

- Place filter into 501 retainer with filter printing facing towards the 603 adapter. Snap together and ensure the filter seal is free from creases or gaps (Fig. 22).

In Brazil, the 5935BR Filter used with the 603 adaptor is assembled following the same procedures as the 5N11 and 5P71.

3M™ Supplied Air Systems

⚠ WARNING

To meet the U.S. National Institute for Occupational Safety and Health (NIOSH) requirement for minimum (4 CFM/115 lpm) and maximum (15 CFM/424 lpm) air flow, the air control valves approved for use with the 3M 6000 Series Half Facepiece Respirators must be operated within the correct supply pressure ranges and hose lengths. Failure to do so **may result in sickness or death.**

In Brazil, the Brazilian Association of Technical Standards (ABNT) NBR 14372 requires a minimum of 120 lpm and maximum of 280 lpm air flow for breathing air for half and full facepiece respirators.

⚠ WARNING

OSHA standard 29 CFR 1910.134 requires that employers provide breathing air which shall “meet at least the requirements of the specification for Grade D breathing air as described in Compressed Gas Association Commodity specification G-7.1-1997” in the United States. In Canada, breathing air systems must be supplied air which meets at least the requirements of CSA Standard Z180.1. Failure to do so **may result in sickness or death.**

In Brazil, breathing air systems must be supplied with air which meets ANSI Z86.1-1989/CGA G-7.1, Grade D breathing air.

Assembly of 3M Dual Airline Breathing Tubes

- Hold the facepiece in front of you so that the 3M logo is facing you. Align the two branches of the breathing tube over the two bayonet mounts on facepiece. For the 3M™ SA-1500 or SA-1600 Breathing Tubes, make sure that 3M logo on breathing tube and on half facepiece are both facing towards you. For 3M SA-2500 or SA-2600 Breathing Tubes, make sure that the 3M logo on breathing tube is facing in opposite direction to 3M logo on half facepieces (Fig. 6). 3M SA-1500/SA-2500 shown.
- Twist each branch of breathing tube clockwise a quarter turn until it is firmly seated in the bayonet and cannot be turned further (Fig. 7 and 8). Do not forcibly overturn as the bayonet could be damaged. 3M SA-1500/SA-2500 shown.
- Attach airline to approved air regulators per pressure schedules in dual airline operator’s manual.

Assembly of 3M Combination Dual Airline Breathing Tubes with Cartridges and/or Filters

The 3M SA-1600 (front-mounted) and SA-2600 (back-mounted) versions of the 3M dual airline breathing tubes allow use of selected, NIOSH-approved 3M 6000 series cartridges and 2000 series filters. For listing of approved cartridges and filters, reference NIOSH approval label included with 3M dual airline breathing tubes. To assemble 3M dual airline breathing tubes with cartridges and/or filters, do the following:

- Remove inhalation valves from facepiece and store them so they remain flat (Fig. 9).
- Attach 3M SA-1600 or SA-2600 breathing tubes to facepiece per the procedures outlined previously. The procedure is identical to the 3M SA-1500 and SA-2500 models.
- Make a selection of cartridges and/or filters that meets your respiratory protection requirements, and attach to outer bayonets of 3M SA-1600 or SA-2600 breathing tubes (Fig. 10).
- Don facepiece per procedures outlined in Fitting Instructions.
- After being properly fit tested, perform a positive and negative pressure user seal check per procedures outlined in User Seal Check instructions.

If you cannot achieve a proper fit, DO NOT enter contaminated area. See your supervisor.

- Attach airline to approved air regulators per pressure schedules in dual airline operator’s manual.

Using the 3M Combination Dual Airline Breathing Tubes without Cartridges or Filters

To use the 3M SA-1600 or SA-2600 breathing tubes without cartridges or filters, attach a 3M™ 6880 Bayonet Cap to each outer bayonet mount on the breathing tube. When used as a straight, Type C, continuous flow supplied air respirator, the Assigned Protection Factor is 50 times the PEL or TLV.

FITTING INSTRUCTIONS

Must be followed each time respirator is worn.

NOTE: Do not use with beards or other facial hair or other conditions that prevent a good seal between the face and the faceseal of the respirator. To help maintain a good seal between the face and the faceseal all hair, hoods, or other equipment must be kept out of respirator faceseal area at all times.

