

LINK CIRCUITS - OPERATION TESTS

750A PBX

1. GENERAL

1.01 This section describes a method of testing the operating features of the link circuit in a No. 750-A P B X

1.02 These features are covered by the following tests:

- (a) Dial Tone and Busy Test.
- (b) Ringing and Tripping Test.
- (c) Test of Start and Chain Circuits and Link Cut-Out Keys.
- (d) Pulse Relay Failure Test.

1.03 This routine should be made during a period when the traffic is light so that the busying of links will not interfere with service.

1.04 Any link on which a failure is encountered should be removed from service until the trouble is cleared.

2. APPARATUS

2.01 Dial Hand Test Set equipped with a No. 2-CB Dial, Cords and two No. 59 Cord Tips.

3. METHOD

(a) Dial Tone and Busy Test

3.01 Establish a connection to an idle station at the equipment cabinet by connecting the dial hand test set to an idle station T and R terminals, located on the incoming terminal strip on the apparatus frame in back of the apparatus frame gate.

3.02 Operate the C button of the dial hand test set and note that dial tone is heard in the receiver.

3.03 Holding the C button operated, dial the code 00 (zero-zero) and observe that an idle switch rotates to the terminals dialed and that busy tone is heard in the receiver. Then dial an additional digit and note that the switch does not step and that busy tone continues to be heard.

3.04 Release the C button and note that the switch restores to normal.

3.05 Repeat the tests outlined in paragraphs 3.02 to 3.04 inclusive on each link.

Note: It is essential that the operation of the switches be observed in order to determine that a test is made of each link as subscribers calls or the operation of the chain circuit may result in the reselection of a switch already tested.

(b) Ringing and Tripping Test

3.06 Establish a connection to an idle station at the equipment cabinet as outlined in paragraph 3.01.

3.07 Operate the C button of the dial hand test set and note that dial tone is heard in the receiver.

3.08 Dial the number of a nearby station for which arrangements have been previously made to have someone answer the necessary test calls. Observe that an idle switch rotates to the terminals dialed and that the audible ringing signal is heard in the receiver.

3.09 When the called station answers, check the station number and then request the called party to disconnect.

3.10 Release the C button and note that the switch restores to normal.

3.11 Repeat the tests outlined in paragraphs 3.07 to 3.10 inclusive on each link.

Note: It is essential that the operation of the switches be observed in order to determine that a test is made of each link as subscribers calls or the operation of the chain circuit may result in the reselection of a switch already tested.

(c) Test of Start and Chain Circuits and Link Cut-Out Keys

3.12 Establish a connection to an idle station at the equipment cabinet as outlined in paragraph 3.01.

3.13 Note that all links are idle. If any link is in use, the test should be deferred until all the links are idle. Then operate all the link cut-out (CO) keys located on the apparatus frame gate.

3.14 Operate the C button of the dial hand test set and note that busy tone is heard in the receiver. Then dial zero and observe that none of the switches rotate and that busy tone continues to be heard.

3.15 Release the C button of the dial hand test set and then restore the cut-out (CO) keys to normal.

3.16 Operate the C button of the dial hand test set and when dial tone is heard, dial the digit 1 and release the C button.

3.17 Observe that link 1 is seized, that it rotates to the first terminal and then restores to normal.

3.18 Again operate the C button and when dial tone is heard, dial the digit 1 and release the C button.

3.19 Observe that link 2 is seized, that it rotates to the first terminal and then restores to normal.

3.20 When three links are provided, repeat the test outlined in paragraph 3.16, observing that link 3 is seized, rotates and then releases.

(d) Pulse Relay Failure Test

3.21 After establishing a connection to an idle station at the equipment cabinet as outlined in paragraph 3.01, observe that link 1 is idle and if so, block in a non-operated position the pulse relay A of the link.

3.22 Operate the C button of the dial hand test set and when dial tone is heard, dial the digit 1 and release the C button.

3.23 Observe that link 2 is seized, that it rotates to the first terminal and then restores to normal.

3.24 Then block in a non-operated position the pulse relay A of link 2. Operate the C Button of the dial hand test set and then dial the digit 1 and release the C button.

SECTION 548-500-590

3.25 When two links are provided: Observe that dialing the digit 1 does not cause either of the links to rotate and that clicks are heard in the test receiver. Proceed to paragraph 3.27.

3.26 When three links are provided: The dialing of the digit 1 should cause link 3 to be seized, rotated to the first terminal and the release of the C button should cause it to restore to normal. Then block in a non-operated position the pulse relay "A" of link 3. With the C button operated, dial the digit 1 and observe that none of the links rotate and that clicks are heard in the test receiver.

3.27 Holding the C button operated, remove the non-operate condition from the "A" relay, link 1. When dial tone is heard, dial the digit 1 and observe that link 1 is seized, and rotates to the first terminal.

3.28 Release the C button and note that the link restores. Remove the non-operate condition from the "A" relays and disconnect the dial hand test set.

4. REPORTS

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