

CABLE PRESSURE SYSTEMS
CONTACTORS AND CONTACTOR-TERMINALS
REPLACEMENT OF CONTACTOR MECHANISM

CONTENTS	PAGE	ITEM*	DESCRIPTION
1. GENERAL	1	<i>Contactor Mechanism</i>	A unit consisting of a nontemperature-compensated Bourdon tube, tube mounting, contactor spring assembly, and an orange nameplate.
2. MATERIALS	1	for J Pressure Contactor and K Pressure Contactor-Terminal	
3. CONTACTORS, TYPES C, G, J, S, AND U	2		
4. CONTACTOR-TERMINALS, TYPES K AND T	2	<i>Replacement Unit</i> for E-2 or E-8 Pressure Contactor Terminal	A unit consisting of a housing cover, terminal, Bourdon tube and contacts, capillary tubing and fittings, and relief valve, furnished with rubber gaskets and a nameplate. When ordering, specify for E-2 or E-8 Contactor terminal.
5. CONTACTOR-TERMINALS, TYPES E-2 AND E-8	3		
1. GENERAL			
1.01 This section covers the replacement of defective parts of pressure contactors and pressure contactor-terminals.		<i>Replacement Unit</i> for K Pressure Contactor-Terminal	A unit consisting of a housing cover, terminal, and a nontemperature-compensated contactor mechanism, furnished with rubber gaskets and nameplate.
1.02 This section is reissued to include information covering the J, S, and U Pressure Contactors and the K Pressure Contactor-Terminal.			
2. MATERIALS			
2.01 The following items are available for field replacement of defective parts of contactors and contactor-terminals.		<i>Replacement Unit</i> for T Pressure Contactor-Terminal	A unit consisting of a housing cover, terminal, and a temperature-compensated contactor mechanism, furnished with rubber gaskets and nameplate.
		<i>Terminal Cover Gasket</i> for E-2, E-8, K, and T Pressure Contactor-Terminals	A rubber gasket for sealing the joint between the terminal housing and its cover.

**Reprinted to comply with modified final judgment.

3. CONTACTORS, TYPES C, G, J, S, AND U

3.01 In the event that the mechanism of these types of contactors becomes inoperative, it can be replaced with a new unit of the proper type (see 2.01) which is illustrated in Fig. 1.

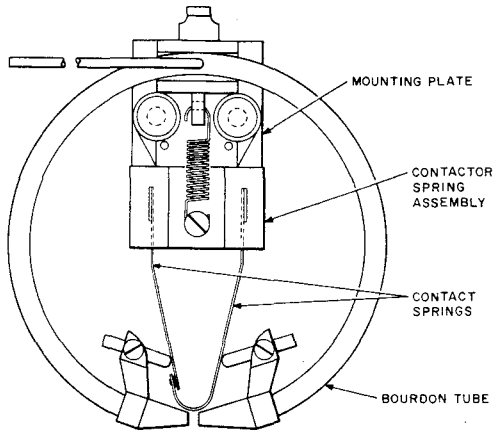


Fig. 1 — Contactor Mechanism

3.02 Replace the contactor mechanism 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 E Screwdriver, remove the machine screws which hold the Bourdon tube and contact spring assembly in the case. Remove the assembly from the housing.
- (4) Carefully place the new assembly in the contactor housing, solder the wires, and re-assemble the contactor following (1) through (3) 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. CONTACTOR-TERMINALS, TYPES K AND T

→ 4.01 A damaged K or T Pressure Contactor-Terminal can generally be repaired by replacing the contactor mechanism with one of the proper type (see 2.01) or by replacing the K or T Pressure Contactor-Terminal Replacement Unit. This unit, illustrated in Fig. 2, consists of the housing cover, terminal and contactor mechanism.

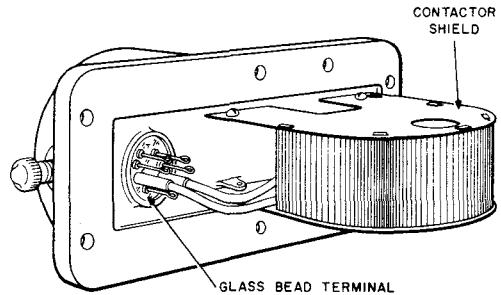


Fig. 2 — Contactor-Terminal Replacement Unit

4.02 *When only the contactor mechanism* is defective, it can be replaced by one of the proper type (see 2.01). Use the procedure as follows when replacing this part of the K or 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 E 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 lockwashers.
- (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 K or T Pressure Contactor-Terminal Replacement Unit* is required for reconditioning a contactor-terminal, the assembled replacement unit, shown in Fig. 2, 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 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 Gaskets:*

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 4.03.

5. CONTACTOR-TERMINALS, TYPES E-2 AND E-8

5.01 A damaged E-2 or E-8 Pressure Contactor-

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

5.02 A replacement unit for E-2 or E-8 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 ensure 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 tubing and fitting to the pressure-testing regulator and gas cylinder and turn on gas cylinder.

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