

SAVE THE DATES
APRIL 21-23, 2026
GOVERNOR'S CUP – POST 7
MINE RESCUE CONTEST



SOUTHWEST VIRGINIA HIGHER EDUCATION CENTER
1 PARTNERSHIP CIRCLE
ABINGDON, VA 24210



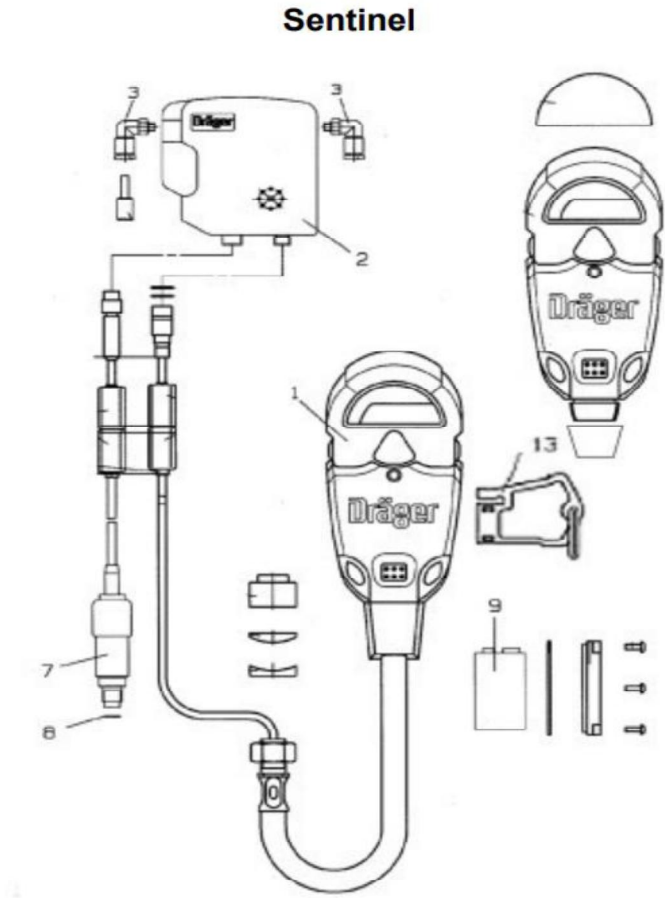
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VISUAL APPARATUS CHECKS		TEST APPARATUS WRITTEN RECORD	
✓	<i>Check if ok</i>		
	FRAME/HARNESS ASSEMBLY	✓	<i>Check if ok</i>
	BREATHING BAG		LOW PRESSURE WARNING TEST 1.4 MBAR MAX.
	CYLINDER TEST		INHALATION VALVE TEST 10 MBAR +
	REGENERATIVE CANISTER		EXHALATION VALVE TEST 10 MBAR -
	SIMULATE ADDING DRAGERSORB		DRAIN VALVE TEST 10 MBAR
	RELIEF VALVE		LEAK TEST with POSITIVE PRESSURE 1 MBAR IN 60 SEC.
	COOLER		RELIEF VALVE TEST
	SIMULATE ADDING ICE		State Opening Pressure 2 TO 5 MBAR
	HOSES		HIGH PRESSURE LEAK TEST OPEN CYL. ICON
	COUPLING		CONSTANT METERING VALVE TEST
	FACE PIECE TEST		State Final Reading 1.5 TO 1.9 L/MIN
	SIMULATE DEFOGGING MASK		MINIMUM VALVE TEST
			State Opening Pressure 0.1 TO 2.5 MBAR
	CONNECTIONS CONNECTED OR GOOD		BYPASS VALVE TEST
	Cap on Drain Valve		ALTERNATE RELIEF VALVE TEST 2 TO 5 MBAR
	Drain Valve to Breathing Bag		LOW PRESSURE WARNING TEST
	Minimum Valve to Breathing Bag		State Warning Reading APPROX. 700 PSI
	Minimum Valve to O2 Supply Line		BATTERY TEST BATT FULL/ ICON
	Cylinder Connection		READY FOR USE
	Regenerative Canister Connections		DATE
	Relief Valve to Regenerative Canister		SERIAL NUMBER
	Crossover Hose Switchbox and Relief Valve		SIGNATURE
	Cooler to Breathing Bag		CYLINDER READING
	Distribution Hose		
	Breathing Hoses		
	Hose Adapter on RZ-25 or Test-It 6100		
			ZERO TESTER PRIOR TO TESTING
		VI	C VISUAL APPARATUS
			HEAT SHIELD MISSING
			TOP RIGHT CRADLE SCREW MISSING (F/O)
			TOP MASK STRAP TWISTED (F/O)
			HOLE IN DRAIN VALVE DISC
			LEFT MASK SCREW MISSING (F/O)
			TEST APPARATUS
			HOLE IN CONNECTOR T
			HOLE IN DRAIN VALVE TUBE
			BIG O-RING ON RELIEF VALVE MISSING
			HOLE IN O2 SUPPLY LINE

