

LAMA TRANSVERTER SD-25591-01
TESTS USING MASTER TEST FRAME
NO. 5 CROSSBAR OFFICES

1. GENERAL

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1.01 This section describes a method of testing transverter SD-25591-01 in No. 5 crossbar offices equipped with the master test frame (MTF). The tests also apply when the transverter is arranged for AIOD service. This section also provides a test of the ANI features of the transverter.

the TIC or ICK lead when trunk identification is being made. . . .

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1.02 The reasons for reissuing this section are listed below. Revision arrows are used to emphasize the more significant changes. Equipment Test Lists are affected.

B. Checking Compressed Foreign Area Codes Using 4-Line Entries, Noncompressed Foreign Area Codes Using 5-Line Entries, and Feature for Blocking on Restricted Foreign Area Codes:

This test checks that, when a transverter is arranged to compress foreign area codes, foreign area codes using 4-line entries are compressed correctly and foreign area codes using 5-line entries are not compressed. This test also checks that when a transverter is arranged to compress all foreign area codes, it will block and cause a trouble record to be taken when a restricted foreign area code is received.

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- (a) Test AE has been added.
- (b) Paragraphs 1.15, 1.16 have been added.
- (c) Test D, Step 18a has been added to cover option VF.
- (d) Test Chart Tests 11 through 15 "miscellaneous key and/or switches "changed because of typographical error on last issue.
- (e) Statement "At MTF—" added to Test J Step 8.
- (f) To revise Test Y to include class-of-call index 8.
- (g) To make minor changes as required.

C. Transfer of Start Lead From Transverter-Connector:

This test checks that the transverter takes a trouble record when the transverter-connector fails to connect to the first idle transverter in the chain. . .

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1.03 The tests covered are:

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A. Continuity, False Ground, and False Battery Tests of TIC and ICK Leads: This test checks that the transverter takes a trouble record if a trouble battery or ground occurs on

D. Observing and Second Trial Features: This test checks the observing and second trial functions of the transverter.

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E. Recorder Make-Busy Feature: This test checks transverter functions on first and second trial when a recorder is made busy.

9

F. Recorder Trouble Feature: This test checks that the transverter

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takes a trouble record if it seizes a recorder in trouble.	9	M. Two- or Four-Wire Tandem Call—Incoming Trunk Number Identification: This test checks that the incoming trunk number is recorded on AMA records on two- or four-wire tandem calls, when the office is arranged for less or more than 1000 trunks.	18
G. Translator Make-Busy Feature: This test checks that, when an associated translator is made busy, the transverter will send an overflow indication for message billing index MB9 calls and will give a regular release for other message billing indices or will provide alternate treatment on AIOD calls. This test also checks the cancel make-busy feature, if provided, of the transverter when the AIOD translator is manually made busy.	10	M.1 Two-Wire Tandem Call—Incoming Class or Source Index Identification: This test checks that the incoming class or source index is recorded on AMA records on two-wire tandem calls, when the office is arranged for more than 1000 trunks.	20
H. Translator Overflow Features (1000-Line Translator Only): This test checks that the transverter OF relay will operate from a translator and will pass an overflow signal to the sender.	11	N. Two- to Four-Wire Crossover Call: This test checks that the transverter deletes and shifts digits on a 2- to 4-wire crossover call.	21
I. Translator Double-Connection Feature: This test checks that the transverter will block and cause a trouble record to be taken if two translator start relays operate.	11	O. Deleted.	
J. Trouble Detecting Features for Ground, Battery, and Crosses: This test checks that a trouble record is taken when a trouble condition is encountered on certain leads between the transverter and associated circuits.	12	P. Cancel Two-Wire Record: This test checks the ability of the transverter to cancel local AMA records on 2-wire private network calls except MB9 calls.	21
K. Translator-Selection and Directory Number Register Relays: This test checks that the transverter makes proper translator group selection and checks for transpositions in the directory number relay wiring in the translator and transverter or for incorrect translation by an AIOD translator.	15	Q. Cancel Four-Wire Record: This test checks the ability of the transverter to cancel local AMA records on 4-wire calls except MB9 calls.	23
L. Control Digit Translation: This test checks that the transverter translates the control digit information into the proper office index number.	17	R. Forced Four-Line Entry: This test checks the ability of the transverter to be forced by the MTF jack, lamp, and key circuit to make 4-line AMA entries on all calls.	23
		S. Checking Local Area Indexes Using Four-Line Entries: This test checks the ability of the transverter to generate the proper local area index number when the call is terminated in the home numbering plan area.	24
		T. Traffic Sampling: This test checks the ability of the transverter (1) to recognize a sample mark and force a 4-line entry on the tape, and (2) to recognize a second trial attempt, cancel	

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the sample mark, and generate a nonsample mark.	24	arranged for use with Initial DATA-PHONE 50 call to receive code patterns 0, 4, and 5 and generate class-of-call index 7, which is recorded on AMA tape in the position formerly used for the station digit.	34
U. Information Code 411: This test checks the ability of the transverter to distinguish between local area information calls and foreign area information calls and to steer the digits to the correct position on the tape.	26	AB. ANI Features of Combined Transverter SD-25591-01: This test checks the ability of the transverter when arranged for both LAMA and ANI operation, to function with the outsender to provide the calling number information.	35
V. Continuity Check: This test checks continuity of leads between the transverter under test and associated recorders including emergency recorder.	28	AC. Office Index Identification—ANI Mode: This test checks the identification of thirty calling office indices and calling numbers as received from the translator and the calling office code and number as normally transmitted to the outgoing sender.	37
W. Trouble Detecting Feature for Falsely Operated 2L Relay: This test checks that the transverter takes a trouble record if 2L and MB9 relays are operated without a trunk test call being made.	29	AD. Directory Assistance Charging: This test checks that billing of 411 and 555-1212 directory assistance calls are recorded on AMA records using 2-line AMA tape entries.	38
X. Wideband Call Indication: This test checks the ability of the transverter to receive an L5D indication on a wideband call and generate a digit 3 on the AMA tape for the position formerly used for the station digit.	30	AE. Regular Call: This test verifies that the selected transverter and recorder are seized on a regular call from the MTF.	39
Y. Class-of-Call Index 6 and 8 : This test checks the ability of the transverter to identify 7- and 10-digit WATS calls from CCSA or Centrex customers subscribing to automatic route selection with message detail billing.	30	1.04 Tests A through J, M, and R through Z can be made in both 2- and 4-wire offices.	
Z. Trouble Entry Record: This test checks that the transverter will block and cause a trouble entry to be recorded if a trouble is encountered during initial entry perforation but before the entry is completed. This entry appears as 287(0,2)00. The digit zero appears as the D digit if trouble occurred on a supplementary line, and digit two appears for trouble encountered on the last line of an initial entry.	32	1.05 Tests L, N, and Q can be made only in 4-wire offices.	
AA. Initial DATA-PHONE® 50 Class of Call Index: This test checks the ability of the transverter when		1.06 Test G requires making a translator busy.	
		1.07 Test J requires action at the MTF terminal strip and verification at the trouble recorder. Test J also requires making the trouble recorder busy to all circuits except the transverter under test.	
		1.08 For Tests A through AE Charts are furnished with spaces provided for listing specific keys and switches to be operated for each test, depending on local conditions. These charts	

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should be filled out from local office records in accordance with instructions provided in Part 5.

1.09 Tests of other trouble detecting features, as well as miscellaneous tests, are covered in Section 218-172-503.

1.10 *Traffic Register Peg Count:* All tests may operate traffic registers associated with a PCA_{lead}. Local instructions should be followed for recording and reporting these operations.

1.11 The charge guard entry (285400) is used to notify the accounting center that trouble was encountered and cancellation of the timing entries immediately following the initial entry is required. There is no charge to the customer for the call if the charge guard entry occurs between an initial entry and an answer entry; there is an initial charge to the customer if the charge guard entry occurs between an answer entry and a disconnect entry.

Note: Each time the recorder transfer feature is used, a charge guard entry is put on the tape.

1.12 *Lettered Steps:* A letter a, b, c, etc, added to a step number in Part 4 of this section indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

1.13 The manner of selecting some circuits and test conditions at the MTF and its associated circuits varies depending on the apparatus options furnished with these circuits. Therefore, where variable means of selection are provided, precise instructions for the selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.

1.14 The location statement, At MTF—, is used to refer to all apparatus located on the four basic bays of the MTF.

1.15 On issue 76D of SD-25800-01 a group of 18 "class of test" lamps was replaced by a

single "start test" lamp designated STT. Since the designation given to the lamp is not specific, the lamp will not be called out in the section, as well as the 18 discontinued lamps, DT, ORIG, ITDO, ITNP, OGT, INC, OR, SDR, IR, MISC, IAO, MLV, LT, IMS, PTT, TVT, ATNT, and IMT.

1.16 *CAUTION:* *To prevent a possible restriction on customer service, it is recommended that these tests be performed during light traffic conditions.*‡

2. APPARATUS

All Tests

2.01 Master test control circuit, SD-25800-01.

Tests G, I, J, P, Q, W, AD

2.02 322A (make-busy) plugs as required.

Tests I, J

2.03 Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, and one 411A (test pick) tool or one 419A (test connector) tool (to connect terminals and provide battery or ground).

Test J

2.04 32A test set.

2.05 67C test set or equivalent, equipped with one KS-6278 connecting clip (to check for presence of battery or ground).

2.06 Testing cord, 893 cord, 3 feet long, equipped with two 360A tools (1W13A cord) and two KS-6278 connecting clips.

2.07 Blocking and insulating tools as required. Use tools and apply as covered in Section 069-020-801.

Test AB

2.08 Automatic monitor, register, and sender test circuit SD-25680-01, or sender test set SD-25674-01 (J24756A).

3. PREPARATION

STEP	ACTION	VERIFICATION
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All Tests

Note: Refer to paragraphs 1.12 through 1.16.

