G1 | Troubleshooting Guide

⚠WARNING

FOLLOW THE APPLICABLE CARE MANUAL (INCLUDING ALL INSTRUCTIONS, WARNINGS AND CAUTIONS) FOR ALL REPAIR STEPS LISTED IN THIS TROUBLESHOOTING GUIDE. FAILURE TO FOLLOW THIS WARNING MAY RESULT IN SERIOUS INJURY OR DEATH.

INTRODUCTION

This Troubleshooting resource is intended for C.A.R.E. certified technicians. Overhauls, adjustments, flow testing, and troubleshooting on the MSA G1 Self Contained Breathing Apparatus (SCBA) must only be performed by C.A.R.E. certified technicians. For information on how to get C.A.R.E. training & certification email: training@msasafety.com

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TROUBLESHOOTING ELECTRONIC COMPONENTS

STARTING UP THE G1 SCBA (What to Expect)

The G1 SCBA starts up after (A) the insertion of a good, charged battery, or (B) the pressurization of the G1 SCBA with a good, charged battery already inserted. The following are the expected visual and audio indicators:

The Power Module lights will flash yellow once, then green about 16 times, then the following is expected to occur simultaneously:

Power Module

- Alarms (piezo audio) will chirp twice
- Lights Blink:
  - Red-Red
  - Yellow-Yellow
  - Green-Green
  - Top and bottom lights alternate in the color which represents the cylinder's current pressure range.

Speaker Module

- Will sound twice
- Button's blue light will turn on.

Regulator

- Regulator Lights will flash: Yellow → Red → Blue → Red
- Then the Pressure Segment Lights will cycle through the LED pressure patterns:
  - 1 Red
  - 2 Yellow
  - 3 Green
  - 4 Green
- Then shows the LED pattern representative of the cylinder's current air pressure.

Control Module

- Display will turn on and show MSA screen with blue bar racing across the bottom.
- Once it has completed its initialization, a green check will be displayed
- Pressure screen will display as configured and the back light will be the color which represents the cylinder's current air pressure.

TROUBLESHOOTING ISOLATION PROCEDURE

START:
Insert a known good, fully-charged battery.

Do the lights on the PM show that it is initializing?

No

- Remove the Battery
- Remove the two screws which secure the lower cover
- Remove the lower cover
- Remove the cap on the right side of the PM which covers the SM and RM connections
- Disconnect the RM plug from the PM
- Insert the battery

Does the CM initialize?

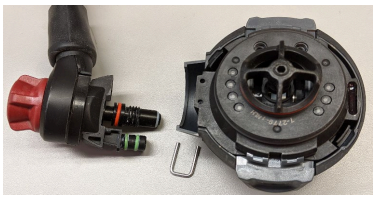
Yes

- Pull back the rubber boot at the regulator side of the hose:

Is the wire braid visible?

No

- Disconnect the regulator by removing the regulator cap and U-Clip over the bypass valve, then unscrew the bypass valve from the regulator.



- Attach a known good regulator by screwing in the bypass valve, using care to not damage the O-rings
- Reconnect regulator plug at the PM
- Reinsert the battery

Does the G1 function correctly?

Yes → **Replace E-Module**

No → **Replace Regulator Hose Assembly**

Yes

- Remove the Battery
- Remove the cover on the left side of the PM
- Without removing the U-Clip, disconnect the plug for the CM from the PM
- Connect a known good CM to the PM
- Insert the battery

Does the CM initialize?

No → **Replace Power Module**

Yes

No

Does the CM show that it is initializing?

No

Yes

Does the HUD show that it is initializing?

No

Yes

Yes

Does the G1 go into equipment alarm approximately 20 seconds after the CM shows the green check?

No

No

Do all CM buttons function correctly with G1 off (**Sleep/Standby Mode)**?

Yes

Do all CM buttons function correctly with G1 **On**?

No → **Replace Control Module**

Yes

Is the CM an iTIC?

