

## C GAS TEST KIT

### DESCRIPTION AND USE

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**1. GENERAL**

**1.01** This section describes the C gas test kit and covers its use in checking the operation of hot wire gas indicators such as the B, C, E, F, and G gas indicators. The Section also includes a description of the C gas indicator case used for storing and transporting Bell System gas indicators and the C gas test kit.

**1.02** This section is reissued to include descriptive information for the C gas indicator case. The use of arrows to indicate changes is not required for this section.

**1.03** The C gas test kit is not to be used for calibrating purposes. It is used only to determine if hot wire gas indicators are functioning properly.

**1.04** The test covered in this section *must be performed each day* before the hot wire gas indicator is used. Other tests which are also required before each day of use are covered in the section covering the type of indicator being used as follows:

SECTION	TITLE
081-700-100	B Gas Indicator
081-700-101	C Gas Indicator
081-700-105	E Gas Indicator
081-700-106	F Gas Indicator
081-700-107	G Gas Indicator

**2. DESCRIPTION**

**2.01** The C gas test kit (Fig. 1) consists of the following components:

- (a) Two (2) disposable pressurized gas cylinders containing a mixture of 2-1/2 percent natural gas in air at 250 psi
- (b) Dispenser valve to control gas flow from cylinders
- (c) Four (4) inlet hoses for connecting the gas cylinder to the gas indicator; one hose each for B, C, and E indicators and one which may be used for both the F and G gas indicators. These hoses must be ordered separately as required.

**NOTICE**

Not for use or disclosure outside the  
Bell System except under written agreement

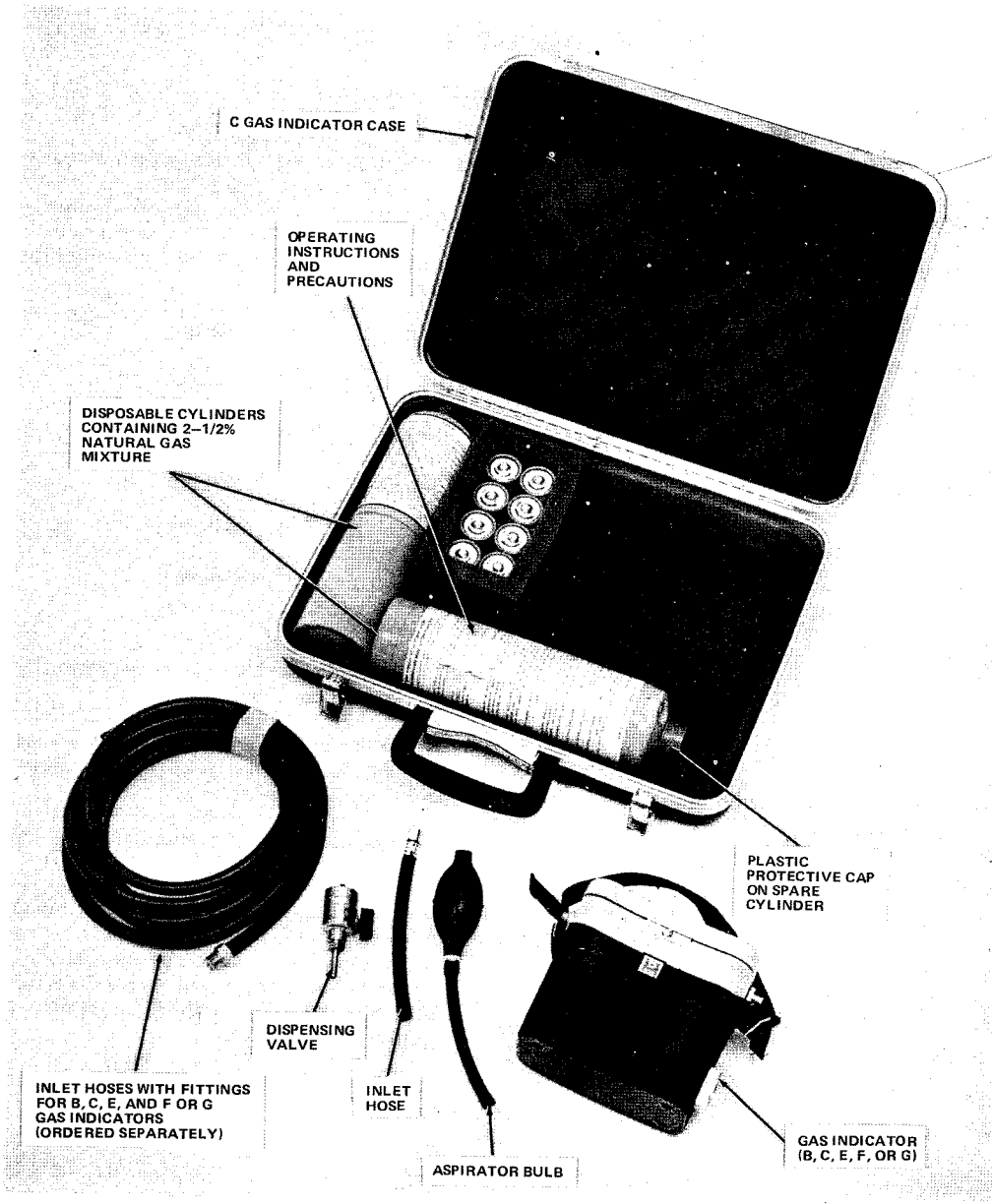


Fig. 1—C Gas Test Kit

**2.02** Each gas cylinder is furnished with a label containing the operating instructions and precautions to be observed when using the test kit.