1	At MTF— Restore all keys and switches.	
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2	Momentarily operate RL key.	
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		All lamps extinguished.
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All Tests Except AB

3	Select transverter under test.	
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4	Select TVT (AMA) class of test.	
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4. METHOD

A. Continuity, False Ground, and False Battery Tests of TIC and ICK Leads.

5	Operate keys and set switches in accordance with Test Chart Test 1.	
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6	Momentarily operate ST key.	
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		TRL lamp lighted. Trouble record taken. IC designation perforated. TOK designation not perforated.
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7	Momentarily operate RL key.	
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		All lamps extinguished.
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8	Restore TICG key.	
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9	Operate TICB key.	
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10	Momentarily operate ST key.	
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		TRL lamp lighted. Trouble record taken. IC designation perforated. TOK designation not perforated.
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11	Momentarily operate RL key.	
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		All lamps extinguished.
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12	Restore TICB key.	
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13	Restore all keys and switches not required in next test.	
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STEP	ACTION	VERIFICATION
B. Checking Compressed Foreign Area Codes Using 4-Line Entries, Noncompressed Foreign Area Codes Using 5-Line Entries, and Feature for Blocking on Restricted Foreign Area Codes		
Compressed Foreign Area Codes Using 4-Line Entries		
5	Operate keys and set switches in accordance with Test Chart Test 2.	
6	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. A'0 designation perforated. B'_ designations perforated identifying compressed code representing the assigned foreign area code. C'_ designations perforated identifying category of class of call index. D' through F'_ designations perforated identifying <i>called</i> office code.
7	Momentarily operate RL key.	All lamps extinguished.
8	Restore S3L key.	
Noncompressed Foreign Area Codes Using 5-Line Entries		
9	Operate keys and set switches in accordance with Test Chart Test 3.	
10	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. A'0, B'4, 7; C'4, 7 designations perforated. D' through F' designations perforated identifying noncompressed foreign area code.
11	Momentarily operate RL key.	All lamps extinguished.
12	Restore SFAL key.	
Feature for Blocking on Restricted Foreign Area Codes		
13	Operate keys and set switches in accordance with Test Chart Test 4.	
14	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. CP2, 7; MB2, 7; RN_, 4DG, TVT, NOB, TV, DR, CKG, CK1, CK2, CK4, CK7, FACK, DNK designations perforated. A_ through K_ designations perforated identifying

STEP	ACTION	VERIFICATION
		foreign area code, <i>called</i> office code, and <i>called</i> number.
15	Momentarily operate RL key.	All lamps extinguished.
16	Repeat Steps 13 through 15 for Test Chart Tests 5 and 6.	
17	Restore all keys and switches not required in next test.	
C. Transfer of Start Lead Transverter-Connector		
5	Operate keys and set switches in accordance with Test Chart Test 7.	
6	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. TRS, MB_ designations perforated.
7	Momentarily operate RL key.	All lamps extinguished.
8a	If transfer start trouble record is provided on all types of message billing calls— Restore previously selected message billing index and select message billing index 9.	
9a	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. TRS, MB 2, 7 designations perforated.
10a	Momentarily operate RL key.	All lamps extinguished.
11	Restore all keys and switches not required in next test.	
D. Observing and Second Trial Features		
Bulk Billing		
5	Operate keys and set switches in accordance with Test Chart Test 8.	
6	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. OBS designation perforated. A'2, B'0, 4 designations perforated identifying last line of an observed initial entry of four lines. C'_, D'_ designations perforated identifying message billing index units and tens digits.

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STEP	ACTION	VERIFICATION
7	Momentarily operate RL key.	All lamps extinguished.
Compressed DDD Codes		
8	Operate keys and set switches in accordance with Test Chart Test 9.	
9	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. OBS designations perforated. A'2, B'0, 4 designations perforated identifying last line of an observed initial entry of four lines. C'_, D' _ designations perforated identifying message billing index units and tens digits.
10	Momentarily operate RL key.	All lamps extinguished.
Noncompressed DDD Codes		
11	Operate keys and set switches in accordance with Test Chart Test 10.	
12	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. OBS designation perforated. A'2, B'0, 4 designations perforated identifying last line of an observed initial entry of four lines. C'_, D' _ designations perforated identifying message billing units and tens digits.
13	Momentarily operate RL key.	
14	Restore OBS, S1L keys.	
15	Operate TR2, REC keys.	
16	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. NOB, 2TR designations perforated.
17	Momentarily operate RL key.	◆All lamps extinguished.◆
18a	◆If MTF is equipped with ZPN wiring and ZWC option, and option VF is provided in transverter under test— Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. OSB, 2TR designations perforated.◆
19	Momentarily operate RL key.	
20	Restore TR2, REC keys.	

STEP	ACTION	VERIFICATION
21	Restore all keys and switches not required in next test.	
E. Recorder Make-Busy Feature		
Bulk Billing		
5	Operate keys and set switches in accordance with Test Chart Test 11.	
6	Momentarily operate ST key.	TRL lamp lighted.
7	Momentarily operate RL key.	All lamps extinguished.
8	Operate TR2 key.	
9	Momentarily operate ST key.	MRL lamp lighted.
10	Momentarily operate RL key.	All lamps extinguished.
11	Restore TR2 key.	
12	Restore all keys and switches not required in next test.	
Detail Billing		
13	Operate keys and set switches in accordance with Test Chart Test 12.	
14	Momentarily operate ST key.	TRL lamp lighted.
15	Momentarily operate RL key.	All lamps extinguished.
16	Operate TR2 key.	
17	Momentarily operate ST key.	TRL lamp lighted.
18	Momentarily operate RL key.	All lamps extinguished.
19	Restore RMB, TR2 keys.	
20	Restore all keys and switches not required in next test.	
F. Recorder Trouble Feature		
5	Operate keys and set switches in accordance with Test Chart Test 13.	

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STEP	ACTION	VERIFICATION
6	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. CI4, TBL designations perforated.
7	Momentarily operate RL key.	All lamps extinguished.
8	Restore all keys and switches not required in next test.	
G. Translator Make-Busy Feature		
5	Operate keys and set switches in accordance with Test Chart Test 14.	
6	Insert make-busy plug into TVMB_ jack of transverter under test.	
7	Determine from local office records translator associated with line or trunk equipment location.	
8	Insert make-busy plug into AMAT-MB, TRNSL-MB, or AIODT-MB jack of translator.	
	Note: Perform this test without delay. In offices arranged for LAMA, bulk billed calls made by customers served by the translator under test will be completed without a charge record. Detailed billed calls will be routed to overflow. In offices arranged for AIOD, calls made by PBX stations will be completed by billing to the listed PBX directory number, using operator identification.	
9	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. TBY designation perforated.
10	Momentarily operate RL key.	All lamps extinguished.
11	Select message billing index 9.	
12	Momentarily operate ST key.	BT-OF lamp lighted. Trouble record taken. TBY, OF designations perforated.
13	Momentarily operate RL key.	All lamps extinguished.
14a	If AIOD translator is made busy and transverter is arranged to override a manually made-busy translator— Operate CTMB key.	

STEP	ACTION	VERIFICATION
15a	Operate TSLT key, if provided.	
16a	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. A_ through D_ designations perforated identifying trunk number. TPT, TNK designations perforated.
17a	Momentarily operate RL key.	All lamps extinguished.
18	Remove make-busy plugs from AMAT-MB, TRNSL-MB, or AIODT-MB, and TVMB_ jacks.	
19	Restore all keys and switches not required in next test.	
H. Translator Overflow Features (1000-Line Translator Only)		
5	Operate keys and set switches in accordance with Test Chart Test 15.	
6	Momentarily operate ST key.	BT-OF lamp lighted. Trouble record taken. OF designation perforated.
7	Momentarily operate RL key.	All lamps extinguished.
8	Restore all keys and switches not required in next test.	
I. Translator Double-Connection Feature		
5	Operate keys and set switches in accordance with Test Chart Test 16.	
6a	If line equipment location is associated with PBX-AIOD service and TSLT key is provided—Operate TSLT key.	
7	Insert make-busy plug into TVMB_ jack of transverter under test.	
8b	If line equipment location is for 2-wire line—Determine from local office records which TS_ relay will operate and the associated SC_ terminal for calling line location.	
9b	At transverter frame—Strap SC_ terminal as determined from office records to an SC_ terminal associated with any other TS_ relay.	

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STEP	ACTION	VERIFICATION
10c	If line equipment location is associated with PBX-AIOD service— Determine from local office records which TCS_ relay will operate and the associated TCS_ terminal for the calling line location.	
11c	At transverter frame— Strap TCS_ terminal as determined from office records to TCS_ terminal associated with any other TCS_ relay.	
12d	If line equipment location is for 4-wire line— Determine which 4WT_ relay will operate for calling line location.	
13d	At transverter 4-wire unit— Strap one of the SD_ terminal strip terminals associated with selected 4WT_ relay to one of SD_ terminal strip terminals associated with any other 4WT_ relay.	
14	At MTF— Momentarily operate ST key.	Trouble record taken. CK4 designation perforated. DNK designation <i>not</i> perforated.
15	Momentarily operate RL key.	
16b	If line equipment location is for 2-wire line— At transverter frame— Remove test connections from SC_ terminals.	
17c	If line equipment location is associated with PBX-AIOD service— At transverter frame— Remove test connections from TCS_ terminal.	
18d	If line equipment location is for 4-wire line— At transverter 4-wire unit— Remove test connections from SD_ terminal strip terminal.	
19	At MTF— Remove make-busy plug from TVMB_ jack.	
20	Restore all keys and switches not required in next test.	
J. Trouble Detecting Features for Ground, Battery, and Crosses		
5	Operate keys and set switches in accordance with Test Chart Test 17.	

