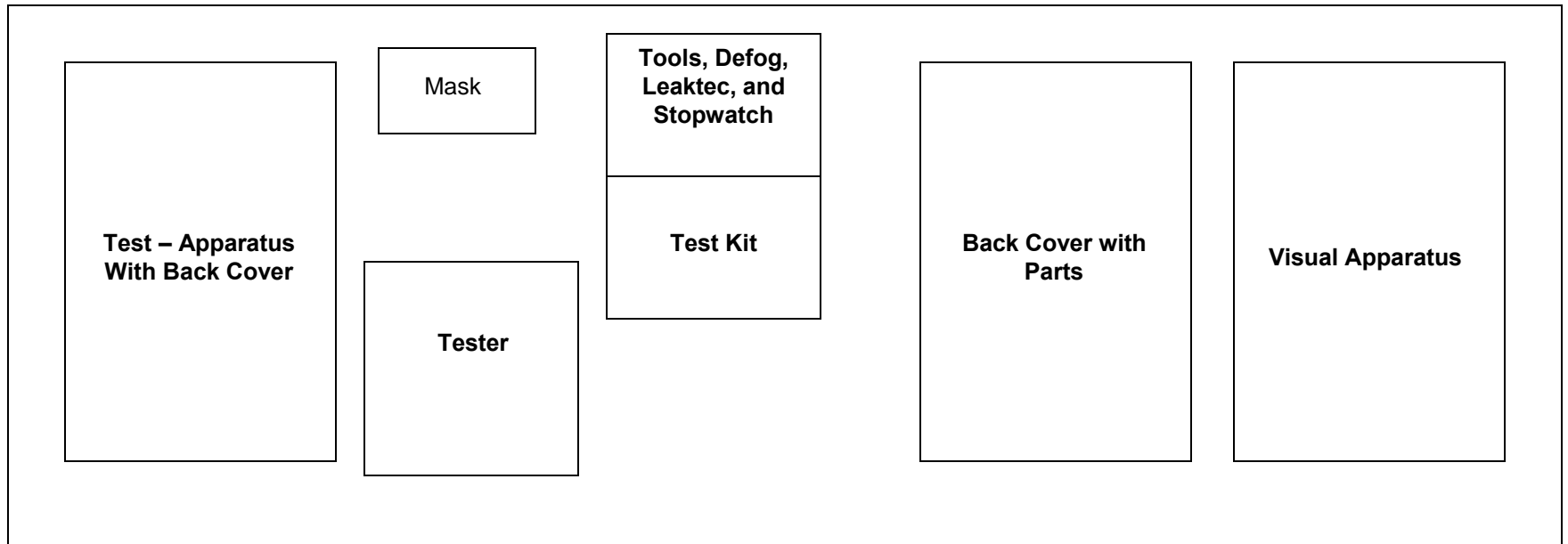


## Table Layout for BG-4 Contest 2019 Contest Year



VISUAL APPARATUS CHECKS		HAND TIGHT CONNECTIONS		
✓	<i>Check if ok</i>		· Cap on Drain Valve	
	<b>FRAME/HARNESS ASSEMBLY</b>		· Drain Valve to Breathing Bag	
	· Switchbox/Sentinel/Sealing Rings/O2 Reg/Anti-vibe		· Minimum Valve to Breathing Bag	
	· Backcover		· Minimum Valve to O2 Supply Line	
	<b>BREATHING BAG</b>		· Cylinder Connection	
	· Sealing Surfaces		· Regenerative Canister Connections	
	· Manipulate or Massage (pliability)		· Relief Valve to Regenerative Canister	
	· Minimum Valve & Drain Valve		<b>Crossover Hose to Switchbox and Relief Valve</b>	
	· Lever		· Cooler to Breathing Bag	
	· Springs		· Distribution Hose	
	<b>CYLINDER TEST</b>		· Breathing Hoses	
	· Hydrostatic Test Date		· Hose Adapter on RZ-25 or Test-It 6100	
	· Cylinder Pressure on Gauge	<b>TEST APPARATUS</b>		
	· Pressure Rating on Cylinder	✓	<i>Check if ok</i>	
	<b>REGENERATIVE CANISTER</b>		<b>ZERO ADJUSTMENT ON TESTER</b>	
	· Check for Defects		<b>LOW PRESSURE WARNING TEST</b>	
	· Sealing Surfaces		<b>INHALATION VALVE TEST</b>	
	· Expiration Date or Screens/Filler Mats/Seal		<b>EXHALATION VALVE TEST</b>	
	· Seal Strap with Tension Spring Hook		<b>DRAIN VALVE TEST</b>	
	<b>RELIEF VALVE</b>		<b>LEAK TEST with POSITIVE PRESSURE</b>	
	· Check for Defects		<b>RELIEF VALVE TEST</b>	
	· Valve/O-Ring		· State Opening Pressure	
	<b>COOLER</b>		<b>HIGH PRESSURE LEAK TEST</b>	
	· Check for Defects		<b>CONSTANT METERING VALVE TEST</b>	
	· Sealing Surfaces		· State Final Reading	
	<b>HOSES</b>		<b>MINIMUM VALVE TEST</b>	
	· Sealing Edges		· State Opening Pressure	
	· Stretching of Hose for Pliability		<b>BYPASS VALVE TEST</b>	
	<b>COUPLING</b>		<b>LOW PRESSURE WARNING TEST</b>	
	· Sealing Surfaces		· State Warning Reading	
	· Valve Discs		<b>BATTERY TEST</b>	
	<b>FACE PIECE TEST</b>	VI	C	<b>VISUAL APPARATUS</b>
	· Head Strap Assembly			
	· Mask Body			
	· Sealing Edges			
	· Speaking Diaphragm			
	· Lens			
	· Wiper			<b>TEST APPARATUS</b>
	· Defog Mask (Simulate)			

## **BG-4 VISUAL APPARATUS (BREAKDOWN)**

**Back Cover Removed**  
**Hoses – Disassembled**  
**Connector Removed**  
**Inhalation – Exhalation Valves Removed Cooler and Cooler Cap Removed**  
**Relief Valve (Intact)**  
**Lever Arm**  
**Canister**  
**Springs**  
**Breathing Bag**  
**O2 Bottle**  
**Retainer Clip for Minimum Valve**  
**Minimum Valve**  
**Drain Valve (Intact)**  
**Switchbox (Unlatched with Crossover