Yes

Does the iTIC function

No → **Replace Control Module**

Yes → **Procedure Complete**

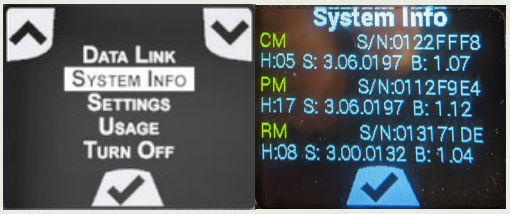
No → **Procedure Complete**

PM = Power Module
RM = Regulator Module
CM = Control Module
SM = Speaker Module

ELECTRONICS TROUBLESHOOTING NOTES

FIRMWARE - Ensure CM, PM, and RM are updated to the current Firmware version.

- Firmware versions are found on **System Info** screen in Service Mode.
- The version for each component is behind it's "S:" label.
- The current revision of the G1 SCBA Firmware can be found in A2 under G1 Firmware.



In the image, the PM firmware version is listed as **3.06**.0197

Error codes MMR3386, MMR3346, PM 23C6, PM2406, CM1286 or CM12C6 indicate firmware incompatibility. A firmware update is required.

G1 SCBA units made between 11/2014 and 7/2019 are **NFPA 2013** version.

G1 SCBA units made from 8/2019 to present are **NFPA 2018** version.

1. **The bypass valves and valve cores are not the same on the two versions and are not interchangeable.**

They are easily distinguished by the threads.

2. An equipment alarm differs from a PASS alarm:

An equipment alarm is usually accompanied by a RED "**X**" and an ERROR CODE on the display, and can only be silenced by removing the battery.

3. The G1 **Sound Pattern** was updated in December of 2016 to meet new NFPA requirements.

Any G1 SCBA or power module manufactured after that date has the new sound pattern.

Updating the firmware does not update the sound pattern, but must be done before the sound pattern can be updated.

Request the Upgrade Kit by emailing **msainsidesales@msasafety.com**.

Kit Part Numbers: 10181319 – 25 labels with 1 sound pattern tag
10181320 – 100 labels with 1 sound pattern tag

POWER-UP

E1 | Power Module lights do not come on

CHECK ▸ Verify that the battery has at least 65% charge.

CHECK ▸ The contacts on the Power Module are corroded or missing pins

REPAIR ▸ Replace the Power Module

CHECK ▸ The battery is NOT a known good battery

REPAIR ▸ Replace the battery with a known good battery

Never put a questionable battery into another G1. A bad battery could damage the other unit.

If unit still does not power on, follow the **Troubleshooting Isolation Procedure** on Page 3.

E2 | The Power Module lights come on, but ONLY the top lights are flashing red.

CHECK ▸ If occurs after attempted G1 firmware update:

REPAIR ▸ Follow unbricking procedures or contact IRG for assistance.

E3 | The Power Module lights come on and cycle, but repeats that action without ever finishing initialization

REPAIR ▸ Replace the Power Module

E4 | The Power Module lights ALL blink simultaneously and are dim

REPAIR ▸ Replace the Power Module

E5 | The alarms don't sound, and the unit is NOT identified as a HAZMAT UNIT

REPAIR ▸ Replace the Power Module

E6 | The unit powers on with battery insert but not when air pressure is applied.

REPAIR ▸ Replace the Power Module

E7 | The Power Module goes through initialization, but the Control Module didn't come on

REPAIR ▸ Follow the **Troubleshooting Isolation Procedure** on Page 3.

E8 | Unit is turning on by itself

CHECK ▸ Verify cylinder valve is fully closed and not leaking.

CHECK ▸ Verify that the pack isn't positioned so that the Manual Alarm button isn't unintentionally depressed

REPAIR ▸ Fully Close valve / Repair Valve / Replace Valve

POWER-UP (Continued)

E9 | The Power Module initializes but then goes into equipment alarm ②

REPAIR ▸ Follow the **Troubleshooting Isolation Procedure** on Page 3.

CHECK ▸ Red X and !!!!

REPAIR ▸ Replace the Power Module

CHECK ▸ Red X, No code - *This is a timing issue that was corrected with firmware 3.05*

REPAIR ▸ Update the firmware to the current revision

CHECK ▸ Error Code CM11CB

REPAIR ▸ Replace the Control Module

CHECK ▸ Error Code PM201C / PM205C / MMR301C

REPAIR ▸ Follow the **Troubleshooting Isolation Procedure** on Page 3.

