

TOLL SUBSCRIBER LINES
TELETYPEWRITER SWITCHBOARD NO. 5

1. GENERAL

1.01 This section describes tests of the toll subscriber lines associated with the teletypewriter switchboard No. 5. The tests are as follows:

(A) Overall Operation Test

(B) Test of Line Terminating Equipment Associated With a 126B1 or 128A1 or 128C1 Station Set

1.02 Test (A), requires two persons, one at the testboard and one at the subscriber station and will be made ordinarily in connection with the visit of an installer or repairman to the station.

2. APPARATUS

Tests (A) and (B)

2.01 Test Trunk Circuit SD-70105-01.

Test (B)

2.02 Toll Subscriber Line Test Circuit SD-70152-01.

2.03 P1B Cords equipped with No. 347A Plugs (J99211A-L7) (as required).

2.04 Splitting and Turnover Jack Circuit SD-62889-01, Fig. 5.

3. METHOD

(A) Overall Operation Test

3.01 Connections: Communicate with the switchboard operator and request that the plug of the test trunk circuit be inserted into the jack of the toll subscriber line to be tested.

3.02 The GUARD lamp associated with the test trunk circuit at the testboard should light, indicating that the trunk is connected to the toll subscriber line. Connect the testboard teletypewriter to the TTY jack of the test trunk circuit. The TWX lamp associated with the test trunk circuit should light.

Note: Should a call be originated on the toll subscriber line which is under test, before the connection has been established to the TTY jack, the TWX lamp circuit associated with the test trunk will light.

3.03 Ringling Test: Momentarily depress the STA + key associated with the test trunk circuit.

3.04 Answer Test: After ringing the toll subscriber, and the station answers, the TWX lamp associated with the test trunk circuit should be extinguished.

3.05 Communication Test: With the testboard teletypewriter connected to the TTY jack of the test trunk circuit communicate with the station. At this point such tests should be conducted as are necessary to check the equipment at the station. If orientation tests are to be made with the station, they should be made at this time. The requirements for the orientation tests cannot be specified on account of the varied make-up of the toll subscriber line and station arrangements which may be used.

3.06 Station Recall Test: Request the person at the station to send a recall signal. The TWX lamp associated with the test trunk circuit should light during the time the recall key is operated.

3.07 Station Disconnect Test: Request the person at the station to send a disconnect signal and then originate a call after a wait of a few seconds. The TWX lamp associated with the test trunk circuit should light when the person at the station has disconnected and should be extinguished when the new call is originated.

3.08 Disconnection: Advise the person at the station to disconnect. Then communicate with the switchboard operator and request that the plug of the test trunk circuit be removed from the jack of the toll subscriber line under test. The GUARD and TWX lamps associated with the test trunk circuit at the testboard should be extinguished.

3.09 Disconnect the testboard teletypewriter from the TTY jack associated with the test trunk circuit.

(B) Test of Line Terminating Equipment Associated With a 126B1 or 128A1 or 128C1 Station Set

3.10 Communicate with the switchboard operator and request that the plug of the test trunk circuit be inserted into the jack of the toll subscriber line under test. The GUARD lamp associated with the test trunk circuit at the testboard will light when the connection has been estab-

lished. Connect the testboard teletypewriter to the TTY jack of the test trunk circuit. The TWX lamp associated with test trunk circuit should light.

Note: Should a call be originated on the toll subscriber line which is under test, before the connection has been established to the TTY jack, the TWX lamp associated with the test trunk circuit will light.

3.11 Connect the TLX jack of the toll subscriber line test circuit to the TGEQ jack of the telegraph line circuit of the toll subscriber line under test, using a PlB cord. If the TGEQ jack is not within patching distance of the TLX jack, an interposition trunk to the telegraph line board should be used, using another PlB cord.

Note: If the toll subscriber line under test is equipped with a 128A1 station set being operated on a two-path polar basis the receiving line should be connected to the TLX jack due to the supervision taking place over the receiving line.

3.12 Station Ringing Test: Momentarily depress the RG key associated with the test trunk circuit. The STA lamp associated with the toll subscriber line test circuit at the testboard should light while the RG key is depressed.