STEP	ACTION	VERIFICATION
6a	If automatic monitor is provided— Check that STM-STT key is normal.	
7	Make trouble recorder busy to all circuits except transverter under test by inserting make-busy plugs into TRMB_ jacks.	
8	◆At MTF— Block nonoperated TVT relay.◆	
9	Connect ground to first terminal listed in Table A .	
10	Momentarily operate ST key.	Trouble record taken. Refer to Table A for designations perforated for lead under test.
11	Momentarily operate RL key.	
12	Remove test connection.	
13	Repeat Steps 9 through 12 for each lead in Table A .	
14b	If office is arranged for 4-wire switching— At MTF— Connect ground to first terminal listed in Table B .	
15b	Momentarily operate ST key.	Trouble record taken. Refer to Table B for designations perforated for lead under test.
16b	Momentarily operate RL key.	
17b	Remove test connection.	
18b	Repeat Steps 14b through 17b for each lead in Table B .	
19	At master test connector frame— Connect ground to first terminal listed in Table C .	
20	Insert plug of 32A test set into RC jack; momentarily operate white (ST) button.	At MTF— Trouble record taken. Refer to Table C for designation perforated for lead under test.
21	At master test connector frame— Momentarily operate red (RL) button of 32A test set.	

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STEP	ACTION	VERIFICATION
22	Remove test connection.	
23	Repeat Steps 19 through 22 for each lead in <i>Table C</i> .	
24	Remove plug of 32A test set from RC jack.	
25	At MTF— Remove blocking tool from TVT relay.	
26	Connect ground to first terminal listed in <i>Table D</i> .	
27	Momentarily operate ST key.	Trouble record taken. Refer to <i>Table D</i> for designations perforated for lead under test.
28	Momentarily operate RL key.	
29	Remove test connection.	
30	Repeat Steps 26 through 29 for each lead in <i>Table D</i> .	
31c	If YZ wiring is provided (no ground present on 2RT winding terminal XT relay)— Insert make-busy plug into TVMB_ jack associated with transverter under test.	
32c	At transverter frame— Connect ground to 3T on TOK relay.	
33	At MTF— Connect battery to terminal 48 on terminal strip M or MTFC-V2, V3, W0, as provided.	
34	Momentarily operate ST key.	Trouble record taken. XU designation perforated.
35	Momentarily operate RL key.	
36	Remove test connections.	
37	Restore all keys and switches not required in next test.	
38	Operate keys, set switches in accordance with Test Chart Test 18.	
39	At transverter frame— Strap terminal 21 to terminal 22 on terminal strip T.	

STEP	ACTION	VERIFICATION
40	At MTF— Momentarily operate ST key.	Trouble record taken. XVG designation perforated.
41	Momentarily operate RL key.	
42	At transverter frame— Remove test connection.	
43	At MTF— Remove make-busy plugs from TVMB, TRMB jacks.	
44	Restore all keys and switches not required in next test.	
K. Translator Selection and Directory Number Register Relays		
5	Operate keys and set switches in accordance with Test Chart Test 19.	
6a	If AIOD translator is being tested— Operate TSLT key, if provided.	
7	Momentarily operate ST key.	<p>TRL lamp lighted. Trouble record taken.</p> <p>LAMA translator FT_, FU_, VG_, HG_, VF_ designations perforated identifying calling line location. A'0, B', C' through F' designations perforated identifying supplementary line, calling office index, and calling number. If test call is for 2-wire line— 2W, RPT or TPT designations perforated. If test call is for 4-wire line— When UA option is provided— 4W, RPT designations perforated. When UB option is provided— 4W, RPT, 4DG designations perforated.</p> <p>AIOD translator FT_, FU_, VG_, HG_, VF_ designations perforated identifying line location of trunk number. TPT, TNK designations perforated. A'0, B', C' through F' designations perforated identifying supplementary line, calling office index, and station number.</p>
8	Momentarily operate RL key.	All lamps extinguished.
9	Repeat Steps 5 through 8 for Test Chart Tests 20 through 52 (or as required).	

**TABLE A — MASTER TEST FRAME CONTROL BAY
USING TS AS PROVIDED**

LEAD UNDER TEST	TS	TERM	TS	TERM	DESIGNATIONS PERFORATED
A0	MTFC-B2	00	B4	00	A0, XNL, X
A1		01	B4	01	A1, XNL, X
A2		02	B4	02	A2, XNL, X
A4		03	B4	03	A4, XNL, X
A7		04	B4	04	A7, XNL, X
B0		05	B5	00	B0, XNL, X
B1		06	B5	01	B1, XNL, X
B2	07	B5	02	B2, XNL, X	
B4	08	B5	03	B4, XNL, X	
B7	09	B5	04	B7, XNL, X	
C0		10	B4	10	C0, XNL, X
C1		11	B4	11	C1, XNL, X
C2		12	B4	12	C2, XNL, X
C4		13	B4	13	C4, XNL, X
C7		14	B4	14	C7, XNL, X
D0		15	B5	10	D0, XNL, X
D1		16	B5	11	D1, XNL, X
D2		17	B5	12	D2, XNL, X
D4		18	B5	13	D4, XNL, X
D7		19	B5	14	D7, XNL, X
E0		20	B4	20	E0, XNL, X
E1		21	B4	21	E1, XNL, X
E2		22	B4	22	E2, XNL, X
E4		23	B4	23	E4, XNL, X
E7		24	B4	24	E7, XNL, X
F0		25	B5	20	F0, XNL, X
F1		26	B5	21	F1, XNL, X
F2		27	B5	22	F2, XNL, X
F4		28	B5	23	F4, XNL, X
F7		29	B5	24	F7, XNL, X
G0	MTFC-B2	30	B4	30	G0, XNL, X
G1		31	B4	31	G1, XNL, X
G2		32	B4	32	G2, XNL, X
G4		33	B4	33	G4, XNL, X
G7		34	B4	34	G7, XNL, X
H0		35	B5	30	H0, XNL, X
H1		36	B5	31	H1, XNL, X
H2		37	B5	32	H2, XNL, X
H4		38	B5	33	H4, XNL, X
H7		39	B5	34	H7, XNL, X
J0		40	B4	40	J0, XNL, X
J1		41	B4	41	J1, XNL, X
J2		42	B4	42	J2, XNL, X
J4		43	B4	43	J4, XNL, X
J7		44	B4	44	J7, XNL, X

STEP

ACTION

VERIFICATION

**TABLE A — MASTER TEST FRAME CONTROL BAY
USING TS AS PROVIDED (Cont)**

LEAD UNDER TEST	TS	TERM	TS	TERM	DESIGNATIONS PERFORATED
K0		45	B5	40	K0, XNL, X
K1		46	B5	41	K1, XNL, X
K2		47	B5	42	K2, XNL, X
K4		48	B5	43	K4, XNL, X
K7		49	B5	44	K7, XNL, X
L0		50	B4	50	L0, XNL, X
L1		51	B4	51	L1, XNL, X
L2		52	B4	52	L2, XNL, X
L4		53	B4	53	L4, XNL, X
L7		54	B4	54	L7, XNL, X
M7		55	B5	50	M7, XNL, X
P1	MTFC-V2, V3, W0	36	M	36	P1, XP, X
DS		38	M	38	DS, XP, X
TCT		46	M	46	XP, X
P		55	M	55	P, XP, X
DTH		56	M	56	DTN, XP, X
PA		57	M	57	XP, X

- 10 Restore all keys and switches not required in next test.

L. Control Digit Translation

- 5 Operate keys and set switches in accordance with Test Chart Test 53.
- 6 Momentarily operate ST key. TRL lamp lighted.
Trouble record taken—
Refer to **Table E** for designations perforated for lead under test.
- 7 Momentarily operate RL key. All lamps extinguished.
- 8 Repeat Steps 5 through 7 for Test Chart Tests 54 through 59.
- 9 Restore all keys and switches not required in next test.

STEP	ACTION	VERIFICATION
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**TABLE B — MASTER TEST FRAME CONTROL BAY
USING TS AS PROVIDED**

LEAD UNDER TEST	TS	TERM	TS	TERM	DESIGNATIONS PERFORATED
HG0	MTFC-B0	00	B0	00	HG0, XNL, X
HG1		01	B0	01	HG1, XNL, X
HG2		02	B0	02	HG2, XNL, X
HG4		03	B0	03	HG4, XNL, X
HG7		04	B0	04	HG7, XNL, X
VF0		05	B1	00	VF0, XNL, X
VF1		06	B1	01	VF1, XNL, X
VF2	07	B1	02	VF2, XNL, X	
VF3	08	B1	03	VF3, XNL, X	
VF4	09	B1	04	VF4, XNL, X	
VG0		20	B0	20	VG0, XNL, X
VG1		21	B0	21	VG1, XNL, X
VG2		22	B0	22	VG2, XNL, X
VG4		23	B0	23	VG4, XNL, X
VG7		24	B0	24	VG7, XNL, X
CD0			N	54	CD0, XNL, X
CD1			N	53	CD1, XNL, X
CD2			N	52	CD2, XNL, X
CD4			N	51	CD4, XNL, X
CD7			N	50	CD7, XNL, X

**M. Two- or Four-Wire Tandem Call Incoming Trunk
Number Identification**

- | | | |
|---|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | Operate keys and set switches in accordance with Test Chart Test 60. | |
| 6 | Momentarily operate ST key. | TRL lamp lighted.
Trouble record taken.
Refer to Table F or G as required for designations perforated for combination of keys operated.
If UA option is provided—
If UB option is provided—
RPT, 5DG designations perforated. |
| 7 | Momentarily operate RL key. | All lamps extinguished. |
| 8 | Repeat Steps 5 through 9 for Test Chart Tests 61 through 69. | |