E10 | Unit shuts down when PASS alarm goes off

REPAIR ▸ Replace the Battery with a fully charged battery

BATTERY and BATTERY CHARGER

E11 | A newly charged Li-Ion battery is placed in an SCBA shows the battery charge is very low.

CHECK ▸ Insert a known good, fully-charged battery.

REPAIR ▸ If the known good battery also shows a low charge: Replace the Power Module.

E12 | Battery shows 3 or 4 bars at power up, but soon the SCBA sounds a low battery alert

CHECK ▸ Replace the battery with a known good and fully-charged battery

REPAIR ▸ If the problem persists, contact IRG for assistance in analyzing battery consumption

E13 | Battery level showing no bars on Control Module display (only outline of battery)

CHECK ▸ Change the battery with a known good charged battery.

REPAIR ▸ If the problem was resolved: Remove Battery from Service

If the problem persists: Replace the Power Module

Never put a questionable battery into another G1. A bad battery could damage the other unit.

E14 | Battery won't charge

CHECK ▸ Battery will not turn on the RED LED when placed in a charger bay, but a different battery will turn on the RED LED.

REPAIR ▸ Remove Battery from Service

CHECK ▸ Battery is placed in a charger bay turns on the RED LED but never turns on GREEN LED

REPAIR ▸ Remove Battery from Service

E15 | The Charger LED is BLINKING RED when battery is charging

REPAIR ▸ Remove Battery from Service

E16 | One bay in the charger will not charge (no light comes on), when any battery is inserted.

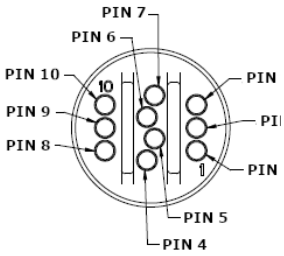
REPAIR ▸ Replace the charger

Batteries will not charge unless they are within temperature range: between 32° F and 104° F (0° C and 40° C).

E17 | Testing the Li-Ion Battery via the connector pins

A meter with at least a 10 Mega Ohm range is required for this test

ⓘ Pins 1, 2 and 3 are all V+.
Pins 8, 9 and 10 are all Ground.
Pins 4, 5, 6 and 7 are signal connections so that the battery can talk to the charger and to the power module.



- The voltage between Pin 10 and Pin 1 on a fully charged battery will be about 8.13 VDC
- The resistance between Pin 10 and Pin 4 should be 7.8 MOhms – 8.0 MOhms
- The resistance between Pin 10 and Pin 5 should be 7.8 MOhms – 8.0 MOhms
- Mfg. BEFORE 2018: The resistance between Pin 10 and Pin 6 should be 498 Ohms – 502 Ohms
- Mfg. 2018 and Later: The resistance between Pin 10 and Pin 6 should be about 1 KOhms
- The resistance between Pin 10 and Pin 7 should be 10.1 KOhms – 10.7 KOhms

Slight variations may occur in resistance readings depending on the meter used.
Establish baseline readings for your meter with a known good battery.
Look for readings inconsistent with your baseline readings.

REPAIR ▸ Any significant deviation from these readings could indicate a bad battery that needs replaced.

POWER MODULE

E18 | Power Module won't accept an RFID tag

CHECK ▸ Ensure the G1 is in RFID read mode and that the Tag is placed over the RFID Tag Target on the back right side of the Power Module

The **RFID Tag Target** will be , , or , depending on the SCBA pressure type.

CHECK ▸ Multiple tags were attempted and none were read.

REPAIR ▸ Replace the Power Module

CHECK ▸ All four red lights on the Power Module are dim, and flashing simultaneously

REPAIR ▸ Replace the Power Module

E19 | Alarms won't sound

CHECK ▸ Ensure the unit is not a designated HAZMAT unit

REPAIR ▸ Replace the Power Module

E20 | No Bluetooth Function

CHECK ▸ Verify that Bluetooth is set to "Enabled" in the G1 Configuration

REPAIR ▸ If Bluetooth **is not** Enabled: Enable Bluetooth with a G1 Configuration Tag

REPAIR ▸ If Bluetooth **is** Enabled: Replace the Power Module

CHECK ▸ Bluetooth Icon is not present on the Control Module

REPAIR ▸ Replace the Power Module

All paired Bluetooth devices (Radio, Gas Detector, LUNAR) are connected

One of the paired Bluetooth devices has lost its connection

None of the Paired Bluetooth Devices are connected

E21 | Bluetooth Icon is not present on the Control Module

REPAIR ▸ Replace the Power Module

CONTROL MODULE

IMPORTANT - Before replacing a control module: Ensure that there is no dirt or debris in the manifold.

