

**CAMA SENDER SD-26056-01**  
**TESTS USING TEST SET SD-25676-01 (J24756B)**  
**NO. 5 CROSSBAR OFFICES**

**1. GENERAL**

**PAGE**

**1.01** This section describes a method of testing CAMA senders in No. 5 crossbar offices using the master test frame (MTF) and the test set circuit for register and CAMA sender circuits (test set) SD-25676-01. A miscellaneous test which does not require the use of the MTF is included in this section.

digit of the calling number has been keyed, the CAMA sender will await keying of the seventh digit before releasing. . . . .

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**1.02** This section is reissued for the following reasons:

**C. Position Reset:** This test checks that the operation of the position reset key by the operator releases the calling number digit registration relays when an error has been recognized. .

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(a) To include test procedures required when the No. 5 crossbar office is arranged with the Electronic Translation System (ETS) and the CAMA feature is provided.

**D. Position Reorder:** The following position reorder features in the CAMA sender are checked: (1) Position reorder requested by CAMA transverter. (2) One-out-of-five digit registration, first operator error. (3) Three-out-of-five digit registration, first operator error. (4) Eighth digit registration before CAMA transverter is connected, first operator error. (5) Only six digits registered, first operator error. . . . .

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(b) To make minor changes as required.

Since this reissue is a general revision, no revision arrows have been used to denote significant changes.

This reissue does not affect Equipment Test Lists.

**1.03** The tests covered are:

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**A. Regular Call:** This test checks that the CAMA sender registers the information from the first usage marker, CAMA operator, and CAMA transverter and then seizes a second usage marker which completes the call . . . . .

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**B. Abandoned Call:** This test checks that if the call is abandoned and no calling number digits have been keyed or the seventh digit of the calling number has been keyed, the CAMA sender will release immediately. This test also checks that if the call is abandoned after one

**E. Position Release and Reorder to Second Usage Marker:** This test checks that the CAMA sender releases the position and, where applicable, signals the second usage marker to return reorder to the customer. The following position release features are checked: (1) A position release signal (PRL) is received from the CAMA transverter. (2) A one- or three-out-of-five operator error occurs as the second error. (3) A one-, two-, or three-out-of-five keypulse signal is received while a CAMA transverter is connected. (4) A trouble signal (TR) is received from the CAMA transverter. (5) A CAMA sender time-out after start for a CAMA transverter. (6) A keypulse

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signal (other than "reset") is received as eighth digit before CAMA transverter is connected when one operator error has been previously indicated. (7) A position disconnected (PD) signal is received from the CAMA position. . . . .	12	following: (1) That if the timer functions while the associated CTR_key is operated, the CAMA sender remains off-normal, operates the stuck sender alarm, and releases from the trunk. (2) That where the alarm sending feature is provided and alarms are transferred, the operation of the CTR key is ineffective. . .	20
<b>F. Reorder From First Usage Marker:</b> This test checks that when the CAMA sender receives a reorder signal from the first usage marker, the sender releases and returns to normal. . . . .	16	<b>K. CAMA Suspension:</b> This test checks the following: (1) That when CAMA is suspended, the CAMA sender does not require calling number registration to complete the call. (2) That if an operator is connected when CAMA is suspended, the position is disconnected and the call proceeds without calling number registration. (3) That if an operator is connected when CAMA is suspended and an operator error has been detected, the sender will be set for overflow. . . . .	21
<b>G. Nonworking Terminating Code Treatment:</b> This test checks that when a vacant, denied, or free terminating code is part of the called number, the second usage marker is signaled to complete the call to an intercept route. . .	16	<b>L. Translation Feature for CAMA Junctor Calls:</b> This test checks that the CAMA sender translates the trunk link frame and trunk number information generated in the outgoing sender link circuit for calls using CAMA junctors. . . . .	24
<b>H. Interdigital Timing:</b> This test checks that the timer functions in 4 to 7 seconds after the sixth digit has been keyed, except when two operator errors are indicated, it functions in 4 to 7 seconds after each of the remaining digits. . . . .	18	<b>M. Sender Busy:</b> This test checks that the sender appears busy when busy in service or made busy at the MTF. . . . .	25
<b>I. Timing:</b> The following timing features are checked: (1) If a signal indicating that a position is connected is not received in less than the timed interval of 21 to 31 seconds after the sender is seized, the timer functions and the CAMA sender signals the second usage marker to return overflow to the customer. (2) If, after the CAMA sender calls for a CAMA transverter, a release signal is not received in less than the timed interval of 21 to 31 seconds, the timer functions and the CAMA sender signals the second usage marker to return overflow to the customer. (3) If, after the CAMA sender calls for a second usage marker, a release signal is not received in less than the timed interval of 21 to 31 seconds, the timer functions to restore the CAMA sender to normal. . . . .	19	<b>N. Automatically Identified Call—Identification Successful:</b> This test checks that the CAMA sender registers the information from the first usage marker and distant ANI equipment and, if the (X) digit is a 0 or 3, seizes a second usage marker which completes the call. . . . .	25
<b>J. Cancel-Timed Release and Alarms:</b> This test checks the		<b>O. Automatically Identified Call—Identification Not Possible:</b> This test checks that if the call is from a line that cannot be identified automatically, such as multiparty lines, the CAMA sender upon receipt of a 1 or 4 in the (X) digit will switch the call to a CAMA	

