BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G73.130.3
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AT&T Co Standard

PRESSURE TESTING
CONTACTORS AND CONTACTOR-TERMINALS
REPLACEMENT OF CONTACTOR MECHANISM

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1. GENERAL

1.01 This section replaces the information previously contained in Section G73.208, Issue 2 covering the replacement of defective parts of current standard contactors and contactor-terminals.

2. MATERIALS

2.01 The following is a listing of the items available for replacement of defective parts of contactors and contactor-terminals.

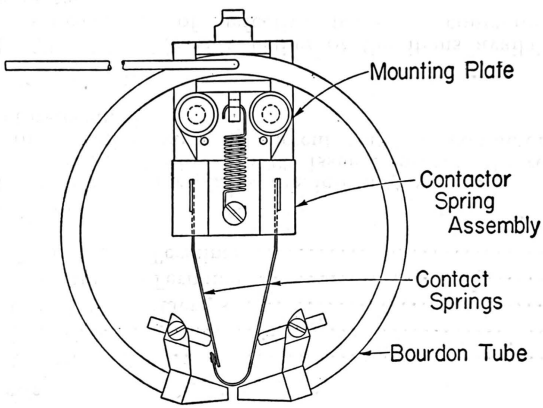
Mechanism, Contactor	Consists of Bourdon tube, tube mounting and contact spring assembly. For field replacement of defective mechanism in C or G Contactor and T Contactor-Terminal.
Unit, Replacement, for E Contactor-Terminal	Consists of housing cover, terminal, Bourdon tube and contacts, capillary tubing and fitting, and rubber gaskets assembled as a unit for field replacement of defective housing assembly of E Contactor-Terminal.

Unit, Replacement, for T Contactor-Terminal	Consists of housing cover, terminal, Bourdon tube and contacts, and rubber gaskets assembled as a unit for field replacement of defective housing assembly of T Contactor-Terminal.

3. C AND G CONTACTORS

3.01 In the event that the mechanism of a C or G Contactor becomes inoperative, it can be replaced by a new unit which is illustrated below.

CONTACTOR MECHANISM



3.02 The procedure for replacing the contactor mechanism is as follows:

(1) Loosen the cap screws and remove the top plate of the contactor.

(2) Unsolder the wire leads from the contactor spring assembly.

(3) With a 4-inch regular screwdriver remove the machine screws which hold the Bourdon tube and contact spring assembly in the case and remove the assembly from the housing.

(4) Carefully place the new assembly in the contactor housing, solder the wires and reassemble the contactor following the above operations in reverse order.

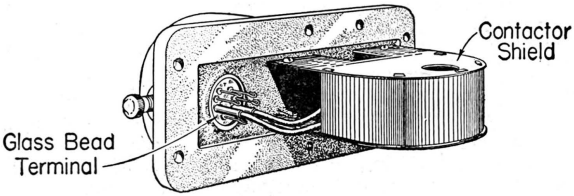
(5) When the contactor mechanism is in place, check the contactor spring assembly to see that it moves freely for adjustment purposes. Replace the cover and test the cover joint to ensure that it is gastight.

(6) Test the contactor and adjust to the desired operating pressure.

4. T CONTACTOR-TERMINAL

4.01 A damaged T Contactor-Terminal can generally be repaired by replacing the contactor mechanism only or by replacing the T Contactor-Terminal Replacement Unit. This unit, illustrated below, consists of the housing cover, terminal and contactor mechanism.

CONTACTOR TERMINAL REPLACEMENT UNIT



4.02 **When Only the Contactor Mechanism** is defective, it can be replaced by the contactor mechanism illustrated in Paragraph 3.01. Follow the procedure outlined below when replacing this part of the T contactor-terminal.

(1) Remove the cap screws which hold the cover in place with a 7/16-inch open-end wrench and carefully lift off the cover, using a screwdriver as a pry if necessary.

(2) Remove the contactor shield and unsolder the wire leads from the soldering lugs of the contact spring assembly.

