cylinder valve.

**WARNING**

Care must be taken to protect the quick connect coupling and adapter from damage, dirt, and debris during cylinder replacement. Dirt and debris can cause the cylinder connection seals to leak. Visually inspect the coupling and adapter prior to connection. If dirt or debris is observed, the material must be removed prior to connecting the cylinder.

- Threaded connect:
 - ▷ Before installing the threaded handwheel, check that the o-ring inside the handwheel coupling nut is present and free of damage. If the o-ring is damaged, it must be replaced before the SCBA is used.
 - ▷ Thread the handwheel coupling nut onto the cylinder threads. The handwheel should be hand-tight (no tools).
- Quick connect:
 - ▷ Before installing ensure there is no dirt or debris on either the male or female end of the coupling. Ensure the adapter on the cylinder valve is tight.
 - ▷ Push the quick connect coupling onto the cylinder valve adapter until an audible snap is heard. The handgrip will rapidly rotate approx. 45° counter clockwise indicating that the valve is connected to the pressure regulator.
 - ▷ Grasp the handwheel firmly and pull on it to ensure the handwheel is fully attached.

12.5 Charging Cylinders

- (1) Appropriately connect the cylinder to the filling system and refill.
 - ▷ **NOTE:** For quick connect cylinder, the adapter must be removed before filling unless the filling system has been adapted for the quick connect.
- (2) Terminate the filling when the pressure reaches the maximum service pressure and allow the cylinder to cool to room temperature.
- (3) If necessary, top-off the cylinder such that the service pressure is attained with the cylinder at a temperature of 70°F (21°C).
- (4) Close the valves on the cylinder and the filling system and remove the cylinder.
- (5) Apply a leak solution to determine if there is any leakage between the cylinder and the valve.
 - ▷ If there is no leakage, the cylinder is ready for use.

13 UAC Fitting

All NFPA 1981, 2013 Ed. approved SCBAs are equipped with a UAC (Universal Air Connection) fitting. The UAC fitting is a male Quick-Fill inlet for use by Rapid Intervention Teams for emergency filling operations. The system also includes an automatically resetting pressure relief valve. The SCBA can also be equipped with a waist mounted Quick-Fill System. For additional information on using the Quick-Fill System, refer to the Quick-Fill System section of the manual. The UAC fitting may be used for transfill operations as described in this manual. Only qualified, trained personnel should perform operations using the UAC fitting. Standard Operating Procedures should be developed for use of the UAC fitting.

13.1 Precautions

- The UAC fitting can only be used to fill approved SCBA cylinders.
- The user is responsible for the air supply, which must meet the requirements of Compressed Gas Association Specification ANSI/CGA G-7.1, Quality Verification Level (Grade) D Gaseous Air or better, with a moisture dew point of not greater than -65°F/-54°C (24ppm water vapor, normal). In fire service applications, MSA recommends breathing air quality in accordance with NFPA 1989. Pressures at the inlet of the Quick-Fill hose must not exceed that of the SCBA (2216 psi or 4500 psi).
- The user also is responsible for connecting the Quick-Fill hose to an appropriate secondary air supply.
- The cylinder must be inspected for damage before charging.
- If topping off the cylinder using the UAC fitting, it is recommended to wait until after the cylinder has cooled from initial fill. Topping off a cylinder after it has cooled will ensure proper service time.



WARNING

- DO NOT use the UAC fitting as a "Buddy Breather" such that two users are sharing the air supplied by one approved SCBA cylinder simultaneously; doing so will void NIOSH approval.
- The UAC fitting must be used by trained personnel only.
- DO NOT lubricate the UAC fittings. Do not permit oil, grease, or other contaminants to come in contact with the UAC fittings.
- The hose assemblies and fittings are designed to be used with Quality Verification Level (Grade) D or better air as defined by ANSI/CGA G-7.1. TRANSFILLING AIR FROM A SECONDARY AIR SUPPLY. In fire service applications, MSA recommends breathing air quality in accordance with NFPA 1989.

Misuse can result in serious injury or death.

NOTE: The UAC fitting may be used for transfill operations as described in this manual. Standard operating procedures should be developed for use of the UAC fitting.

The UAC fitting must be used only by qualified, trained personnel who have carefully read and understood these instructions, cautions, and warnings. NIOSH approvals of SCBA from MSA are maintained while transfilling air only if appropriate hose assemblies from MSA are used. UAC fitting or hose assemblies and fittings are rated for a maximum working pressure of 4500 psi. Use the following hose assemblies: 485331, 802687, 802688, 802689, 802690, and 485332, for filling cylinders in IDLH atmospheres.

