



INSTRUCTIONS

GEK-86721
Insert Booklet GEK-49822

GROUND DIRECTIONAL OVERCURRENT RELAY TYPE IBCG Model 0178A7374G(-)

INTRODUCTION

This instruction book, together with insert booklet GEK-49822, forms the instructions for the 0178A7374G(-) relay.

DESCRIPTION

The 0178A7374G(-) relay is similar to the IBCG51E(-)A relay where the potential circuit is intermittently rated at the voltage listed on the nameplate for four seconds. The 0178A7374G(-) Rev. A relay is similar to the IBCG51M(-)A relay where the potential circuit is continuously rated at the voltage listed on the nameplate.

Both models have an auxiliary telephone relay connected to terminals 15-16. The telephone relay's normally open contact controls the torque of the T. O. C. unit. Internal Connections Figure 1.

Test the Telephone relay as follows:

INSPECTION

- a. Contact gap on all normally open contacts should be .015" - .020".
- b. All contacts (N.O. and N.C.) should have minimum wipe of .005".
- c. All circuit-closing contacts (N.O.) should make simultaneously.
- d. All circuit-opening contacts (N.C.) should open simultaneously.
- e. Residual screw must project through the armature by at least 2 mils.

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

To the extent required the products described herein meet applicable ANSI, IEEE and NEMA standards; but no such assurance is given with respect to local codes and ordinances because they vary greatly.

ELECTRICAL TESTS

1. With D unit contact blocked closed, suddenly apply 80% of rated DC volts (100V for 125V or 200V for 250V or 38V for 48V DC ratings) across studs 15-16. The X unit should pick up and the contacts should wipe in.
2. With the D unit blocked closed, check the pickup time of the X unit by applying rated DC volts between studs 15 and 16. The time to open the "b" in the circuit between studs 11 and 12 should be less than .004 seconds.
3. With the D unit contact blocked closed, block open the "b" contact of X which bypasses R4 and check the dropout of the X unit. It should be more than 40% of rated DC voltage (50V for 125V or 100V for 250V or 19V for 48V DC rating).

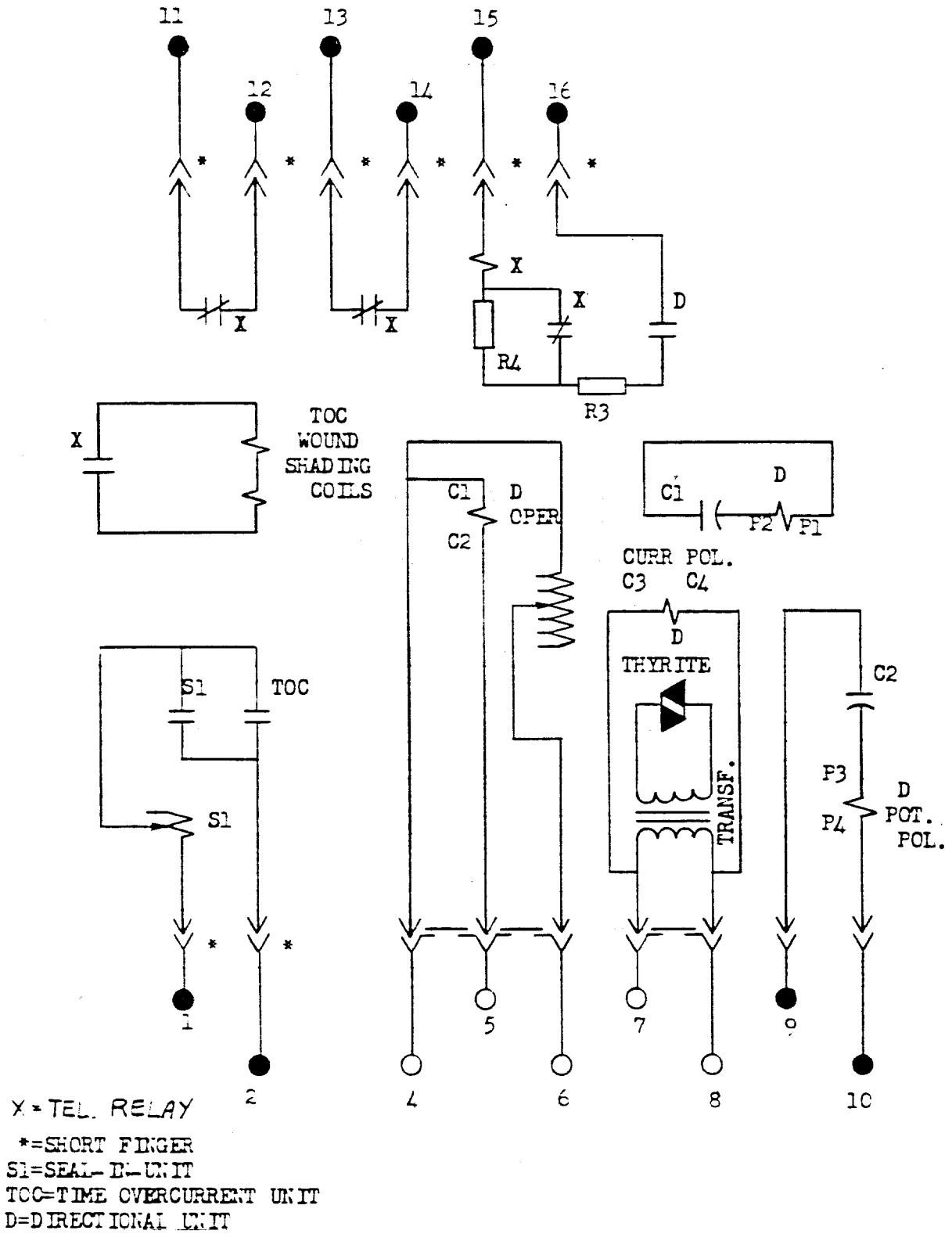


Figure 1
 0178A9163-0 Internal Connections Diagram for the 0178A7374G(-) Relay

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