E22 | Analog gauge not at zero when not pressurized

REPAIR ▸ Replace the Control Module

E23 | Analog gauge won't move when pressure is applied

REPAIR ▸ Replace the Control Module

E24 | One of the gauge readings is off (different)

CHECK ▸ The analog gauge agrees with the cylinder gauge, but the digital gauge does not.

REPAIR ▸ Replace the Power Module

CHECK ▸ The digital gauge agrees with the cylinder gauge, but the analog gauge does not.

REPAIR ▸ Replace the Control Module

CHECK ▸ The analog gauge and the digital gauge agree, but the cylinder gauge does not

REPAIR ▸ Replace Cylinder Gauge

E25 | Control Module buttons do not work when the unit is off (Sleep/Standby Mode) – Can't activate the manual PASS alarm or get to the battery screen

REPAIR ▸ Replace the battery with a known good fully charged battery.
If the problem persists, follow the **Troubleshooting Isolating Procedure on Page 3**

E26 | Control Module buttons do not function when the unit is on – Can't activate the manual PASS alarm or get to the second screen.

REPAIR ▸ Replace the Control Module

E27 | Red button popped out

REPAIR ▸ Replace the Control Module

E28 | Display does not come on when unit is powered on (Power Module lights are on).

CHECK ▸ If the halo light behind the red button is flashing but the display does not come on:

REPAIR ▸ Replace the Control Module.

CHECK ▸ If the halo light behind the red button is not on and there is no display:

REPAIR ▸ Follow the **Troubleshooting Isolation Procedure** on Page 3.

E29 | Moving Control Module doesn't reset the Pre-Alarm.

REPAIR ▸ Replace the Control Module

CONTROL MODULE (Continued)

E30 | Double clicking the green button doesn't reset the PASS alarm.

CHECK ▸ No red "X" or error code is displayed

REPAIR ▸ Replace the Control Module

CHECK ▸ If there is a red "X" and error code ②

REPAIR ▸ **E31 |** Follow the **Troubleshooting Isolation Procedure** on Page 3.

E32 | Display doesn't come on with Control Module lift/tilt

CHECK ▸ Verify the G1's Configuration in A2 for "Backlight Tile Behavior" under "Control Module UI Settings"

REPAIR ▸ Change the setting to the desired behavior.

If the setting is already set to "Timeout after Period" and the display comes on when the green button is pressed: Replace the Control Module

iTIC CONTROL MODULE

E33 | iTIC screen is "snowy" for longer than 2 seconds when TIC mode is turned on.

REPAIR ▸ Replace the Control Module

E34 | Holding one of the green buttons does not put the iTIC into Thermal Imaging mode

REPAIR ▸ Replace the Control Module

HUD

E35 | No HUD Lights

CHECK ▸ Follow the **Troubleshooting Isolation Procedure** on Page 3.

E36 | HUD Lights not registering Pressure

CHECK ▸ Follow the **Troubleshooting Isolation Procedure** on Page 3.

E37 | HUD Lights Dim during use

CHECK ▸ Cracked or dirty regulator buddy light.

CHECK ▸ Dirty lens on 2nd Stage Regulator Module

SPEAKER MODULE

E38 | Speaker Module won't power on when unit is powered on.

CHECK ▸ Verify the Speaker configuration in A2. Verify the blue lit button has not been deactivated by a press.

REPAIR ▸ Replace the Speaker Module

E39 | Speaker Module Static / Poor audio quality

CHECK ▸ Pull back the boot on the RM hose assembly and check for exposed wire braid.

REPAIR ▸ Replace the RM hose assembly

CHECK ▸ Inspect the connector at the power module for damage

REPAIR ▸ Replace Speaker Module

CHECK ▸ Ensure that the Regulator Valve is properly adjusted

REPAIR ▸ Adjust the valve to specs.

