

BG4 Written Test  
Governor's Cup Mine Rescue  
6/6/2019

1. The battery in the Sentinel should be replaced every \_\_\_\_\_.
  - a. 6 months
  - b. 60 days
  - c. Time used
2. To prepare for testing adjust \_\_\_\_\_ of the RZ Tester.
  - a. The reading
  - b. The dial
  - c. Zero point
3. During the positive pressure leak test, the \_\_\_\_\_ within 1 minute must be lower than 1 mbar.
  - a. Barometric pressure
  - b. Pressure change
  - c. Absolute pressure
4. A \_\_\_\_\_ in the breathing circuit prevents ambient air from entering the system.
  - a. Check valve
  - b. Large spring
  - c. Positive pressure
5. The bG-4 constant \_\_\_\_\_ must be 1.5 to 1.9 L/min.
  - a. Flow
  - b. Dosage
  - c. Metering
6. The drain valve \_\_\_\_\_ open at less than 10 mbar.
  - a. Should not
  - b. Should always
  - c. May not
7. During the constant dosage test, the breathing bag is inflated, the RZ-25 tester is set to red dosage, and the pressure relief valve is \_\_\_\_\_.
  - a. Open
  - b. Capped
  - c. Removed
8. The cylinder connector and cylinder valve must not be \_\_\_\_\_ with oil or grease.
  - a. Lubricated
  - b. Contaminated
  - c. Treated

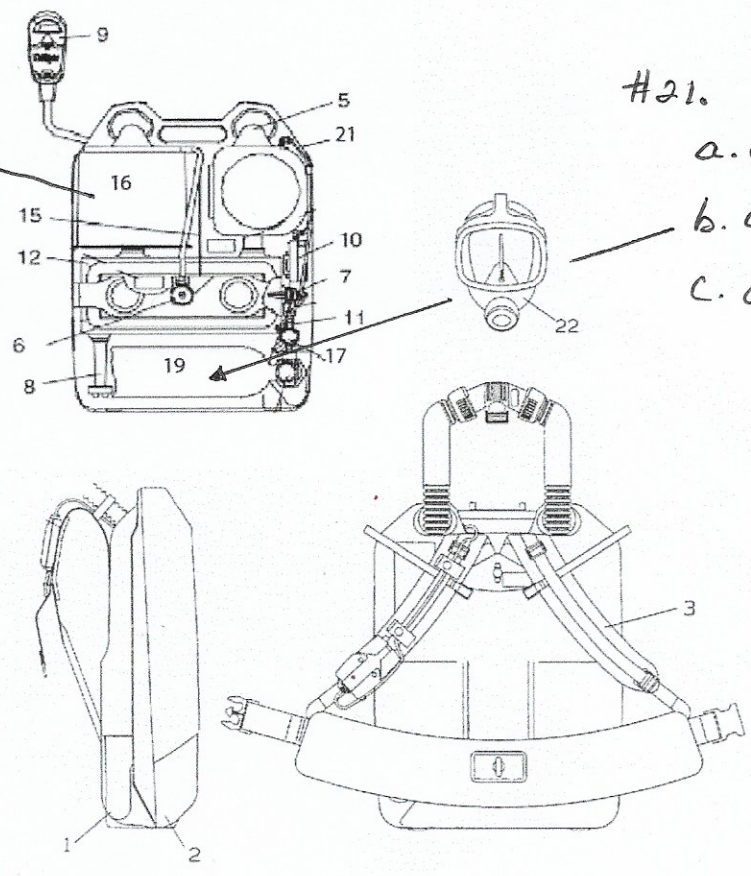
9. The first low pressure warning occurs when the pressure drops to \_\_\_\_\_  
\_\_\_\_\_ psi.
- Exactly 680
  - Nearly 500
  - Approximately 700
10. \_\_\_\_\_ \_\_\_\_\_ in the BG-4 is between 58 and 64 psi.
- Medium pressure
  - Positive flow
  - High pressure
11. All parts which come in contact with the \_\_\_\_\_ \_\_\_\_\_ must be thoroughly cleaned and disinfected after use.
- Body fluids
  - Exhaled air
  - Contaminated water
12. All parts that have been \_\_\_\_\_ should be rinsed thoroughly under running water.
- Disinfected
  - Washed
  - Cleaned
13. U.S. D.O.T. hydro test \_\_\_\_\_ \_\_\_\_\_ every 5 years.
- Breathing bags
  - Fiberglass cylinders
  - Composite cylinders
14. The inhalation/exhalation valve should be replaced every \_\_\_\_\_ \_\_\_\_\_ for units which are in constant use.
- 3 years
  - 5 years
  - 2 years
15. A steel oxygen cylinder must be retested by a certified testing facility every \_\_\_\_\_ \_\_\_\_\_.
- 2 years
  - 3 years
  - 5 years
16. A defective \_\_\_\_\_ \_\_\_\_\_ should be returned to the manufacturer or their agent for service as needed.
- Breathing bag
  - Pressure reducer
  - Oxygen group
17. The battery must be replaced if \_\_\_\_\_ \_\_\_\_\_ 2 Icon is indicated.
- Voltage alarm
  - Pressure indicator
  - Battery warning