STEP

ACTION

VERIFICATION

TABLE C
MASTER TEST FRAME CONNECTOR

LEAD UNDER TEST	MASTER TEST CONN FR		DESIGNATIONS PERFORATED	LEAD UNDER TEST	MASTER TEST CONN FR		DESIGNATIONS PERFORATED
	TS	TERM			TS	TERM	
A'0	W0	15	A'0,XP,X	E'0	W0	20	E'0,XP,X
A'2		35	A'2,XP,X	E'1		21	E'1,XP,X
B'0		50	B'0,XP,X	E'2		22	E'2,XP,X
B'1		51	B'1,XP,X	E'4		23	E'4,XP,X
B'2		52	B'2,XP,X	E'7		24	E'7,XP,X
B'4		53	B'4,XP,X	F'0		10	F'0,XP,X
B'7		54	B'7,XP,X	F'1		11	F'1,XP,X
C'0		40	C'0,XP,X	F'2		12	F'2,XP,X
C'1		41	C'1,XP,X	F'4		13	F'4,XP,X
C'2		42	C'2,XP,X	F'7		14	F'7,XP,X
C'4		43	C'4,XP,X				
C'7		44	C'7,XP,X				
D'0		30	D'0,XP,X				
D'1		31	D'1,XP,X				
D'2		32	D'2,XP,X				
D'4		33	D'4,XP,X				
D'7		34	D'7,XP,X				

TABLE D
MASTER TEST FRAME CONTROL BAY
USING TS AS PROVIDED

LEAD UNDER TEST	TS	MASTER TEST CONTROL BAY USING TS AS PROVIDED		TERM	DESIGNATIONS PERFORATED
		TS	TERM		
* UK	MTFC-V2, V3; W0			M 39	XU
DTKA	MTFC-V2, V3; W0			M 45	CK7, XTKK
CK	MTFC-V1	MTFC-V1, B5		L 52	CK, XCK
DTK1	MTFC-V1	MTFC-V1, B5		L 53	XTKK

*Repeat the test on the UK lead with battery connected to this terminal. The perforations will be the same.

STEP	ACTION	VERIFICATION
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TABLE E

CD- OPERATED	DESIGNATIONS PERFORATED
1	CD-0, CD-1, B'2, B'4, 4W, 4WL
2	CD-0, CD-2, B'0, B'7, 4W, 4WL
3	CD-1, CD-2, B'0, B'7, 4W, 4WL
4	CD-0, CD-4, B'1, B'7, 4W, 4WL
5	CD-1, CD-4, B'2, B'7, 4W, 4WL
6	CD-2, CD-4, B'2, B'4, 4W, 4WL
8	CD-1, CD-7, B'1, B'7, 4W, 4WL

9 Restore all keys and switches not required in next test.

M1. Two-Wire Tandem Call—Incoming Class or Source Index Identification

5 Operate keys and set switches in accordance with Test Chart Test 70.

6 Momentarily operate ST key.

TRL lamp lighted.

Trouble record taken.

A'0, B'_, designations perforated identifying supplementary line and calling office index.
C'4, 7; D'4, 7; E'4, 7; F'_, designations perforated identifying incoming class or source index associated with tandem trunk.

TABLE F

(OFFICES EQUIPPED WITH 1000 TRUNK NUMBERS)

TEST NO.	DESIGNATIONS PERFORATED					TEST NO.	DESIGNATIONS PERFORATED				
	C'_	D'_	E'_	F'_	MISC		C'_	D'_	E'_	F'_	MISC
60	4,7	4,7	4,7	4,7	4WT	65	4,7	1,4	1,4	0,4	4WT
61	4,7	0,1	0,1	0,1	4WT	66	4,7	2,4	2,4	0,4	4WT
62	4,7	0,2	0,2	0,2	4WT	67	4,7	0,7	0,7	0,4	4WT
63	4,7	1,2	1,2	1,2	4WT	68	4,7	1,7	1,7	0,4	4WT
64	4,7	0,4	0,4	0,4	4WT	69	4,7	2,7	2,7		

STEP	ACTION	VERIFICATION
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→TABLE G←

(OFFICES EQUIPPED WITH MORE THAN 1000 TRUNK NUMBERS)

TEST NO.	DESIGNATIONS PERFORATED				TEST NO.	DESIGNATIONS PERFORATED			
	C'_	D'_	E'_	F'_		C'_	D'_	E'_	F'_
60	Corresponds	4,7	4,7	4,7	65	Corresponds	1,4	1,4	0,4
61	to Trunk	0,1	0,1	0,1	66	to Trunk	2,4	2,4	0,4
62	Thousands	0,2	0,2	0,2	67	Thousands	0,7	0,7	0,4
63	Digit as Set	1,2	1,2	1,2	68	Digit as Set	1,8	1,8	0,4
64	by FU Switch	0,4	0,4	0,4	69	by FU Switch	2,7	2,7	0,4

- | | | |
|---|--------------------------------------------------------------|-------------------------|
| 7 | Momentarily operate RL key. | All lamps extinguished. |
| 8 | Repeat Steps 5 through 7 for Test Chart Tests 71 through 79. | |

N. Two- to Four-Wire Crossover Call

- | | | |
|---|----------------------------------------------------------------------|---------------------------------------------------------------------------|
| 5 | Operate keys and set switches in accordance with Test Chart Test 80. | |
| 6 | Momentarily operate ST key. | TRL lamp lighted.
Refer to Table H for designations perforated. |
| 7 | Momentarily operate RL key. | All lamps extinguished. |
| 8 | Repeat Steps 5 through 7 for Test Chart Tests 81 through 119. | |
| 9 | Restore all keys and switches not required in next test. | |

O. Deleted**P. Cancel Two-Wire Record**

- | | | |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 5a | If office is arranged to cancel AMA records of 2-wire private network calls except MB9 calls and if 2WCR key is provided—
Operate 2WCR key. | 2WCR lamp lighted. |
| 6b | If office is arranged to cancel AMA records of 2-wire private network calls except MB9 calls and if CR_ jack is provided—
Insert make-busy plug into CR_ jack. | |

STEP	ACTION	VERIFICATION
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TABLE H

TEST NO.	DESIGNATIONS PERFORATED					TEST NO.	DESIGNATIONS PERFORATED				
	B'	C'	D'	E'	F'		B'	C'	D'	E'	F'
80	1, 4	2, 4	0, 7	1, 7	4, 7	100	2, 4	0, 7	1, 7	2, 7	4, 7
81	4, 7	0, 1	0, 2	1, 2	0, 4	101	0, 2	0, 1	1, 2	0, 4	1, 4
82	2, 4	0, 7	1, 7	2, 7	4, 7	102	0, 7	1, 7	2, 7	4, 7	4, 7
83	4, 7	0, 1	1, 2	0, 4	1, 4	103	1, 2	0, 1	0, 4	1, 4	2, 4
84	0, 7	1, 7	2, 7	4, 7	4, 7	104	1, 7	2, 7	4, 7	0, 1	4, 7
85	4, 7	0, 1	0, 4	1, 4	2, 4	105	0, 4	0, 1	1, 4	2, 4	0, 7
86	1, 7	2, 7	4, 7	0, 1	4, 7	106	2, 7	4, 7	0, 1	0, 2	4, 7
87	4, 7	0, 1	1, 4	2, 4	0, 7	107	1, 4	0, 1	2, 4	0, 7	1, 7
88	2, 7	4, 7	0, 1	0, 2	4, 7	108	4, 7	0, 1	0, 2	1, 2	4, 7
89	4, 7	0, 1	2, 4	0, 7	1, 7	109	2, 4	0, 1	0, 7	1, 7	2, 7
90	4, 7	0, 1	0, 2	1, 2	4, 7	110	0, 1	0, 2	1, 2	0, 4	4, 7
91	4, 7	0, 1	0, 7	1, 7	2, 7	111	0, 7	0, 1	1, 7	2, 7	4, 7
92	0, 1	0, 2	1, 2	0, 4	4, 7	112	0, 2	1, 2	0, 4	1, 4	4, 7
93	4, 7	0, 1	1, 7	2, 7	4, 7	113	1, 7	0, 1	2, 7	4, 7	0, 1
94	0, 2	1, 2	0, 4	1, 4	4, 7	114	1, 2	0, 4	1, 4	2, 4	4, 7
95	4, 7	0, 1	2, 7	4, 7	0, 1	115	2, 7	0, 1	4, 7	0, 1	0, 2
96	1, 2	0, 4	1, 4	2, 4	4, 7	116	0, 4	1, 4	2, 4	0, 7	4, 7
97	4, 7	0, 1	4, 7	0, 1	0, 2	117	4, 7	0, 1	0, 1	0, 2	1, 2
98	0, 4	1, 4	2, 4	0, 7	4, 7	118	1, 4	2, 4	0, 7	1, 7	4, 7
99	4, 7	0, 1	0, 1	0, 2	1, 2	119	0, 1	0, 1	0, 2	1, 2	0, 4

- | | | |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 7 | Operate keys and set switches in accordance with Test Chart Test 120. | |
| 8 | Momentarily operate ST key. | MRL lamp lighted.
Trouble record taken.
RK designation <i>not</i> perforated. |
| 9 | Momentarily operate RL key. | All lamps extinguished except 2WCR. |
| 10a | If office is arranged to cancel AMA records of 2-wire private network calls except MB9 calls and if 2WCR key is provided—
Release 2WCR key. | 2WCR lamp extinguished. |
| 11b | If office is arranged to cancel AMA records of 2-wire private network calls except MB9 calls and if CR_ jack is provided—
Remove make-busy plug from CR_ jack. | |
| 12 | Restore all keys and switches not required in next test. | |

STEP	ACTION	VERIFICATION
Q. Cancel Four-Wire Record		
5a	If office is arranged to cancel AMA records of 4-wire calls except MB9 calls and if 4WCR key is provided— Operate 4WCR key.	4WCR lamp extinguished.
6b	If office is arranged to cancel AMA records of 4-wire calls except MB9 calls and if CR_ jack is provided— Insert make-busy plug into CR_ jack.	
7	Operate keys and set switches in accordance with Test Chart Test 121.	
8	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. RK designation <i>not</i> perforated.
9	Momentarily operate RL key.	All lamps extinguished except 4WCR.
10a	If office is arranged to cancel AMA records of 4-wire calls except MB9 calls and if 4WCR key is provided— Restore 4WCR key.	4WCR lamp extinguished.
11b	If office is arranged to cancel AMA records of 4-wire calls except MB9 calls and if CR_ jack is provided— Remove make-busy plug from CR_ jack.	
12	Restore all keys and switches not required in next test.	
R. Forced Four-Line Entry		
5	Operate keys and set switches in accordance with Test Chart Test 122.	
6	Momentarily operate ST key.	MUD, TRL lamps lighted. Trouble record taken. A_ through G_ designations perforated identifying <i>called</i> office code and <i>called</i> number. If UX option is provided— 4L designation perforated.
7	Momentarily operate RL key.	All lamps extinguished.
8	Restore all keys and switches not required in next test.	

