

LAMA TRANSVERTER SD-27809-01
TESTS USING MASTER TEST FRAME
NO. 5 CROSSBAR OFFICES
ARRANGED FOR AMA MAGNETIC TAPE RECORDING

1. GENERAL

PAGE

1.01 This section describes a method of testing transverter SD-27809-01 in No. 5 crossbar offices arranged for AMA magnetic tape recording. Tests are also included for transverters arranged for ANI or PBX-AIOD service.

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 not affected.

- (a) Add paragraph 1.14.
- (b) To revise Test G, to include charging for Information calls and add 7 or 10 digit calling for WATS AFR service.
- (c) To include trouble record designations in Test B.

1.03 The tests covered are:

PAGE

A. Regular and Emergency Trunk Control Seizure: The following features are checked: (1) The seizure of each trunk control by the transverter. (2) The ability of the transverter to seize the emergency trunk control when a regular trunk control is removed from service. **4**

B. Trunk Control Make-Busy Feature: This test checks transverter functions when a trunk control is made busy and the emergency trunk control is not available for service. **5**

C. Call Through to Recording System: This test checks the ability of the transverter to seize each recorder channel and to enter a complete initial entry on the magnetic tape. **6**

D. Output Lead Integrity Check: This test checks all transverter output leads to the recording system for continuity and data recording. **6**

E. Message Unit Entry: This test checks the ability of the transverter to generate a 10- character pair message unit initial entry. **9**

F. Message Unit Detailed Entry: This test checks the ability of the transverter to generate a 14 or 15 character pair initial entry, depending on optional message billing index recording. **9**

G. Special Calls: This test checks the ability of the transverter to recognize the various special calls and generate the proper data for initial entry recording. **11**

H. Detailed Bill—Message Unit Call: This test checks that the proper entry index is passed to the recorder when a message unit call is to be detail billed under control of a key of the master test frame (MTF) jack, lamp, and key circuit. **21**

I. LAMA Translator Make-Busy Feature: The following features

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are checked: (1) When handling a LAMA call and the desired translator is made busy, the transverter will transmit an overflow indication to the sender for message billing index 9 or give a regular release for other message billing indexes. (2) When handling an ANI call the transverter will transmit an overflow indication to the sender when the desired translator is made busy. 33

J. Translator Selection and Directory Number Register Relays: The following features are checked: (1) Proper translator selection and check of transpositions in the directory number relay wiring in the translator and transverter. (2) Correct translation when an AIOD translator is provided. 34

K. Translation of Office Index and Four Numerical Digits Into a 7-Digit Directory Number: Information received from the translator is checked for the following: (1) Proper translation into a 7-digit directory number for transmission to the recording system on LAMA and PBX-AIOD calls. (2) Proper translation into a 7-digit directory number for calling line identification to the sender on ANI calls. 35

L. PBX-AIOD Translator Make-Busy and No Station Number Available: The following features are checked: (1) Alternate billing treatment will be provided when an AIOD translator made-busy or second trial condition is encountered. (2) Transverter action when the desired station number is not registered in the memory unit of the PBX equipment. 36

M. Transfer of Start Lead From Transverter Connector (LAMA Calls Only): This test checks that the transverter takes a trouble record when the transverter connector fails to connect to the preferred transverter in the chain. 38

N. Recorder Trouble Feature and Second Trial Calls Free: The following features are checked: (1) After recorder seizure, a stop progress signal is sent to the transverter by the recorder when trouble is encountered during data recording. (2) The recorder will signal the transverter to take the trouble record when a data recording trouble is encountered and the trouble recording portion of the recorder is not available. (3) The routing of all second trial calls free when the transfer and make-busy circuit determines the on-line recorder is in marginal or complete failure trouble condition. 38

O. False Ground on Trunk TC Lead: This test checks transverter action when a false ground is detected on the trunk TC lead. 39

P. Trouble Release—MTFC Busy: This test checks transverter release when the MTFC is busy serving a connecting circuit and the transverter attempts a trouble record. 39

Q. Recorder Channel Not Available for Test Call: The following features are checked: (1) Call-through type tests cannot be completed if the recorder channel selected for test is made busy. (2) With a 2-channel recording system, a dummy recorder-type test cannot be completed to the selected channel if the alternate channel is made busy. 40

R. Second Trial Feature—ANI: This test checks transverter functions when second trial troubles are encountered prior to registration of calling line identification in the sender. 41

S. Digit Registration Check Relays—ANI: This test checks for operation of the transverter digit registration check relays and transverter release after calling line identification is registered in the sender. 41

PAGE

T. Trunk Control, Translator Service Busy, Translator Cut-in

Check Features: The following features are checked: (1) Transverter action when a trunk control service busy condition is encountered and the condition exists for 3.0 to 3.5 seconds. (2) Transverter action when a translator service busy condition is encountered and the condition exists for 3.0 to 3.5 seconds. (3) The operation of the translator cut-in check relay. . . . 42

1.04 Test I requires making an AMA translator busy. Test L requires making an AIOD translator busy.

1.05 Tests A, T require action and verification at the trunk control frame. Tests L, N, T require action at the transverter frame. Test Q requires action and verification at the recorder frame.

1.06 For Tests P, Q, and T, Test Charts are furnished with spaces provided for listing specific keys and switches to be operated for each test, depending on local conditions. These charts should be filled in from office records in accordance with instructions provided in Part 5, Preparation of Test Chart.

1.07 Table A is provided as a reference for trouble recorder card perforations. In those cases where the numerical designation is not shown with the lettered designation of the perforation, the space should be filled in, depending on test keys and switches operated.

1.08 Tests A, C through P, and T will cause the REC PC plant register to score. Local instructions should be followed for recording and reporting these operations.

1.09 Tests of other trouble detecting features, as well as miscellaneous tests, are covered in Section 218-173-502.

1.10 **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.

1.11 The manner of selecting some circuits and test conditions at the master test frame (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.

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

1.13 In heavy traffic, the recorder may time out due to a delay in channel selection.

1.14 ♦If Test C is performed while the recorder and recorder control circuit (RRC) is handling service traffic, CPL alarm may occur in the RRC circuit. The alarm is only an indication that testing is affecting AMA recording. The alarm is retired by operating the ACC and ARC/MJC keys at the RRC frame. It is further recommended to perform this test with the CHS key normal (random channel selection) during periods of heavy AMA traffic.♦

2. APPARATUS**All Tests**

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

Tests A, I, L, N, P, T

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

Test L

2.03 Testing cord, 893 cord, 3 feet long, equipped with two 360A tools (1W13A cord) and two 419A test connectors.

Tests N, T

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

Test T

contacts of wire-spring relays to terminal strip terminals or ground).

2.05 Testing cord, 893 cord, 3 feet long, equipped with two 360A tools (1W13A cord), one 651A (contact connector holder) tool, one 639A (contact connector) tool, one 624B (terminal connector) tool or one KS-6278 connecting clip (for connecting fixed

2.06 Testing cord, 893 cord, 3 feet long, equipped with two 360A tools (1W13A cord), one 419A (test connector) tool and one 624B (terminal connector) tool (for connecting movable contacts of wire-spring relays to terminal strip terminals).

3. PREPARATION

STEP	ACTION	VERIFICATION
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Tests A Through Q, T

Note: Refer to paragraphs 1.11 and 1.12.