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position for identification and completion by the CAMA operator. . . . .	27	
<b>P. Automatically Identified Call—Identification Failure:</b> This test checks that, if because of a trouble condition, an identification failure is encountered and the sender registers a 2 or 5 in the (X) digit, the call will be switched to a CAMA position for identification and completion by the CAMA operator. . . . .	28	<b>1.07 Lettered Steps:</b> 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 designed by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.
<b>Q. Digit Registration Check From CAMA Position:</b> This test checks that the digits transmitted from either a local or remote CAMA operator position cause the proper digit registration in the CAMA sender. . . . .	29	<b>1.08</b> The manner of selecting some circuits and test conditions at the manner 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.
<b>R. Interchangeable Codes:</b> This test checks that the CAMA sender registers the various translator indications from the first usage marker and passes the correct translator indications to the CAMA transverter and the second usage marker. . . . .	30	<b>1.09</b> The location statement, At MTF—, is used to refer to all apparatus located on the four basic bays of the MTF.
<b>S. Directory Assistance Charging:</b> This test checks the ability of the sender to record the called number structure and called number class for directory assistance calls. . . . .	31	<b>1.10</b> 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, such as DT, ORIG, ITDO, ITNP, OGT, etc.
<b>1.04</b> During Test Q, if the CAMA sender times out before the CAMA operator position is attached, the traffic register associated with the NPA lead will score. Local instructions should be followed with reference to recording and reporting these traffic register operations.		<b>1.11</b> The statement between the asterisks (* *) after ACTION and VERIFICATION statements is added to clarify the function being simulated or the action being taken in the test procedures.
<b>1.05</b> For Tests A through L and N through S, Test Charts are furnished with spaces provided for listing specific keys and switches to be operated for each test, depending upon local conditions. These charts should be filled out from local records in accordance with instructions provided in Part 5, Preparation of Test Charts.		<b>1.12</b> When the office is arranged for ETS, the distributors and scanners associated with the marker and trunk used in the test call must be in service or in a <b>maintenance-busy</b> condition—not in an <b>out-of-service</b> condition. To change a scanner or distributor from an <b>out-of-service</b> to a <b>maintenance-busy</b> condition, use the procedure given in the following section for the office arrangement.
<b>1.06</b> Test Q requires actions and verifications at the CAMA switchboard.		218-799-701—Taking ETS Equipment Out-of-Service
		<b>1.13</b> On most test calls only leads TVTD, MTC, TRP, TV2 and SDT will show up on the scan dump. To verify the other scan points in

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words 0 and 1 it will be necessary to do a SCNDAT with bits 0-3 masked in Row 5 (word 0) and bits 13-15 masked in Row 6 (word 1). The input message is:

DGN:SCNDAT,ACSaa(5,6,EOOF);RPT:1!

To abort the SCNDAT message, depress the EXEC key on the SSP.

Information concerning a repetitive directed scan diagnostic test is included in the section titled, Distributor and Scanner Diagnostics No. 5 Crossbar Offices Arranged with Electronic Translation System.

- 1.14 Two AUDIT errors are received during sender testing. They are:

AUDIT 60—The CAMA PCTV overall timer has operated. A major alarm will sound and can be silenced by operating key AR on the PCTV.

AUDIT 66—The CAMA TV Conn. Transfer start timer has operated.

### 2. APPARATUS

#### Tests A Through L, N Through S

- 2.01 Master test control circuit, SD-25800-01.
- 2.02 Test circuit for register and CAMA sender circuits, SD-25988-01.

#### Tests A Through L, N Through P, R, S

- 2.03 Test set circuit for register and CAMA sender circuits (test set), SD-25676-01.
- 2.04 Patching cord, 20-conductor, 6 feet long, equipped with one KS-13875 and one KS-13895

### 3. PREPARATION

#### STEP

#### ACTION

#### VERIFICATION

*Note:* Refer to paragraphs 1.08, 1.09.

#### Tests A Through K, N Through S

- 1 At MTF—  
Restore all keys and switches.

plug (W20C cord) (for connecting test set to test circuit for register and CAMA sender circuits).

#### Tests B, C, E, I, K, M

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

#### Tests C, E

- 2.06 Testing cord, 893 cord, 6 feet long, equipped with two 360A (socket) tools (1W13B cord) and two 624B (terminal strip connector) tools (for making test connection to terminal strip).

#### Tests C, E, I Through M

- 2.07 322A (make-busy) plugs as required.

#### Tests H, I, J

- 2.08 KS-3008 stopwatch, or equivalent.

#### Test K

- 2.09 32A test set.

- 2.10 651-type (relay contact connector holder) tools as required.

- 2.11 Testing cords, 893 cords, 6 feet long, equipped with two 360A (socket) tools (1W13B cord), one KS-6278 connecting clip, and one 639A (relay contact connector) tool (for making test connections to relay contacts).

#### Test M

- 2.12 67C test set or equivalent, (for checking the presence or absence of ground), equipped with two 624B tools (to make test connections to terminals arranged for solderless wrapped connections).

STEP	ACTION	VERIFICATION
2	Momentarily operate RL key.	All lamps extinguished.
3	Select CAMS class of test.	
4	Operate TLK, TCB keys.	
5	Select CAMA sender.	
6	Select marker.	
7	Set MF switch to MAX L.	
8	Select CAMA position 0.	
9	Release (push-in) CTR_ key associated with sender under test.	

**Tests A Through K, N Through P, R, S**

- 10 At MTF—  
Patch IRT jack to IRT connector of test set.
- 11 At test set—  
Set L switch to OFF.

**Tests A Through K, R, S**

- 12 At MTF—  
Operate OD key.

**Tests N Through P**

- 13 At MTF—  
Operate AD key

**4. METHOD**

STEP	ACTION	VERIFICATION
<b>A. Regular Call</b>		
<b>8-Digit, 7-Digit, and DDD Calls</b>		
13	At MTF— Operate keys and set switches in accordance with Test Chart Test 1.	CAMA lamp lighted.
14a	If No. 5 ETS CAMA is provided— Operate PCAM key *Programmed CAMA*	

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STEP	ACTION	VERIFICATION
15	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
16	At MTF— Operate REC key.	
17	At test set— Key calling number in accordance with Test Chart Test 1.	<p>P lamp extinguished. At MTF— MRL lamp lighted. High tone silenced. Two trouble records taken.</p> <p><b>First trouble record</b> TVT, LST or 4DG, CP_, OBS or NOB, RN_, RG_, BI0 or BI1, ORC_ OD, TIA0, MBI_, 2L or 4L, LCD_ or ACD, WKC designations perforated. A_ through K_ designations perforated, as required for called number. OA_ through OG_ designations perforated for calling number.</p> <p><b>Second trouble record</b> MKR, SRT, LT or TT, TCB designations perforated. THT_, HT_, TT_, UT_, FG_, TF_ designations perforated for trunk and trunk link frame numbers. LCD_ or ACD designation perforated for terminating area. WKC designation perforated for call routing. A_ through K_ designations perforated, as required for called number.</p> <p>If No. 5 ETS CAMA is provided— At maintenance terminal— ETS error message <i>not</i> printed. CAMA test call printed, the header contains: PCTV number. Calling number. TI0-3 information. OD/AD identification. Trunk number. Connector and sender number. The distribute buffer contains: Distribute points PRL, LCD_ and WKC are set. PRL bit = 1 (word 00 bit 01). LCD bit = 1 (word 00 bits 02-04). WKC bit = 1 (word 00 bit 06). Refer to paragraphs 1.13 and 1.14.</p>