line off and still attached to cables)**

## **BG-4 TOOL KIT**

**7mm – Open End/Box End**  
**8mm – 10mm Combination**  
**10mm – Open End**  
**12mm – 14mm Combination**  
**17mm – 19mm Combination**  
**10mm – 11mm Offset Box**  
**Flat Screwdriver**  
**Phillips Screwdriver**  
**Spanner Wrench**  
**2mm – Allen Wrench**  
**15mm – Open End**  
**Dow-Corning 111**  
**TORX – T-20**  
**Reaction Ring Tool**

## STATEMENT TO BENCH CONTESTANT

The bench participant will be provided with two BG-4 apparatus (one disassembled, one assembled), an RZ-25, RZ-7000 tester, or Test-It 6100 tester, a stopwatch, defogging solution, leak detector fluid, test kit, and tool kit. Only the tools and fluid provided will be used for testing and assembly of the apparatus.

The work at the bench at the bench will consist of:

1. A visual examination of a disassembled BG-4 and the proper assembly and preparation for use in rescue work. This will include correcting any predetermined problem(s) so that the apparatus is in proper working order. Simulating defogging of the facepiece lens will be done as a part of the visual examination. This visual examination, correcting predetermined problem(s), and proper assembly can be done at any time allowed for the working of the problem.
2. Test the assembled BG-4 apparatus with a tester, and correct the predetermined problem(s) so that the apparatus is in proper working condition. Except for removing the sealing cap from the coupling on the breathing hoses, and removing the cover shell, the assembled BG-4 apparatus cannot be disassembled to look for problems, until the hoses are attached to the tester, and the apparatus fails a test. When testing is completed on the assembled BG-4 apparatus, the hoses shall be removed from the tester, connected to the facepiece, and the back cover installed. This shall be done before the clock is stopped.

When an unplanned deficiency is encountered in the apparatus, the participant will be notified by the judge(s) that the deficiency is not part of the problem. The judge will stop the clock and any time used to correct the deficiency will not be charged to the working time.

A maximum of 30 minutes will be allowed to complete the problem. The judge will tell you when 25 minutes has passed. At the completion of the problem, the judge(s) and the participant will note the working time of the problem with the official timekeeper. Work done after the clock is stopped will not be recognized.