(3) With a 4-inch regular screwdriver remove the machine screws that hold the Bourdon tube mounting and contact spring assembly in position.

(4) Place the new contactor mechanism in position and screw it in place, taking care to replace the shakeproof lock washers.

(5) Check the contact spring assembly to ensure that it slides freely for adjustment purposes. Then solder the wire leads to the soldering lugs of the contact springs and replace the contactor shield.

(6) Replace the flat rubber gasket which fits in the joint between the housing and the housing cover with a new gasket. Care should be used in placing the new rubber gasket over the housing cover to prevent permanent deformation of the gasket by undue stretching.

(7) Bolt the housing cover to the housing, being careful to align the holes with those of the rubber gasket to avoid injuring the gasket.

(8) After the cover is in place, soap the housing at the gasket as well as the terminal filling plug, valve and adjusting screw cap to make sure that the replacement unit is gastight.

(9) Test the operating pressure of the contactor-terminal and adjust to the desired operating pressure.

4.03 **When the T Contactor-Terminal Replacement Unit** is required for reconditioning a contactor-terminal, the assembled replacement unit, shown in Paragraph 4.01, including the associated rubber gaskets, should be installed as follows:

(1) Remove the cap screws which hold the cover in place with a 7/16-inch open-end wrench and carefully lift off the cover, using a screwdriver as a pry if necessary.

(2) Unsolder the alarm pair (black insulation) and the talking pair (red insulation) from the glass bead terminal, noting their position to ensure proper connection in the new unit.

(3) Replace the flat rubber gasket in the joint between the housing and the housing cover with the new gasket provided with the replacement unit. The new gasket should be held in place temporarily on the contactor-terminal housing with two cap screws while the alarm and talking pairs are being soldered to the replacement unit.

(4) The replacement unit should then be placed in the housing, being careful to align the holes with those of the rubber gasket to avoid injuring the gasket.

(5) After the cover is in place, soap the housing at the gasket as well as the terminal filling plug, valve and adjusting screw cap to make sure that the replacement unit is gastight.

(6) Test the operating pressure of the assembled unit and adjust if necessary.

4.04 **Replacement of Terminal Cover Gasket:** If the contactor-terminal is found defective due to entrance of moisture into the terminal compartment the rubber gasket should be replaced. The faceplate and interior of the terminal compartment should be thoroughly wiped out with muslin and dried by blowing with nitrogen gas. If the cover, yoke or cover hold-down cap screws are deformed or broken, they should be replaced. In the event that the above procedure does not restore the insulation resistance of the pairs, as indicated by electrical tests from the testboard, a replacement unit should be installed as outlined in Paragraph 4.03.

5. E CONTACTOR-TERMINAL

5.01 A damaged E Contactor-Terminal can generally be repaired by replacement of the E Contactor-Terminal Replacement Unit. This unit consists of housing cover, terminal, contactor mechanism and capillary tube and fitting.

5.02 A replacement unit for an E Contactor-Terminal should be installed as follows:

(1) Close the valve on the gas cylinder and remove the capillary tubing and fitting from the pressure testing regulator.

(2) Remove the cap screws which hold the cover in place with a 7/16-inch open-end wrench and carefully lift off the cover, using a screwdriver as a pry if necessary.

(3) Unsolder the alarm pair (black insulation) and the talking pair (red insulation) from the glass bead terminal, noting their position to insure proper connection in the new unit.

(4) Replace the flat rubber gasket in the joint between the housing and the housing cover with the new gasket provided with the replacement units. The new gasket should be held in place temporarily on the contactor-terminal housing with two cap screws while the alarm and talking pairs are being soldered to the replacement unit.

(5) The replacement unit should then be placed in the housing, being careful to align the holes with those of the rubber gasket to avoid injuring the gasket.

(6) Connect the capillary tube and fitting to the pressure testing regulator and gas cylinder and turn on gas cylinder.

(7) Soap the housing at the gasket and capillary tube connections to make sure that the replacement unit is gastight.