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STEP	ACTION	VERIFICATION
S. Checking Local Area Indices Using Four-Line Entries		
5	Operate keys and set switches in accordance with Test Chart Test 123.	
6	Momentarily operate ST key.	TRL lamp lighted. A'0, B'_ C'_ designations perforated identifying supplementary line, local area index for originating selected office code, and category of class of call index. D'_ through F'_ designations perforated identifying called office code.
7	Momentarily operate RL key.	All lamps extinguished.
8	Repeat Steps 5 through 7 for Test Chart Tests 124 through 152.	
9	Restore all keys and switches not required in next test.	
T. Traffic Sampling		
Route Not Arranged for Sampling		
5	Operate keys and set switches in accordance with Test Chart Test 153.	
6	Momentarily operate ST key.	◆MRL◆ lamp lighted. Trouble record taken. MB4, 7; NSP, CI1 designations perforated. A'2, B'_ designations perforated identifying last line of nonobserved initial entry. C'4, 7; D'4, 7 designations perforated identifying message billing index and mark for nonsampled call.
7	Momentarily operate RL key.	All lamps extinguished.
8	Restore all keys and switches not required in next test.	
Sampled Nonbillable Call		
9	Operate keys and set switches in accordance with Test Chart Test 154.	
10	Momentarily operate ST.	TRL lamp lighted. Trouble record taken. MB4, 7; SPC, CI1 designations perforated. A'2, B' designations perforated identifying last

STEP	ACTION	VERIFICATION
		line of nonobserved initial entry. C'4, 7; D'0, 1 designations perforated identifying message billing index and mark for sampled nonbillable call.
11	Momentarily operate RL key.	All lamps extinguished.
12	Restore all keys and switches not required in next test.	
Sampled Billable Call		
13	Operate keys and set switches in accordance with Test Chart Test 155. <i>Note:</i> MB3 or MB8 may be used instead of MB9 if necessary.	
14	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. SPC, CI1 designations perforated. A'2, B' _ designations perforated identifying last line of nonobserved initial entry. If MB9 is used— MB2, 7; C'2, 7; D'0, 1 designations perforated identifying message billing index and mark for sampled billable call. If MB3 is used— MB1, 2; C'1, 2; D'0, 1 designations perforated identifying message billing index and sampled billable call. If MB8 is used— MB1, 7; C'1, 7; D'0, 1 designations perforated identifying message billing index and mark for sampled billable call.
15	Momentarily operate RL key.	
16	Restore all keys and switches not required in next test.	
Second Trial Call		
17	Operate keys and set switches in accordance with Test Chart Test 156.	
18	Momentarily operate ST key.	NSP, 2TR, CI1 designations perforated. A'2, B' _ designations perforated identifying last line of nonobserved initial entry. C'4, 7; D'4, 7 designations perforated identifying message billing index and mark for nonsampled call.

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STEP	ACTION	VERIFICATION
19	Momentarily operate RL key.	All lamps extinguished.
20	Restore all keys and switches not required in next test.	
U. Information Code 411		
Local Area		
5	Operate keys and set switches in accordance with Test Chart Test 157.	
6	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. CP1, 2; LST, C14 designations perforated. A'0 designation perforated identifying supplementary line. B'4, 7; C'4, 7; D'4, 7; E'4, 7 designations perforated identifying no numericals for the called number. F'0, 1 designations perforated identifying class of call index.
7	Momentarily operate RL key.	All lamps extinguished.
8	Restore S4L key.	
9	Operate S3L key.	
10	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. CP1, 2; LST, C13 designations perforated. A'0 designation perforated identifying supplementary line. B'_ , C'_ designations perforated identifying local area index and category of class of call index. D'0, 4; E'0, 1; F'0, 1 designations perforated identifying called office code.
11	Momentarily operate RL key.	All lamps extinguished.
12	Restore all keys and switches not required in next test.	
Foreign Area—Compressed		
13	Operate keys and set switches in accordance with Test Chart Test 158.	TRL lamp lighted. Trouble record taken. CP2, 7; LST, C14 designations perforated. A'0 designation perforated identifying supplementary line.

STEP	ACTION	VERIFICATION
		B'4, 7; C'4, 7; D'4, 7; E'4, 7 designations perforated identifying no numerals for the called number. F'0, 1 designations perforated identifying class of call index.
15	Momentarily operate RL key.	All lamps extinguished.
16	Restore S4L key.	
17	Operate S3L key.	
18	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. CP2, 7; LST, CI3 designations perforated. A'0 designations perforated identifying compressed area code and category of class of call index. D'0, 4; E'0, 1; F'0, 1 designations perforated identifying called office code.
19	Momentarily operate RL key.	All lamps extinguished.
20	Restore all keys and switches not required in next test.	
Foreign Area—Noncompressed		
21	Operate keys and set switches in accordance with Test Chart Test 159.	
22	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. CP2, 7; LST, CI4 designations perforated. A'0 designation perforated identifying supplementary line. B'4, 7; C'4, 7; D'4, 7; E'4, 7 designations perforated identifying no numerals for the called number. F'0, 1 designations perforated identifying class of call index.
23	Momentarily operate RL key.	All lamps extinguished.
24	Restore S4L key.	
25	Operate S3L key.	
26	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. CP2, 7; LST, CI3 designations perforated. A'0 designation perforated identifying

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STEP	ACTION	VERIFICATION
		<p>supplementary line. B'_ C'_ designations perforated identifying local area index and category of class of call index. D'0, 4; E'0, 1; F'0, 1 designations perforated identifying <i>called</i> office code.</p>
27	Momentarily operate RL key.	
28	Restore S3L key.	All lamps extinguished.
29	Operate SFAL key.	
30	Momentarily operate ST key.	<p>CP2, 7; LST, CIFA designations perforated. A'0 designation perforated identifying supplementary line. B'4, 7; C'4, 7 designations perforated identifying filler digits. D'_ through F'_ designations perforated identifying foreign area code.</p>
31	Momentarily operate RL key.	All lamps extinguished.
32	Restore all keys and switches not required in next test.	

V. Continuity Check

- 5 Operate keys and set switches in accordance with Test Chart Test 158.
- 6 Operate TVT1, STE keys.
- 7 Select recorder.

Note: If emergency recorder is to be tested, check that emergency recorder is not in service.

- 8a If emergency recorder is to be tested—
 Insert make-busy plug into TN jack of regular recorder selected in Step 7.
- 9 At MTF—
 Momentarily operate ST key.

At recorder frame—
 EW lamp lighted.

At transverter frame—
 TA lamp lighted.
 Major alarm sounds.
 At MTF—
 TRL lamp lighted.
 Two trouble records taken.

First trouble record.
 A'0, B'_ C'_ through F'_ designations perforated

STEP	ACTION	VERIFICATION
		identifying supplementary line, <i>calling</i> index, and <i>calling</i> number.
		Second trouble record. A'2, B'1, 7; C'0, 7; D'4, 7; E'4, 7; F'4, 7 designations perforated identifying trouble entry.
10	At transverter frame— Momentarily operate AR key.	Major alarm silenced. TA lamp extinguished.
11	At MTF— Momentarily operate RL key.	TRL lamp extinguished.
12	Restore STE key.	
13	Repeat Steps 5 through 12 for Test Chart Tests 161 through 163.	
14	Operate keys and set switches in accordance with Test Chart Test 164.	
15	Momentarily operate ST key.	TRL lamp lighted. A'0 designation perforated identifying supplementary line. B'_ through E'_ designations perforated identifying <i>called</i> number. F'_ designation perforated identifying class of call index.
16	Momentarily operate RL key.	All lamps extinguished.
17	Repeat Steps 14 through 16 for Test Chart Tests 165 through 167.	
18	Repeat Steps 5 through 17 selecting a different recorder until all recorders associated with transverter under test have been selected.	
19a	If emergency recorder is selected— Remove make-busy plug from TN jack of regular recorder.	At recorder frame— EW lamp extinguished.
20	At MTF— Restore all keys and switches not required in next test.	
W. Trouble Detecting Feature for Falsely Operated 2L Relay		
5	Operate keys and set switches in accordance with Test Chart Test 168.	