18. \_\_\_\_\_ is >50 L/min.
- Flow pressure
  - Bypass output
  - Medium pressure
19. \_\_\_\_\_ cartridge concerns are over packing and under packing.
- Refillable
  - Disposable
  - Dragersorb
20. If the \_\_\_\_\_ is deformed or shows signs of damage, it must be replaced.
- Lens frame
  - Speech diaphragm
  - Nose cup

# BG-4

#22.  
 a. factory/refillable cartridge  
 b. Soda lime canister  
 c. Dragersorb canister

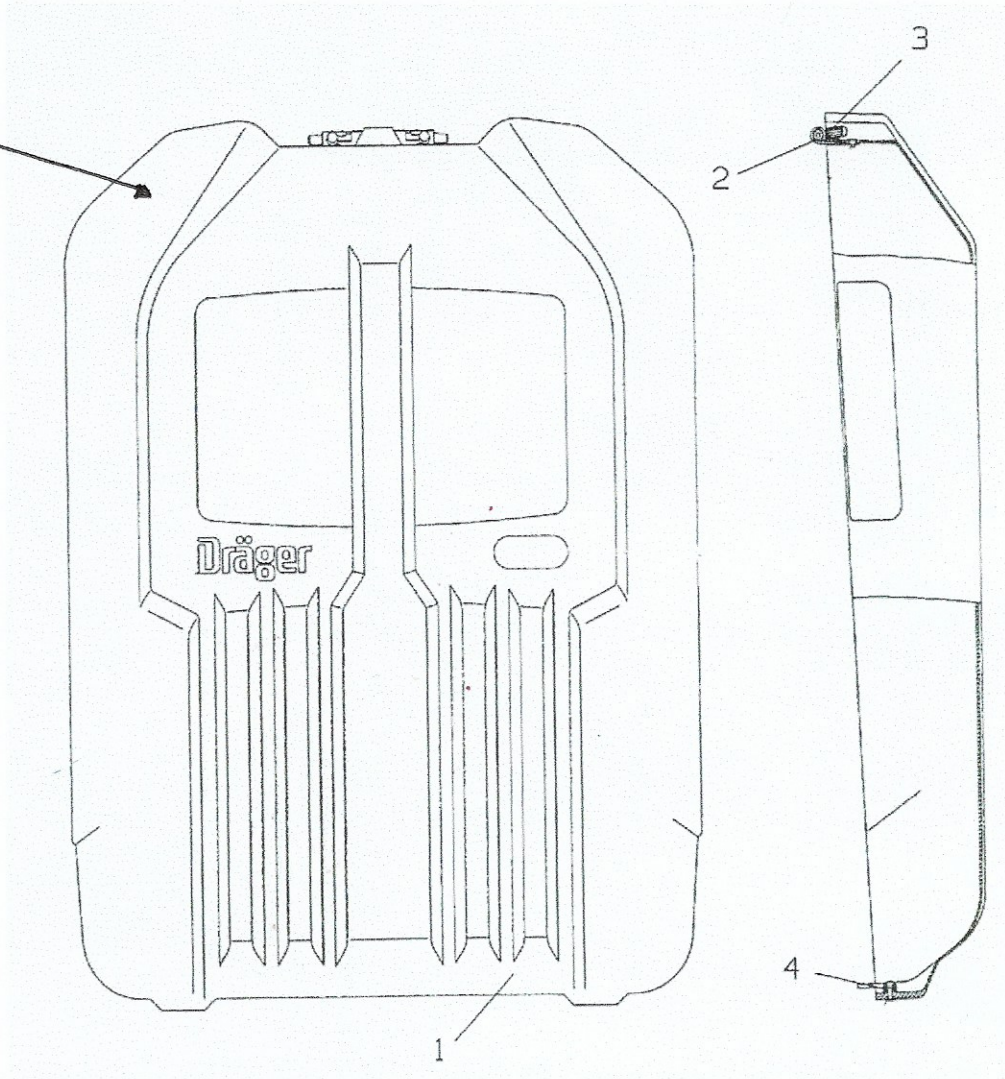
#21.  
 a. air cylinder  
 b. oxygen bottle  
 c. oxygen cylinder