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|---|---|-------------------------|
| 1 | At MTF—
Restore all keys and switches. | |
| 2 | Momentarily operate RL key. | All lamps extinguished. |
| 3 | Select transverter. | |
| 4 | Select TVT(AMA) class of test. | |

Tests A, C Through Q, T

- | | | |
|---|-------------------|--|
| 5 | Operate TVT1 key. | |
|---|-------------------|--|

Tests D Through Q, T

- | | | |
|---|-----------------------|--|
| 6 | Operate DR, RST keys. | |
|---|-----------------------|--|

Tests B, D Through H and K

- | | | |
|---|-------------------|--|
| 7 | Operate RECE key. | |
|---|-------------------|--|

4. METHOD

STEP	ACTION	VERIFICATION
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A. Regular and Emergency Trunk Control Seizure

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|---|---|---|
| 6 | Operate keys and set switches in accordance with Test Chart Test 1. | |
| 7 | Momentarily operate ST key. | TC_lamp associated with trunk control selected for test momentarily lighted.
DNK, DIS1, MRL, NRST lamps lighted. |
| 8 | Momentarily operate RL key. | All lamps extinguished. |

STEP	ACTION	VERIFICATION
9	Verify that emergency trunk control is not in service or made busy.	TC, TC EMER lamps extinguished.
10	Insert make-busy plug into TC- TR jack associated with trunk control selected for this test.	TC_lamp associated with trunk control selected lighted. At trunk control frame— EW lamps lighted for transferred and emergency trunk control.
11	At MTF— Momentarily operate ST key.	TC EMER lamp momentarily lighted. DNK, DIS1, MRL, NRST lamps lighted.
12	Momentarily operate RL key.	All lamps extinguished.
13	Remove make-busy plug from TC- TR jack.	TC_lamp extinguished. At trunk control frame— EW lamps extinguished.
14	Repeat Steps 6 through 13 for Test Chart Tests 2 through 10, as required, for each trunk control provided.	
15	Restore all keys and switches not required in next test.	

B. Trunk Control Make-Busy Feature

Toll Statement

5	Operate keys and set switches in accordance with Test Chart Test 11.	
6	Momentarily operate ST key.	BT-OF lamp lighted. ◆Trouble record taken. RB, OF designations perforated.◆
7	Momentarily operate RL key.	All lamps extinguished.

Message Unit

8	Operate keys and set switches in accordance with Test Chart Test 12.	
9	Momentarily operate ST key.	DIS1, MRL lamp lighted. ◆Trouble record taken. RB designation perforated.◆
10	Momentarily operate RL key.	All lamps extinguished.
11	Restore all keys and switches not required in next test.	

STEP	ACTION	VERIFICATION
C. Call Through to Recording System		
6	Operate keys and set switches in accordance with Test Chart Test 13.	
7	Momentarily operate ST key.	DNK, CS, RST, TTC, CTV, IEC, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted.
8	Momentarily operate RL key.	All lamps extinguished.
9	Operate RCH1 key.	
10	Repeat Steps 7 and 8.	
11a	If 3-channel recording system is provided— Operate RCH2 key.	
12a	Repeat Steps 7 and 8.	
13	Repeat Steps 1 through 12a during a heavy traffic period. Refer to paragraph 1.13.	
14	Restore all keys and switches not required in next test.	
D. Output Lead Integrity Check		
8	Operate keys and set switches in accordance with Test Chart Test 14.	
9	Operate RAL0 key.	
10	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 1, Level 0 for designations perforated.
11	Momentarily operate RL key.	All lamps extinguished.
12	Operate RCH1 key.	
13	Repeat Steps 10 and 11.	
14	Restore RCH1 key.	
15a	If 3-channel recording system is provided— Operate RCH2 key.	
16a	Repeat Steps 10 and 11.	

STEP	ACTION	VERIFICATION
17a	Restore RCH2 key.	
18	Operate RAL1 key.	
19	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 1, Level 1 for designations perforated.
20	Momentarily operate RL key.	All lamps extinguished.
21	Operate RCH1 key.	
22	Repeat Steps 19 and 20.	
23	Restore RCH1 key.	
24a	If 3-channel recording system is provided— Operate RCH2 key.	
25a	Repeat Steps 19 and 20.	
26a	Restore RCH2 key.	
27	Restore RAL1 key.	
28	Operate RAL2 key.	
29	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 1, Level 2 for designations perforated.
30	Momentarily operate RL key.	All lamps extinguished.
31	Operate RCH1 key.	
32	Repeat Steps 29 and 30.	
33	Restore RCH1 key.	
34a	If 3-channel recording system is provided— Operate RCH2 key.	
35a	Repeat Steps 29 and 30.	
36a	Restore RCH2 key.	

SECTION 218-173-501

STEP	ACTION	VERIFICATION
37	Operate RAL3 key.	
38	Momentarily operate ST key.	DRST, CS, DNK, IEC, LCP, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 1 Level 3 for designations perforated. <i>Note:</i> CL_, CR_, DL_, DR_ designations associated with Level 2 also perforated.
39	Momentarily operate RL key.	All lamps extinguished.
40	Operate RCH1 key.	
41	Repeat Steps 38 and 39.	
42	Restore RCH1 key.	
43a	If 3-channel recording system is provided— Operate RCH2 key.	
44a	Repeat Steps 38 and 39.	
45a	Restore RCH2 key.	
46	Restore RAL3 key.	
47	Operate keys and set switches in accordance with Test Chart Test 15.	
48	Repeat Steps 9 through 46.	Refer to Table A, Column 2 for designations perforated.
49	Operate keys, set switches in accordance with Test Chart Test 16.	
50	Repeat Steps 9 through 46.	Refer to Table A, Column 3 for designations perforated.
51	Operate keys and set switches in accordance with Test Chart Test 17.	
52	Repeat Steps 9 through 46.	Refer to Table A, Column 4 for designations perforated.
53	Restore all keys and switches not required in next test.	

STEP	ACTION	VERIFICATION
E. Message Unit Entry		
8	Operate keys and set switches in accordance with Test Chart Test 18.	
9	Operate RAL0 key.	
10	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 5, Level 0 for designations perforated.
11	Momentarily operate RL key.	All lamps extinguished.
12	Operate RAL1 key.	
13	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 5, Level 1 for designations perforated.
14	Momentarily operate RL key.	All lamps extinguished.
15	Restore RAL1 key.	
16	Momentarily operate ST key.	DRST, CS, DNK, LCP, IEC, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 5, Level 2 for designations perforated.
Note: CL_, CR_, DL_, DR_ designations associated with Level 1 also perforated.		
17	Momentarily operate RL key.	All lamps extinguished.
18	Restore all keys and switches not required in next test.	
F. Message Unit Detailed Entry		
8	Operate keys and switches in accordance with Test Chart Test 19.	
9	Operate RAL0 key.	

SECTION 218-173-501

STEP	ACTION	VERIFICATION
10	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 6, Level 0 for designations perforated.
11	Momentarily operate RL key.	All lamps extinguished.
12	Operate RAL1 key.	
13	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 6, Level 1 for designations perforated.
14	Momentarily operate RL key.	All lamps extinguished.
15	Restore RAL1 key.	
16	Operate RAL2 key.	
17	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 6, Level 2 for designations perforated.
18	Momentarily operate RL key.	All lamps extinguished.
19	Operate RAL3 key.	
20	Momentarily operate ST key.	DRST, CS, DNK, IEC, DIS1, MRL, LCP lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 6, Level 3 for designations perforated.
		Note: If message billing index is recorded, DL_, DR_ designations associated with Level 2 also perforated. If message billing index is not recorded, CL_, CR_, DL_, DR_ designations associated with Level 2 also perforated.
21	Momentarily operate RL key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
22	Restore all keys and switches not required in next test.	
G. Special Calls		
Information		
8	Operate keys and set switches in accordance with Test Chart Test 20.	
9	Operate RAL0 key.	
10	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 7, Level 0 for designations perforated.
11	Momentarily operate RL key.	All lamps extinguished.
12	Operate RAL1 key.	
13	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 7, Level 1 for designations perforated.
14	Momentarily operate RL key.	All lamps extinguished.
15	Restore RAL1 key.	
16	Operate RAL2 key.	
17	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 7, Level 2 for designations perforated.
18	Momentarily operate RL key.	All lamps extinguished.
19	Operate RAL3 key.	
20	Momentarily operate ST key.	DRST, CS, DNK, IEC, DIS1, MRL, LCP lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken.

SECTION 218-173-501

STEP	ACTION	VERIFICATION
		Refer to Table A, Column 7, Level 3 for designations perforated.
		Note: CL_, CR_, DL_, DR_ designations associated with Level 2 also perforated.
21	Momentarily operate RL key.	All lamps extinguished.
22	Restore RAL3 key.	

