BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G73.180.1
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AT&T Co Standard

PRESSURE TESTING
AUXILIARY RESERVOIRS EQUIPMENT

Contents **Page**

1. General 1
2. Equipment and Materials 1

1. GENERAL

1.01 This section covers the equipment and materials required in placing short lengths of cable under pressure by means of an auxiliary reservoir. This section replaces Section G55.723.1, Issue 2, which is cancelled.

2. EQUIPMENT AND MATERIAL

2.01 The special equipment and material required in placing short lengths of cable under pressure are listed below.

Contactor, Pressure, C or G or equivalent; or Contactor-Terminal, Pressure, T

Contactor-Terminal, Pressure, E

Regulator, Pressure

Cylinder, Gas, Nitrogen, 220 Cu. Ft.

Valve, Relief, C

Function of Equipment

2.02 **C or G Pressure Contactor or equivalent; or T Pressure Contactor-Terminal:** The contactor performs its usual function of giving an alarm when the cable pressure drops to normal contactor operating pressure.

2.03 The contactor on buried cable should be buried outside the building wall or near the base of the pole; and on cable in conduit, the contactor should be installed in a manhole.

2.04 On toll entrance cables, the contactor (or contactor-terminal) should be installed in accordance with the usual procedure, except when it is located at the same point as the auxiliary reservoir. In this case the stub of the contactor should be connected to the cable splice at which the E Pressure Contactor-Terminal is connected.

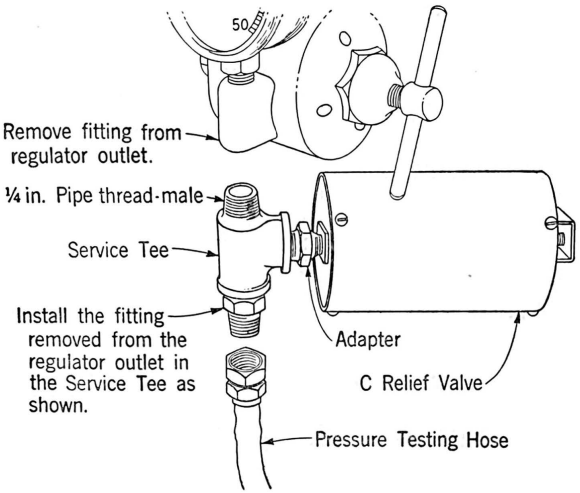
2.05 **E Pressure Contactor-Terminal:** This contactor-terminal is similar to the T contactor-terminal except that it operates when the pressure in the cylinder falls to approximately 800 pounds per square inch. When the cylinder pressure drops below this value, the quantity of gas remaining may not be sufficient to afford adequate protection of the cable in the event of a leak and attention should be given to replenish the supply of gas and determine the reason for the loss of gas. A safety valve is provided in the contactor to protect the cable and apparatus in the event that a leak develops in the high pressure bourdon tube.

2.06 The E contactor-terminal should be attached to the building wall or side of the box by means of the Contactor-Terminal Bracket.

2.07 **Nitrogen Gas Cylinder:** This serves as the reservoir for supplying gas in the event that a leak develops in the system.

2.08 **Pressure Regulator:** The two-stage regulator controls the pressure at which gas from the cylinder (reservoir) is admitted to the cable. The regulator should be set to operate at a delivery pressure of 1-1/2 pounds per square inch below the contactor operating pressure with no gas flowing. This permits normal operation of the contactor before gas is supplied to the cable to keep the cable pressure within safe limits until remedial measures can be taken.

2.09 **The C Relief Valve** should be connected to the low pressure side of the regulator, as shown in the following sketch. It is intended to relieve pressure in the cable in the event that the regulator fails. The valve operates when the pressure in the cable rises to 15 pounds per square inch.



2.10 The following sketch shows the method of connecting the E contactor-terminal to the 200 cubic foot cylinder (reservoir).