INCOMING CALL WIRELESS TOLL SWITCHING TRUNKS FOR MAGNETO OR COMMON BATTERY RURAL LINES

1. GENERAL

1.01 This section covers the detailed method to be followed in making transmission tests on incoming call wireless toll switching trunks for magneto or common battery rural lines.

1.02 Information covered in this section of practices is outlined in the following table:

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

2. FOR MAGNETO RURAL LINES

2.01 These circuits are tested at the step-by-step "A" switchboard by the loop method and the loops are established at the outgoing toll switchboard by means of a toll cord circuit.

2.02 Figure 1 shows schematically the connections for the test.

Preliminary Connections

2.03 Provide two regular double ended patching cords equipped with 110 type plugs and one regular double ended patching cord equipped with 109 type plugs.

2.04 Connect the TMS and TMR jacks of the auxiliary test unit, respectively, to the sending and receiving jacks of the transmission measuring set, using the patching cords equipped with 110 type plugs.

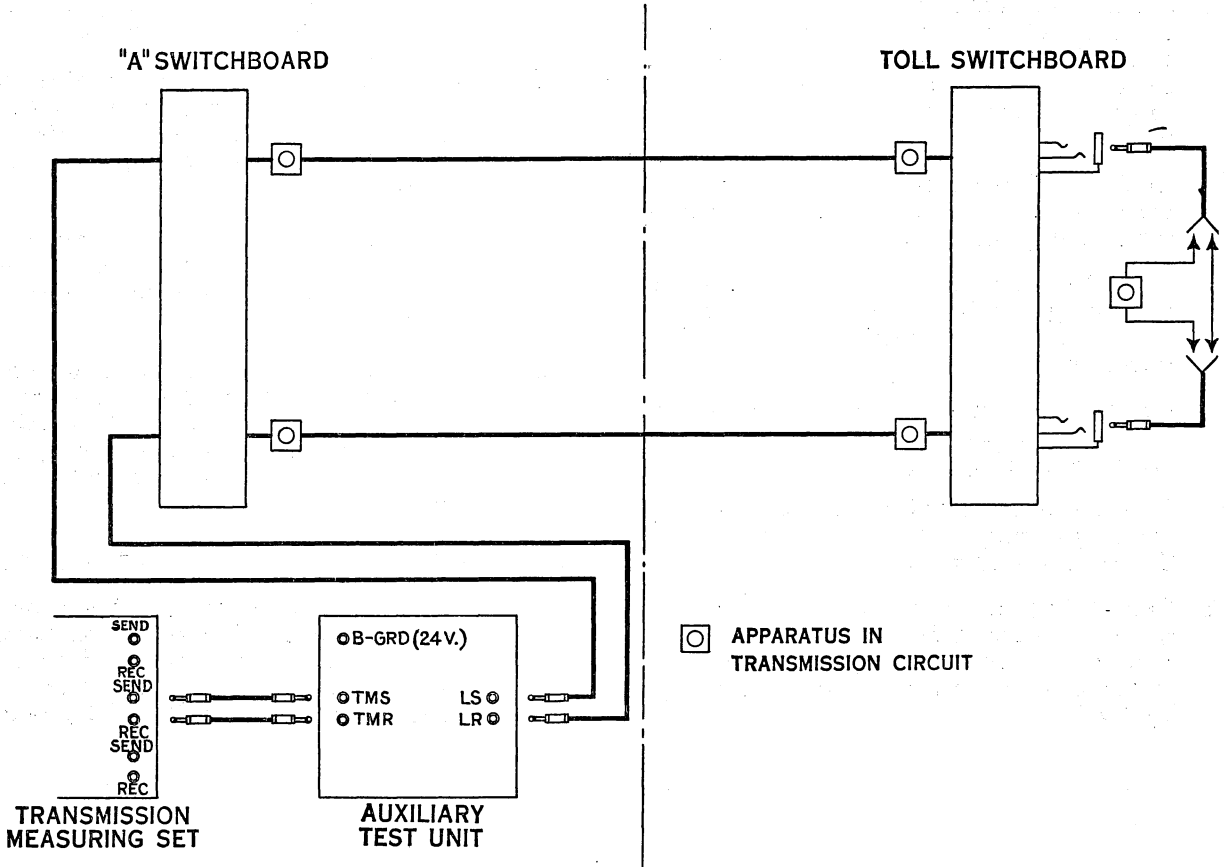

Figure 1

2.05 Connect the B-GRD (24V) jack of the auxiliary test unit to 24 volt battery and ground (battery on tip and ground on sleeve), using the patching cord equipped with the 109 type plugs.

2.06 Establish a talking circuit with an assistant tester at the toll switchboard.

Testing Procedure

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

Key 1 to HOLD
Key 2 to HOLD
Key 3 to MET
Key 4 to MET

2.08 Advise the assistant tester at the toll switchboard of one of the trunks chosen for test and instruct him to insert the answering cord of a toll cord circuit in the associated outgoing trunk jack.

2.09 At the " A " switchboard insert the plug of the incoming trunk cord in the LS jack of the auxiliary test unit.

2.10 Advise the assistant tester at the toll switchboard of another trunk chosen for test and instruct him to insert the calling cord of the toll cord circuit used in paragraph 2.08 in the associated outgoing trunk jack.

2.11 At the " A " switchboard insert the plug of the incoming trunk cord in the LR jack of the auxiliary test unit.

2.12 With the transmission measuring set in the measuring condition perform the operations outlined in paragraphs 2.13 to 2.15, inclusive.

2.13 Rotate the plugs of the trunk cords slowly in the test jacks to detect cutouts due to defective or dirty plugs.

2.14 Test the trunk cords for cutouts by holding the plugs firmly in the jacks and rotating the cords slowly with a cranking motion.

2.15 Test all keys associated with the trunk circuit for cutouts in the normal and operated positions (except ringing keys in the operated position) by tapping the key tops lightly.

For Lever Type Keys move the lever slightly forward and backward while exerting a reasonable pressure to the left and right to take up any play or side lash.

For Plunger Type Keys directly connected in the transmission circuit, move the plunger with a circular motion and test for plunger-spring clearance by depressing the plungers slightly.

2.16 Measure the transmission loss.

Note: This is the combined loss of two trunk circuits and the looping cord circuit.

2.17 Measure the current supply from the trunk connected to the LR jack of the auxiliary test unit while depressing key 10 to remove the holding bridge from the circuit.

2.18 Measure the current supply from the trunk connected to the LS jack of the auxiliary test unit while depressing key 9 to remove the holding bridge from the circuit.

2.19 Disconnect one trunk by removing the plug of the trunk cord from the auxiliary test unit and by having the looping cord circuit removed at the toll switchboard.

2.20 Repeat the above testing procedure to determine the transmission loss of a trunk to be used as a standard or test trunk and set it up as outlined in paragraphs 2.07 to 2.09, inclusive.

2.21 Proceed with the tests as outlined in paragraphs 2.10 to 2.19, inclusive, for the remaining trunks of the group, omitting paragraph 2.18.

2.22 When all of the trunks in the group have been tested, disconnect the standard trunk by removing the plug of the trunk cord from the auxiliary test unit and by having the looping cord circuit removed at the toll switchboard.

3. FOR COMMON BATTERY RURAL LINES

3.01 These circuits are tested in the same manner as incoming call wireless toll switching trunks from toll switchboards for magneto rural lines, the method for which is outlined in paragraphs 2.01 to 2.22, inclusive.