CHECK ▸ Microphones damaged

REPAIR ▸ Replace the E-Module

CHECK ▸ In A2 if the Speaker is configured to "always on"

REPAIR ▸ Change the configuration to "Auto On When Speaking"

E40 | Speaker stays on all of the time.

CHECK ▸ In A2, verify that the speaker is configured to "Auto On When Speaking."

CHECK ▸ Ensure that the Regulator Valve is properly adjusted

REPAIR ▸ Adjust the valve to specification

CHECK ▸ If the issue remains: Isolate possible issues in the E-module or regulator cable assembly

REPAIR ▸ Follow the **Troubleshooting Isolation Procedure** on Page 3.

E41 | Speaker cuts out during use.

CHECK ▸ Ensure that the Regulator Valve is properly adjusted

REPAIR ▸ Adjust the valve to specification

CHECK ▸ Ensure a good facepiece seal.

TROUBLESHOOTING PNEUMATIC COMPONENTS

PNEUMATICS TROUBLESHOOTING NOTES

The Troubleshooting tips on this page, are referenced throughout the rest of this document. When you encounter the numeric reference, return to this section to isolate the component as an issue.

③

G1 SCBA units made between 11/2014 and 7/2019 are **NFPA 2013** version.

G1 SCBA units made from 8/2019 to present are **NFPA 2018** version.

The bypass valves and valve cores are not the same on the two versions and are not interchangeable.

They are easily distinguished by the threads.

④

Leaks should be isolated by means of leak testing (Snoop) before any replacement parts are requested.

⑤

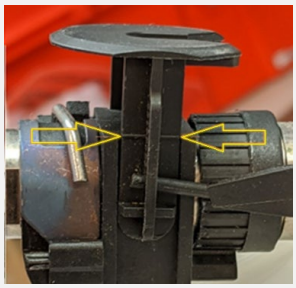
Christo-Lube should be applied in a skim coat.

- You should be able to feel it, but not see it.

⑥

The Regulator Valve is adjusted at the factory.

- It should not be adjusted more than two clicks in either direction from the factory setting.
- Over adjusting it can adversely affect first-breath activation and speaker performance.



⑦

The Snap-Tite (EBSS) and the Universal fittings (UEBSS) are not compatible.

HANDWHEEL

P1 | Handwheel leaking ④

CHECK ▸ Perform leak test on the handwheel assembly to identify source of leak

REPAIR ▸ Replace the leaking O-rings or component

CHECK ▸ Leak test the Quick Connect coupler

REPAIR ▸ Replace the female quick connect coupler

P2 | Quick Connect Handwheel won't connect or disconnect

REPAIR ▸ Replace female quick connect coupler

P3 | Leaking at the High Pressure Relief Valve (PRV) ④

CHECK ▸ Ensure that the PRV is torqued to specification

REPAIR ▸ Replace the PRV O-ring

ⓘ Replace the PRV if the paper band is damaged.

REDUCER (First Stage Regulator)

P4 | Audi-Alarm Bell rings when the unit is fully pressurized (Analog gauge fluctuates with breathing)

REPAIR ▸ Check the sintered filter in the handwheel assembly for clogging

Losing pressure over time (greater than allowed)

CHECK ▸ Leak test assembly and hoses ④

REPAIR ▸ Replace O-rings or components as indicated

P5 | UAC fitting leaking

CHECK ▸ Tighten the UAC to proper torque requirements

CHECK ▸ Check with inspection tool as indicated in PIN article of November 15, 2018

REPAIR ▸ Replace the UAC and the dust cap

P6 | Medium Pressure Relief Valve (MPRV) is leaking

CHECK ▸ That the quad ring is present, and correctly installed

REPAIR ▸ Replace the reducer Piston Assembly and O-rings using a Reducer Overhaul Kit (10163924)

REGULATOR (Second Stage)

P7 | Regulator Valve is free flowing

CHECK ▸ Ensure that the bypass valve is fully closed

CHECK ▸ Clean and lubricate the O-rings on the bypass valve

REPAIR ▸ Replace the Regulator Valve

REPAIR ▸ If issue persists, contact the Issues Resolution Group

ⓘ The Pressure Demand Spring should be replaced if the Regulator Valve is replaced.

