

UNIVERSAL CORD CIRCUIT BIAS TEST

TELETYPEWRITER SWITCHBOARD NO. 1

1. GENERAL

1.01 This section describes the bias test of the universal cord circuits associated with the teletypewriter switchboard No. 1 which is made at the test board No. 15.

1.02 This section is reissued to replace Provisional Issue 1, to change the bias test limits and to cover minor changes.

1.03 This test requires two persons, one at the No. 15 test board and one at the teletypewriter switchboard, usually an operator.

2. APPARATUS

2.01 No special testing apparatus is required.

3. PREPARATION

3.01 In order to insure correct adjustment of the cord transmission test circuit the polar relay associated with the BIAS meter should be tested and adjusted in a standard relay test panel for zero bias.

4. METHOD

4.01 At the Test Board No. 15: Insert the plugs of the answering and calling cords of the cord transmission test circuit into the ANS and CALL jacks, respectively, of the cord transmission test trunk.

4.02 At the Switchboard: Insert the plugs of the answering and calling cords of the cord circuit to be tested into the A and C jacks, respectively, of the cord transmission test trunk.

4.03 At the No. 15 Test Board: The supervisory lamps associated with the answering and calling test cords of the cord transmission test circuit should light. Operate the DOT SIGNALS and SEND ON ANS keys of the cord transmission test circuit. The BIAS meter in the cord transmission test circuit should indicate the bias of the signals received from the cord circuit when signals are sent from the answering to the calling end of the cord. The needle of the BIAS meter should vibrate and indicate a bias

within $\pm 5\%$, that is 2-1/2 scale divisions either side of zero.

4.04 Operate the SEND ON CALL key. The direction of the signals is reversed to send from the calling to the answering end of the cord circuit under test. The BIAS meter should indicate the bias of the signals received from the cord circuit in this reversed direction. The needle of the BIAS meter should vibrate and indicate a bias within $\pm 5\%$, that is 2-1/2 scale divisions either side of zero.

Note: If in 4.03 or 4.04 the needle does not vibrate, operate the OUTGOING SIGNAL key. The needle of the meter should then vibrate as an indication that signals are properly impressed by the test circuit.

4.05 Restore the DOT SIGNALS and the SEND ON CALL keys. Momentarily operate the DISC key of the cord transmission test circuit at the test board.

Note: The momentary operation of the RECALL key of the cord transmission test circuit at the test board should cause the flashing of the supervisory lamps of the cord circuit under test. This signal may be used at any time during the progress of the test to attract the attention of the person at the teletypewriter switchboard.

4.06 At the Switchboard: Both supervisory lamps of the cord circuit under test should light as an indication that the test has been completed. Upon the receipt of the disconnect signal the plugs of the cord circuit under test should be removed from A and C jacks of the cord transmission test trunk.

4.08 At the No. 15 Test Board: The supervisory lamps associated with the cord transmission testing circuit should be extinguished. Remove the plugs of the answering and calling cords of the cord transmission test circuit from the ANS and CALL jacks of the cord transmission test trunk.

5. REPORTS

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