Donning Respirator

- Place respirator over your mouth and nose, then pull head harness over crown of your head (Fig. 11).
- Take bottom straps in both hands, place them in back of your neck, and hook them together (Fig. 12).
- Position facepiece low on the bridge of your nose for optimal visibility and best fit.
- Adjust top straps first, then lower neck straps by pulling on ends (Fig. 13). DO NOT pull too tight! (Strap tension may be decreased by pushing out on back side of buckles.) Perform a positive pressure and/or negative pressure user seal check. The positive pressure method is recommended.

If you cannot achieve a proper fit, DO NOT enter contaminated area. See your supervisor.

USER SEAL CHECKS

Always check the seal of the respirator on your face before entering a contaminated area.

Positive Pressure Seal Check

- Place the palm of your hand over the exhalation valve cover and exhale gently. If facepiece bulges slightly and no air leaks are detected between your face and the facepiece, a proper fit has been obtained (Fig. 14).
- If faceseal air leakage is detected, reposition respirator on your face and/or readjust tension of the elastic straps to eliminate leakage.
- Repeat above steps until a tight faceseal is obtained.

If you cannot achieve a proper fit, DO NOT enter contaminated area. See your supervisor.

Negative Pressure Seal Check (with 6000 series cartridges)

- Place palms of hands to cover face of cartridge or open area of 3M™ 501 Filter Retainer, when retainer is attached to the cartridge, to restrict air flow (Fig. 15).
- Inhale gently. If you feel facepiece collapse slightly and pull closer to your face with no leaks between the face

and facepiece, a proper fit has been obtained.

- If faceseal air leakage is detected, reposition respirator on face and/or readjust tension of straps to eliminate air leakage. Repeat above steps until a tight faceseal is obtained.

If you cannot achieve a proper seal, DO NOT enter contaminated area. See your supervisor.

NOTE: Use of 3M 501 filter retainer may aid respirator wearer in conducting a negative pressure seal check.

Negative Pressure Seal Check (with 2000 Series filters)

- Place your thumbs onto the center portion of the filters, restricting airflow into the breathing tube of filters, and inhale gently. If you feel facepiece collapse slightly and pull closer to your face with no leaks between the face and facepiece, a proper fit has been obtained (Fig. 16).
- If faceseal air leakage is detected, reposition respirator on face and/or readjust tension of straps to eliminate the leakage.
- Repeat above steps until a tight faceseal is obtained.

If you cannot achieve a proper seal, DO NOT enter contaminated area. See your supervisor.

Negative Pressure User Seal Check (with 7093/7093C Filters)

- Using hands press or squeeze filter covers toward facepiece and inhale gently. If you feel facepiece collapse slightly and pull closer to your face with no leaks between the face and facepiece a proper seal has been obtained (Fig. 23).
- If faceseal air leakage is detected, reposition respirator on face and/or readjust tension of straps to eliminate the leakage.

If you cannot achieve a proper seal, DO NOT enter contaminated area. See your supervisor.

Negative Pressure User Seal Check with Dual Airline

- Disconnect airline hose from air control valve.
- With breathing tube still connected to the air control valve inhale gently. If you feel facepiece collapse slightly and pull closer to your face with no leaks between the face and facepiece, a proper seal has been obtained.
- For Combination Dual Airline where cartridges or filters are attached perform user seal check as described above under the appropriate cartridge or filter that is being used.
- If faceseal air leakage is detected, reposition the respirator on your face and/or readjust the tension of the straps to eliminate the leakage and recheck seal.

If you cannot achieve a proper seal, DO NOT enter contaminated area. See your supervisor.

NOTE: Before assigning any respirator to be worn in a contaminated area, a qualitative or quantitative fit test must be performed per OSHA Standard 1910.134 or CSA Standard Z94.4.

FIT TESTING

The effectiveness of a respirator will be reduced if it is not fitted properly. Therefore, either quantitative or qualitative fit testing must be conducted prior to the respirator being issued.

NOTE: Fit testing is a U.S. Occupational Safety and Health Administration (OSHA), a Canadian CSA and a Brazilian BMOL requirement.

Quantitative Fit Testing

Quantitative Fit Testing (QNFT) can be conducted using a 3M™ 601 Fit Test Adapter and P100 filters such as the 3M™ 2091 or 7093 P100 Particulate Filters.

Qualitative Fit Testing

Qualitative Fit Testing (QLFT) with the 3M™ FT-10 or FT-30 Qualitative Fit Test Apparatus can be conducted using any of the NIOSH approved particulate filters.