FACEPIECE

ⓘ Ensure the G1 facepiece is cleaned per the cleaning instructions in the G1 Operating Manual.

P8 | Exhalation Valve Sticking

REPAIR ▸ Inspect sealing surface of exhalation valve to the component housing. Clean any debris.

CYLINDER

P9 | Male QuickConnect Adapter is leaking

REPAIR ▸ Inspect male QuickConnect Adapter and torque to specifications

P10 | Cylinder Gauge is not at zero when the cylinder is empty

REPAIR ▸ Replace Cylinder Gauge

P11 | The analog gauge and the digital gauge agree, but the cylinder gauge does not

REPAIR ▸ Replace Cylinder Gauge

P12 | Cylinder Valve leaking

REPAIR ▸ Replace Cylinder Valve. Torque to specifications

ACCESSORIES

P13 | Remote Quick Fill UAC leaking ④

CHECK ▸ Verify UAC is torqued to specifications.

REPAIR ▸ Torque to specifications. Test again.

REPAIR ▸ If issue persists: Replace UAC and dust cap.

G1 Firmware Updates with A2

When the PC has internet and A2 is launched, it will indicate if an A2 version update is available.

When the PC has internet, in the upper right hand corner of the **G1 Firmware** screen in A2, select the icon to check if an updated G1 Firmware Version is available.

F1 | The G1 Firmware upgrade fails repeatedly on a G1

ⓘ Some electronic component issues will not allow a firmware upgrade until repaired.

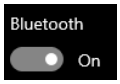
REPAIR ▸ Perform a function check of the pack. Make necessary repairs and try again.

F2 | G1 SCBA won't connect to A2 when in "Data Link" Service Mode

CHECK ▸ Ensure the A2 Service is running; Restart the A2 service (or computer).

CHECK ▸ Ensure you have the **latest version of the A2 software**.

CHECK ▸ Bluetooth is **turned on in Windows**



REPAIR ▸ Enable Windows Bluetooth

F3 | Power module or Control Module won't function after an attempted firmware upgrade.

CHECK ▸ **DO NOT REMOVE the G1 battery.**

REPAIR ▸ Re-attempt programming by selecting "Upload firmware to devices".
Contact IRG or Customer Service for assistance.

Unbricking Procedure

F4 | CM update fails or CM is blank after restart.

CHECK ▸ If **Power Module Firmware** is already **3.03 or later**:

REPAIR ▸
- Insert a charged battery.
- Allow the SCBA to go into hardware alarm. *(G1 is Bluetooth Discoverable now)*
- Rescan for the G1 in A2 and Start the update. *(alarm will turn off once update begins)*

CHECK ▸ If **Power Module** is NOT Firmware **3.03 or later** install the CM **on another G1** that is:

REPAIR ▸
- Remove the CM from both G1s.
- Put the "bricked" CM onto the G1 with PM Firmware 3.03 or later.
- Start the G1 with battery and let it go into alarm. *(G1 is Bluetooth Discoverable now)*
- Scan for the G1 in A2 and Start the update. *(alarm will turn off once update begins)*
- Return the CMs to their respective G1s, and finish updating the original G1's RM and PM

A2 Reader/Writer & AIMS Reader

IMPORTANT – Ensure that your **A2** Software is **version 1.0.8.9** or later**.**

The new AIMS Reader and the A2 Reader/Writer look exactly the same. They can be differentiated by their LED when plugged in, and by their label.

A2 Reader/Writer PN 10158407

"**PRS1.04**" code

Red LED when plugged into computer *****

Used with A2 for reading and writing G1 Tags, & reading extended info of G1 Asset RFIDs.

****** *The A2 Service must be running for it to light.*

AIMS Reader PN 10186214

"**MSI51.00**" code

Green LED when plugged into computer

Used with AIMS and with POSI CHEK

POSI CHEK Testing

T1 | Does not pass **First Breath Activation** test

REPAIR ▸ Replace valve core.

T2 | Does not pass **Exhalation Valve Opening Pressure** test

CHECK ▸ Exhalation valve opens at too low of a pressure.