13.2 Filling Instructions

A secondary air supply stores compressed breathing air until needed to refill SCBA air cylinders. When transfilling, the secondary air supply pressure must be greater than SCBA cylinder pressure. Examples of air supplies include: cascade air cylinder refilling systems; high pressure compressor systems with a fixed reservoir; or a portable air system such as the RescueAire™ System.



WARNING

DO NOT connect a high pressure SCBA to a secondary air supply with a pressure greater than 4500 psi. The high pressure SCBA is rated for a maximum working pressure of 4500 psi.

Misuse can result in serious injury or death.

NOTE: Rapid Intervention Teams should use a separate air supply such as MSA's RescueAire portable air supply system to fill the SCBA in an IDLH atmosphere.

- (1) Connect the Quick-Fill hose to the secondary air supply.
 - ▷ Turn the air supply on.

CAUTION

If there are leaks from either female fitting, or along the hose, depressurize the hose and correct the problem. Such leakage can result in increased fill time.

Attach the Quick-Fill hose to the UAC fitting:

- (2) Remove the rubber dust cap from the male inlet fitting on the UAC fitting. Be sure that the cylinder valve is fully opened.
- (3) Remove the rubber dust cap from the female fitting on the Quick-Fill hose.
- (4) Push the female fitting of the hose onto the male fitting of the UAC fitting until it snaps in place.
- (5) Pull on the hose to be sure the connection is secure.
 - ▷ Filling immediately begins when the female fitting fully engages with the UAC fitting.
 - ▷ After approximately 60 seconds, the pressure between the secondary air supply and the SCBA cylinder will be equal.



WARNING

If serious leakage is noticed from either of the two female fittings, or anywhere along the hose, disconnect the female fittings and return to fresh air immediately.

Misuse can result in serious injury or death.

NOTE: If the secondary air supply does not have a sufficient volume of air, the SCBA cylinder will not reach full service pressure.

- (6) Compare the cylinder pressure gauge and the remote pressure gauge to the secondary air supply pressure gauge reading.
 - ▷ If the readings are the same, pressure is equal.
- (7) To disconnect the Quick-Fill hose after transfilling, pull the gray sleeve back.
 - ▷ The hose fitting and the UAC fitting will separate.

- ▷ A hiss or pop may be heard as the fittings separate and the high pressure air is sealed off.
 - ▷ Listen for any leaks from the UAC fitting.
- (8) Immediately install the dust cover on the UAC fitting.
- ▷ The SCBA cylinder is ready for service if the cylinder pressure gauge needle is on the appropriate color band.

13.3 Transfilling between SCBAs

The SCBA with the higher pressure reading is the donor. The SCBA with the lower pressure is the receiver. Transfilling between users of SCBAs should be performed only during life-threatening emergencies or simulated training exercises. Both donor and receiver must return to fresh air immediately following the procedure.



WARNING

DO NOT transfill if the donor's primary low pressure warning device is sounding or HUD/control module are flashing red. Failure to follow this warning can result in shorter escape time to return to fresh air, causing serious personal injury or death.

The low pressure warning device begins alarming and HUD/control module begins flashing red to indicate that the pressure in the cylinder has been reduced to 35% of its rated working pressure. Remaining service time must be used for escape to fresh air. If the donor's primary low pressure warning device begins ringing or HUD/control module begins flashing red during transfilling, the donor should disconnect and preserve his escape time.

If the donor's primary low pressure warning device is not sounding and HUD/control module are not flashing and there is sufficient air to transfill to a receiver, (greater than 1000 psi for 2216 psi SCBAs and greater than 2000 psi for 4500 psi SCBAs), follow these steps:

- (1) Remove the 3 foot emergency transfill hose from its protective pouch.
- (2) Remove the rubber dust cover from both female fittings on the transfill hose assembly.
- (3) Remove the rubber dust cover from the UAC fitting.
- (4) Push the female fittings on to the male fittings until they click in place.
 - ▷ Pull on the hose to be sure it snapped in place.
 - ▷ After approximately 60 seconds, pressure between the SCBA cylinders will be equal.



WARNING

If serious leakage is noticed from either of the two female fittings, or anywhere along the hose, disconnect the female fittings and return to fresh air immediately.

Misuse can result in serious injury or death.

- (5) Disconnect the transfill hose from the SCBA by pulling the gray sleeve back on both ends.
 - ▷ A hiss or pop may be heard as the fittings separate and the high pressure air is sealed off.
- (6) Immediately install the dust cover on the UAC fitting. The dust cover prevents dirt, water, and debris from entering the fitting, and acts as a redundant seal.

13.4 Leakage

When transfilling in fresh air and the dust cover will not stay on the male fitting because air is leaking:

- (1) Correct the condition before using the SCBA.