| 1         | 2                      | 1         | 2                            |
|-----------|------------------------|-----------|------------------------------|
| Cons. No. | Designation            | Cons. No. | Designation                  |
| 1         | Carrying Housing       | 12        | Breathing Bag                |
| 2         | Cover Shell, complete  | 15        | Lever, Complete              |
| 3         | Shoulder Pad Assembly  | 16        | factory/refillable cartridge |
| 5         | Cooler                 | 17        | Pressure Reducer BG4         |
| 6         | Relief valve, Complete | 19        |                              |
| 7         | Minimum Valve          | 21        | Distribution Hose            |
| 8         | Drain Valve            | 22        | Panorama Nova Mask           |
| 9         | Sentinel               |           | FPS-7000 Mask                |
| 10        | Switch Box             |           |                              |
| 11        | Pressure Sensor        |           |                              |

# Cover

#23.  
 a. back cover  
 b. Cover  
 c. Cover Shell

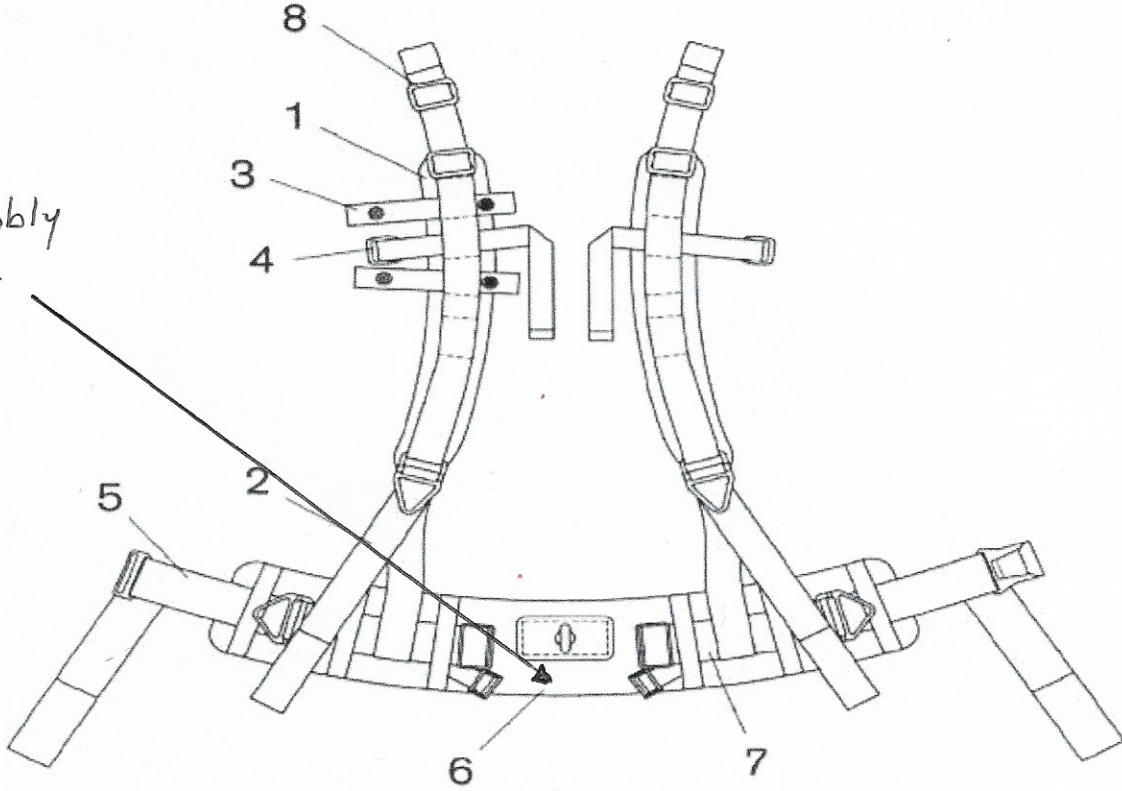


| 1         | 2                               | 1         | 2           |
|-----------|---------------------------------|-----------|-------------|
| Cons. No. | Designation                     | Cons. No. | Designation |
| 1         | <del>                    </del> | 3         | Grip Cap    |
| 2         | Hinge                           | 4         | Button      |