WATS—Automatic Flexible Routing Call

23	Operate keys and set switches in accordance with Test Chart Test 21.	
24	Operate RAL0 key.	
25	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 8, Level 0 for designations perforated.
26	Momentarily operate RL key.	All lamps extinguished.
27	Operate RAL1 key.	
28	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 8, Level 1 for designations perforated.
29	Momentarily operate RL key.	All lamps extinguished.
30	Restore RAL1 key.	
31	Operate RAL2 key.	
32	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 8, Level 2 for designations perforated.
33	Momentarily operate RL key.	All lamps extinguished.
34	Operate RAL3 key.	

STEP	ACTION	VERIFICATION
35	Momentarily operate ST key.	DRST, CS, DNK, IEC, DIS1, MRL, LCP lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 8, Level 3 for designations perforated. <i>Note:</i> DL, DR designations associated with Level 2 also perforated.
36	Momentarily operate RL key.	All lamps extinguished.
37	Restore RAL3 key.	
Wideband and DATAPHONE® 50 Calls		
38	Operate keys and set switches in accordance with Test Chart Test 22.	
39	Operate RAL1 key.	
40	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 9, Level 1 for designations perforated.
41	Momentarily operate RL key.	All lamps extinguished.
42	Change code pattern selection to CP5.	
43	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. BL0, BL7 designations perforated.
44	Momentarily operate RL key.	All lamps extinguished.
Tandem Call—Less Than 1000 Trunk Numbers		
45	Operate keys and set switches in accordance with Test Chart Test 23.	
46	Operate RAL0 key.	
47	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken.

SECTION 218-173-501

STEP	ACTION	VERIFICATION
		Refer to Table A, Column 10, Level 0 for designations perforated.
48	Momentarily operate RL key.	All lamps extinguished.
49	Operate RAL1 key.	
50	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 10, Level 1 for designations perforated.
51	Momentarily operate RL key.	All lamps extinguished.
52	Restore RAL1 key.	
53	Operate RAL2 key.	
54	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 10, Level 2 for designations perforated.
55	Momentarily operate RL key.	All lamps extinguished.
56	Operate RAL3 key.	
57	Momentarily operate ST key.	DRST, CS, DNK, IEC, DIS1, MRL, LCP lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 10, Level 3 for designations perforated.
		Note: CL_, CR_, DL_, DR_ designations associated with Level 2 also perforated.
58	Momentarily operate RL key.	All lamps extinguished.
59	Restore RAL3 key.	
60	Repeat Steps 45 through 59 for Test Chart Tests 24 through 26.	Refer to Table A, Columns 11 through 13 for designations perforated.

STEP	ACTION	VERIFICATION
Tandem Call—More Than 1000 Trunk Numbers		
61	At MTF— Operate keys and set switches in accordance with Test Chart Test 27.	
62	Operate RALO key.	
63	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 14, Level 0 for designations perforated.
64	Momentarily operate RL key.	All lamps extinguished.
65	Operate RAL1 key.	
66	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 14, Level 1 for designations perforated.
67	Momentarily operate RL key.	All lamps extinguished.
68	Restore RAL1 key.	
69	Operate RAL2 key.	
70	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 14, Level 2 for designations perforated.
71	Momentarily operate RL key.	All lamps extinguished.
72	Operate RAL3 key.	
73	Momentarily operate ST key.	DRST, CS, DNK, LCP, IEC, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 14, Level 3 for designations perforated.
Note: CL_, CR_, DL_, DR_ designations associated with level 2 also perforated.		

SECTION 218-173-501

STEP	ACTION	VERIFICATION
74	Momentarily operate RL key.	All lamps extinguished.
75	Restore RAL3 key.	
76	At MTF— Operate keys and set switches in accordance with Test Chart Test 28.	
77	Operate RAL0 key.	
78	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 15, Level 0 for designations perforated.
79	Momentarily operate RL key.	All lamps extinguished.
80	Operate RAL1 key.	
81	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 15, Level 1 for designations perforated.
82	Momentarily operate RL key.	All lamps extinguished.
83	Restore RAL1 key.	
84	Operate RAL2 key.	
85	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 15, Level 2, for designations perforated.
86	Momentarily operate RL key.	All lamps extinguished.
87	Restore RAL2 key.	
88	Operate keys and set switches in accordance with Test Chart Test 29.	
89	Repeat Steps 77 through 87.	Refer to Table A, Column 16 for designations perforated.

STEP	ACTION	VERIFICATION
90	Operate keys and set switches in accordance with Test Chart Test 30.	
91	Repeat Steps 77 through 87.	Refer to Table A, Column 17 for designations perforated.
WATS Call		
92	Operate keys and set switches in accordance with Test Chart Test 31.	
93	Operate RAL0 key.	
94	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 18, Level 0 for designations perforated.
95	Momentarily operate RL key.	All lamps extinguished.
96	Operate RAL1 key.	
97	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps lighted. Trouble record taken. Refer to Table A, Column 18, Level 1 for designations perforated.
98	Momentarily operate RL key.	All lamps extinguished.
99	Restore RAL1 key.	
100	Operate RAL2 key.	
101	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 18, Level 2 for designations perforated.
102	Momentarily operate RL key.	All lamps extinguished
103	Restore RAL2 key.	
104a	If transverter group serves customers in more than one numbering plan area— Repeat Steps 92 through 103 for Test Chart Tests 32 and 33.	Refer to Table A, Columns 19 and 20 for designations perforated.

SECTION 218-173-501

STEP	ACTION	VERIFICATION
DTWX Call		
105	Operate keys, set switches in accordance with Test Chart Test 34.	
106	Operate RAL0 key.	
107	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 21, Level 0 for designations perforated.
108	Momentarily operate RL key.	All lamps extinguished.
109	Restore RAL0 key.	
110a	If transverter group serves customers in more than one numbering plan area— Repeat Steps 105 through 109 for Test Chart Tests 35 and 36.	Refer to Table A, Column 21, Level 0 for designations perforated.
IDDD Call		
111	Operate keys and set switches in accordance with Test Chart Test 37.	
112	Operate RAL0 key.	
113	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 22, Level 0 for designations perforated.
114	Momentarily operate RL key.	All lamps extinguished.
115	Operate RAL1 key.	
116	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 22, Level 1 for designations perforated.
117	Momentarily operate RL key.	All lamps extinguished.
118	Restore RAL1 key.	

STEP	ACTION	VERIFICATION
119	Operate RAL2 key.	
120	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 22, Level 2 for designations perforated.
121	Momentarily operate RL key.	All lamps extinguished.
122	Operate RAL3 key.	
123	Momentarily operate ST key.	DRST, CS, DNK, IEC, DIS1, MRL, LCP lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 22, Level 3 for designations perforated.
124	Momentarily operate RL key.	All lamps extinguished.
125	Repeat Steps 119 through 124 for Test Chart Tests 38 through 41.	Refer to Table A, Columns 23 through 26 for designations perforated.

Service Observed Call

126	Operate keys and set switches in accordance with Test Chart Test 42.	
127	Operate RAL0 key.	
128	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 27, Level 0 for designations perforated.
129	Momentarily operate RL key.	All lamps extinguished.
130	Operate OBS key.	
131	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 28, Level 0 for designations perforated.
132	Momentarily operate RL key.	All lamps extinguished.

SECTION 218-173-501

STEP	ACTION	VERIFICATION
133	Restore OBS key.	
Traffic Sampling		
134	Operate keys and set switches in accordance with Test Chart Test 43.	
135	Operate RAL0 key.	
136	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 29, Level 0 for designations perforated.
137	Momentarily operate RL key.	All lamps extinguished.
138	Operate OBS key.	
139	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 30, Level 0 for designations perforated.
140	Momentarily operate RL key.	All lamps extinguished.
141b	If transverter is arranged for a sampled noncharge indication with message billing index 0— Select message billing index 0.	
142b	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 31, Level 0 for designations perforated.
143b	Momentarily operate RL key.	All lamps extinguished.
144b	Restore OBS key.	
145b	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken— Refer to Table A, Column 32, Level 0 for designations perforated.