STEP	ACTION	VERIFICATION
18	At MTF— Restore REC key.	
19	Momentarily operate RL key.	All lamps extinguished except CAMA.
20	Repeat Steps 13 through 19, as required for Tests 2 through 41.	
21	Restore all keys and switches.	CAMA lamp extinguished.
22	Remove patching cord from IRT jacks.	
<b>B. Abandoned Call</b>		
13	At MTF— Operate keys and set switches in accordance with Test Chart Test 42.	CAMA lamp lighted.
14	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
15	At MTF— Operate CA key.	POSC lamp extinguished. High tone silenced. At test set— P lamp extinguished.
16	At MTF— Restore CA key.	
17	Momentarily operate RL key.	All lamps extinguished except CAMA.
18	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. At test set— P lamp lighted.
19	Key first digit of calling number in accordance with Test Chart Test 42.	
20	At MTF— Operate CA key.	POSC lamp remains lighted.
21	At test set— Key all remaining digits of calling number in accordance with Test Chart Test 42.	After second through sixth digit is keyed— At MTF— POSC lamp remains lighted. After seventh digit is keyed— POSC lamp extinguished. High tone silenced. At test set— P lamp extinguished.

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STEP	ACTION	VERIFICATION
22	At MTF— Restore CA key.	
23	Momentarily operate RL key.	All lamps extinguished except CAMA.
24	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. At test set— P lamp lighted.
25	At sender under test— Block operated STTI relay.	
26	At MTF— Operate CA key.	At sender under test— ON relay operated.
27	Block operated RLT relay.	ON relay released.
28	Remove blocking tools from STTI, RLT relays.	
29	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
30	Restore all keys and switches.	CAMA lamp extinguished.
31	Remove patching cords from IRT jacks.	

C. Position Reset

13	At MTF— Operate keys and set switches in accordance with Test Chart Test 43.	CAMA lamp lighted.
14	Insert make-busy plug into MB_jack associated with sender under test.	
15	At sender under test— Connect terminal 18 to terminal 28 on N terminal strip.	
16	Block nonoperated PRL, PRLA relays.	
17	At MTF— Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
18	Key first six digits of calling number in accordance with Test Chart Test 43.	

**Note:** Proceed to Step 19 immediately after Step 18.

STEP	ACTION	VERIFICATION
19	Key 0 and 1 digits simultaneously.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted.
20	Momentarily operate RS key.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp remains lighted. If CAMA switchboards are remote— At test set— IAOF lamp extinguished.
21	Key 0 and 1 digits simultaneously.  <i>Note:</i> Proceed to Step 22 immediately after Step 21.	
22	Momentarily operate RS key.	After approximately 10 seconds— P lamp remains lighted.
23	At MTF— Operate REC key.	
24	At test set— Key all digits of calling number in accordance with Test Chart Test 43.  <i>Note:</i> Proceed to Step 25 immediately after Step 24.	
25	At start of perforation of first trouble record resulting from Step 24— Momentarily operate RS key.	Two trouble records taken. A_ through K_ designations perforated as required for called number on each trouble record. SRT, RO designations perforated on second trouble record. At test set— P lamp extinguished.
26	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
27	Restore REC key.	
28	At sender under test— Remove test connection from N terminal strip.	

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STEP	ACTION	VERIFICATION
29	Remove blocking tools from PRL, PRLA relays.	
30	At MTF— Remove make-busy plug from MB_ jack associated with sender under test.	
31	Restore all keys and switches.	CAMA lamp extinguished.
32	Remove patching cord from IRT jacks.	
<b>D. Position Reorder</b>		
13	At MTF— Operate keys and set switches in accordance with Test Chart Test 44 (except A_ through K_). Operate A_ through G_ keys or set A_ through G_ switches of called number to match A_ through G_ keys of calling number listed under Test Set Keys.	
14a	If No. 5 ETS CAMA is provided— Operate PCAM key *Programmed CAMA*	
15	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted High tone heard. At test set— P lamp lighted.
16a	If No. 5 ETS CAMA is provided— At MTF— Operate REC key.	
17	At test set— Key calling number in accordance with Test Chart Test 44.	At MTF— High tone still heard. Disregard trouble record. If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted. If No. 5 ETS CAMA is provided— At maintenance terminal— ETS error message <i>not</i> printed. CAMA test call printed, the header contains: PCTV number. Calling number. TI0-3 information. OD/AD identification. Trunk number.

STEP	ACTION	VERIFICATION
		Connector and sender number. The distribute buffer contains: Distribute point ROP is set. ROP bit = 1 (word 00 bit 13). Refer to paragraphs 1.13 and 1.14.
18a	At MTF— Restore PCAM, REC keys.	
19	Momentarily operate RL key.	All lamps extinguished except CAMA.
20	Operate A_ through K_ keys or set A_ through K_ switches, as required in accordance with Test Chart Test 44.	
21	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
22	Momentarily operate SF-IA key.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted.
23	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
24	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
25	Key 0 and 1 digits simultaneously.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted.
26	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
27	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard.

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STEP	ACTION	VERIFICATION
		At test set— P lamp lighted.
28	Key calling number in accordance with Test Chart Test 44; then immediately rekey seventh digit.	If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted.
29	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
30	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
31	Key first six digits of calling number in accordance with Test Chart Test 44.	In approximately 5 seconds— If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted.
32	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
33	Restore all keys and switches.	CAMA lamp extinguished.
34	Remove patching cords from IRT jacks.	
<b>E. Position Release and Reorder to Second Usage Marker</b>		
13	At MTF— Operate keys and set switches in accordance with Test Chart Test 45.	CAMA lamp lighted.
14	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
15	Key calling number in accordance with Test Chart Test 45.	P lamp extinguished. At MTF— High tone silenced. MRL lamp lighted.
16	Momentarily operate RL key.	All lamps extinguished except CAMA.