Fit testing should be conducted using the heaviest cartridge, canister, filter or combination that each wearer will use in their work environment. Respirators should also be fit tested while wearing any personal protective equipment (PPE) the wearer may use in their work environment that may affect the fit of the respirator (e.g. hoods, hardhats, safety glasses, hearing protections, etc.).

INSPECTION, CLEANING, AND STORAGE

Inspection Procedure

The 3M 6000 series facepiece must be inspected before each use to ensure that it is in good operating condition. Any damaged or defective parts must be replaced before use. The following inspection procedure is recommended.

- Check facepiece for cracks, tears and dirt. Be certain facepiece, especially faceseal area, is not distorted.
- Examine inhalation valves for signs of distortion, cracking or tearing.
- Make sure that head straps are intact and have good elasticity.
- Examine all plastic parts for signs of cracking or fatiguing. Make sure filter gaskets are properly seated and in good condition.
- Remove exhalation valve cover and examine exhalation valve and valve seat for signs of dirt, distortion, cracking or tearing. Replace exhalation valve cover.

Cleaning and Storage

Cleaning is recommended after each use.

⚠ WARNING

Do not clean 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 condition. Failure to do so may result in sickness or death.

- Remove cartridges and/or filters.
- Clean facepiece (excluding filters and cartridges), with 3M™ 504 Respirator Wipes (not to be used as the only method of cleaning) or by immersing in warm cleaning solution, water temperature not to exceed 120°F, and scrub with soft brush until clean. Add neutral detergent if necessary. Do not use cleaners containing lanolin or other oils.
- Disinfect facepiece by soaking in a solution of quaternary ammonia disinfectant or sodium hypochlorite (1 oz [30 mL] household bleach in 2 gallons [7.5 L] of water), or other disinfectant.
- Rinse in fresh, warm water and air dry in non-contaminated atmosphere.
- The cleaned respirator should be stored away from contaminated areas when not in use.

REPLACEMENT PART INSTRUCTIONS

3M™ 6893 Inhalation Valve

Inhalation valves are located on posts at the inside of the facepiece inhalation ports. These valves should be

inspected before each respirator use and replaced whenever valves become damaged or lost.

- Remove existing valve(s) by lifting from post(s) (Fig. 9).
- Install new valve(s) onto post(s). Be certain valve(s) is fully engaged under all three lugs on post(s), lays flat, and moves freely (spins) on post.

3M™ 6889 Exhalation Valve

- Remove valve cover assembly from facepiece (Fig. 19).
- Grasp valve and pull valve stem out from valve seat (Fig. 17).
- Inspect valve seat making certain it is clean and in good condition.
- Place new valve over exhalation port and press valve stem into center hole. Be certain the valve is fully seated and spins freely in mount.
- Replace valve cover assembly.

NOTE: Conduct a negative pressure seal check to ensure exhalation valve is functioning properly.

3M™ 6895 Inhalation Gasket Replacement

The closed cell foam rubber gasket is designed to seal the interface between the bayonet attachment inhalation ports on the facepiece and filters/cartridges, dual airline or 3M 201 microphone adapter installed on the facepieces. The gaskets should be inspected with each filter/cartridge change and replaced whenever damaged or if seal integrity is questionable.

- Remove gaskets from facepiece inhalation port bayonet fittings (Fig.18).
- Install new gaskets onto facepiece inhalation port bayonet fittings. Be certain gaskets are in proper position under all three bayonet lugs.

3M™ 6281 Respirator Strap Assembly

- To remove, disengage upper legs of valve cover assembly from facepiece buttons.
- Pry or pull valve cover assembly from facepiece exhalation port (Fig. 19).
- To install, properly position new strap assembly valve cover over facepiece exhalation port and snap into place by firmly pressing together.
- Engage holes in upper legs of valve cover assembly with facepiece buttons.

For Compliance in Brazil NOTE:

- Do not use in deficient or enriched oxygen atmospheres.
- Storage, Transportation and Care: store in a clean and dry place and away from contaminants and extreme temperature and humidity.
- The components of this respirator are made of materials which are not expected to cause adverse health effects.
- It is necessary to have special care to use this product in explosives atmospheres.

Product Manufacturing Date

The parts of the product show markings that bring information of manufacturing date, and its reading is described as in the example below:

Date Code = 12th month 1999 (12/99)