STEP	ACTION	VERIFICATION
146b	Momentarily operate RL key.	All lamps extinguished.
147	Restore all keys and switches not required in next test.	
H. Detail Billed—Message Unit Call		
8	Operate keys and set switches in accordance with Test Chart Test 44.	
9	Operate MDLC key. <i>Note:</i> Operation of the MDLC key will result in a message unit detailed entry for message unit calls in all transverters.	MUD lamp lights after all transverters serving calls have released.
10	Operate RAL0 key.	
11	Momentarily operate ST key.	DRST, CS, DNK, RTBL, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. Refer to Table A, Column 33, Level 0 for designations perforated.
12	Momentarily operate RL key.	All lamps extinguished.
13	Restore MDLC key.	MUD lamp extinguished.
14	Restore all keys and switches not required in next test.	

STEP

ACTION

VERIFICATION



TABLE A

LEVEL	DEFINITION OF ENTRY		TEST NO.	14		15		16		17		18		19		20	
			COL NO.	1	2	3	4	5	6	7							
0	Entry Identifier	Regular or Extended Entry	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	
		Trk No. Thousands	CKRS	CKR1 *	CKRS	CKR1 *	CKRS	CKR1 *	CKRS	CKR1 *	CKRS	CKR1	CKRS	CKR1	CKRS	CKR1	
	Entry Index	Tens	BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7	BL0	BL1	BL0	BL1	BL1	BL2	
		Units	BR0	BR1	BR0	BR1	BR0	BR1	BR0	BR1	BR2	BR4	BR	BR	BR4	BR7	
	Call Identity Index	Trk No. Hundreds	CL4	CL7	CL0	CL1	CL0	CL2	CL1	CL2	CL0	CL1	CL0	CL1	CL0	CL1	
		Trk No. Tens	CR4	CR7	CR0	CR1	CR1	CR2	CR2	CR4	CR4	CR7	CR4	CR7	CR4	CR7	
		Trk No. Units	DL2	DL4	DL1	DL2	DL0	DL1	DL4	DL7	DL0	DL1	DL0	DL1	DL0	DL1	
	Fixed Information	Tens	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7	
		Units	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	
	Service Feature	Tens	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	
Units		BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7		
1	Calling Line Number Digits	A	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	
		B	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	
		C	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	
		TH	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	
		H	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	DR	
		T	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL
		U	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR
2	Called Number Digits	A	BL2	BL1	BL2	BL4	BL0	BL7	BL1	BL7	BL †	BL †	BL	BL	BL	BL	
		B	BR2	BR4	BR0	BR2	BR1	BR2	BR0	BR1	BR †	BR †	BR	BR	BR	BR	
		C	CL0	CL1	CL1	CL2	CL2	CL4	CL4	CL7			CL	CL	CL	CL	
		D	CR2	CR1	CR2	CR4	CR0	CR7	CR1	CR7			CR0	CR2	CR	CR	
		E	DL2	DL4	DL4	DL7	DL1	DL2	DL0	DL1			DL1	DL2	DL	DL	
		F	DR0	DR1	DR1	DR2	DR2	DR4	DR4	DR7			DR0	DR4	DR	DR	
		G	CKL0	CKL1	CKL1	CKL2	CKL2	CKL4	CKL4	CKL7			CKL1	CKL4	CKL4	CKL7	
		H	CKR1	CKR2	CKR2	CKR4	CKR4	CKR7	CKR0	CKR1			CKR2	CKR4	CKR4	CKR7	
		J	BL2	BL4	BL4	BL7	BL0	BL1	BL1	BL2			BL0	BL7	BL4	BL7	
		K	BR4	BR7	BR0	BR1	BR1	BR2	BR2	BR4			BR1	BR7	BR4	BR7	
3	Data Group M	Tens											CL †	CL †			
		Units												CR †	CR †		
	Data Group N	Extended Entry Digit No.															
		Called No. L Digit															

* CKR2 when trunk controls 10 through 19 are selected.
 † Denotes message billing index.
 ‡ BR7 if T option is provided.



TABLE A (Cont)

LEVEL	DEFINITION OF ENTRY		TEST NO.	21		22		23		24		25		26		27	
			COL NO.	8	9	10	11	12	13	14							
0	Entry Identifier	Regular or Extended Entry	CKLS	CKL1			CKLS	CKL1									
		Trk No. Thousands	CKRS	CKR1			CKRS	CKR1									
	Entry Index	Tens	BL0	BL2			BL4	BL7									
		Units	BR1	BR4			BR0	BR1									
	Call Identity Index	Trk No. Hundreds	CL0	CL1			CL0	CL1									
		Trk No. Tens	CR4	CR7			CR4	CR7									
		Trk No. Units	DL0	DL1			DL0	DL1									
	Fixed Information	Tens	DR4	DR7			DR4	DR7									
		Units	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	
	1	Service Feature	Tens	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7
Units			BL4	BL7	BL1	BL2	BL4	BL7									
Calling Line Number Digits		A	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	
		B	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	
		C	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	
		TH	DL	DL	DL	DL	DL4	DL7									
		H	DR	DR	DR	DR	DR4	DR7	DR0	DR1	DR0	DR2	DR1	DR2	DR4	DR7	
		T	CKL	CKL			CKL4	CKL7	CKL0	CKL1	CKL0	CKL2	CKL1	CKL2	CKL4	CKL7	
	U	CKR	CKR			CKR4	CKR7	CKR0	CKR1	CKR0	CKR2	CKR1	CKR2	CKR4	CKR7		
2	Called Number Digits	A	BL	BL			BL1	BL2									
		B	BR	BR			BR2	BR4									
		C	CL	CL			CL0	CL1									
		D	CR	CR			CR1	CR2									
		E	DL	DL			DL2	DL4									
		F	DR	DR			DR0	DR1									
		G	CKL	CKL			CKL0	CKL1									
		H	CKR	CKR			CKR1	CKR2									
		J	BL	BL			BL2	BL4									
		K	BR	BR			BR4	BR7									
3	Data Group M	Tens	CL4 †	CL7 †													
		Units	CR2 †	CR7 †													
	Data Group N	Extended Entry Digit No.															
		Called No. L Digit															

* CKR2 when trunk controls 10 through 19 are selected.
 † Denotes message billing index.
 ‡ BR7 if T option is provided.



TABLE A (Cont)

LEVEL	DEFINITION OF ENTRY		TEST NO.	28		29		30		31		32		33		34,35,36	
			COL NO.	15	16	17	18	19	20	21							
0	Entry Identifier	Regular or Extended Entry	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	
		Trk No. Thousands	CKRS	CKR1	CKRS	CKR1	CKRS	CKR1	CKRS	CKR1	CKRS	CKR1	CKRS	CKR1	CKRS	CKR1	
	Entry Index	Tens	BL4	BL7	BL4	BL7	BL4	BL7	BL0	BL1	BL0	BL1	BL0	BL1	BL4	BL7	
		Units	BR0	BR1	BR0	BR1	BR0	BR1	BR0	BR1	BR0	BR1	BR0	BR1	BR1	BR7	
	Call Identity Index	Trk No. Hundreds	CL0	CL1	CL0	CL1	CL0	CL1	CL0	CL1	CL0	CL1	CL0	CL1	CL0	CL1	
		Trk No. Tens	CR4	CR7	CR4	CR7	CR4	CR7	CR4	CR7	CR4	CR7	CR4	CR7	CR4	CR7	
Trk No. Units		DL0	DL1	DL0	DL1	DL0	DL1	DL0	DL1	DL0	DL1	DL0	DL1	DL0	DL1		
Fixed Information	Tens	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7		
	Units	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7	CKL2	CKL7				
1	Service Feature	Tens	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7	CKR4	CKR7			
		Units	BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7			
	Calling Line Number Digits	A	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR	BR			
		B	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL			
		C	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR	CR			
		TH	DL0	DL1	DL0	DL2	DL1	DL2	DL	DL	DL	DL	DL	DL			
		H	DR0	DR1	DR0	DR2	DR1	DR2	DR	DR	DR	DR	DR	DR			
		T	CKL0	CKL1	CKL0	CKL2	CKL1	CKL2	CKL	CKL	CKL	CKL	CKL	CKL			
U		CKR0	CKR1	CKR0	CKR2	CKR1	CKR2	CKR	CKR	CKR	CKR	CKR	CKR				
2	Called Number Digits	A						BL	BL	BL	BL	BL	BL				
		B						BR	BR	BR	BR	BR	BR				
		C						CL	CL	CL	CL	CL	CL				
		D						CR0	CR2	CR0	CR2	CR0	CR2				
		E						DL1	DL2	DL1	DL2	DL1	DL2				
		F						DR0	DR4	DR0	DR4	DR0	DR4				
	3	Called Number Digits	G														
			H														
			J														
			K														
Data Group M	Tens																
	Units																
Data Group N	Extended Entry Digit No.																
Data Group N	Called No. L Digit																

* CKR2 when trunk controls 10 through 19 are selected.
 † Denotes message billing index.
 ‡ BR7 if T option is provided.

