

TERMINATING CHANNEL TEST

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1. GENERAL INFORMATION

1.1 Description of Test: Tests outlined in this section consist of routing calls from incoming trunks to subscriber lines on each frame of each half choice and directing calls so that each line junctor is used. Full selector or B switchboard incoming trunks are used for originating calls. When there are none of these trunks in the trunk group, a manual or key pulsing trunk from A switchboard or a trunk from local test desk may be used as described in the method.

1.2 Test Procedure:

1.21 Record on a call chart the class of trunk and directory numbers of assigned tip or ring party lines used for terminating test calls at line link frame.

1.22 After completion of each test call between incoming link frame and line link frame, the junctor used for call is made busy at incoming secondary and test calls repeated until all associated junctors have been made busy and overflow signal is received.

1.23 Junctors made busy should coincide with available channels. Test is repeated for each line link frame.

1.3 Additions

1.31 Using the terminating trouble indicator frame as outlined in Paragraph 6, make a test call on each added channel between incoming link frame and line link frame.

1.32 Refer to Section 225 in this handbook for description of setting up test calls and checking lamp indications.

1.4 Records and Requirements

1.41 Forms SD-4-1313 and SD-4-1315 are required for recording results of these tests. Refer to Section 3, Handbook 50 for information regarding preparation of trouble record forms.

1.42 Section 2 in this handbook lists all terminating channel tests.

2. TEST EQUIPMENT

2.1 Test Sets

Amt	Code	Description
1	4010	Terminating Equipment Test Set

2.2 Cords

Amt	ITE	Lgth	Cdrs	One End	Other End	With ITE
As Req	9637	12'	3	S.O. Shoe	110 Plug	4010
3	9601	12'	3	110 Plug	110 Plug	4023
1	9639	12'	3	110 Plug	3-2455 Plugs	4023
1	9598	12'	2	110 Plug	110 Plug	4010
1	9627	12'	3	508A Key	110 Plug	4010
1	9650	6'	4	137 Plug	Tel. Set	4023

2.3 Accessories

Amt	Code	Description	With ITE
As Req.	325C	Make Busy Plugs	4023
1	D-81762	Telephone Handset	4023
+1	ITE-4052	3 Point Contact Fixture	4010

+ For use with trunks not equipped with T jacks.

4 ITE-9637 cords required per line choice.

3. TEST SETUP

3.1 Locate ITE-4010 test set at incoming trunk frame.

3.2 Refer to Figure 1 and make required test connections. Operate test set keys indicated depending upon type of incoming trunk used for test.

3.3 After making connections at line link frames, insulate off-normal tip and ring contact springs of hold magnets associated with lines used for test.

3.4 Initially, patch test set T jack to EVEN numbered trunk located in trunk group 0.

3.5 When delayed ringing incoming trunk (DRM or DRB is used, operate key ± to start ringing after SU lamp lights during test.

4. FULL SELECTOR OR B SWITCHBOARD TRAFFIC LINKS

4.11 Test Operations - Half Choice A

4.111 For full selector trunks key number of line associated with EVEN line link frame of half choice A, line choice 0, (HC-0A). Operate key TPG for tip party line numbers. Operate and release ST

key. Connection to called line will be indicated by lighting of lamp TR and lamp SU extinguished.

**NOTE:** For trunks incoming from manual, pass line number to operator when order tone is received. Connect ITE-9650 cord into TEL JACKS of test set.

4.112 After call has been terminated, check the switch (left or right) and vertical (0-9) of operated incoming primary hold magnet. The combination of primary switch and vertical will identify the bay and switch of associated incoming secondary hold magnet.

4.113 Check that secondary hold magnet is one which is associated with half choice under test as indicated on test call chart under columns "INC. VERT." and "HC".

4.114 Operate key RS. After hold magnets release, make the line junctor busy with a 325C make busy plug at incoming secondary hold magnet.

4.115 Continue tests as described until all line junctors associated with incoming frame and line link frame under test have been made busy. This condition will be indicated when overflow signal (lamp SU flashing at 120 IPM) is received.

4.116 Check quantity and location of circuits made busy against available channels indicated on test call chart under "CHANNEL NOS." and "INC. VERT." Remove busy condition from channels.

4.117 For remote control operation of test set, plug cord ITE-9627 into RC jack. Keys WHITE and RED perform same functions as ST and RS keys.

4.118 If REP key is operated at start of test, ten channels may be checked consecutively without further key manipulation. Make incoming secondary hold magnet busy with 325C plug after lamp TR is extinguished and hold magnets associated with completed test call have released.

**NOTES:** (a) Operation of two sets of channel hold magnets before completing call indicates a first trial failure. This condition may be caused by failure of particular channel circuits to meet one of following terminating marker tests. "False Charge and Ground", "Cross Point Continuity" or "Ground and Double Connection."

(b) Occasionally overflow signal will be received before all available line junctors are busy. Repeat test call several times as required to complete to all available channels and disregard early overflow signal which may be due to random rotation of junctor subgroup by marker.

4.119 Move ITE-9601 cord to T jack of an ODD numbered trunk in trunk group 1. Key number of line associated with ODD line link frame of half choice A, line choice 0. Repeat tests described in preceding paragraphs.

#### 4.12 Test Operations - Other Half Choices

4.121 Move ITE-9601 cord to T jack of EVEN numbered trunk in trunk group 1. Key number of line associated with ODD line link frame of half choice B (OB), line choice 0. Repeat tests of Paragraph 4.11.

4.122 Move ITE-9601 cord to T jack of ODD numbered trunk in trunk group 0. Key number of line associated with EVEN line link frame of half choice B, line choice 0. Repeat tests of Paragraph 4.11.

4.123 Test channels to remaining trunk groups on incoming frame 0 using trunk groups 2 and 3 for line choice 1; 4 and 5 for line choice 2, etc. When less than five line choices are provided, use any line choice to test remaining trunk groups.

4.124 Repeat tests described in preceding paragraphs for each incoming frame as required.

4.125 After tests have been completed remove all test connections and 325C make busy plugs.

#### 5. KEY PULSING OR DIALING TRUNK LINKS

5.1 Except for line link frame connections to B jacks, the test setup indicated in Figure 1 will not be required.

5.2 Prepare a talking connection between incoming frames under test and A switchboard position to be used for originating calls.

5.3 Connect a D-81762 telephone handset to B jack of incoming frame on which the incoming trunk group is located. This handset will be used to terminate calls at line link frames via the B jack multiple.

5.4 At A switchboard position, connect calling cord of a special service cord circuit to trunk jack in trunk group under test.

5.5 Key or dial line number indicated on call chart for line link frame under test. When connection is completed, ringing should be heard in hand telephone set at incoming frame.

5.6 Operate handset C key to trip ringing. Check talking between handset and A switchboard position. Release C key and remove position cord from trunk jack to restore circuits to normal.

5.7 Repeat test as required directing calls over each channel by inserting 325C make busy plugs into incoming secondary hold magnets at completion of each call. Check that overflow signal is received at A switchboard position when all available channels have been made busy.