STEP	ACTION	VERIFICATION
17	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
18	Momentarily operate SF-IA key.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted.
19	Momentarily operate RS key.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp remains lighted. If CAMA switchboards are remote— At test set— IAOF lamp extinguished.
20	Key first six digits of calling number in accordance with Test Chart Test 45.	
	<b>Note:</b> Proceed to Step 21 immediately after Step 20.	
21	Key 0 and 1 digits simultaneously.	P lamp extinguished. At MTF— High tone silenced. Two trouble records taken. Disregard first trouble record. MKR, SRT, RO designations perforated on second trouble record.
22	Momentarily operate RL key.	All lamps extinguished except CAMA.
23	Restore SDT1 key.	
24	Operate SDT2 key.	
25	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
26	Key calling number in accordance with Test Chart Test 45.	P lamp extinguished. At MTF— High tone silenced. Two trouble records taken.

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STEP	ACTION	VERIFICATION
		Disregard first trouble record. MKR, SRT, RO designations perforated on second trouble record.
27	Momentarily operate RL key.	All lamps extinguished except CAMA.
28	Restore SDT2 key.	
29	Operate SDT1 key.	
30	Insert make-busy plug into MB_jack associated with sender under test.	
31	At sender under test— Connect terminal 18 to terminal 28 on N terminal strip.	
32	Block nonoperated PRL, PRLA relays.	
33	At MTF— Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
34	At MTF— Operate REC key.	
35	At test set— Key calling number in accordance with Test Chart Test 45.	
	<b>Note:</b> Proceed to Step 36 immediately after Step 35.	
36	At start of perforation of first trouble record resulting from Step 35— Momentarily operate RS_ key.	P lamp extinguished. At MTF— High tone silenced. Two trouble records taken. Disregard first trouble record. MKR, SRT, RO designations perforated on second trouble record.
37	Restore REC key.	
38	Momentarily operate RL key.	All lamps extinguished except CAMA.
39	At sender under test— Remove test connection from N terminal strip.	
40	Remove blocking tools from PRL, PRLA relays.	

STEP	ACTION	VERIFICATION
41	Block nonoperated ROPA relay.	
42	Block operated ROP relay.	
43	At MTF— Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
44	Key calling number in accordance with Test Chart Test 45.	In approximately 25 seconds— P lamp extinguished. At MTF— High tone silenced. Two trouble records taken. Disregard first trouble record. MKR, SRT, RO designations perforated on second trouble record.
45	Momentarily operate RL key.	All lamps extinguished except CAMA.
46	At sender under test— Remove blocking tools from ROPA, ROP relays.	
47	At MTF— Remove make-busy plug from MB_ jack associated with sender under test.	
48	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
49	Momentarily operate SF-IA key.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted.
50	Momentarily operate RS key.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp remains lighted. If CAMA switchboards are remote— At test set— IAOF lamp extinguished.

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<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
51	Key calling number in accordance with Test Chart Test 45, then immediately rekey seventh digit.	P lamp extinguished. At MTF— High tone silenced. Two trouble records taken. Disregard first trouble record. MKR, SRT, RO designations perforated on second trouble record.
52	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
53	Momentarily operate STT key.	P lamp extinguished. High tone silenced.
54	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
55	Restore all keys and switches.	
56	Remove patching cord from IRT jacks.	

**F. Reorder From First Usage Marker**

13	At MTF— Operate keys and set switches in accordance with Test Chart Test 46.	
14	Operate REC key.	
15	Momentarily operate ST key.	CK, CK2 lamps lighted. POSC lamp not lighted. Trouble record taken. MKR, SRT, RO designations perforated.
16	Momentarily operate RL key.	All lamps extinguished except CAMA.
17	Restore REC key.	
18	Restore all keys and switches.	
19	Remove patching cord from IRT jacks.	

**G. Nonworking Terminating Code Treatment**

13	At MTF— Operate keys and set switches in accordance with Test Chart Test 47.	CAMA lamp lighted.
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STEP	ACTION	VERIFICATION
14a	If No. 5 ETS CAMA is provided— Operate PCAM key. *Programmed CAMA*	
15	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
16	At MTF— Operate REC key.	
17	At test set— Key calling number in accordance with Test Chart Test 47.	P lamp extinguished. At MTF— MRL lamp lighted. Two trouble records taken. <b>First trouble record</b> TVT, BI_, ORC_, OD and VTC, DNC, or FC designations perforated. A_ through K_ designations perforated as required for terminating code. OA_ through OG_ designations perforated for calling number. <b>Second trouble record</b> MKR, SRT and VTC, DNC, or FC designations perforated. A_ through K_ designations perforated as required for terminating code. If No. 5 ETS CAMA is provided— At maintenance terminal— ETS error message <b>not</b> printed CAMA test call printed, the header contains: PCTV number. Calling number. TIO-3 information. OD/AD identification. Trunk number. Connector and sender number. The distribute buffer contains: Distribute point VTC is set. VTC = 1 (word 00 bit 07). Refer to paragraphs 1.13 and 1.14.
18	At MTF— Restore REC key.	
19	Momentarily operate RL key.	All lamps extinguished except CAMA.
20	Repeat Steps 13 through 19, as required for Tests 48 and 49.	
21	Restore all keys and switches.	CAMA lamp extinguished.

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STEP	ACTION	VERIFICATION
22	Remove patching cord from IRT jacks.	
<b>H. Interdigital Timing</b>		
13	At MTF— Operate keys and set switches in accordance with Test Chart Test 50.	
14	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
15	Key first six digits of calling number in accordance with Test Chart Test 50; <i>start timing.</i>	At MTF— In 5 to 7 seconds— High tone still heard. If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted.
16	Momentarily operate RS key.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp remains lighted. If CAMA switchboards are remote— At test set— IAOF lamp extinguished.
17	Momentarily operate SF-IA key.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp flashes at reorder rate. If CAMA switchboards are remote— At test set— IAOF lamp lighted.
18	Momentarily operate RS key.	At MTF— High tone still heard. If CAMA switchboards are local— At test set— P lamp remains lighted. If CAMA switchboards are remote— At test set— IAOF lamp extinguished.
19	Momentarily operate SF-IA; <i>start timing.</i>	At MTF— In 5 to 7 seconds—