3.13 Station Answer Test: Operate the 126B1 ON, 128A1 ON or 128C1 ON key, associated with the test circuit, depending upon the type station set used on the toll subscriber line under test. The TWX lamp associated with the test trunk should be extinguished.

3.14 Receiving a Break Signal: Operate the BREAK key associated with the test circuit for about two seconds. The TWX lamp associated with the test trunk circuit should remain extinguished. The testboard teletypewriter should run "open" for about two seconds.

3.15 Disconnect Test: Momentarily operate the DISC key associated with the test circuit. The TWX lamp associated with the test trunk circuit should light.

3.16 Test of Calling-In (D and E) Relays - Lines Equipped With 126B1 or 128A1 Station Sets: Communicate with the switchboard operator and request that the plug of the test trunk circuit be removed from the jack of the toll subscriber line under test and when the associated line lamp flashes, to reinsert the plug of the test trunk circuit into the jack. The TWX and GUARD lamps of the test trunk circuit will be extinguished when the plug of the test trunk circuit has been removed.

3.17 Operate the NO key associated with the test circuit. The line lamp associated with the toll subscriber line under test should flash at the switchboard and when the operator reconnects the test trunk, the GUARD and TWX lamps of the test trunk circuit should light. Restore the NO key to normal.

Note: This test will not be applied on a toll subscriber line being operated on a two-path polar basis, unless the (P) resistance is temporarily removed from the circuit.

3.18 Operate Test of Calling-In (C) Relay-Lines Equipped With 128C1 Station Set: Restore the 128C1 ON key to normal and communicate with the switchboard operator and request that the plug of the test trunk circuit be removed from the jack of the toll subscriber line under test and when the associated line lamp lights, to reinsert the plug of the test trunk circuit into the jack. The TWX and GUARD lamps of the test trunk circuit will be extinguished when the plug of the test trunk circuit has been removed.

3.19 Operate the 128C1 ON key associated with the test circuit. The line lamp associated with the toll subscriber line under test should light at the switchboard and when the operator reconnects the test trunk, the GUARD and TWX lamps of the test trunk circuit should light.

3.20 Non-Operate Test of Calling-In (C) Relay For 128C1 Station Set: Operate the DISC key. While the DISC key is still operated, operate the NO key. The TWX lamp should remain lighted. Restore the DISC and NO keys to normal. The TWX lamp should be extinguished.

3.21 Break Test: Remove the connections between the TLX jack of toll subscriber test circuit and the TGEQ jack of the telegraph line circuit and connect the TLX jack to the TOL jack and the TGEQ jack to the ST jack, respectively, of a splitting and turnover jack circuit.

3.22 Insert the plug of the test cord of the position test circuit into the SL jack of the splitting and turnover jack circuit and operate the associated TEST key. Note the meter reading, which indicates the normal marking current.

3.23 For the 128A1 station set the meter should read positive, (to the right) approximately 40 to 80 mils; for the 126B1 set the meter should read negative, (to the left) approximately 10 to 15 mils; for the 128C1 set the meter should read negative, (to the left) approximately 10 mils.

3.24 Operate the BREAK key associated with the teletypewriter connected to the TTY jack of the test trunk circuit. Note the meter reading which indicates the break or spacing current.

3.25 For the 128A1 station set the meter should read negative, (to the left) approximately 10 to 15 mils; for the 126B1 set the meter should read positive, (to the right) approximately 10 to 15 mils; for the 128C1 set the meter should read negative, (to the left) approximately 20 mils.

Note: For the 128C1 station set the meter will fluctuate momentarily to 10 mils about once every 7 seconds during the time the BREAK key is held operated.

3.26 Disconnection: Remove the F1B cords from the TLX jack of the toll subscriber line test circuit, the TGEQ jack of the telegraph line circuit associated with

the toll subscriber line under test and the splitting and turnover jack circuit. Remove the plug of the TTY cord from the SL jack and restore all keys to normal. If the connection is made through an interposition trunk this cord should also be removed.

3.27 Communicate with the switchboard operator and request that the plug of the test trunk circuit be removed from the jack of the toll subscriber line under test. The GUARD lamp of the test trunk circuit is extinguished.

4. REPORTS

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