Table A (Cont)



TABLE A (Cont)

LEVEL	DEFINITION OF ENTRY		TEST NO.	37		38		39		40		41		42		42		
			COL NO.	22		23		24		25		26		27		28		
0	Entry Identifier	Regular or Extended Entry	CKLS	CKL4										CKLS	CKL1	CKLS	CKR1	
		Trk No. Thousands	CKRS	CKR1											CKRS	CKR1	CKRS	CKL1
	Entry Index	Tens	BL4	BL7											BL4	BL7	BL4	BL7
		Units	BR0	BR1											BR0	BR1	BR0	BR1
	Call Identity Index	Trk No. Hundreds	CL0	CL1											CL0	CL1	CL0	CL1
		Trk No. Tens	CR4	CR7											CR4	CR7	CR4	CR7
Trk No. Units		DL0	DL1											DL0	DL1	DL0	DL1	
Fixed Information	Tens	DR4	DR7											DR4	DR7	DR0	DR1	
	Units	CKL2	CKL7															
1	Service Feature	Tens	CKR4	CKR7														
		Units	BL4	BL7														
	Calling Line Number Digits	A	BR	BR														
		B	CL	CL														
		C	CR	CR														
		TH	DL	DL														
		H	DR	DR														
T	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL	CKL							
U	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR	CKR							
2	Called Number Digits	A	BL0	BL2	BL0	BL2	BL0	BL2	BL0	BL2	BL0	BL2						
		B	BR1	BR2	BR1	BR2	BR1	BR2	BR1	BR2	BR1	BR2						
		C	CL0	CL4	CL0	CL4	CL0	CL4	CL0	CL4	CL0	CL4						
		D	CR1	CR4	CR1	CR4	CR1	CR4	CR1	CR4	CR1	CR4						
		E	DL2	DL4	DL2	DL4	DL2	DL4	DL2	DL4	DL2	DL4						
		F	DR0	DR7	DR0	DR7	DR0	DR7	DR0	DR7	DR0	DR7						
3	Called Number Digits	G	CKL1	CKL7	CKL1	CKL7	CKL1	CKL7	CKL1	CKL7	CKL1	CKL7						
		H	CKR4	CKR7	CKR2	CKR7	CKR2	CKR7	CKR2	CKR7	CKR2	CKR7						
		J	BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7	BL4	BL7						
		K	BR4	BR7	BR4	BR7	BR4	BR7	BR4	BR7	BR0	BR1	BR0	BR1				
	Data Group M	Tens	CL0	CL4	CL0	CL4	CL0	CL4	CL0	CL4	CL0	CL4						
		Units	CR4	CR7	CR4	CR7	CR4	CR7	CR4	CR7	CR4	CR7						
Data Group N	Extended Entry Digit No.	DL0	DL1	DL0	DL2	DL1	DL2	DL0	DL4	DL1	DL4							
	Called No. L Digit	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7	DR4	DR7	DR0	DR2					

* CKR2 when trunk controls 10 through 19 are selected.
 † Denotes message billing index.
 ‡ BR7 if T option is provided.



TABLE A (Cont)

LEVEL	DEFINITION OF ENTRY		TEST NO. 43		43		43		43		44	
			COL NO. 29		30		31		32		33	
0	Entry Identifier	Regular or Extended Entry	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1	CKLS	CKL1
		Trk No. Thousands	CKRS	CKR1	CKRS	CKR1	CKRS	CKR1	CKRS	CKR1	CKRS	CKR1
	Entry Index	Tens	BL4	BL7	BL4	BL7	BL0	BL1	BL0	BL1	BL0	BL1
		Units	BR0	BR1	BR0	BR1	BR1	BR4 ‡	BR1	BR4 ‡	BR1	BR4 ‡
	Call Identity Index	Trk No. Hundreds	CL0	CL1	CL0	CL1	CL0	CL1	CL0	CL1	CL0	CL1
		Trk No. Tens	CR4	CR7	CR4	CR7	CR4	CR7	CR4	CR7	CR4	CR7
		Trk No. Units	DL0	DL1	DL0	DL1	DL0	DL1	DL0	DL1	DL0	DL1
	Fixed Information	Tens	DR0	DR2	DR1	DR2	DR1	DR4	DR0	DR4	DR4	DR7
		Units										
	Service Feature	Tens										
Units												
1	Calling Line Number Digits	A										
		B										
		C										
		TH										
		H										
		T										
		U										
2	Called Number Digits	A										
		B										
		C										
		D										
		E										
		F										
		G										
		H										
3	Data Group M	J										
		K										
		Tens										
		Units										
		Extended Entry Digit No.										
Data Group N	Called No. L Digit											

* CKR2 when trunk controls 10 through 19 are selected.

† Denotes message billing index.

‡ BR7 if T option is provided.

Table A (Cont)



STEP	ACTION	VERIFICATION
I. LAMA Translator Make-Busy Feature		
LAMA Operation		
7	Operate keys and set switches in accordance with Test Chart Test 45.	
8	Determine from office records translator associated with line equipment location selected for test.	
9	Insert make-busy plug into AMAT-MB jack for translator determined in Step 8.	AMAT lamp lighted.
	Caution: LAMA message unit calls served by the translator under test will be completed without a charge record, toll statement calls will be routed to overflow, and ANI calls will require operator identification for completion. This test should be made as rapidly as possible to reduce to a minimum the time the translator is out of service.	
10	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. TBY designation perforated.
11	Momentarily operate RL key.	All lamps extinguished.
12	Select message billing index 9.	
13	Momentarily operate ST key.	BT-OF lamp lighted. Trouble record taken. TBY, OF designations perforated.
14	Momentarily operate RL key.	All lamps extinguished.
15	Remove make-busy plug from AMAT-MB jack.	AMAT lamp extinguished.
16	Restore all keys and switches.	
ANI Operation		
17	Select TVT (ANI) class of test.	
18	Select transverter arranged for ANI operation.	
19	Select line location with ANI access to transverter selected.	

SECTION 218-173-501

STEP	ACTION	VERIFICATION
20	Determine from office records translator associated with line location selected for test.	
21	Operate NTC key.	
22	Insert make-busy plug into AMAT-MB jack for translator determined in Step 20. (Refer to Caution in Step 9.)	AMAT lamp lighted.
23	Momentarily operate ST key.	BT-OF lamp lighted.
24	Momentarily operate RL key.	All lamps extinguished.
25	Remove make-busy plug from AMAT-MB jack.	AMAT lamp extinguished.
26	Restore all keys and switches not required in next test.	

J. Translator Selection and Directory Number Register Relays

7	Operate keys and set switches in accordance with Test Chart Test 46.	
8a	If line equipment location is associated with PBX-AIOD service— Operate TP key.	
9a	Operate TSLT key, if provided.	
10	Momentarily operate ST key.	DNK, TRL, CS, DRST lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. LAMA Call. Line equipment location, OFT_, OFF_, TH_, HN_, T_, U_ corresponding to calling number, RPT or TPT designations perforated. PBX-AIOD Call. Trunk line equipment location, OFT_, OFF_, TH_, HN_, T_, U_ corresponding to translated trunk number, TPT, TNK designations perforated.
11	Momentarily operate RL key.	All lamps extinguished.
12	Repeat Steps 7 through 11 for Test Chart Tests 47 through 75 (or as required).	
13	Restore all keys and switches not required in next test.	

