

RING-UP RELAY TESTS USING THE KI-1500 TEST SET
UNIVERSAL CORD CIRCUITS - NO.9 (SPECIAL) OFFICE

1. GENERAL

1.01 This section provides for an alternating current (A-C.) flow test of the ring-up relays, using the KI-1500 test set, in the universal cord circuits in No.9 (Special) offices.

1.02 This issue, which replaces Issue A, is reissued to cover a cross-reference to the information for the electrical requirements of the involved relays and to delete the non-operate tests previously specified.

1.03 The electrical requirements for the No.89 type relays are covered in Section A460.012.

1.04 The test is to be made on a one-man basis from the front of the switchboard, and should be performed during periods of light load so as not to cause interference with service.

1.05 A description of the KI-1500 test set is outlined in Division A700.

2. APPARATUS

2.01 No. KI-1500 Test Set, or equivalent.

2.02 No. L-3441 Cord.

2.03 No. P3E Cord, equipped with a No.110 Plug on one end and a No. 78 Plug on the other end (required only for offices equipped with No. 78 plugs).

3. TEST SET PREPARATION

3.01 Before using the KI-1500 test set care should be taken to see that the Ward Leonard resistance (300 ohms) is in the generator supply leads. This may be either in a generator supply circuit per Drawing KI-1501, Fig. 3, or in case generator and generator ground supply is obtained from the switchboard ringing mains, the resistance in the set may be cut in by turning the switch designated RES to the terminal marked IN. When generator supply is obtained from the circuit KI-1501, Fig. 3, this switch should be turned to the terminal marked OUT.

3.02 Battery and ground may be obtained from the battery supply cord fasteners wired per Fig. 3 of circuit KI-1501, or from the battery and ground bus bars in the switchboard section. In the latter case a 1-1/3 ampere fuse should be placed in the circuit. A spare fuse post in the rear of the section may be used for this purpose.

3.03 When circuit KI-1501, Fig.3, is provided, use the No. L-3441 cord and insert the 247-A plug, with the knurled side to the right, into the \pm G and BATT & GRD jacks of the test set and connect the cord conductors as follows: red to 24-V battery, white to ground, green to generator and blue to generator ground.

3.04 Set the switch designated SHUNT on the shunt resistance indicated in the above section covering No.89 type relays. This section also gives the A-C. current values to be set up on the KI-1500 test set.

Note: The current values should be set up before connecting the set to the circuit to be tested.

3.05 Operate the key marked CORD which places ground through resistance on the sleeve of the test jack to operate the sleeve relays in the cord circuit under test.

3.06 Operate the key marked S RES to the 500 ohm position. This key provides either 67 or a 500 ohm ground for the sleeve of the TEST jack when the key marked CORD is operated.

3.07 Operate the keys to the OPR and TEST positions and set up the required A-C. "operate" value for the relay to be tested by means of the slider marked OPR and release the TEST key.

3.08 Insert the plug of the cord circuit to be tested into the TEST jack of the test set.

3.09 In offices equipped with No.78 plugs; strap the annunciator contacts of two or more O.G.T. jacks and using the No. P3E cord insert the No.78 plug into the O.G.T. jack and the No.110 plug into the TEST jack of the test set. Insert the plug of the cord circuit to be tested into the associated O.G.T. jack.

4. METHOD

4.01 Operate the key to OPR position and dial 0. This applies the A-C. "operate" value to the relay for approximately one second.

4.02 The cord supervisory lamp should light and remain lighted until the plug is removed from the TEST jack or the cord circuit listening key is operated, depending upon the type of cord circuit being tested.

5. REPORTS

5.01 The required record of this routine should be entered on the proper form.