1. During the exhalation valve test, if valve is operating properly, -10 _____ is indicated on the pressure gauge.
 - A. psi
 - B. mbar
 - C. volume
2. _____ is used to connect the BG-4 apparatus to the RZ-25 tester.
 - A. Valve seat
 - B. Breathing hose
 - C. Test adapter
3. The battery in the Sentinel should be replaced every ____ months.
 - A. 6
 - B. 4
 - C. 3
4. During the _____ pressure _____ test, the pressure change within 1 minute must be lower than 1 mbar.
 - A. positive, drain
 - B. negative, leak
 - C. positive, leak
5. Only DRAGERSORB _____ is to be used to fill the refillable cartridge.
 - A. 40
 - B. 400
 - C. 440

6. A _____ pressure in the breathing circuit prevents ambient air from entering the system.
- A. negative
 - B. positive
 - C. neutral
7. The BG-4 is approved with a factory/refillable _____.
- A. cartridge
 - B. housing
 - C. container
8. The Sentinel monitoring system comprises a _____ unit, _____, and Sentinel.
- A. pressure, controlbox
 - B. sensor, controlbox
 - C. sensor, switchbox
9. The BG-4 constant dosage must be _____ to _____ L/min.
- A. 1.5, 1.8
 - B. 1.4, 1.9
 - C. 1.5, 1.9
10. The drain valve should not open at less than _____ mbar.
- A. 10
 - B. 18
 - C. -10

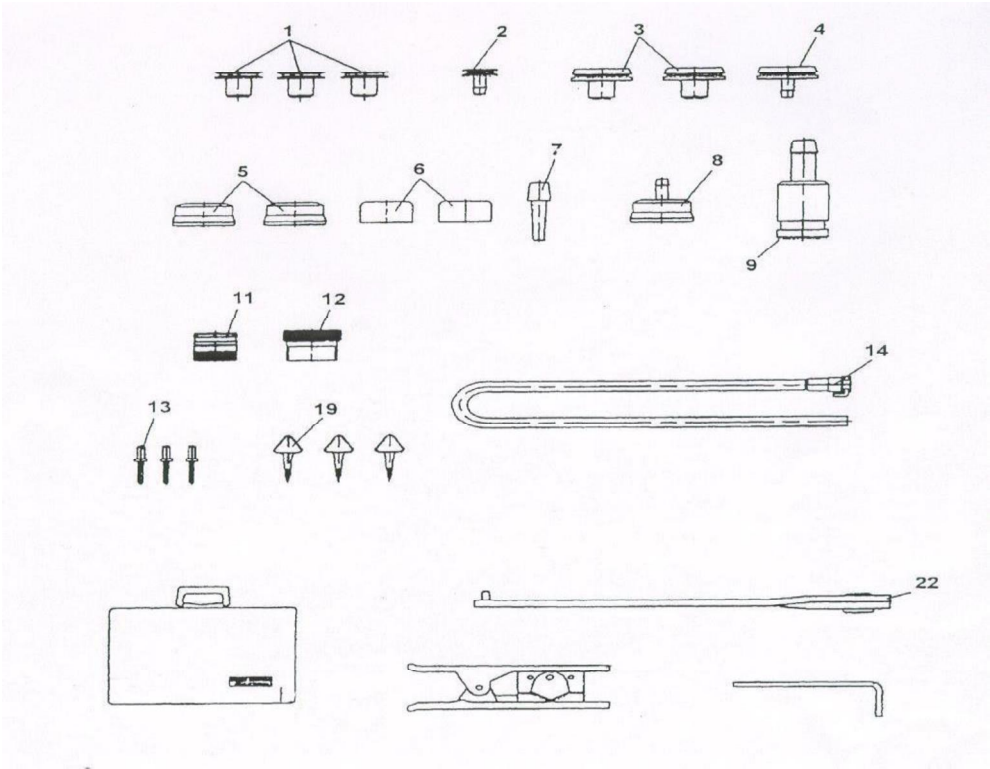


1	2	1	2
Cons. No. Designation		Cons. No. Designation	
1	Sentinel	8	Copper _____ (13)
2	Switch Box	9	9 Volt Battery
3	_____ Connector (11)	13	Talley Key
7	Pressure _____ (12)		