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STEP	ACTION	VERIFICATION
6	Insert make-busy plug into TVMB_ jack of transverter under test.	
7	At transverter frame— Strap MI9 terminal to 2L terminal at the M1 terminal strip.	
8	At MTF— Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. MB2, 7; 2L designations perforated.
9	Momentarily operate RL key.	All lamps extinguished.
10	At transverter frame— Remove test connection from terminals MI9 and 2L at the M1 terminal strip.	
11	At MTF— Remove make-busy plug from TVMB_ jack.	
12	Restore all keys and switches not required in next test.	
X. Wideband Call Indication		
5	Operate keys and set switches in accordance with Test Chart Test 169.	
6	Momentarily operate ST key.	TRL lamp lighted. L5D, CI4 designations perforated. A'0 designation perforated identifying supplementary line. B'_ through E'_ designations perforated identifying <i>called</i> number. F'1, 2 or F'0, 7 designation perforated identifying class of call index.
7	Momentarily operate RL key.	All lamps extinguished.
8	Restore all keys and switches not required in next test.	
Y. Class-of-Call Index 6 and 8		
5	Operate keys and set switches in accordance with Test Chart Test 170.	
6	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. 1TR, CP1, 7; MB2, 7; CI4 designations perforated. A'0 designation perforated identifying

STEP	ACTION	VERIFICATION
		<p>supplementary line. B'_ through E'_ designations perforated identifying <i>called</i> number. F'2, 4 designations perforated identifying class of call index 6.</p>
7	Momentarily operate RL key.	All lamps extinguished.
8	◆Operate keys and set switches in accordance with Test Chart Test 171.◆	
9	Momentarily operate ST key.	<p>TRL lamp lighted. Trouble record taken. 1TR, ◆CP0, 1,◆ MB2, 7; CI4 designations perforated. A'0 designation perforated identifying supplementary line. B'_ through E'_ designations perforated identifying <i>called</i> number. F'2, 4 designations perforated identifying class of call index 6.</p>
10	Momentarily operate RL key.	All lamps extinguished.
11	◆Operate keys and set switches in accordance with Test Chart Test 172.◆	
12	Momentarily operate ST key.	<p>TRL lamp lighted. Trouble record taken. 1TR, ◆CP0, 7,◆ MB2, 7; CI4 designations perforated. A'0 designation perforated identifying supplementary line. B'_ through E'_ designations perforated identifying <i>called</i> number. F'2, 4 designations perforated identifying class of call index 6.</p>
13	Momentarily operate RL key.	All lamps extinguished.
14	◆Operate keys and set switches in accordance with Test Chart Test 173.	
15	Momentarily operate ST key.	<p>TRL lamp lighted. Trouble record taken. 1TR, CP1, 4; MB2, 7; CI4 designation perforated. A'0 designation perforated identifying supplementary line. B'_ through E'_ designations perforated identifying <i>called</i> number. F'1, 7 designations perforated identifying class-of call index 8.</p>

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STEP	ACTION	VERIFICATION
16	Momentarily operate RL key.	All lamps extinguished.
17	Operate keys and set switches in accordance with Test Chart Test 174.	
18	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. 1TR, CP4, 7; MB2, 7; CI4 designations perforated. A'0 designation perforated identifying supplementary line. B'_ through E'_ designations perforated identifying called number. F'1,7 designations perforated identifying class of call index 8.4
19	Momentarily operate RL key.	All lamps extinguished.
20	Restore all keys and switches.	

Z. Trouble Entry Record

5	Operate keys and set switches in accordance with Test Chart Test 175.	
6	Momentarily operate ST key.	TRL lamp lighted. Two trouble records taken. First trouble record— CP2, 7; MB2, 7; 4DG, CI4 designations perforated. A'0 designation perforated identifying supplementary line. B'_ through E'_ designations perforated identifying called number. F'_ designations perforated identifying class of call index. Second trouble record— A'2, B'1, 7; C'0, 7; D'4, 7; E'4, 7; F'4, 7; TEA, CI4 designations perforated identifying trouble entry.
7	Momentarily operate RL key.	All lamps extinguished.
8	Restore S4L key.	
9	Operate S3L key.	
10	Momentarily operate ST key.	TRL lamp lighted. Two trouble records taken. First trouble record— CP2, 7; MB2, 7; 4DG, CI4, CI3 designations perforated.

STEP	ACTION	VERIFICATION
		<p>A'0 designation perforated identifying supplementary line. B'_ C'_ designations perforated identifying area index and category of class of call. D'_ through F'_ designations perforated identifying called office code. Second trouble record— A'2, B'1, 7; C'0, 7; D'4, 7; E'4, 7; F'4, 7; TEA, CI4, CI3 designations perforated identifying trouble entry.</p>
11	Momentarily operate RL key.	All lamps extinguished.
12	Restore S3L key.	
13	Operate SFAL key.	
14	Momentarily operate ST key.	<p>TRL lamp lighted. Two trouble records taken. First trouble record— CP2, 7; MB2, 7; 4DG, CI4, CI3, CIFA designations perforated. A'0 designation perforated identifying supplementary line. B'4, 7; C'4, 7 designations perforated identifying filler digits. D'_ through F'_ designations perforated identifying foreign area code. Second trouble record— A'2, B'1, 7; C'0, 7; D'4, 7; E'4, 7; F'4, 7; TEA, CI4, CI3, CIFA designations perforated identifying trouble entry.</p>
15	Momentarily operate RL key.	All lamps extinguished.
16	Restore SFAL key.	
17	Operate S2L key.	
18	Momentarily operate ST key.	<p>TRL lamp lighted. Two trouble records taken. First trouble record— CP2, 7; MB2, 7; 4DG, CI4, CI3, CIFA, CI2 designations perforated. A'0 designation perforated identifying supplementary line. B'_ designations perforated identifying office index. C'_ through F'_ designations perforated identifying <i>calling</i> number. Second trouble record— A'2, B'1, 7; C'0, 7; D'4, 7; E'4, 7; F'4, 7;</p>

STEP	ACTION	VERIFICATION
		TEA, CI4, CI3, CIFA, CI2 designations perforated identifying trouble entry.
19	Momentarily operate RL key.	All lamps extinguished.
20	Restore S2L key.	
21	Operate S1L key.	
22	Momentarily operate ST key.	<p>TRL lamp lighted. Two trouble records taken. First trouble record— CP2, 7; MB2, 7; 4DG, CI4, CI3, CIFA, CI2 CI1 designations perforated. A'2, B'1, 4 designations perforated identifying last line of nonobserved 5-line initial entry. C'2, 7 designations perforated identifying message billing index tens digit. D' designations perforated identifying office index tens digit. Second trouble record— A'2, B'1, 7; C'0, 7; D'0, 2; E'4, 7; F'4, 7; TEA, CI4, CI3, CIFA, CI2, CI1 designations perforated identifying trouble entry of last line of initial entry.</p>
23	Momentarily operate RL key.	All lamps extinguished.
24	Restore all keys and switches not required in next test.	
AA. Initial Dataphone 50 Class of Call Index		
5	Operate keys and set switches in accordance with Test Chart Test 176.	
6	Momentarily operate ST key.	<p>TRL lamp lighted. Trouble record taken. CP4, 7; MB2, 7; L5D, CI4 designations perforated. A'0 designation perforated identifying supplementary line. B' through E' designations perforated identifying called number. F'0, 7 designations perforated identifying class of call index.</p>
7	Momentarily operate RL key.	All lamps extinguished.
8	Operate keys and set switches in accordance with Test Chart Test 177.	

STEP	ACTION	VERIFICATION
9	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. CP0, 4; MB2, 7; L5D, CI4 designations perforated. A'0 designation perforated identifying supplementary line. B'_ through E'_ designations perforated identifying <i>called</i> number. F'0, 7 designations perforated identifying class of call index.
10	Momentarily operate RL key.	All lamps extinguished.
11	Operate keys and set switches in accordance with Test Chart Test 178.	
12	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. CP1, 4; MB2, 7; L5D, CI4 designations perforated. A'0 designation perforated identifying supplementary line. B'_ through E'_ designations perforated identifying <i>called</i> number. F'0, 7 designations perforated identifying class of call index.
13	Momentarily operate RL key.	All lamps extinguished.
14	Restore all keys and switches not required in next test.	

**AB. ANI Features of Combined Transverter
SD-25591-01**

3	Select marker.
4	Select route advance.
5	Select code and digits required for ANI route.
6	Select ANI sender.
7	Select class of service and rate treatment as required.
8	Operate GPA/GPB when route is allotted.
9	Select class of call.
10	Operate ANI key.

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STEP	ACTION	VERIFICATION
11	Select line link location.	
12	At jack, lamp, and key circuit— Insert make-busy plug into TVC MB_ jack of transverter <i>not</i> under test in the transverter connector associated with the ANI sender selected in Step 6.	
Using Automatic Monitor, Register, and Sender Test Circuit SD-25689-01		
13	At MTF— Operate MAC key.	
	<i>Note:</i> Allow 1 minute for tubes to heat.	
14	Operate STT key.	
15	Select SDR class of test.	
16	Set CNA_ through CNG_ switches to calling line number.	
17	Set CRX_ switch to 0.	
18	Momentarily operate ST key.	OK lamp lighted.
19	Momentarily operate RL key.	All lamps extinguished.
20	Set CRX_ switch to 2.	
21	Operate SDT2 key.	
22	Momentarily operate ST key.	OK lamp lighted.
Using Sender Test Set SD-25674-01 (J24756A)		
23	Patch SDT1, SDT2 jacks of sender test set to MTF.	
24	Select SDT class of test.	
25	At sender test set— Operate REV key.	
26	Momentarily operate ST key.	TTC lamp lighted.
27	Release REV key.	A lamp lighted. D lamp momentarily lighted. 0 to 9 lamps momentarily lighted for each digit of called number outputted. D lamp momentarily lighted.