STEP	ACTION	VERIFICATION
K. Translation of Office Index and Four Numerical Digits Into a 7-Digit Directory Number		
LAMA or PBX-AIOD Operation		
8	Operate keys and set switches in accordance with Test Chart Test 76.	
9a	If line equipment is associated with PBX-AIOD service— Operate TP key.	
10a	Operate TSLT key, if provided.	
11	Operate RAL1 key.	
12	Momentarily operate ST key.	DRST, CS, RTBL, DNK, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken.
		LAMA Call. BR_, CL_, CR_, DL_, DR_ designations corresponding to A_ through E_ digits of calling directory number perforated.
		PBX-AIOD call. BR_, CL_, CR_ designations corresponding to PBX office code, DL_, DR_ designations corresponding to thousands and hundreds digits of translated trunk number perforated.
13	Momentarily operate RL key.	All lamps extinguished.
14	Restore RAL1 key.	
15	Operate RAL2 key.	
16	Momentarily operate ST key.	DRST, CS, RTBL, DNK, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken.
		LAMA Call. CKL_, CKR_ designations corresponding to F_ and G_ digits of calling directory number perforated.
		BL_, BR_, CL_ designations corresponding to area code of calling number perforated.
		PBX-AIOD Call. CKL_, CKR_ designations corresponding to tens and units digits of translated trunk number perforated.
		BL_, BR_, CL_ designations corresponding to area code of calling number perforated.

SECTION 218-173-501

STEP	ACTION	VERIFICATION
17	Momentarily operate RL key.	All lamps extinguished.
18	Restore RAL2 key.	
19	Repeat Steps 8 through 18 for Test Chart Tests 77 through 105 as required for LAMA or PBX-AIOD operation.	
20	Restore all keys and switches.	
ANI Operation		
21	Select TVT (ANI) class of test.	
22	Select transverter arranged for ANI operation.	
23	Operate NTC, REC, ATDL keys.	
24	Select first line location designated for ANI operation in Test Chart Tests 76 through 105.	
25	Momentarily operate ST key.	DNK, MRL lamps lighted. Trouble record taken. OFF_ TH_ HN_ TN_ U_ corresponding to calling directory number, and SPL designations perforated.
26	Momentarily operate RL key.	All lamps extinguished.
27	Repeat Steps 24 through 26 for remaining line locations designated for ANI operation in Test Chart Tests 76 through 105.	
28	Restore all keys and switches not required in next test.	
L. PBX-AIOD Translator Make-Busy and No Station Number Available		
7	Operate keys and set switches in accordance with Test Chart Test 106.	
8	Operate TP key.	
9a	If TSLT key is provided— Operate TSLT key.	
10	Determine from office records translator associated with trunk line equipment selected for test.	

STEP	ACTION	VERIFICATION
11	Insert make-busy plug into AIODT-MB jack for translator determined in Step 10.	AIODT lamp lighted.
	<i>Caution: With the translator made busy, calls made by PBX stations will be completed by billing to the listed PBX directory number. This test should be made as rapidly as possible to reduce to a minimum the time the translator is out of service.</i>	
12	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. OFT_, OFF_, TH_, HN_, T_, U_ designations corresponding to PBX listed directory number, TBV, DNK designations perforated.
13	Momentarily operate RL key.	All lamps extinguished.
14	Remove make-busy plug from AIODT-MB jack.	AIODT lamp extinguished.
15	Insert make-busy plug into TVMB jack for transverter under test.	
16	At transverter frame— Interconnect 11F and 11B of TVT relay.	
17	At MTF— Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. TRL designation perforated.
18	Momentarily operate RL key.	All lamps extinguished.
19	At transverter frame— Remove test connection from TVT relay.	
20	At MTF— Remove make-busy plug from TVMB jack.	
21	Operate TR2 key.	
22	Momentarily operate ST key.	TRL lamp lighted. Trouble record taken. OFT_, OFF_, TH_, HN_, T_, U_ designations perforated corresponding to PBX listed directory number.
23	Momentarily operate RL key.	All lamps extinguished.
24	Restore all keys and switches not required in next test.	

SECTION 218-173-501

STEP	ACTION	VERIFICATION
M. Transfer of Start Lead From Transverter Connector (LAMA Calls Only)		
7	Operate keys and set switches in accordance with Test Chart Test 107.	
8	Momentarily operate ST key.	CS, DRST, LCP, TTC, DNK, DIS1, MRL, IEC lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. TRS designation perforated.
9	Momentarily operate RL key.	All lamps extinguished.
10	Restore all keys and switches not required in next test.	
N. Recorder Trouble Feature and Second Trial Calls Free		
7	Operate keys and set switches in accordance with Test Chart Test 108.	
8	Momentarily operate ST key.	CS, DRST, DNK, BAK, TRL lamps lighted. TST, TCTK lamps momentarily lighted.
9	Momentarily operate RL key.	All lamps extinguished.
10	Operate NBA key.	
11	Momentarily operate ST key.	CS, DRST, DNK, TRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. SP designation perforated. BA designation <i>not</i> perforated.
12	Momentarily operate RL key.	All lamps extinguished.
13	Restore NBA key.	
14	Insert make-busy plug into TVMB jack for transverter under test.	
15	At transverter frame— Block operated 2TF relay.	
16	Operate TR2 key.	
17	At MTF— Momentarily operate ST key.	CS, DRST, DNK, BAK, DIS1, MRL lamps lighted. TST, TCTK lamps momentarily lighted.

STEP	ACTION	VERIFICATION
18	Momentarily operate RL key.	All lamps extinguished.
19	At transverter frame— Remove blocking tool from 2TF relay.	
20	At MTF— Remove make-busy plug from TVMB jack.	
21	Restore all keys and switches not required in next test.	
O. False Ground on Trunk TC Lead		
7	Operate keys and set switches in accordance with Test Chart Test 109.	
8	Momentarily operate ST key.	NRST, DNK, DIS1, TRL, CS, BT-OF lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. XTKK designation perforated.
9	Momentarily operate RL key.	All lamps extinguished.
10	Restore all keys and switches not required in next test.	
P. Trouble Release—MTFC Busy		
7	Operate keys and set switches in accordance with Test Chart Test 110.	
8	Insert make-busy plug into TRMB-TV jack associated with transverter selected for test.	
9	Momentarily operate ST key.	CS, DRST, DNK, TRL, RTBL lamps lighted. TST, TCTK lamps momentarily lighted. DL lamp associated with transverter selected for test lighted.
10	Momentarily operate RL key.	CS, DRST, DNK, TRL, RTBL lamps extinguished.
11	Momentarily operate TRR-AR key.	DL lamp extinguished.
12	Remove make-busy plug from TRMB-TV jack.	
13	Restore all keys and switches not required in next test.	

SECTION 218-173-501

STEP	ACTION	VERIFICATION
Q. Recorder Channel Not Available for Test Call		
7	Operate keys and set switches in accordance with Test Chart Test 111.	
8	Operate RCH1 key.	
9	At recorder and recorder control frame— Operate OMB key.	OMB lamp lighted. At MTF— CH MB0 lamp lighted.
10	Momentarily operate ST key.	DNK, DIS1, MRL, CTR, NRST lamps lighted. TST, TCTK lamps momentarily lighted.
11	Momentarily operate RL key.	All lamps extinguished.
12	Restore RCH1 key.	
13	Operate CHS key.	
14	Momentarily operate ST key.	DNK, DIS1, MRL, CBY, NRST lamps lighted. TST, TCTK lamps momentarily lighted.
15	Momentarily operate RL key.	All lamps extinguished.
16	At recorder and recorder control frame— Release OMB key.	OMB lamp extinguished. AT MTF— CH MB0 lamp extinguished.
17	At recorder and recorder control frame— Operate 1MB key.	1MB lamp lighted. At MTF— CH MB1 lamp lighted.
18	Operate DR key.	
19	Momentarily operate ST key.	DNK, DIS1, MRL, CTR, NRST lamps lighted. TST, TCTK lamps momentarily lighted.
20	Momentarily operate RL key.	All lamps extinguished.
21	Operate CHS, RCH1 keys.	
22	Momentarily operate ST key.	DNK, DIS1, MRL, CBY, NRST lamps lighted. TST, TCTK lamps momentarily lighted.
23	Momentarily operate RL key.	All lamps extinguished.
24	At recorder and recorder control frame— Release 1MB key.	1MB lamp extinguished. At MTF— CH MB1 lamp extinguished.