STEP	ACTION	VERIFICATION
		<p>Two trouble records taken.  Disregard first trouble record.  MKR, SRT, RO designations perforated on second trouble record.  High tone silenced.  At test set—  P lamp extinguished.</p>
20	<p>At MTF—  Momentarily operate RL key.</p>	All lamps extinguished except CAMA.
21	Restore all keys and switches.	
22	Remove patching cord from IRT jacks.	
<b>I. Timing</b>		
13	<p>At MTF—  Operate keys and set switches in accordance with Test Chart Test 51.</p>	CAMA lamp lighted.
14	<p>Insert make-busy plug into MB_jack associated with sender under test.</p>	
15	Operate REC, CAT keys.	
16	Momentarily operate ST key, <i>start timing</i> .	<p>In 21 to 31 seconds—  Trouble record taken.  MKR, SRT, RO designations perforated.  MRL lamp lighted.</p>
17	Momentarily operate RL key.	All lamps extinguished except CAMA.
18	Restore CAT, REC keys.	
19	<p>At sender under test—  Block nonoperated ROPA relay.</p>	
20	Block operated ROP relay.	
21	<p>At MTF—  Momentarily operate ST key.</p>	<p>POSC, CK2, LK2 lamps lighted.  High tone heard.  At test set—  P lamp lighted.</p>
22	<p>Key calling number in accordance with Test Chart Test 51; <i>start timing</i>.</p>	<p>At MTF—  Trouble record taken.  MKR, SRT, RO designations perforated.</p>
23	Momentarily operate RL key.	All lamps extinguished except CAMA.

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STEP	ACTION	VERIFICATION
24	At sender under test— Remove blocking tools from ROP, ROPA relays.	
25	Insulate contacts 7B, 12B of MTRL relay.	
26	Block nonoperated PRLA relay.	
27	At MTF— Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
28	Key calling number in accordance with Test Chart Test 51; <i>start timing</i> .	At MTF— In 21 to 31 seconds— POSC lamp extinguished. High tone silenced. At test set— P lamp extinguished.
29	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
30	At sender under test— Remove insulators from MTRL relay.	
31	Remove blocking tool from PRLA relay.	
32	At MTF— Remove make-busy plug from MB_ jack associated with sender under test.	
33	Restore all keys and switches.	
34	Remove patching cord from IRT jacks.	
<b>J. Cancel-Timed Release and Alarms</b>		
13	At MTF Operate keys and set switches in accordance with Test Chart Test 52.	CAMA lamp lighted.
14	Operate (pull-out) CTR key of sender under test.	
15	Operate REC, CAT keys.	
16	Momentarily operate ST key; <i>start timing</i> .	In 21 to 31 seconds— TO lamp lighted. In 10 to 15 seconds after TO lamp lighted— R-S-TOA lamp lighted. Major alarm sounds.

STEP	ACTION	VERIFICATION
		Trouble record taken. MKR, SRT, RO designations perforated.
		<b>Note:</b> If another circuit starts the common alarm circuit causing the R-S-TOA lamp to light in less than 10 seconds, momentarily operate RL key and repeat Step 16.
17	Insert make-busy plug into MB_jack associated with sender under test.	R-S-TOA lamp extinguished. TO lamp remains lighted. Major alarm silenced.
18	Restore (push-in) CTR_ key.	TO lamp extinguished.
19	Remove make-busy plug from MB_ jack associated with sender under test.	
20	Momentarily operate RL key.	All lamps extinguished except CAMA.
21a	If alarm sending feature is provided— Operate (pull-out) CTR_ key associated with sender under test.	
22a	Operate transfer key to DB or SB position, if provided, or to NTR position.  <b>Note:</b> Notify receiving office that all alarms will be transferred.	
23a	Momentarily operate ST key; <b>start timing.</b>	In 21 to 31 seconds— Trouble record taken. MKR, SRT, RO designations perforated. TO lamp not lighted.
24a	Momentarily operate RL key.	All lamps extinguished except CAMA.
25a	Restore CTR_ key.	
26	Restore all keys and switches.	CAMA lamp extinguished.
27	Remove patching cord from IRT jacks.	

#### K. CAMA Suspension

- 13 At sender frame of sender under test—  
Block nonoperated TI3 relays of all senders except sender under test.  
\*Each CAMA sender frame contains three CAMA senders, block nonoperated the TI3 relays of the two **not** under test.\*

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- | STEP | ACTION   | VERIFICATION |
|------|--|--------------|
| 14   | At MTF—<br>Insert make-busy plug into MB_jack associated with sender under test.   |              |
| 15   | At CAMA suspension circuit—<br>Connect ground to fixed contact of SUS_ relay associated with sender frame under test.<br>Refer to Table A. |              |

SENDER FRAME CONTAINING SENDER UNDER TEST	CONNECT GROUND TO	
	CONTACT TERMINAL	RELAY
First	2	SUS0
Second	2	SUS1
Third	3	SUS0
Fourth	3	SUS1
Fifth	11	SUS0
Sixth	11	SUS1
Seventh	12	SUS0
Eighth	12	SUS1
Ninth	2	SUS2
Tenth	2	SUS3
Eleventh	3	SUS2
Twelfth	3	SUS3
Thirteenth	11	SUS2
Fourteenth	11	SUS3

- |    |   |   |
|----|---|---|
| 16 | Connect ground to fixed contact 1 of all SUS_ relays.                           |   |
| 17 | At MTF—<br>Operate keys and set switches in accordance with Test Chart Test 53. | CAMA lamp lighted.  |
| 18 | Momentarily operate ST key.   | CK2 lamp lighted.<br>At test set—<br>P lamp not lighted.<br>At MTF—<br>Trouble record taken.<br>MKR, SRT designations perforated. |
| 19 | Momentarily operate RL key.   | All lamps extinguished except CAMA.   |
| 20 | Remove patching cord of test set from IRT jack.                                 |   |

STEP	ACTION	VERIFICATION
21	At sender frame of sender under test— Patch IRT connector of test set to IRT jack.	
22	Insert plug of 32A test set into RC jack.	
23	At sender under test— Block operated TI3 relay.	
24	At 32A test set— Momentarily operate ST (white) button.	At test set— P lamp lighted.
25	At sender under test— Remove blocking tool from TI3 relay.	PRLA relay momentarily operated. At MTF— Trouble record taken. MKR, SRT designations perforated.
26	At 32A test set— Momentarily operate RL (red) button.	At test set— P lamp extinguished.
27	At sender under test— Block nonoperated TI3 relay.	
28	At 32A test set— Momentarily operate ST (white) button.	At test set— P lamp lighted.
29	Momentarily operate SF-IA key.	P lamp flashes at reorder rate.
30	At sender under test— Remove blocking tool from TI3 relay.	RO1 relay momentarily operated. At MTF— Trouble record taken. MKR, SRT, RO1 designations perforated.
31a	If no other tests are to be performed— At CAMA suspension circuit— Remove test connections from SUS_ relays.	
32a	At sender frame of sender under test— Remove blocking tool from all TI3 relays.	
33a	Remove patching cord of test set from IRT jack.	
34a	Remove plug of 32A test set from RC jack.	
35a	At MTF— Remove make-busy plug from MB_ jack associated with sender under test.	
36a	Momentarily operate RL key.	All lamps extinguished except CAMA.
37a	Restore all keys and switches.	CAMA lamp extinguished.