STEP	ACTION	VERIFICATION
28	Operate REV key.	D lamp momentarily lighted. 0 to 9 lamps momentarily lighted for information digit and each digit of calling number outpulsed.
29	Momentarily operate RL key.	All lamps extinguished.
30	At MTF— Operate SDT2 key.	
31	At sender test set— Momentarily operate ST key.	TTC lamp lighted.
32	Release REV key.	A lamp lighted. D lamp momentarily lighted. 0 to 9 lamps momentarily lighted for each digit of called number outpulsed. D lamp momentarily lighted.
33	Operate REV key.	D, 2 lamps momentarily lighted.
34	Momentarily operate RL key.	All lamps extinguished.
35	At jack, lamp, and key circuit— Remove make-busy plug from TVMB_ jack.	
36	At MTF— Remove all patching cords.	
37	Restore all keys and switches not required in next test.	

AC. Office Index Identification—ANI Mode

5	Operate keys and set switches in accordance with Test Chart Test 179.	
6	Operate ANI, TLV, REC keys.	TLV lamp lighted.
7a	If a tip party line is being verified— Operate TP key.	
8	Momentarily operate ST key.	MRL, TLVM, TVT lamps lighted. Trouble record taken. TVT, SPL, LVM, TV, DR_ designations perforated. OFT0, 1, or 2, OFF_, TH_, HN_, T_, U_ designations perforated identifying calling office index, and calling number received from the translator. A_ through G_ designations perforated identifying calling office code, and calling number normally transmitted to the outgoing sender.

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STEP	ACTION	VERIFICATION
9	Momentarily operate RL key.	All lamps extinguished.
10	Repeat Steps 5 through 9, as required for Test Chart Tests 180 through 208.	
11	Restore all keys and switches not required in next test.	
AD. Directory Assistance Charging		
5	Operate keys and set switches in accordance with Test Chart Test 209.	
6	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. RPT or TPT designations perforated. A'0, B'_, C'_ through F'_ designations perforated identifying supplementary line, calling office index, and calling number. If UX option is provided— 2L designation perforated.
7	Momentarily operate RL key.	All lamps extinguished.
8	Operate S1L, OBS keys.	
9	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. TV, CP1, 2; MB2, 4; LST, RN_, RNT_, OBS, RPT or TPT designations perforated. A'2, B'0, 1; C'2, 4; D'0, 1 designations perforated identifying entry index, message billing index units and tens digits. If UX option is provided— 2L designation perforated.
10	Momentarily operate RL key.	All lamps extinguished.
11	Restore S1L, OBS keys.	
12	Operate TR2, REC keys.	
13	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. 2TR, TGT designations perforated. Note: Apology entry placed on AMA tape.
14	Momentarily operate RL key.	All lamps extinguished.
15	Restore TR2 key.	

STEP	ACTION	VERIFICATION
16	Insert make-busy plug into AMAT-MB or TRNSL-MB jack of associated translator determined by selected line location as shown in LINE LOCATION columns of Test Chart. Note: Perform this test without delay. In offices arranged for LAMA, bulk billed calls made by customers served by the translator under test will be completed without a charge record. Detailed billed calls will be routed to overflow. In offices arranged for AIOD, calls made by PBX stations will be completed by billing to the listed PBX directory number, using operator identification.	
17	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. OF, TBY designations perforated.
18	Remove make-busy plug from AMAT-MB or TRNSL-MB jack of associated translator.	
19	Momentarily operate RL key.	All lamps extinguished.
20	Restore REC key.	
21	Repeat Steps 5 through 20, as required for Test Chart Test 210.	
22	Restore all keys and switches not required in next test.	
AE. Regular Call		
5	Operate keys and set switches in accordance with Test Chart Test 211.	
6	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. TOK, 1TR, designations perforated. RST_ designation perforated corresponding to recorder selected.
7	Momentarily operate RL key.	All lamps extinguished.
8	Repeat Steps 6 and 7 selecting a different transverter until all remaining transverters are tested.	
9	Restore all keys and switches not required in next test.	

5. PREPARATION OF TEST CHART

Note: Refer to paragraph 1.03.

5.01 The test chart is intended for use as a particular number chart. Information from local office records should be used to fill in the Test Chart in the following manner.

- (a) Record the line location or trunk equipment location of the **calling** number, in the LINE LOCATION columns.
- (b) Record the A_ through K_ digits for the **called** number, including foreign area codes as required, in the DIGITS, CODE AND NUMBER columns.
- (c) Record AD, OD, or RNT2 to indicate the tens digit of the recorder number associated with the **calling** number in the RECORDER NUMBER Column. (Record OD for tens digits 0, AD for tens digit 1, RNT2 for tens digit 2).
- (d) Record the control digit or digits required when making tests for 4-wire calls, in the CONT DIGIT columns.
- (e) Record a check mark in the 4W column to indicate that the 4W key is to be operated if the line location set up in LINE LOCATION column is for a 4-wire line.
- (f) Record the message billing index required for the **called** number, in the MB_ column.
- (g) Record the code pattern required for the **called** number, in the CP_ column.
- (h) Record LST, L5D, 4DG or 5DG to indicate the number structure for the **called** number, in the MISCELLANEOUS KEYS AND/OR SWITCHES column.
- (i) Record TP if tip party indication for the **calling** number is required in the MISCELLANEOUS KEYS AND/OR SWITCHES column.
- (j) Record the office index if selection is provided for the **calling** number, in the MISCELLANEOUS KEYS AND/OR SWITCHES column.

- (k) Record the office designation if test is for an AIOD call, in the AIOD column.

5.02 Test A

Apply (a) through (j) of paragraph 5.01.

5.03 Test B

- (1) For Tests 2 and 3, determine from local office records the compressed foreign area codes using 4-line entries and the noncompressed foreign area codes using 5-line entries. For tests 4 through 6, record three restricted foreign area codes as follows: one with any combination of digits from 20 through 90 that does not appear in any compressed code, one with any combination of digits 21 through 91 that does not appear in any compressed code, and one with any combination of digits where the first two digits appear in a compressed code and the third one does not.
- (2) For Tests 2 through 6, record the codes for the A_, B_, and C_ digits as determined in (1), in the DIGITS, CODE AND NUMBER columns.
- (3) For Tests 2 through 6, record any **called** number for the D_ through K_ digits as required, in the DIGITS, CODE and NUMBER columns.
- (4) Apply (a) and (c) of paragraph 5.01.

5.04 Test C

- (1) Record any message billing index except MB9, in the MB_ column.
- (2) Apply (a) through (e) and (g) through (j) of paragraph 5.01.

5.05 Test D

- (1) For Test 8, record a local office code for the A_, B_, and C_ digits and any four numerals for the D_ through G_ digits that requires **bulk billing**, in the DIGITS, CODE AND NUMBER columns.

(2) For Test 9, record a foreign area code that requires code compression for the A_, B_, and C_ digits, a local office code for the D_, E_, and F_ digits, and any four numerals for the G_ through K_ digits, in the DIGITS, CODE AND NUMBER columns.

(3) For Test 10, record a foreign area code that cannot be compressed for the A_, B_, and C_ digits, a local office code for the D_, E_, and F_ digits, and any four numerals for the G_ through K_ digits, in the DIGITS, CODE AND NUMBER columns.

(4) Apply (a) and (c) through (k) of paragraph 5.01.

5.06 Test E

(1) For Test 11, record a local office code for the A_, B_, and C_ digits and any four numerals for the D_ through G_ digits that requires **bulk billing**, in the DIGITS, CODE AND NUMBER columns.

(2) For Test 12, record a foreign area or local office code for the A_, B_, and C_ digits, an office code for the D_, E_, and F_ digits, and any four numerals for the G_ through K_ digits when used with a foreign area code, or any four numerals for the D_ through G_ digits when used with a local office code that requires **detail billing** in the DIGITS, CODE AND NUMBER columns.

(3) Apply (a) and (c) through (j) of paragraph 5.01

5.07 Test F

Apply (a) through (j) of paragraph 5.01

5.08 Test G

(1) Record any message billing index except MB9, in the MB_ column.

(2) Apply (a) through (e) and (g) through (j) of paragraph 5.01.

5.09 Test H

(1) Record the line location of the **calling number** served by the associated translator, in the LINE LOCATION columns.

(2) Record the A_, B_, C_, and D_ digits for the directory or billing number thousands, hundreds, tens, and unit digits of the **calling number**, in the DIGITS, CODE AND NUMBER columns.

(3) Record the A or B, physical, theoretical, or extra theoretical office designation, in the MISCELLANEOUS KEYS AND/OR SWITCHES column.

(4) Apply (c) through (j) of paragraph 5.01.

5.10 Test I

Apply (a) through (k) of paragraph 5.01.

5.11 Test J

(1) For Test 17, apply (a) through (k) of paragraph 5.01.

(2) For Test 18, determine from local office records the equipment location for a calling line that is served by the first G_ relay in any translator and record in LINE LOCATION columns.

(3) For Test 18, apply (b) through (k) of paragraph 5.01.

5.12 Test K

(1) Determine from local office records the line or trunk location and the corresponding directory number of AIOD translated trunk for a line or trunk in each vertical group associated with each translator. If necessary, select line or lines so that the directory numbers or translated trunk numbers include each office index 0 through 9 or 0 through 29 if provided and each calling line numerical 0 through 9 in the thousands, hundreds, tens, and units position for which each translator is wired. Record the selected line location numbers on the Test Chart as indicated in 5.01(a). The Test Chart provides spaces for 34 tests. If this is sufficient for a particular office, copy the Test Chart and add as many sheets as necessary.

(2) One called number may be used for all tests.

(3) Apply (b) through (k) of paragraph 5.01.

5.13 Test L

(1) For Tests 53 through 59, determine from local office records a line location associated with a 4-wire line link frame. Record the selected line location in the LINE LOCATION column.