REPAIR ▸ Replace exhalation valve spring.

CHECK ▸ Exhalation valve opens at too high of a pressure

REPAIR ▸ Remove and clean the exhalation valve and pin. Clean the component housing, especially the valve seat and the valve pin hole. Retest.

T3 | Does not pass **Facepiece Leak** test

CHECK ▸ Re-adjust the Facepiece on the POSI CHEK head form

CHECK ▸ Check the for proper installation of the nose cup in the facepiece.

CHECK ▸ Ensure the 2nd Stage Regulator Diaphragm is installed correctly and free of holes

REPAIR ▸ Install correctly. Replace if holes are detected.

CHECK ▸ Ensure the Speaking Diaphragm in the Facepiece installed correctly and free of holes

REPAIR ▸ Install correctly. Replace if holes are detected.

CHECK ▸ Check the **orange O-ring** on the regulator.

REPAIR ▸ Replace the **orange O-ring** on the regulator.

T4 | Does not pass **Static Pressure** test

CHECK ▸ Adjust Regulator Valve ⑥

REPAIR ▸ Replace Regulator Valve and the Pressure Demand Spring.

T5 | Does not pass **High Pressure Leak** test

CHECK ▸ Check the O-ring on the High Pressure Relief Valve.

REPAIR ▸ Replace the O-Ring.

CHECK ▸ Check the **torque** on the High Pressure Relief Valve. **Torque to specification.**

CHECK ▸ Check the O-rings on the High Pressure Hose

REPAIR ▸ Replace the O-Rings

T6 | Does not pass **Standard Breathing Rate** test

CHECK ▸ Check the seal of the Facepiece on the POSI CHEK head form.

REPAIR ▸ Adjust for proper seal.

CHECK ▸ Ensure the 2nd Stage Regulator Diaphragm is installed correctly and free of holes

REPAIR ▸ Install correctly. Replace if holes are detected.

CHECK ▸ Adjust Regulator Valve ⑥

REPAIR ▸ Replace Regulator Valve and the Pressure Demand Spring.

T7 | Does not pass **MAX Breathing Rate** test

CHECK ▸ Adjust Regulator Valve ⑥

REPAIR ▸ Replace Regulator Valve and the Pressure Demand Spring.

CHECK ▸ Check Bypass Valve for a clogged screen. **(P1)**

REPAIR ▸ Replace Bypass Assembly

CHECK ▸ Check sintered filter for debris. **(P2)**

REPAIR ▸ Replace Sintered Filter

(P1)

(P2)

CHECK ▸ Check that the hose to the bottom side of the POSI head-form is attached and is not leaking

T8 | Does not pass **Gauge** test

REPAIR ▸ Replace Control module

T9 | Does not pass **Bypass** test

CHECK ▸ Ensure Bypass Knob is opened completely.

REPAIR ▸ Replace Bypass Assembly

T10 | Does not pass **Ringdown** test

CHECK ▸ Adjust the Bell Actuator by turning clockwise to increase the initiation pressure or counterclockwise to lower the initiation pressure.

REPAIR ▸ Clean the Bell Assembly and replace the O-rings

REPAIR ▸ Replace the striker and seat (Bell Overhaul Kit)

T11 | Does not pass **Medium Pressure/Creep** test

CHECK ▸ Inspect the reducer seat and adjust.

REPAIR ▸ Re-torque the cap on the pressure reducer

REPAIR ▸ Replace reducer piston and O-rings (Kit PN: 10163924)

T12 | Does not pass **HUD** test

ⓘ If the SCBA is pressurized before a battery is installed: the CM may not function correctly when the PM activates.

REPAIR ▸ Depressurize unit. Restart with a known good battery. Re-pressurize and retest.

REPAIR ▸ Adjust the actuator for the audi alarm to the lower end of the specified limit and retest.

ⓘ If this is an issue for more than one or two G1 SCBA, consider adding an expansion tank to the POSI CHEK set up.

Honeywell POSI CHEK Technical Support

POSI CHEK Software & Hardware are Honeywell products (with an MSA SCBA testing template) and technical support for them is provided by Honeywell.

Honeywell Support Contact:

1-800-323-2000 or e-mail **is.gas.techsupport@honeywell.com**