When transfilling in a contaminated atmosphere and the dust cover will not stay on the male fitting because air is leaking:

- (1) Immediately reconnect the Quick-Fill hose to seal off the leak and return to fresh air.
- (2) If the hose will not reconnect, reach behind and close the cylinder valve.
 - ▷ Air pressure in the regulator will drop, and the leak will slow down.
- (3) Quickly replace the protective dust cap on the male fitting.
 - ▷ This will form a redundant seal.
- (4) Open the cylinder valve and return to fresh air immediately.
 - ▷ The dust cover prevents dirt, water, and debris from entering the fitting, and acts as a redundant seal.

Emergency Transfill Hose Storage

Preparing the Emergency Transfill Hose for storage:

- (1) Press in on the center of the quick-disconnect dust cap to release any pressure in the transfill hose.
- (2) Roll up the hose and place it in its protective pouch.

14 G1 ExtendAire II EBSS

General Information

Two air masks equipped with a G1 ExtendAire II System can share a common air supply during emergency escape.

NOTE: Activation of EBSS changes both the donor and receiver to Escape Only, and the user must immediately evacuate to fresh air outside the hazard zone.

Users can couple the G1 Second Stage Regulator from one user to the intermediate pressure manifold of the other user. Both users will receive intermediate pressure air from the donor's pressure reducer and cylinder. The duration of the remaining air supply will be reduced by at least half.

NOTE: The National Institute for Occupational Safety and Health (NIOSH) did not approve the interconnection of apparatus using "Buddy Breathers" or EBSS prior to NFPA 2013-edition standard units. Interconnection of pre-2013 edition SCBAs with an EBSS device results in a non-approved NIOSH configuration.



WARNING

Users must be trained in the operation of EBSS in accordance with a training program conforming to NFPA Standards 1404 and 1500 prior to any attempt to use such equipment in an emergency situation. Misuse can result in serious injury or death.



CAUTION

Use this emergency escape breathing system for life threatening emergencies and simulated training exercises only. All other adequate means of escape must be considered before using this device.

- During use, the air supply and consequentially the remaining service time is reduced approximately in half. Before connecting two users make sure the air supply is sufficient for both users to escape; otherwise do not use the system.
- DO NOT use the system if the donor's low pressure warning device is alarming (ringing). Using the system at this time can result in both users running out of air during escape.
- Exercise extreme care while connected together. Mobility and range of motion will be limited when donor's and receiver's air masks are connected.
- Maintain slack in the air lines during maneuvering and while connected together. DO NOT pull on the hoses. Pulling on the rescue hose to the intermediate pressure hose could separate the hoses from fittings and result in air leaks.

If the above measures cannot be followed or to provide greater escape protection, use the Quick-Fill System. Use of Quick-Fill maintains approval while transfilling and does not exhibit the above hazards.



WARNING

DO NOT use the Quick-Fill System, URC assembly or G1 ExtendAire II System accessories if there is any possibility that the environment contains a CBRN warfare agent. These air mask accessories are not approved for the use in atmospheres containing CBRN warfare agents. Failure to follow this warning can result in serious personal injury or death.

14.1 Instructions for EBSS Use

The G1 ExtendAire II System contains two quick-connection fittings, capable of connecting with both male and female fittings on another user's manifold.

- (1) Quick connects are single action to connect: To engage, push the coupler firmly over the plug.
- (2) Quick connects require two actions to disconnect.
 - ▷ Push the two sides of the quick-connect towards each other. The plug should advance into the coupler end an additional 1/8".
 - ▷ Slide the coupler's outer sleeve away from the plug. Pull the plug out of the coupler. Ensure that the Quick-connect plug on the manifold black is protected by the supplied dust cap.

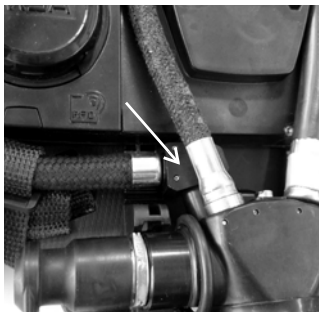


WARNING

DO NOT install or attempt to use any hose assembly or fitting other than those supplied by MSA for the G1 ExtendAire II System. Misuse can result in serious injury or death.

14.2 Inspection Before EBSS Use

Emergency Breathing Hose



- (1) Inspect the elbow connection to the G1 First Stage Regulator as well as the hose connection to the elbow. Ensure that the hose is properly secured.



- (2) Inspect the dust cover. Ensure that the cover is securely attached to the male and female quick-connect fittings.



- (3) Ensure that the emergency breathing hose is coiled in the pouch such that it is not twisted. Position the manifold end of the hose toward the flap opening to ensure that it is accessible in an emergency breathing situation.

Pouch



- (1) Inspect the pouch for cuts, tears, abrasions or signs of damage due to heat or chemical exposure. Verify that the pouch can securely stow and protect the emergency breathing hose. Verify that the pouch is securely attached to the carrier and harness.
- (2) Verify that each snap on the pouch flap is in place and securely fastened.