STEP	ACTION	VERIFICATION
25a	If 3-channel recording system is provided— At recorder and recorder control frame— Operate 2MB key.	2MB lamp lighted. At MTF— CH MB2 lamp lighted.
26a	Operate RCH2 key.	
27a	Momentarily operate ST key.	DIS1, MRL, CBY, NRST lamps lighted.
28a	Momentarily operate RL key.	All lamps extinguished.
29a	At recorder and recorder control frame— Release 2MB key.	2MB lamp extinguished. At MTF— CH MB2 lamp extinguished.
30	Restore all keys and switches not required in next test.	

R. Second Trial Feature—ANI

1	At MTF— Select TVT (ANI) class of test.	
2	Select transverter arranged for ANI operation.	
3	Operate TR2, ATDL keys.	
4	Momentarily operate ST key.	DNK, TRL lamps lighted. Trouble record taken. SPL, TM1, 2TR designations perforated.
5	Momentarily operate RL key.	All lamps extinguished.
6	Restore all keys and switches not required in next test.	

S. Digit Registration Check Relays—ANI

1	At MTF— Select TVT (ANI) class of test.	
2	Select transverter arranged for ANI operation.	
3	Select line location with ANI access to transverter selected for test.	
4	Select A_ through G_ digits corresponding to directory number of line location selected for test.	
5	Operate ATDL, NTC keys.	
6	Momentarily operate ST key.	DNK, DIS1, MRL lamps lighted.

SECTION 218-173-501

STEP	ACTION	VERIFICATION
7	Momentarily operate RL key.	All lamps extinguished.
8	Restore all keys and switches not required in next test.	
T. Trunk Control, Transfer Service Busy, Translator Cut-in Check Features		
7	Operate keys and set switches in accordance with Test Chart Test 112.	
8	Insert make-busy plug into TVMB jack for transverter selected for test.	
Trunk Control Service Busy		
9	Insert make-busy plug into TC00 TR jack.	TC00 lamp lighted. At trunk control frame— EW0 lamp lighted. EW lamp associated with emergency trunk control lighted.
10	Interconnect 1F of OTOA relay, terminal 57 of terminal strip C on trunk control 00.	
11	At transverter under test— Block nonoperated RK relay.	
12	At MTF— Momentarily operate ST key.	CS, DNK, TRL lamps lighted. TST, TCTK lamps momentarily lighted. In 3 to 4 seconds— Trouble record taken. TM2, BY designations perforated.
13	Momentarily operate RL key.	All lamps extinguished.
14	At trunk control frame— Remove test connection from OTOA relay, terminal strip C.	
15	At transverter under test— Remove blocking tool from RK relay.	
16	At MTF— Remove make-busy plug from TC00 TR jack.	TC00 lamp extinguished. At trunk control frame— EW lamps extinguished.
Translator Service Busy		
17	At transverter under test— Block nonoperated DNK, TK relay.	

STEP	ACTION	VERIFICATION
18	Connect ground to 12F of TBG relay.	
19	Interconnect 12M of TBG relay, terminal EXG on terminal strip AG.	
20	At MTF— Momentarily operate ST key.	CS, TRL lamps lighted. TST, TCTK lamps momentarily lighted. In 3 to 4 seconds— Trouble record taken. TM2, EX designations perforated.
21	Momentarily operate RL key.	All lamps extinguished.
22	At transverter under test— Remove blocking tools from DNK, TK relays.	
23	Remove test connections from TBG relay, terminal strip AG.	

Translator Cut-in Check

24	Connect ground to 1F of TK relay.	
25	Interconnect 1M of TK relay, terminal EXG on terminal strip AG.	
26	Block nonoperated DNK relay.	
27	At MTF— Momentarily operate ST key.	CS, TRL lamps lighted. TST, TCTK lamps momentarily lighted. Trouble record taken. TM1, EX designations perforated.
28	Momentarily operate RL key.	All lamps extinguished.
29	At transverter under test— Remove test connection from TK relay, terminal strip AG.	
30	Remove blocking tool from DNK relay.	
31	At MTF— Remove make-busy plug from TVMB jack.	
32	Restore all keys and switches not required in next test.	

5. PREPARATION OF TEST CHART

5.01 The Test Chart is intended for use as a particular number chart and provides the priming information required for each test indicated. Information obtained from local office records should

Note: Refer to paragraph 1.11.

SECTION 218-173-501

be used to fill in the Test Chart in the following manner:

- (a) In the LINE LOCATION columns, record the line location or trunk equipment location of a calling line arranged for LAMA.
- (b) In TRUNK CONTROL NO. columns, record AD or OD to indicate the tens digit of the selected trunk control. Record OD if the tens digit is zero or AD if the tens digit is one. The TCNT key must be operated when trunk controls 10 through 19 are selected.
- (c) If tip party indication is required, record TP in MISCELLANEOUS KEYS AND/OR SWITCHES column.
- (d) If the call is an AIOD call, record an office index in the AIOD column.

5.02 Test A

- (1) Spaces are provided for recording selection of 20 trunk controls. Apply (b) of 5.01 for all trunk controls equipped in the particular office.
- (2) Apply (a) and (c) of 5.01.

5.03 Test B

- (1) For Test 12, record a message billing index in MB column for a message unit call.
- (2) Apply (a) and (c) of 5.01.

5.04 Tests C, L Through Q, T

- (1) Apply (a) and (c) of 5.01.

5.05 Test D

- (1) Determine from office records four calling line locations arranged for LAMA that will check the 0, 1, 2, 4, 7 leads for directory number digits in each thousands, hundreds, tens, and units position.
- (2) In LINE LOCATION columns, record the line location of numbers selected for Tests 14 through 17.

- (3) Apply (b) of 5.01. If more than ten trunk controls are provided, one test should be performed with the AD key operated.

- (4) Apply (c) of 5.01.

5.06 Tests E, H, I

- (1) Record a message billing index in MB column for a message unit call.
- (2) Apply (a) and (c) of 5.01.

5.07 Test F

- (1) Record a message billing index in MB column for a message unit detailed call.
- (2) Apply (a) and (c) of 5.01.

5.08 Test G

- (1) For Tests 20 through 22 and 37 through 43 apply (a) of 5.01.
- (2) For Test 20 record Codes 411 or 555-1212 in A through G digits as determined from office records and a message billing index in MB column for message unit call.
- (3) For Test 21 the CALLED NUMBER may be 7 or 10 digits and record in the A through K digits. The following code pattern applies as determined by office records and record in CODE PATTERN column.

No. of Called Digits	Code Pattern
7	CP0,1 (ZP Option)
7	CP1,4 (ZP Option)
10	CP0,7 (ZP Option)
10	CP4,7 (ZP Option)
10	CP1,7 (J Option)

- (4) For Tests 31 through 36, determine from office records a line location of an office code in each originating area served by the transverter group. Record the selected line locations in LINE LOCATION columns.

(5) Apply (c) of 5.01.

5.09 Test J

(1) Determine from office records the line or trunk location and the corresponding directory number or AIOD translated trunk number for a line or trunk in each vertical group associated with each translator. Select lines so that the directory numbers or translated trunk numbers include each office index and each calling line numerical 0 through 9 in the thousands, hundreds, tens, and units position for which each translator is wired. Record the line locations in LINE LOCATION columns for Tests 46 through 75.

(2) Apply (c) and (d) of 5.01.

5.10 Test K

(1) Determine from office records a line or trunk location for each working office code in the transverter group. Record the line locations in LINE LOCATION columns for Tests 76 through 105.

(2) For ANI tests, place a check mark (✓) IN the ANI column for line locations recorded for Tests 76 through 105 that can access a transverter with ANI features.

(3) Apply (c) and (d) of 5.01.