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STEP	ACTION	VERIFICATION
<b>L. Translation Feature for CAMA Junctor Call</b>		
1	At MTF— Restore all keys and switches.	
2	Momentarily operate RL key.	All lamps extinguished.
3	Patch IRT jack to IRT connector of test set.	
4	Release (push-in) CTR_ key associated with sender under test.	
5	Select SDR class of test.	
6	Select CAMA sender.	
7	Select marker.	
8	Operate keys and set switches in accordance with Test Chart Test 54.	CAMA lamp lighted.
9	Operate OD, REC keys.	
10	Set MF switch to MAX L.	
11	Select CAMA position 0.	
12	Select class of service and rate treatment as required for calling customer.	
13	At test set— Operate L switch to OFF.	
14	At MTF— Operate FS, TS keys.	
15	Select CAMA junctor under test.	
16	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
17	Key calling number in accordance with Test Chart Test 54.	P lamp extinguished. At MTF— High tone silenced. Trouble record taken. MKR, SRT, OBS designations perforated. THT_ HT_ TT_ UT_ FG_ TF_ designations perforated for trunk and trunk link frame numbers on which bunched overflow appearance is located.

STEP	ACTION	VERIFICATION
18	Momentarily operate RL key.	All lamps extinguished except CAMA.
19	Repeat Steps 14 through 18 as required, selecting CAMA junctors that have bunched overflow appearance on trunk link frame.	
20	Restore all keys and switches.	CAMA lamp extinguished.
21	Remove patching cord from IRT jacks.	
<b>M. Sender Busy</b>		
1	At sender frame— When sender to be tested is idle— Block operated SB relay.	
2	At MTF— Insert make-busy plugs into MB_ jacks of all other senders in subgroup associated with sender under test.	At sender under test— Ground absent on terminal 15 of terminal strip A and 42, 52 of terminal strip B of control and class unit.
3	At MTF— Insert make-busy plug into MB_ jack associated with sender under test.	
4	At sender under test— Remove blocking tool from SB relay.	Ground absent on terminal 15 of terminal strip A and 42, 52 of terminal strip B of control and class unit.
5	At MTF— Remove make-busy plug from MB_ jack associated with sender under test.	At sender under test— Ground present on terminal 15 of terminal strip A and 42, 52 of terminal strip B of control and class unit.
6	At MTF— Remove make-busy plugs from MB_ jacks of all senders made busy in Step 2.	
<b>N. Automatically Identified Call— Identification Successful</b>		
14	At MTF— Insert make-busy plug into MB_ jack associated with sender under test.	
15	At sender under test— Remove TM electron tube.	
16	At MTF— Operate REC key.	

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STEP	ACTION	VERIFICATION
17	Operate keys and set switches in accordance with Test Chart Test 55.	CAMA lamp lighted.
18	Momentarily operate ST key.	CK2 lamp lighted. Trouble record taken. MKR, SRT, AD, AD', OBS or NOB designations perforated. At test set— RR lamp lighted.
19a	If No. 5 ETS CAMA is provided— At MTF— Operate PCAM key *Programmed CAMA*	
20	At test set— Momentarily operate KP key.	
21	Key X digit and calling number in accordance with Test Chart Test 55.	
22	Momentarily operate ST key.	At MTF— MRL lamp lighted. Two trouble records taken. TVT, TIA0, AD, OBS or NOB designations perforated on first trouble record. Disregard second trouble record. If No. 5 ETS CAMA is provided— At maintenance terminal— ETS error message <i>not</i> printed. CAMA test call printed, the header contains: PCTV number. Calling number. TIO-3 information. OD/AD identification. Trunk number. Connector and sender number. Refer to paragraphs 1.13 and 1.14.
23	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
24	Repeat Steps 17 through 23, as required for Test 56.	
25	Restore all keys and switches.	CAMA lamp extinguished.
26	Remove patching cord from IRT jacks.	
27	At sender under test— Replace TM electron tube.	

STEP	ACTION	VERIFICATION
28	At MTF— Remove make-busy plug from MB_ jack associated with sender under test.	
<b>O. Automatically Identified Call— Identification Not Possible</b>		
14	At MTF— Insert make-busy plug into MB_ jack associated with sender under test.	
15	At sender under test— Remove TM electron tube.	
16	At MTF— Operate REC key.	
17	Operate keys and set switches in accordance with Test Chart Test 57.	CAMA lamp lighted.
18	Momentarily operate ST key.	CK2 lamp lighted. Trouble record taken. MKR, SRT, AD, AD', OBS or NOB designations perforated. At test set— RR lamp lighted.
19	If No. 5 ETS CAMA is provided— At MTF— Operate PCAM key. *Programmed CAMA*	
20	At test set— Momentarily operate KP key.	
21	Key X digit in accordance with Test Chart Test 57.	RR lamp extinguished. P lamp lighted. At MTF— POSC lamp lighted. High tone heard.
22	At test set— Key calling number in accordance with Test Chart Test 57.	P lamp extinguished. At MTF— MRL lamp lighted. High tone silenced. Two trouble records taken. TVT, TIA0, OD, OBS or NOB designations perforated on first trouble record. Disregard second trouble record. If No. 5 ETS CAMA is provided— At maintenance terminal— ETS error message <i>not</i> printed

