DIAL TRUNKS FROM MAGNETO OFFICE SWITCHBOARDS

1. GENERAL

1.01 This section covers the detailed method to be followed in making transmission tests on dial trunks from magneto office switchboards.

1.02 Reference should be made to Section K20.01 for general testing methods and to Section K20.11 for general testing apparatus requirements.

2. TESTING METHOD

2.01 These trunks are tested at the HIDF of the step-by-step office by the loop method and the loops are established at the outgoing magneto office switchboard by means of a switchboard cord circuit.

2.02 The circuits are completed at the step-by-step office to the transmission measuring set through two vacant connector terminals.

2.03 Figure 1 shows schematically the connections for the test.

Preliminary Connections

2.04 Provide three regular double-ended patching cords equipped with 110 type plugs and two special patching cords equipped and connected as indicated below.

110 Type Plug connected to a **234 Type or Similar Plug**

Tip	No. 1 Terminal
Ring	No. 2 Terminal
Sleeve	No. 3 Terminal
	No. 4 Terminal Open

2.05 Connect the TMS and TMR jacks of the auxiliary test unit respectively to the sending and receiving jacks of the transmission measuring set using two regular patching cords.

2.06 Connect the B-GRD (48V) jack of the auxiliary test unit to 48-volt battery and ground (battery on tip and ground on sleeve) using a regular patching cord.

Note: This battery and ground may be obtained from any source convenient to the location of the testing apparatus, preferably a nearby BATT jack.

2.07 At the HIDF select two vacant connector terminals and remove the tip, ring and sleeve intercepting lines from these vacant connector terminals.

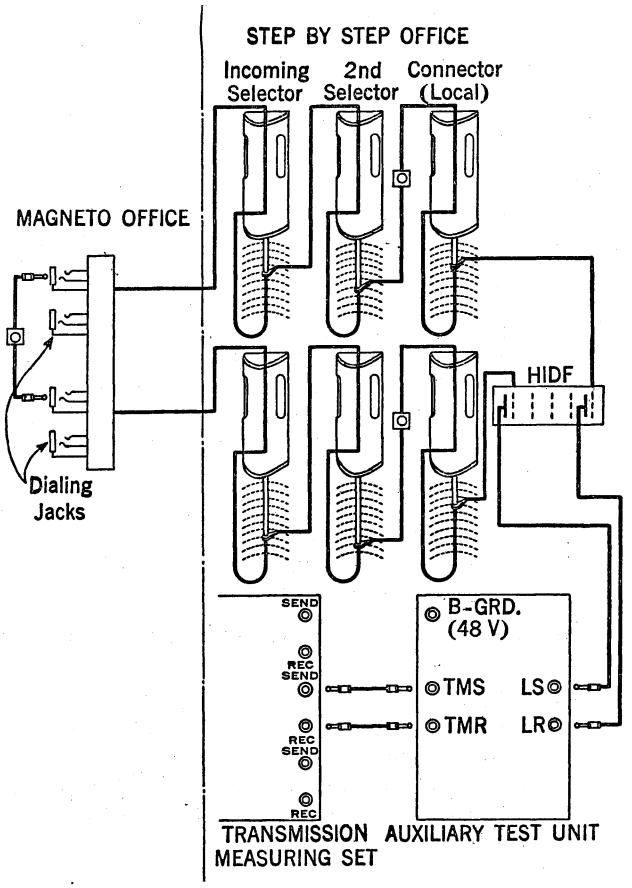

Figure 1

2.08 Connect the LS and LR jacks of the auxiliary test unit respectively to the vacant connector terminals, using the special patching cords of paragraph 2.04.

2.09 Establish a talking circuit with an assistant tester at the magneto office switchboard.

Testing Procedure

2.10 Operate the following keys of the auxiliary test unit to the position specified. Keys not mentioned should remain in a normal position.

Key 1 to OPEN	Key 5 to BATT
Key 2 to OPEN	Key 6 to BATT
Key 3 to MET	Key 12 to SL
Key 4 to MET	

2.11 At the magneto office switchboard over one of the trunks to be tested have the assistant tester dial the number of the connector ter-

minal connected to the LS jack of the auxiliary test unit using a dialing cord in the associated trunk dialing jack.

Note: When the connection has been completed to the auxiliary test unit, the sleeve lamp associated with the LS jack should light.

2.12 Operate key 1 of the auxiliary test unit to HOLD.

2.13 When dialing has been completed at the magneto switchboard and before removing the dialing cord, have the plug of a regular switchboard cord circuit inserted in the trunk jack.

2.14 At the magneto office switchboard over another trunk to be tested have the assistant tester dial the number of the connector terminal connected to the LR jack of the auxiliary test unit, using a dialing cord in the associated trunk dialing jack.

Note: When the connection has been completed to the auxiliary test unit, the sleeve lamp associated with the LR jack should light.

2.15 Operate key 2 of the auxiliary test unit to HOLD.

2.16 When dialing has been completed at the magneto office switchboard and before removing the dialing cord, have the plug of the other end of the switchboard cord circuit of paragraph 2.13 inserted in the trunk jack.

2.17 Measure the transmission loss.

Note: This will be the loss of two trunk circuits, the looping cord circuit and two local connector circuits.

2.18 Disconnect one trunk by operating key 1 or key 2 (as the case may be) of the auxiliary test unit to OPEN and have the plug of the looping cord circuit removed from the trunk jack at the magneto office switchboard.

Note: When the disconnection has been completed, the sleeve lamp of the auxiliary test unit associated with the trunk to be released will be extinguished.

2.19 Repeat the above testing procedure to determine the transmission loss of a trunk to be used as a standard and set it up as outlined in paragraphs 2.10 to 2.13, inclusive.

2.20 Proceed with the test as outlined in paragraphs 2.14 to 2.18, inclusive, for the remaining trunks of the group.

2.21 When all of the trunks in the group have been tested disconnect the standard trunk by operating key 1 of the auxiliary test unit to OPEN and remove the cord at the magneto office switchboard.

Note: When the disconnection has been completed, the sleeve lamp of the auxiliary test unit associated with the LS jack will be extinguished.