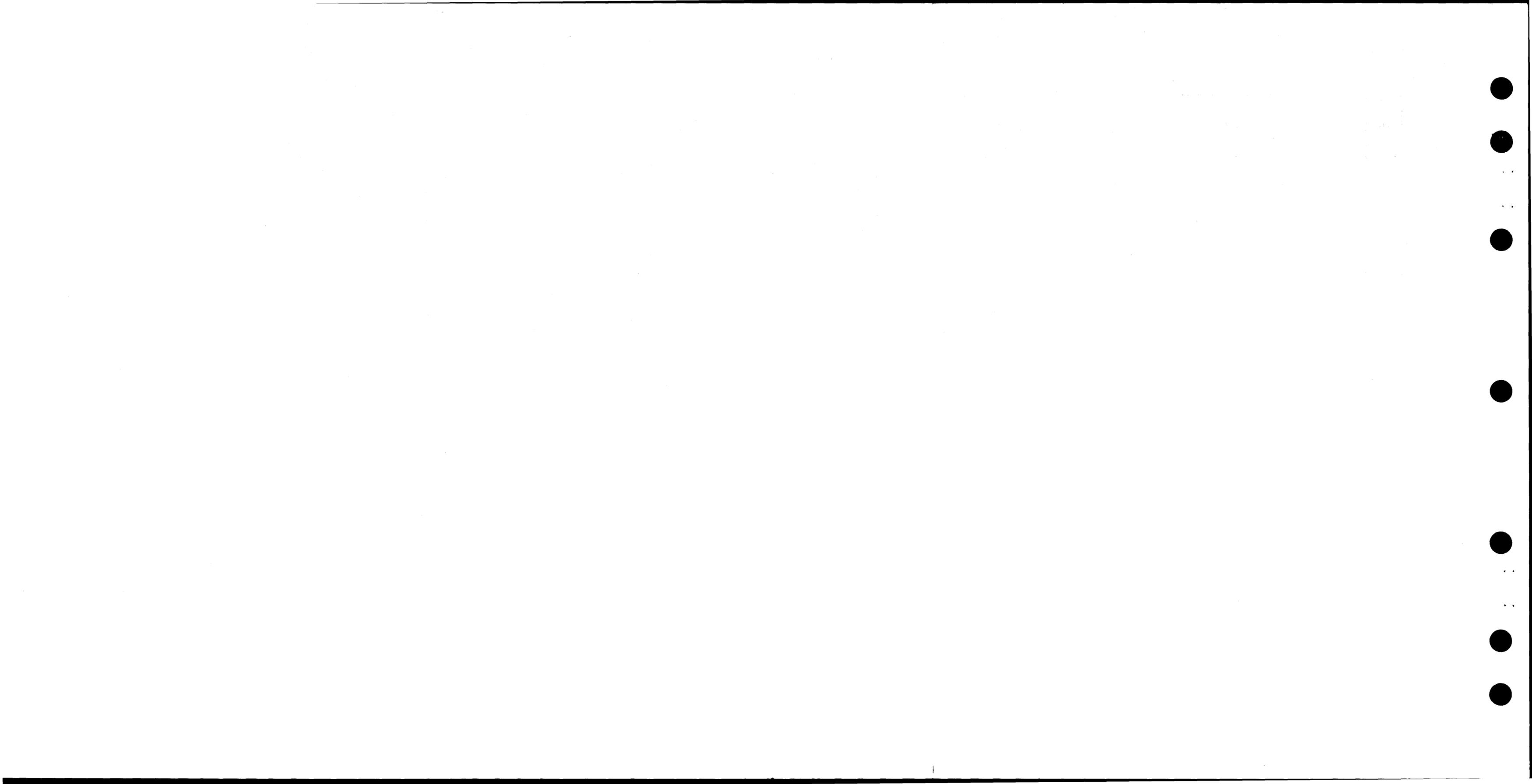




TEST CHART (Cont)

TEST	TYPE OF TEST	TEST NO.	MASTER TEST FRAME PRIMING INFORMATION																							TEST NO.	TEST										
			LINE LOCATION				DIGITS — CODE (S) AND NUMBER (CALLED NUMBER)												TRUNK CONTROL NO.		TRK CONT TRF	TRK NO.		MESSAGE BILLING INDEX	CODE PATTERN			NUMBER STRUCTURE			MISCELLANEOUS KEYS AND/OR SWITCHES				ANI		
			FRAME NO.		VERT GR		HOR GR	VERT FILE	A	B	C	D	E	F	G	H	J	K	L	OD/AD	RN	TCU	TNT	TNU	MB			CP	4DG, LST	5DG, LSD	AIOD						
			TENS	UNITS	TENS	UNITS	GR	FILE																													
G (Cont)	Tandem Recording	Less Than 1000 Trunk Numbers	23			0	0	0	0	3	6	1	3	6	1	1	3	6	0		OD	1	E	0	1	9	9		5DG						23	G (Cont)	
			24			0	1	1	1	3	6	1	3	6	1	1	3	6	0		↑	↑	↑	↑	↑	↑	↑	9		5DG							24
			25			0	2	2	2	3	6	1	3	6	1	1	3	6	0		↑	↑	↑	↑	↑	↑	9		5DG								25
			26			0	3	3	3	3	6	1	3	6	1	1	3	6	0		↑	↑	↑	↑	↑	↑	9		5DG								26
			27		7	0	0	0	0	3	6	1	3	6	1	1	3	6	0		↑	↑	↑	↑	↑	↑	9		5DG								27
			28		8	0	1	1	1																		9		5DG								28
	WATS Call	More Than 1000 Trunk Numbers	29		9	0	2	2	2																	9		5DG							29		
			30		0	0	3	3	3																	9		5DG							30		
			31							2	3	4	5	6	7	8										3	4DG								31		
	DTWX Call	First Originating Area	32							2	3	4	5	6	7	8									3	4DG								32			
			33							2	3	4	5	6	7	8									3	4DG								33			
			34							8	1	0	3	4	5	1	2	3	4							9	4DG								34		
	IDDD Call	Second Originating Area	35							8	1	0	3	4	5	1	2	3	4							9	4DG								35		
			36							8	1	0	3	4	5	1	2	3	4							9	4DG								36		
			37							2	3	4	5	6	7	8										2	4DG								37		
Service Observed Call	Third Originating Area	38							2	3	4	5	6	7	8	9									2	4DG								38			
		39							2	3	4	5	6	7	8	9	0								2	4DG								39			
		40							2	3	4	5	6	7	8	9	0	1								2	4DG								40		
Traffic Sampling		41							2	3	4	5	6	7	8	9	0	1	2							2	4DG								41		
		42																								3	4DG								42		
H	Detailed Bill — Message Unit Call		44																						0	1		3	4DG						44	H	
I	LAMA Translator Make-Busy Feature		45																								3	4DG			REC				45	I	
J	Translator Selection and Directory Number Register Relays		46																					9	3	4DG				RALO					46	J	
			47																						9	3	4DG				RALO						47
			48																		OD	1	E			9	3	4DG				RALO					







TEST CHART (Cont)

TEST	TYPE OF TEST	TEST NO.	MASTER TEST FRAME PRIMING INFORMATION																							TEST NO.	TEST																
			LINE LOCATION				DIGITS — CODE (S) AND NUMBER (CALLED NUMBER)												TRUNK CONTROL NO.		TRK CONT TRF		TRK NO.		MESSAGE BILLING INDEX			CODE PATTERN	NUMBER STRUCTURE			AIOD	MISCELLANEOUS KEYS AND/OR SWITCHES				ANI						
			FRAME NO.		VERT GR		HOR	VERT	A	B	C	D	E	F	G	H	J	K	L	OD/AD	RN	TCU	TNT	TNU	MB			CP	4DG, LST	5DG, LSD	AIOD	MISCELLANEOUS KEYS AND/OR SWITCHES											
			TENS	UNITS	TENS	UNITS	GR	FILE																																			
K (Cont)		101																	OD	1	E			9	3	4DG											101	K					
		102																		↑	↑	↑			↑	↑	↑												102	(Cont)			
		103																		↑	↑	↑			↑	↑	↑														103		
		104																		↑	↑	↑			↑	↑	↑														104		
		105																		↑	↑	↑			↑	↑	↑														105		
L	PBX-AIOD Translator Make-Busy and No Station Number Available	106																																						106	L		
M	Transfer of Start Lead from Transverter Connector	107																																							107	M	
N	Recorder Trouble Feature and Second Trial Calls Free	108																																							108	N	
O	False Ground on Trunk TC Lead	109																																							109	O	
P	Trouble Release — MTFC Busy	110																																								110	P
K	Recorder Channel Not Available for Test Call	111																																								111	Q
T	Trunk Control, Translator Service Busy, Translator Cut-in Features	112																																								112	T

Test Chart