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STEP	ACTION	VERIFICATION
		CAMA test call printed, the header contains: PCTV number. Calling number. TIO-3 information. OD/AD identification. Trunk number. Connector and sender number. Refer to paragraphs 1.13 and 1.14.
23	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
24	Repeat Steps 17 through 23, as required for Test 58.	
25	Restore all keys and switches.	CAMA lamp extinguished.
26	Remove patching cord from IRT jacks.	
27	At sender under test— Replace TM electron tube.	
28	At MTF— Remove make-busy plug from MB_ jack associated with sender under test.	
<b>P. Automatically Identified Call—Identification Failure</b>		
14	At MTF— Insert make-busy plug into MB_ jack associated with sender under test.	
15	At sender under test— Remove TM electron tube.	
16	At MTF— Operate REC key.	
17	Operate keys and set switches in accordance with Test Chart Test 59.	CAMA lamp lighted.
18	Momentarily operate ST key.	CK2 lamp lighted. Trouble record taken. MKR, SRT, AD, AD', OBS or NOB designations perforated. At test set— RR lamp lighted.
19a	If No. 5 ETS CAMA is provided At MTF— Operate PCAM key *Programmed CAMA*	

STEP	ACTION	VERIFICATION
20	At test set— Momentarily operate KP key.	
21	Key X digit in accordance with Test Chart Test 59.	RR lamp extinguished. P lamp lighted. At MTF— POSC lamp lighted. High tone heard.
22	At test set— Key calling number in accordance with Test Chart Test 59.	P lamp extinguished. At MTF— MRL lamp lighted. High tone silenced. Two trouble records taken. TVT, TIA2, OD, OBS or NOB designations perforated on first trouble record. Disregard second trouble record. If No. 5 ETS CAMA is provided— At maintenance terminal— ETS error message <i>not</i> printed CAMA test call printed, the header contains: PCTV number. Calling number. TI0-3 information. OD/AD identification. Trunk number. Connector and sender number. Refer to paragraphs 1.13 and 1.14.
23	At MTF— Momentarily operate RL key.	All lamps extinguished except CAMA.
24	Repeat Steps 17 through 23, as required for Test 60.	
25	Restore all keys and switches.	CAMA lamp extinguished.
26	Remove patching cord from IRT jacks.	
27	At sender under test— Replace TM electron tube.	
28	At MTF— Remove make-busy plug from MB_ jack associated with sender under test.	
<b>Q. Digit Registration Check From CAMA Position</b>		
10	At MTF— Operate keys and set switches in accordance with Test Chart Test 61.	CAMA lamp lighted.

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STEP	ACTION	VERIFICATION
11	Momentarily operate ST key.	CK2 lamp lighted. At CAMA position— Operator answers.
12	At MTF— Operate REC key.	
13	Inform operator that this is test call. Request that calling number be keyed in accordance with Test Chart Test 61.	After calling number is keyed— MRL lamp lighted. Two trouble records taken. TVT, OD, SK0, SK1, NOB, TIA0, A_ through K_ designations perforated, as required for called number. OA_ through OG_ designations perforated for calling number. Disregard second trouble record.
14	Momentarily operate RL key.	All lamps extinguished except CAMA.
15	Restore all keys and switches.	CAMA lamp extinguished.

**R. Interchangeable Codes**

13	At MTF— Operate keys and set switches in accordance with test Chart Test 62.	
14	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
15	At MTF— Operate REC key.	
16	At test set— Key calling number in accordance with Test Chart Test 62.	P lamp extinguished. At MTF— MRL lamp lighted. Two trouble records taken. Designations perforated in accordance with Table B.

STEP

ACTION

VERIFICATION

TABLE B		
TEST NO.	1ST TROUBLE RECORDER CARD	2ND TROUBLE RECORDER CARD
62	TVT, CP1, 4DG	MKR, LT, PCD, TCB
63	TVT, CP7, 4DG	MKR, TT, PCD, TCB
64	TVT, CP1, LST	MKR, LT, PCD1, TCB
65	TVT, CP1, 4DG	MKR, LT, PCD1, TCB
66	TVT, CP7, 4DG	MKR, TT, PCD1, TCB

- |    |  |                                     |
|----|--|-------------------------------------|
| 17 | Restore REC key.   |                                     |
| 18 | Momentarily operate RL key.                                      | All lamps extinguished except CAMA. |
| 19 | Repeat Steps 13 through 18, as required for Tests 63 through 66. |                                     |
| 20 | Restore all keys and switches.                                   | CAMA lamp extinguished.             |
| 21 | Remove patching cord from IRT jacks.                             |                                     |

#### 5. Directory Assistance Charging

- |    |   |
|----|---|
| 13 | At MTF—<br>Operate keys and set switches in accordance with Test Chart Test 66. |
|----|---|

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STEP	ACTION	VERIFICATION
14	Momentarily operate ST key.	POSC, CK2, LK2 lamps lighted. High tone heard. At test set— P lamp lighted.
15	At MTF— Operate REC key.	P lamp extinguished. At MTF— MRL lamp lighted. High tone silenced.
16	At test set— Key calling number in accordance with Test Chart Test 1.	Two trouble records taken— <b>First trouble record</b> TVT, OBS or NOB, RN_, RG_, BI0 or BI1, ORC_, OD, TIA0, LCD_, WKC designations perforated. A_ through G_ designations perforated, as required for <b>called</b> number. OA_ through OG_ designations perforated for <b>calling</b> number. If test is for 411 or 555-1212 <b>observed</b> or <b>nonobserved</b> 2-line entry (bulk-billed)— CP1, LST, MBI6, 2L designations perforated. If test is for 555-1212 <b>observed</b> or <b>nonobserved</b> 4-line entry (detail billed)— CP1, 4DG, MBI9, 4L designations perforated. MKR, SRT, LT, TCB, LCD_, WKC designations perforated. THT_HT_, TT_, UT_, FG_, TF_ designations perforated for trunk and trunk link frame numbers. A_ through G_ designations perforated, as required for <b>called</b> number.
17	Restore REC key.	All lamps extinguished except CAMA.
18	Momentarily operate RL key.	CAMA lamp extinguished.
19	Repeat Steps 13 through 18, as required for Tests 67 through 69.	
20	Restore all keys and switches.	
21a	Remove patching cord from IRT jacks.	

## 5. PREPARATION OF TEST CHART

5.01 The Test Chart is used as a particular number chart and provides the priming information required for each test. Information obtained from local office records should be used to fill in the Test Chart in the following manner:

### MTF KEYS AND SWITCHES

(a) For non-DDD calls, record the A\_, B\_, and C\_ digits for working terminating office codes that can be reached by the sender. Record the D\_, E\_, F\_, and G\_ digits using any four numerals (0-9) for the **called number** unless the numerals are already shown.