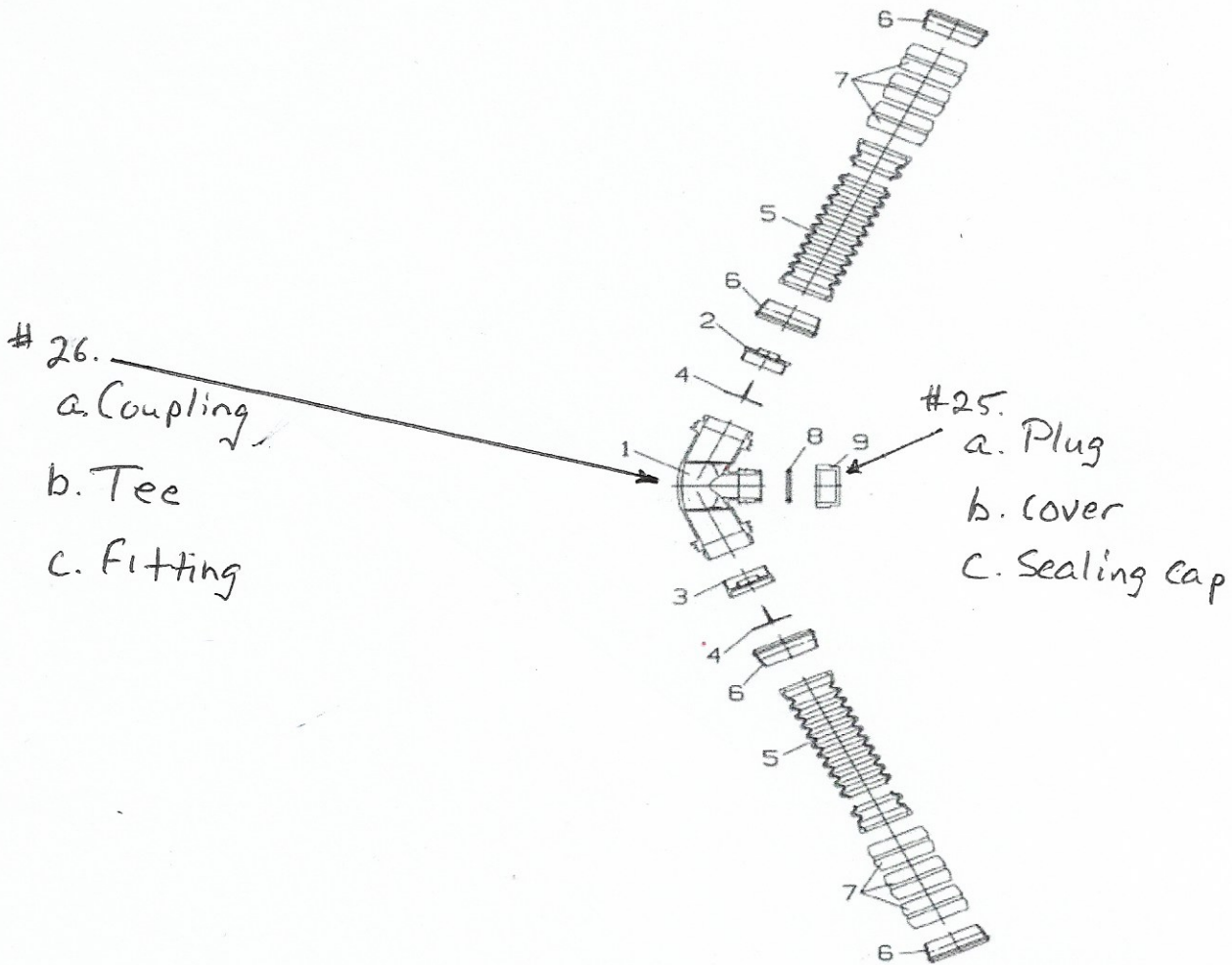
## Harness Assembly

#24.  
 a. belt assembly  
 b. waist belt  
 c. belt



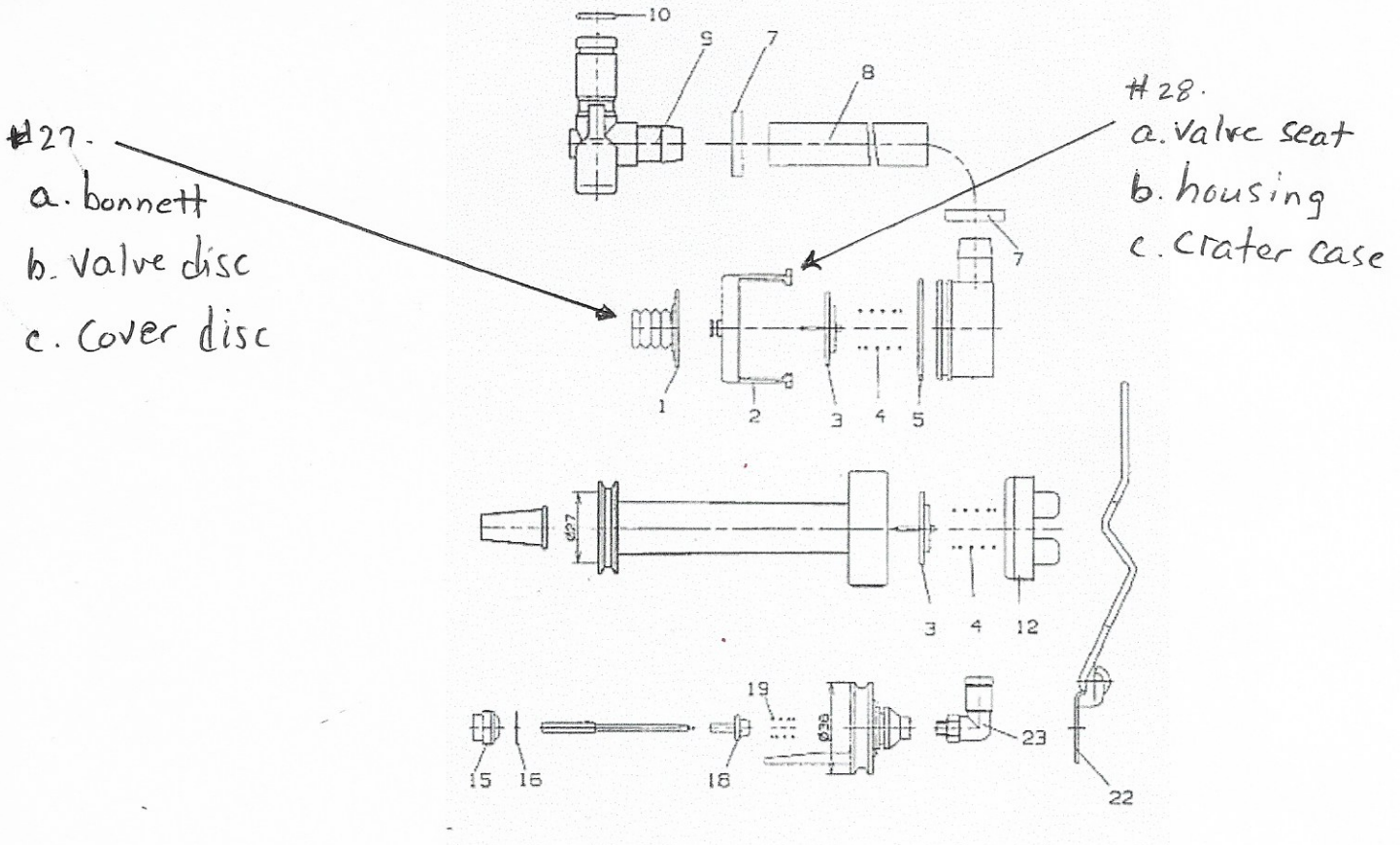
| 1         | 2                        | 1         | 2                       |
|-----------|--------------------------|-----------|-------------------------|
| Cons. No. | Designation              | Cons. No. | Designation             |
| 1         | Shoulder Pad Assembly    | 5         | Adjusting Belt Assembly |
| 2         | Shoulder Adjusting Strap | 6         |                         |
| 3         | Hose Clip                | 7         | Belt Assembly           |
| 4         | Hose Strap Harness       | 8         | Buckle                  |