(2) Select a local 4-wire office code which requires control digit translation and record this code for the A_, B_, and C_ digits and any four numerals for the D_ through G_ digits, in the DIGITS, CODE AND NUMBER columns. One number may be used for all tests.

(3) Apply (c), (f), (g), (h), and (j) of paragraph 5.01.

5.14 Test M

(1) For Tests 60 through 69, record a line link frame number in FRAME NO. TENS and UNITS or if office is equipped with more than 1000 trunk numbers, enter FU switch setting for trunk number thousands in FRAME NO. UNITS, in LINE-LOCATION columns (see Table I).

(2) If office is arranged for control digit translation, record the control digit (CD) which authorizes spillover, in the CONT DIGIT column.

(3) Record TP if UA option is provided, in the MISCELLANEOUS KEYS AND/OR SWITCHES column.

(4) Apply (b), (c), (f), (g), and (j) of paragraph 5.01.

TABLE I

TRUNK THOUSANDS DIGIT	FU SWITCH SETTING
0	7
1	8
2	9
3	0

5.15 Test M.1

(1) For tests 70 through 79, record a line link frame number in FRAME NO. TENS and UNITS column.

(2) If office is arranged for control digit translation, record the control digit (CD) which authorizes spillover, in the CONT DIGIT column.

(3) Apply (b), (c), (f), and (g) of paragraph 5.01.

5.16 Test N

(1) For Tests 70 through 109, determine from local office records a line location associated with a 2-wire line link frame, if the office is arranged for crossover with code pattern zero or five. Record the selected line location in the LINE LOCATION columns.

(2) Apply (c), (f), and (j) of paragraph 5.01.

5.17 Test P

(1) Determine from local office records any message billing index associated with a private network 2-wire office code. Record the selected message billing index in the MB_ column.

(2) Apply (a), (b), (c), (g), through (j) of paragraph 5.01.

5.18 Test Q

(1) Determine from local office records any line location associated with a 4-wire line link frame. Record the selected line location, in the LINE LOCATION columns.

(2) Apply (b) through (h) of paragraph 5.01.

5.19 Test R

(1) Determine from local office records any number that requires bulk billing. Record this number for the A_ through G_ digits in the DIGITS, CODE AND NUMBER columns.

(2) Apply (c), (e) through (k) of paragraph 5.01.

5.20 Test S

(1) For Tests 113 through 142, determine from local office records a line location for each originating office code served by the transverter group. Record the selected line locations in LINE LOCATION columns.

(2) Record a called office code that is in the home numbering plan area of each office for the A_, B_, and C_ digits as determined in (1), in the DIGITS, CODES AND NUMBERS columns.

(3) Record any four numerals for the D_ through G_ digits in the DIGITS, CODES AND NUMBER columns.

(4) Apply (c) of paragraph 5.01.

5.21 Test T

(1) For Test 143, set up a 2-line entry call and choose an outgoing AMA route not arranged for sampling.

(2) For Test 144, set up a sample nonbillable call.

(3) For Test 145, set up a sample billable call.

(4) Apply (a) through (h), (j), and (k) of 5.01.

5.22 Test U

Apply (a), (c) through (g), (j), and (k) of paragraph 5.01.

5.23 Test V

(1) For Tests 148 through 151, set up a 2-line entry call.

(2) Determine from local records line link frame numbers, vertical group, horizontal group, vertical file locations of four customer lines arranged for AMA that have 0, 1, 3, 6 for directory number units digits.

Note: If directory numbers having these units digits cannot be obtained, select any other combination of directory numbers which will test all F (0, 1, 2, 4, 7) leads to all perforators.

(3) Record the selected line location as determined in (1), in the LINE LOCATION columns.

(4) Record a message billing index that corresponds to a 2-line entry, in the MB_ column.

(5) Apply (b), (e), and (g) through (k) of paragraph 5.01.

(6) For Tests 148 through 151, set up a 4-line entry call.

(7) Record a message billing index that corresponds to a 4-line entry, in the MB_ column.

(8) Repeat (2), (3), and (5).

5.24 Test W

Apply (a) through (c) and (h) of paragraph 5.01.

5.25 Test X

Apply (a) through (c) of paragraph 5.01.

5.26 Test Y

(1) Record the line location for *local* or trunk equipment location for *tandem* CCSA to WATS trunk, in the LINE LOCATION columns.

(2) Record 4DG for *local* or 5DG for *tandem* CCSA to WATS trunk, in the MISCELLANEOUS KEYS AND/OR SWITCHES column.

(3) Record the numbering plan area code (NXX) for the E_, F_, and G_ digits and any four numerals for the H_ through L_ digits, in the DIGITS CODE AND NUMBER columns.

(4) Apply (c) through (e) (i), and (j) of paragraph 5.01.

5.27 Test Z

(1) Record a foreign area code that cannot be compressed for the A_, B_, and C_ digits, a local office code for the D_, E_, and F_ digits, and any four numerals for the G_ through K_ digits, in the DIGITS, CODE AND NUMBER columns.

- (2) Apply (a), (c) through (e) and (h) through (j) of paragraph 5.01.

5.28 Test AA

Apply (a) through (e) and (h) through (j) of paragraph 5.01.

5.29 Test AC

- (1) Determine from local office records calling line locations and corresponding directory or billing numbers served by the associated ANI translator. Select the line locations to use each **calling office index units digit** (0-9) to provide ten indices for each of three **calling office index tens digit** (0, 1, and 2) in offices equipped to provide thirty indices.

- (2) Record the line location of the **calling** number as determined in (1) in the LINE LOCATION columns.

- (3) Record the A_, B_, C_, and D_ digits for the directory number thousands, hundreds, tens, and unit digits of the **calling** number as determined in (1), in the DIGITS, CODE AND NUMBER columns.

- (4) Record the A and B, physical, theoretical, or extra theoretical office designation, in the MISCELLANEOUS KEYS AND/OR SWITCHES column.

5.30 Test AD

Apply (a), (c), (g) and (i) of paragraph 5.01.

5.31 Test AE

Apply (a), (b), (c), (f), and (g) of paragraph 5.01.♦

→TEST CHART (Cont)←

TEST	TYPE OF TEST	TEST NO.	MASTER TEST FRAME KEYS AND SWITCHES																								TEST NO.	TEST												
			LINE LOCATION				DIGITS, CODE AND NUMBER										RCDR No.		CONT DIGIT		MISCELLANEOUS																			
			FRAME NO.		VERT GRP		HORIZ GRP	VERT FILE	A	B	C	D	E	F	G	H	J	K	AD/OD RNT2	RN	CD	CDP	4W	MB-	CP-	KEYS AND/OR SWITCHES						AIOD								
			TENS	UNITS	TENS	UNITS																				S2L			5DG											
M (Cont)		68			8	8	4											1										S2L							68	M				
		69			9	9	4												1										S2L							69	(Cont)			
M.1	Two-Wire Tandem Call — Incoming Class or Source Index Identification	70			0	0	0												1									2SL	5DG							70	M.1			
		71			0	0	0	1												1									2SL	5DG								71		
		72			0	0	0	2												1									2SL	5DG								72		
		73			0	0	0	3													1									2SL	5DG								73	
		74			0	0	0	4													1									2SL	5DG								74	
		75			0	0	0	5														1								2SL	5DG								75	
		76			0	0	0	6														1								2SL	5DG								76	
		77			0	0	0	7														1								2SL	5DG								77	
		78			0	0	0	8														1								2SL	5DG								78	
		79			0	0	0	9														1								2SL	5DG								79	
		N	Two- to Four-Wire Crossover Call	80						0	1	2	3	4	5	6	7	8			1									0	S4L									80
81								0	1	2	3	4	5	6	7	8			1									0	S3L									81		
82								1	2	3	4	5	6	7	8	9			1									0	S4L										82	
83								1	2	3	4	5	6	7	8	9			1									0	S3L									83		
84								2	3	4	5	6	7	8	9	0			1									0	S4L										84	
85								2	3	4	5	6	7	8	9	0			1									0	S3L									85		
86								3	4	5	6	7	8	9	0	1			1									0	S4L										86	
87								3	4	5	6	7	8	9	0	1			1									0	S3L									87		
88								4	5	6	7	8	9	0	2	2			1									0	S4L										88	
89								4	5	6	7	8	9	0	2	2			1									0	S3L									89		
90								5	6	7	8	9	0	1	3	3			1									0	S4L									90		
91								5	6	7	8	9	0	1	3	3			1									0	S3L									91		
92								6	7	8	9	0	1	2	4	4			1									0	S4L									92		
93								6	7	8	9	0	1	2	4	4			1									0	S3L									93		
94								7	8	9	0	1	2	3	5	5			1									0	S4L									94		
95								7	8	9	0	1	2	3	5	5			1									0	S3L									95		
96								8	9	0	1	2	3	4	6	6			1									0	S4L									96		
97								8	9	0	1	2	3	4	6	6			1									0	S3L									97		
98								9	0	1	2	3	4	5	7	7			1									0	S4L									98		
99								9	0	1	2	3	4	5	7	7			1									0	S3L									99		
100						0	1	2	3	4	5	6	8	8	9			1								0	S4L									100				
101						0	1	2	3	4	5	6	8	8	9			1								0	S3L									101				
102						1	2	3	4	5	6	7	9	9	0			1								0	S4L									102				
103						1	2	3	4	5	6	7	9	9	0			1								0	S3L									103				
104						2	3	4	5	6	7	8	9	0	1			1								0	S4L									104				
105						2	3	4	5	6	7	8	9	0	1			1								0	S3L									105				
106						3	4	5	6	7	8	9	0	1	2			1								0	S4L									106				
107						3	4	5	6	7	8	9	0	1	2			1								0	S3L									107				