(a) For DDD calls, record the A\_, B\_, and C\_ digits for working area codes sent by the sender. Record the D\_, E\_, and F\_ digits for working terminating office codes that can be reached by the sender. Record the G\_, H\_, J\_, and K\_ digits using any four numerals (0-9) for the **called number** unless the numerals are already shown.

(c) Record incoming CAMA trunk numbers under columns THT\_, HT\_, TT\_, and UT\_ to check registration of each used numeral in each digit of trunk number.

(d) Record originating rate classes under column ORC\_ to check registration of each used class.

(e) Record the recorder numbers under column ITC-RN\_ to check registration of each used recorder number.

### TEST SET KEYS

(f) Record the A\_, B, and C\_ digits for working originating codes used for the **calling number**.

#### 5.02 Test A

(1) Determine from local office records:

(a) The working terminating office code for each office that can be reached by the sender on a CAMA basis.

(b) The working DDD area code being sent by the sender

(c) The working originating office code requiring operator identification.

(2) For Tests 1 through 5, apply (a), (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for bulk-billed 8-digit calls.

(3) For Tests 1 through 24, apply (a), (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for bulk-billed 7-digit calls.

(4) For Tests 25 through 41, apply (b), (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for detail-billed 10-digit calls.

#### 5.03 Tests B Through D

(1) For Tests 42, 43, and 44, apply (a) or (b), and (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for bulk-billed 7- or 10-digit calls as required.

#### 5.04 Test E

(1) For Test 45, apply (a) or (b) and (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for a detail-billed 7- or 10-digit call as required.

#### 5.05 Test F

(1) For Test 46, apply (a) or (b) and (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for a bulk-billed 7- or 10-digit call as required.

#### 5.06 Test G

(1) For Test 47, apply (a), (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for a vacant terminating code.

(2) For Test 48, apply (a) or (b) and (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for a denied terminating code as required.

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- (3) For Test 49, apply (a), (c) through (f) of 5.01, selecting originating rate class, called or calling numbers for a free terminating code.

**5.07 Tests H Through K**

- (1) For Tests 50 through 52, apply (a) or (b) and (c) through (f) of 5.01, selecting originating rate class, called, or calling numbers for bulk-billed 7- or 10-digit calls as required.

**5.08 Test L**

- (1) For Test 54, apply (a), or (b) and (f) of 5.01, for a bulk billed 7- or 10-digit call as required.

**5.09 Tests N Through P**

- (1) For Tests 55 through 60, apply (a) or (b) and (c) through (f) of 5.01, selecting originating rate class, called, or calling numbers for bulk-billed 7- or 10-digit calls as required.

**5.10 Test Q**

- (1) For Test 61, apply (a) or (b) and (c) through (e) of 5.01, selecting originating rate class, called, or calling numbers for a bulk-billed 7- or 10-digit call as required.

**5.11 Test R**

- (1) For Test 62, apply (a), (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for interchangeable codes where the NXX code is used for local and numbering plan areas using a tandem-type trunk.

- (2) For Test 63, apply (b), (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for interchangeable codes where the NXX code is used for numbering plan areas and local areas using a tandem-type trunk.

- (3) For Test 64, apply (a), (c) through (f) of 5.01, selecting originating rate class, called, and calling numbers for interchangeable codes where the NXX code is used for local and numbering plan areas using an intertoll trunk.

- (4) For Test 65, apply (b), (c) through (f) of 5.01, selecting originating class, called, and calling numbers for interchangeable codes where the NXX code is used for numbering plan areas and local areas using an intertoll trunk.

**5.12 Test S**

- (1) For Tests 66 through 69, apply (c) through (f) of 5.01, selecting originating rate class, called, and calling number for 3- or 7-digit calls.

TEST CHART

TEST BSP	TEST TITLE	TEST NO.	MASTER TEST FRAME KEYS AND SWITCHES														TEST SET KEYS							TEST NO.	BSP TEST									
			DIGITS — CODE (S) AND NUMBER (CALLED NUMBER)										INCOMING TRUNK NO.				ORC	ITC-RN-	ICL-*	TRNA-*	MISCELLANEOUS					DIGITS — CODE AND NUMBER (CALLING NUMBER)								
			A-	B-	C-	D-	E-	F-	G-	H-	J-	K-	THT-	HT-	TT-	UT-					X	A-	B-			C-	D-	E-	F-	G-				
A	Regular Call	8-Digit	1			1	3	6	0	7									INC	LT	CAM0	SDT1	OBS					1	3	6	0	1	A	
			2			3	6	0	7	1										INC	LT	CAM0	SDT1	OBS					3	6	0	1		2
			3			6	0	7	1	3										INC	LT	CAM0	SDT1					6	0	1	3	3		
			4			0	7	1	3	6											INC	LT	CAM0	SDT1					0	1	3	6		4
			5			7	1	3	6	0											INC	LT	CAM0	SDT1					1	2	3	4		5
			6			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4		6
			7			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4		7
			8			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4		8
			9			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4		9
		10			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	10		
		11			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	11		
		12			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	12		
		13			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	13		
		14			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	14		
		15			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	15		
		16			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	16		
		17			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	17		
		18			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	18		
		19			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	19		
		20			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	20		
		21			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	21		
		22			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	22		
		23			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	23		
		24			1	2	3	4												INC	LT	CAM0	SDT1					1	2	3	4	24		
		25					1	3	6	0	7									PCR	TT	CAM1	SDT1					1	2	3	4	25		
		26					3	6	0	7	1									PCR	TT	CAM1	SDT1					1	2	3	4	26		
		27					6	0	7	1	3									PCR	TT	CAM1	SDT1					1	2	3	4	27		
		28					0	7	1	3	6									PCR	TT	CAM1	SDT1					1	2	3	4	28		
		29					7	1	3	6	0									PCR	TT	CAM1	SDT1					1	2	3	4	29		
		30																		PCR	TT	CAM1	SDT1					1	2	3	4	30		
		31																		PCR	TT	CAM1	SDT1					1	2	3	4	31		
		32																		PCR	TT	CAM1	SDT1					1	2	3	4	32		
		33																		PCR	TT	CAM1	SDT1					1	2	3	4	33		
		34																		PCR	TT	CAM1	SDT1					1	2	3	4	34		
		35																		PCR	TT	CAM1	SDT1					1	2	3	4	35		
		36																		PCR	TT	CAM1	SDT1					1	2	3	4	36		

\* Set switches to positions shown, when provided.