## Breathing Hose Assembly



| 1         | 2                     | 1         | 2                     |
|-----------|-----------------------|-----------|-----------------------|
| Cons. No. | Designation           | Cons. No. | Designation           |
| 1         |                       | 6         | Bayonet Ring          |
| 2         | Inhalation Valve Seat | 7         | Anti-Crush rings      |
| 3         | Exhalation Valve Seat | 8         | Toroidal Sealing Ring |
| 4         | Valve Disc            | 9         |                       |
| 5         | Corrugated Hose       |           |                       |

## Drain/Relief/Minimum Valve Assembly

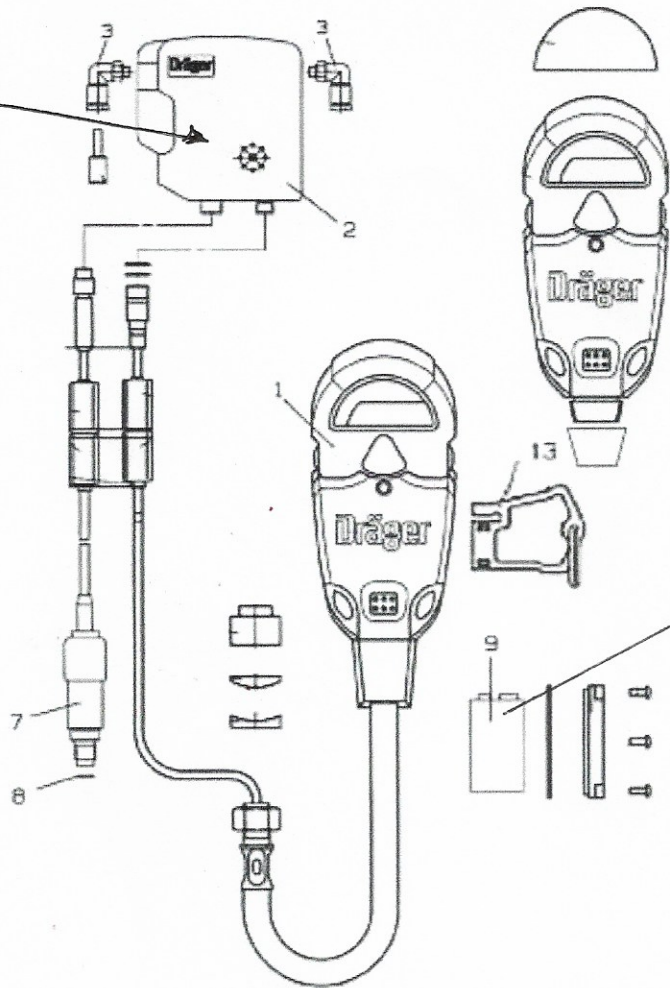


| 1<br>Cons. No. | 2<br>Designation            | 1<br>Cons. No. | 2<br>Designation     |
|----------------|-----------------------------|----------------|----------------------|
| 1              |                             | 12             | Cap                  |
| 2              |                             | 15             | Valve Crater         |
| 3              | Valve Disc                  | 16             | Washer               |
| 4              | Relief / Drain Valve Spring | 18             | Valve Plate          |
| 5              | O-Ring                      | 19             | Spring               |
| 7              | Clamp Fitting               | 22             | Clamp, Minimum Valve |
| 8              | Hose                        | 23             | Angle Connector      |
| 9              | Coupling                    |                |                      |
| 10             | O-Ring                      |                |                      |



# Sentinel

#29.  
 a. Switch box  
 b. monitor  
 c. housing



#30  
 @ Power Source  
 b. battery  
 c. 9 volt battery

| 1         | 2               | 1         | 2           |
|-----------|-----------------|-----------|-------------|
| Cons. No. | Designation     | Cons. No. | Designation |
| 1         | Sentinel        | 8         | Copper Ring |
| 2         |                 | 9         |             |
| 3         | Angle Connector | 13        | Tally Key   |
| 7         | Pressure Sensor |           |             |