**2.03** Each cylinder is furnished with a protective plastic cap. This cap should be replaced by the dispensing valve on the working cylinder. The spare cylinder is left with the protective plastic cap in place.

**2.04** The C gas indicator case consists of a molded high-density polyethylene case with a hinged cover and carrying handle. The interior of the case is lined with foam to protect the contents. The interior contains a foam compartment to hold eight spare size D batteries. It is large enough to house any one of the standard gas indicators and accessories as well as the C gas test kit.

**2.05** All orders for the C gas test kit will be shipped in a corrugated fiberboard container. The C gas indicator case must be ordered as a separate item.

### 3. PRECAUTIONS

**3.01** The 2-1/2 percent natural gas mixture is well below the lower explosive limit. However, because the cylinder contents are under pressure, the following handling and storage precautions must be observed:

- Do not puncture cylinders

- Do not use or store the C gas test kit near heat or open flames. Exposure to temperatures above 150° F may operate the excess pressure safety valve

- Never throw a cylinder into a fire or incinerator

- When not in use, the cylinder must be kept in the carrying case.

### 4. GAS INDICATOR TEST

**4.01** Gas indicators are tested with the C gas test kit, as follows:

(1) Turn on the gas indicator, set the voltage, and/or balance for zero in gas free air as covered in the appropriate Section (paragraph 1.04).

(2) Attach the gas indicator to inlet hose with the appropriate coupling for the type of gas indicator being used. The hoses are identified by the gas indicator letter code stamped on the hose coupling, such as B, C, etc.

(3) Check the hose for a tight connection.

(4) Slide the free end of the hose over the dispenser valve barbed fitting. The indicator is now ready for testing as shown in Fig. 2.

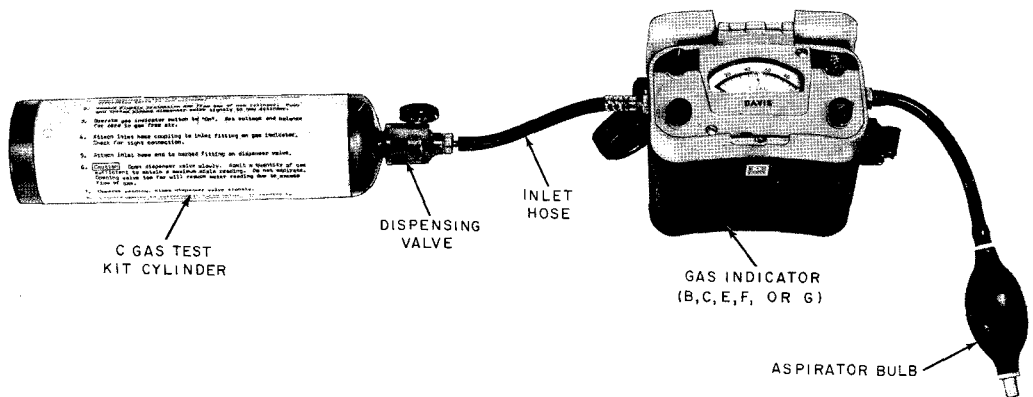


Fig. 2—C Gas Test Kit Ready for Use

(5) **Open the dispenser valve slowly** and admit a quantity of gas sufficient to obtain maximum deflection of the needle on the meter scale. Do not squeeze the aspirator bulb.

**Caution: Opening the dispenser valve too far will allow an excess flow of gas and result in a reduced meter reading.**

(6) Observe and note the meter reading obtained in (5), and tightly close the dispenser valve.

(7) If the observed meter reading is within the acceptable range of **45 to 95 percent** of the lower explosive limit (LEL), the instrument is operating satisfactorily.

**4.02** If the observed meter reading obtained in paragraph 4.01 is outside the LEL range of **45 to 95 percent**, proceed as follows:

(1) Make certain the gas cylinder is not empty. Do this by quickly opening and closing the dispensing valve. If a hissing sound is not heard, the cylinder is empty and the dispensing valve must be transferred to the spare cylinder, and the test repeated.

(2) If the cylinder is not empty, check the hoses and aspirator bulb filter, replace filaments, and check for tight wiring connections as covered in the appropriate Section (paragraph 1.04).

(3) Repeat the test in paragraph 4.01.

(4) If the observed meter reading is still outside the acceptable range of 45 to 95 percent, **do not use the indicator for testing work area atmosphere.** Return the indicator for servicing in accordance with local instructions.

## 5. REPLACEMENT PARTS

**5.01** The following are available as replacement parts for the C gas test kit:

Cylinder

Hose, Coupling, (B), (C), (E), or (F-G)

Valve, Dispensing

**5.02** Orders for replacement parts for the C gas test kit are worded as follows:

(Quantity), Name of Part, for C Gas Test Kit

For example:

2, Cylinder, for C Gas Test Kit

**5.03** Orders for the C gas indicator case are worded as follows:

(Quantity) Case, Indicator, Gas, C