- (11)**
- A. Angle
 - B. 90*
 - C. Elbow

- (12)**
- A. Reducer
 - B. Sensor
 - C. Signal

- (13)**
- A. Disc
 - B. Washer
 - C. Ring



1	2	1	2
Cons. No. Designation		Cons. No. Designation	
1	Plug For Breathing Bag	11	Sealing _____ for Mask (16)
2	Nozzle For Breathing Bag	12	Test _____ (17)
3	Sealing Plug (Corruagted Hose)	13	Sealing Plug for Plug In Conn.
4	Test Socket for Corrugated Hose	14	Test Hose / Metering Control
5	Sealing Cap for Corrugated Hose	19	Sealing Ring Lifters
6	Sealing _____ (14)	22	Spanner
7	Testing Plug		
8	Test _____ for Corrugated Hoe (15)		
9	Test Connection for Control Valve		

(14)

- A. Adapter
- B. Cap
- C. Cover

(15)

- A. Adapter
- B. Cap
- C. Plug

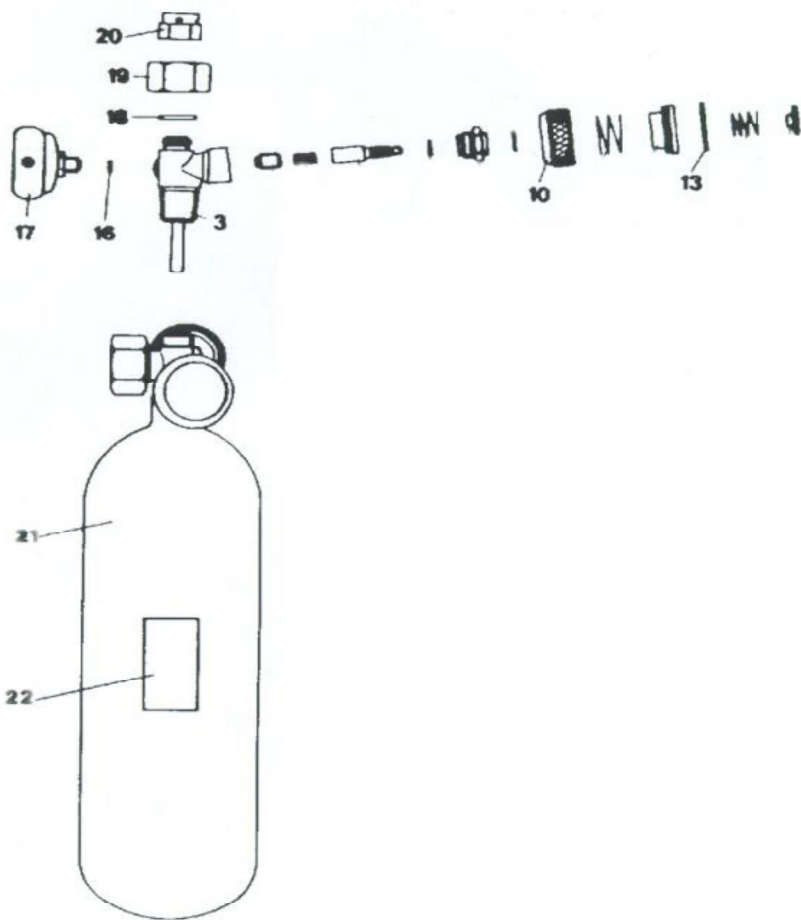
(16)

- A. Plug
- B. Cap
- C. Connection

(17)

- A. Adapter
- B. Conn.
- C. Piece

Oxygen Cylinder



1	2	1	2
Cons. No. Designation		Cons. No. Designation	
3	Valve Housing	18	Lock _____ (19)
10	Hand-wheel	19	Lock Nut
13	Safety Ring	20	Bursting _____ (20)
16	Sealing Ring	21	Oxygen Cylinder
17	_____ (18)	22	Label

- (18)

 - A. Anometer
 - B. Manometer
 - C. Flowmeter
- (19)

 - A. Washer
 - B. Disc
 - C. Ring
- (20)

 - A. Disc
 - B. Cap
 - C. Ring

BG4 Bench Test Answer Key

1. B
2. C
3. A
4. C
5. B
6. B
7. A
8. C
9. C
10. A
11. A
12. B
13. C
14. B
15. B
16. A
17. A
18. B
19. A
20. A