

Cleaning the G1 SCBA in an SCBA Washing Machine

WARNING!

Read, understand and follow all manufacturer instructions, warnings and cautions for the SCBA washing machine and detergent prior to use.

- Do NOT use cleaning substances that can or might attack any part of the SCBA.
- Do NOT use alcohol, which can cause deterioration of rubber parts.
- Do NOT use cleaning products that contain hydrocarbons or solvents such as nitro-thinner.
- Do NOT use radiant heat such as the sun or radiators to dry cleaned parts.
- When a drying cabinet is used, make sure the temperature is not more than 120°F (48°C).
- Make sure there is no water, moisture, or dampness on or in the facepiece and regulator before returning the SCBA to service. Any moisture on or in the facepiece or regulator can freeze and result in a malfunction of the SCBA.
- Failure to clean and decontaminate the SCBA correctly after each use can cause overexposure to contamination and result in illness, disease, or death.

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

MSA has tested the Solo Rescue SCBA DECON WASHER® and Meiko TopClean D & M DECON Washer with the corresponding detergents in [Table 1](#), using the procedure outlined in this document. Based on the testing, MSA expects that, when washing is performed in accordance with this document and all washing machine manufacturer instructions, the G1 SCBA will continue to perform after washing.

Table 1

SCBA Washing Machine	Detergent
Solo Rescue SCBA DECON WASHER	ProBlend SCBA Detergent (P/N PB0010967AA)
Meiko TopClean D & M DECON Washer	Decon MD Detergent (P/N 9209590)
	ProBlend SCBA Detergent (P/N PB0010967AA)

WARNING!

Characteristics of SCBA washing machines may vary depending on the type of machine and its design. These characteristics can influence the impact of the SCBA washing machine on the G1 and its performance after washing. These characteristics include, but are not limited to:

- The mechanical load applied to the SCBA and its component parts
- The temperature to which the SCBA is exposed during washing.
- The ability of the washing machine to maintain a constant concentration of cleaning agents.

Failure to account for SCBA washing machine characteristics when selecting a washing machine can result in serious injury or death.

Machine Washing the G1 SCBA

WARNING!

During cleaning, wear adequate personal protective equipment (PPE) in accordance with the detergent and washing machine manufacturers' recommendations.

Failure to follow this warning can result in serious personal injury or death.

WARNING!

- Make sure the pH level does not exceed 11, or local jurisdiction limits, whichever is lower.
- Water temperature must not exceed 130°F (55°C).
- Use all of the required caps and plugs during washing to minimize the potential for water ingress and damage.
- DO NOT wash with the battery in place. Use the battery plug.
- Caps and plugs can only be used during wash cycle, and MUST be removed for use.
- Ensure all caps and plugs are undamaged prior to each use.
- Ensure the second stage regulator O-rings are present and undamaged prior to and after each washing cycle.

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

Step-by-Step Instructions

NOTE: The cylinder may be attached to the SCBA or removed for washing.

NOTE: Follow the regulations of your local municipality or your facility permit requirements for the effluent discharge from the laundering process.



- (1) Apply all caps and plugs.
 - a) Apply the cap to the facepiece mounted regulator.



- b) Insert the battery plug in place of the actual battery in the SCBA.



Figure 1 quick-connect fitting

- c) If the cylinder is removed for washing, apply the plug to the quick-connect fitting or threaded plug (see [Figure 1](#) and [Figure 2](#)).

NOTE: For the threaded version, unscrew the quick-connect adapter from the male CGA plug, and insert the CGA plug.

NOTE: If the cylinder is not removed, no plug is required. The cylinder and high pressure line must be connected.

- d) Apply the cap to the pressure relief valve.
 - e) Ensure the universal air connections boot and boot for the buddy breather system are in place.



Figure 2 threaded fitting



- (2) Place the SCBA unit inside the washing machine according to manufacturer's instructions.

NOTE: If washing facepieces, refer to the manufacturer's washing machine instructions.

⚠ WARNING!

Do a negative pressure seal test after every cleaning, disinfecting, and maintenance procedure, and after every exchange of parts.

Failure to follow this warning can result in serious personal injury or death.

- (3) Position everything in a way that it will be exposed to the water.

NOTE: Remove the buddy breather assembly and/or universal air connection hose assembly from pouch for washing.

- (4) Use the appropriate detergent called out in [Table 1](#).

NOTE: The washing machine must be calibrated to supply 0.6% concentration of detergent.

⚠ WARNING!

Use only the recommended detergent for the specific washing machine called out in [Table 1](#). Use of other detergents or chemicals can cause degradation of the harness and other components.

Failure to follow this warning can result in serious personal injury or death.

- (5) Wash the SCBAs and facepieces for an 8 minute cycle.

⚠ WARNING!

Water temperature must not exceed 130°F (55°C).

Failure to follow this warning can result in serious personal injury or death.

NOTE: Repeat washing if additional cleaning is necessary.

- (6) Remove the SCBAs from the washer.
- (7) Remove all caps, plugs, washing battery, and boots from the SCBA. See Step 1.

NOTE: To remove the cap from the regulator, push the buttons on the regulator.

- (8) Keep caps, plugs, washing battery, and boots off and hoses exposed from their pouches for the drying process.

Drying

NOTE: Use either a heated cabinet or air dry SCBA units and facepieces. See [Table 2](#) for suggested drying times.

Any water on or in the SCBA components can freeze and restrict airflow.

Thoroughly dry the facepiece and facepiece mounted regulator after cleaning and disinfecting.

Moisture can cause problems in the SCBA if it freezes. However, moisture can cause freezing problems even if the surrounding air is above freezing. Air flowing from the cylinder through the pressure reducer and regulator decreases from cylinder pressure to close to atmospheric pressure very quickly. This causes the air to expand and creates a cooling effect.

Although the surrounding temperature may be warmer than 32°F (0°C), the temperature inside the regulator may be lower.

⚠ WARNING!

- Before going into a hazardous environment, make sure there is no water, moisture, or dampness on or in any of the SCBA components. Any moisture on or in the SCBA components can freeze and result in a malfunction of the SCBA. Make sure all components operate correctly.
- Before going into a hazardous environment, make sure there is no water or ice on the inner surfaces and components of the regulator, regulator buttons, and bypass valve. Make sure the buttons and bypass valve operate correctly.
- Do not use a regulator that has water contamination on the inner surfaces or components. Remove the regulator from service, and dry all surfaces and components fully. Make sure all regulator components are fully dry before returning the regulator to service.
- Do not put parts near a heater or in direct sunlight to dry.

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

NOTE: When using a cabinet gear dryer, dry for a maximum of 2 hours at a temperature not exceeding 120°F (48°C).

NOTE: Not all components dry in the same amount of time. Make sure there is no water, moisture, or dampness on or in any of the components before returning the SCBA to service.

Table 2 Recommended Drying Times

Air Drying	Cabinet Gear Dryer (120°F / 48°C)
10 hours	2 hours

Dry times vary depending on factors that include, but are not limited to:

- Temperature
- Humidity
- Air circulation
- Elevation above sea level

After Drying Verification Testing

⚠ WARNING!

Functional tests must be completed after drying but before use.

Failure to follow this warning can result in serious personal injury or death.

Perform all functional tests in MSA G1 Operating Manual (P/N 10187007), Section 5.

Inspection

If damage on the speaking diaphragm is noted, remove the facepiece from service and return it to an MSA trained and certified repair technician.

If cracking is noted on the regulator buttons, remove the SCBA from service and return it to an MSA trained and certified repair technician.