

LINE FINDER TRIP CIRCUIT RELAYS
CONTACT PROTECTION
TESTS
PANEL OFFICES

1. GENERAL

1.01 This section describes methods of checking the contact protection of the trip circuit TR, TA and TB relays. The tests described apply to trip circuits associated with line finders serving dial and non-dial subscriber lines. The tests covered are:

- A. Contact Protection Connected Directly to Trip Magnets
- B. Contact Protection Connected through Multi-Contact Switches or Jacks

1.02 This section has been reissued to change the method of making Test A so that it is not necessary to remove fuses. This reissue covers a general revision and therefore arrows used to indicate changes have been omitted.

1.03 Test A is for use in those cases where one side of the condenser in the protection circuit of the trip relay is connected directly to the trip magnets.

1.04 Test B is for use in those cases where one side of the condenser in the protection circuit of the trip relay is connected through multi-contact switches or jacks to the trip magnets.

1.05 The purpose of these tests is to check that the protection circuit is free from opens. No attempt is made to check the values of the resistance, the non-inductive relay winding or the condenser.

2. APPARATUS

2.01 Test Receiver (No. 716E or No. 528) attached to a W2AB Cord equipped with two No. 360 Tools (2W21A) and one KS-6278 Tool and one No. 411A Tool.

2.02 Resistance of approximately 1000 ohms, (18BH or equivalent) attached to a W2AB Cord equipped with two No. 360 Tools (2W21A) and one KS-6278 Tool and one No. 411A Tool (assembled locally).

3. METHOD

A. Contact Protection Connected Directly to Trip Magnets

3.01 Verify the continuity of the resistance in series with the condenser of the protection circuit by testing for ground on the condenser terminal.

3.02 Connect the clip of the test receiver to ground and hold the test pick of the receiver on the ground terminal of the condenser. Then with the clip of the test resistance connected to ground, touch the test pick of the test resistance to the battery terminal of the condenser. A click should be heard in the test receiver. Repeat the operation of touching the test pick of the test resistance to the battery terminal of the condenser. A click should be heard in the test receiver.

B. Contact Protection Connected through Multi-Contact Switches or Jacks

3.03 Remove the trip circuit to be tested from service and substitute the emergency trip circuit.

3.04 Discharge the condenser in the protection circuit of the trip circuit removed from service by connecting the clip of the test receiver to ground and touching the proper contact of the TR relay with the test pick of the test receiver.

3.05 Connect the clip of the test receiver to battery and with the test pick of the test receiver touch the same contact of the TR relay.

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A distinct click should be heard in the receiver due to the condenser charge.

3.06 Repeat the application of battery to the contact of the TR relay as described in 3.05. If the condenser is satisfactory from a leakage standpoint, no clicks or very weak clicks should be heard; if it is unsatisfactory from this standpoint, distinct clicks should be heard.

3.07 Remove the emergency trip circuit from service and replace the regular trip circuit.

3.08 Repeat 3.03 to 3.07 on other regular trip circuits to be tested. When testing the emergency trip circuit, proceed as in 3.04 to 3.06.

4. REPORTS

The required record of these tests should be made on the proper form.