Hose Restraint



- (1) Inspect the hose restraint for cuts, tears, abrasions or damage due to heat or chemical exposure.
- (2) Verify that the hose restraint is securely attached to the emergency breathing hose and to the backplate.

Preparation for Use

Before Entering a Toxic Environment

- (1) Ensure proper ExtendAire II connection to the first stage regulator, as described in the Inspection Before Use.
- (2) Don the apparatus as described in the donning.

Providing or Obtaining Emergency Breathing Support



WARNING

Follow these procedures to connect and disconnect the emergency breathing system hardware. Individual development of operating procedures and sufficient training is required to use this equipment in actual emergency conditions. Misuse can result in serious injury or death.

Hose Connection Procedure



- (1) Open up the snaps and hook and loop fastener on the flap of the waist-mounted storage pouch.
 - (2) Locate the manifold end of the emergency breathing hose and remove it from the pouch.
 - (3) Remove the dust cover from the quick-disconnect fittings on the donor's manifold.
 - (4) Open up the snaps and hook and loop on the flap of the receiver's waist-mounted storage pouch.
 - (5) Locate the manifold end of the emergency breathing hose and remove it from the receiver's pouch.
 - (6) Connect the donor's and receiver's manifold blocks using a male and female quick-connect fitting with a single action.
- NOTE:** Each manifold has both male and female quick-connect fittings to either supply or receive air.
- ▷ Check that the hose is properly routed and not tangled with any other part of the apparatus (IE. Neck strap, chest strap, etc.).
 - ▷ Check for full engagement by pulling at the quick-disconnect to ensure that female socket does not separate from the male plug.
- (7) Upon reaching a safe, non-toxic atmosphere, a staging area or performing other egress procedures, uncouple the receiver's hose at the quick disconnect.
 - (8) Replace the dust cap on the manifold fittings.



WARNING

The receiver's facepiece or regulator must be removed upon disconnection from the donor's air supply. Misuse can result in serious injury or death from suffocation.

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15 Flow Test and Overhaul Requirements

The regulator and primary low pressure warning device must be flow tested at specific time intervals. These maintenance procedures must be performed by a certified repairperson or at an MSA service center. Contact your MSA sales representative or call the MSA Customer Service Center at 1-877-MSA-3473 for more information about these requirements.

Annual flow tests are stated as a requirement in NFPA 1852, Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA), 2013 Edition, which further emphasizes their importance. Although this standard relates to SCBA used in the fire service, MSA requires that a flow test be performed at least annually on all fire service and non-fire service SCBA and combination respirators that use a regulator.

MSA recommends the routine inspection of all elastomeric materials including, but not limited to those in the Visual Inspection and Functional Check section of this manual.

A decision to retire apparatus should be based on an SCBA's performance data and whether that data meets the specified level of performance as defined in maintenance requirements from MSA.

MSA recommends overhauling the SCBA every 600 hours of on air usage. The amount of on air usage can be found in the service mode of the SCBA.

16 Personnel ID Tag

An ID Tag is used to assign a user's name to the SCBA. The name assigned to the SCBA will be displayed for that SCBA on the MSA Accountability System Software and data log within the SCBA. The name ID Tag must be scanned into the power module at the start of each shift (every 24 hours by default) or prior to each use.

NOTE: The MSA A2 Software can be used to change this default to allow a name ID to be permanently assigned to the SCBA until a new name ID Tag has been scanned.

A team ID Tag can also be used to assign a team/truck and position to the SCBA. If a team ID Tag has been scanned into the control module but a name ID Tag has not been scanned, the team ID will be displayed on the SCBA monitoring software to provide accountability even if the firefighter forgot to scan the name ID Tag. Once a team ID Tag has been scanned into the control module, the team ID will remain with the SCBA until another team ID Tag has been scanned. If a team ID or name ID has not been assigned to the SCBA, the power module serial number will be displayed as the firefighter's ID when logged onto the base station.

A base station ID can be used to assign a specific base station ID to an SCBA. When more than one base station is present and actively monitoring at an incident, an SCBA with an assigned base station will search for the preferred base station first to log on to, and if it does not find the assigned base station within 20 seconds, it will search for the first available base station and log on to it. If a base station ID has not been assigned to the SCBA, it will log on to the first base station that it finds once the unit has been turned on. Once a base station ID tag has been scanned into the power module, this base station ID will remain with the SCBA until another base station ID tag has been scanned.

The ID Tag has a space for the user to place a label in which the ID information can be written on the outside of the ID Tag for easy identification.

Before using the ID tag, inspect for damage or cracks in the case. If damage is found, discard and replace the ID tag.