TRANSVERTERS SD-25591-01 AND SD-26161-01
TESTS USING OFFICE TEST FRAME TEST CIRCUIT SD-27633-01 (J23260)
NO. 5 CROSSBAR OFFICES

1. GENERAL

1.01 This section describes a method of testing transverters SD-25591-01 and SD-26161-01, using office test frame test circuit (OTF) SD-27633-01 (J23260) and the trouble indicator and connector circuit (TIC) SD-27634-01 in No. 5 crossbar offices. When translator access circuits are provided in offices arranged with the call data transmitter (CDT), refer to Section 218-779-513.

1.02 This section is reissued for the reasons listed below. Revision arrows are used to emphasize the more significant changes. This reissue does not affect Equipment Test Lists.

(a) To revise Test B to include a test for all message billing calls on first trial transfer start.

(b) To revise Test L to include a test for a regular release on second trial directory assistance calls.

1.03 The tests covered are:

1.04 Test E requires making a recorder busy and Test F requires making a translator busy.

1.05 Tests of trouble detecting features, as well as miscellaneous tests, are covered in Section 218-472-503 for transverter SD-25591-01 and Section 218-737-501 for transverter SD-262161-01.

1.06 ***Lettered Steps:*** A letter a, b, c, etc, added to a step number in Parts 3 and 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.

1.07 Local instructions should be followed for recording and reporting any register operations caused by performing these tests. The register operations are as follows:

TEST	REGISTER
A	PC, TTR
B	PC, TTR, APC*
C	PC
D	PC, TST, APC*
E	PC, BBF†, TTR‡
F	PC, BBF†, APC*
G	PC, BBF†, APC*
H	PC
I	PC, APC*
J	PC
K	PC
L	PC

*When ANI Transverter is used.

†When a condition arises that allows a bulk billed call to be completed free of charge.

‡If recorder is in trouble at time of test seizure.

2. APPARATUS

All Tests

2.01 Office test frame test circuit, SD-27633-01 (J23260).

2.02 Office test frame trouble indicator and connector circuit, SD-27634-01.

Test A

2.03 Two testing cords, 893 cord, 3 feet long, equipped with two 360A tools (1W13A cord), one KS-6278 connecting clip, and one 624B (terminal connector) tool.

2.04 19JH resistor.

2.05 18CR resistor.

Tests A, E

2.06 Two testing cords, W2W cords 10 feet long, equipped with a 310 plug, 360B tool, 360C

tool (2W17C cord), and 607A (relay winding connector) tool or 624B (terminal connector) tool.

Tests B, C, D, J L

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

Test C

2.08 Patching cord, P3BF cord, 7 feet long, equipped with a 351A plug and 464B plug (3P34A cord).

Tests C Through G, J, K, L

2.09 322A (make-busy) plugs as required.

Tests C, H, I

2.10 Patching cord, P3BE cord, 7 feet long, equipped with a 310 plug and a 459A plug.

Tests E, G

2.11 Two testing cords, 893 cord, 3 feet long, equipped with two 360A tools (1W13A cord) and two 624B (terminal connector) tools.

Tests H, I

2.12 Patching cord, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord).

2.13 Patching cord, P3U cord, 7 feet long, equippped with 310 plug and 351A plug (3P27B cord).

Test K

2.14 KS-14343 tape reader.

2.15 Red china marking pencil.

3. PREPARATION

Tests H, I

3.01 Determine from office records line location and corresponding directory number for a line in each vertical group associated with each translator. Select these lines, and additional lines if necessary, so that the line directory numbers include each of the numericals 0 through 9 in each office, thousands, hundreds, tens, and units digit for which each translator is wired.

3. Preparation (Cont)

STEP	ACTION	VERIFICATION
	Note: Refer to paragraphs 1.06 and 1.07.	
All Tests		
1	At OTF— Restore all keys and switches.	All lamps extinguished.
2	At TIC— Momentarily operate RLS key.	All lamps extinguished.
3	At OTF— Operate MCB key.	
4	Operate TV_ key to select transverter to be tested.	
5	Operate MKR_key to select completing marker.	
6	Set L-L switch to 0.	

STEP	ACTION	VERIFICATION
7	Set PS switch to 44-11.	
Tests A Through G, J Through L		
8	Operate OTL key.	
Tests A, B, D, F, Through I		
9	Operate FS_ key to select trunk link frame.	
Tests A, C Through E, H, J Through L		
10	Operate AMA key, if provided.	
Tests C Through H, J, L		
11a	If OTF is arranged for positive test call control and selection of a particular sender is required— Select from office records an outgoing sender of type required by trunk to be used in test.	
12a	Set RSG switch to OSB_ to select sender group.	
13a	Set RSS switch to select particular sender.	

4. METHOD

STEP	ACTION	VERIFICATION
A. Continuity, False Ground, and False Battery Tests of TIC and ICK Leads (LAMA Transverters)		
11	Select from office records an outgoing sender arranged for LAMA service.	
12	At OTF— Set RSG switch to OSB_ to select sender group.	
13	Set RSS switch to select particular sender.	
14	Set A through N DIAL switches, as required to select LAMA detailed billed route served by sender used in test and any test line number.	
15	Operate _D key for number of digits to be dialed.	
	Note: When a 13-digit call is required, do not operate any _D key.	

STEP	ACTION	VERIFICATION
16	Set CST, CSU switches, as required to select class of service.	
17	At sender used in test— Using 893 testing cords and 19 JH resistor, connect 850-ohm resistance ground in series with terminal 28 on terminal strip B.	
18	At OTF— Operate ST key.	At TIC— TV, DR_, DNK, IC, RD, XX, MB_, RN_ lamps lighted. CN_, S_ lamps lighted identifying transverter connector and sender. FU_, VG_, HG_ VF_ lamps lighted identifying location of originating test line. OFF_, TH_, HN_, T_, U_ lamps lighted identifying directory number received from translator.
19	At OTF— Restore ST key.	
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21	At sender used in test— Remove test connector from terminal 28 terminal strip B.	
22	Using 893 testing cords and 18CR resistor, connect 2000-ohm resistance battery in series with terminal 28 on terminal strip B.	
23	Repeat Steps 18 through 21.	
24	At OTF— Restore all keys and switches not required in next test.	All lamps extinguished.

B. Transfer of Start Lead From Transverter Connector

10	Select from office records an outgoing sender arranged for LAMA or ANI service as required.	
11	At OTF— Set RSG switch to OSB_ to select sender group.	
12	Set RSS switch to select particular sender.	
13a	If transverter is arranged for LAMA— Set A through N DIAL switches, as required	

STEP	ACTION	VERIFICATION
	to select ◗the first bulk billed◖ route served by sender used in test and any test line number.	
14a	Operate AMA key, if provided.	
15b	If transverter is arranged for ANI— Select A through N DIAL switches, as required to select ANI route served by sender used in test and any test line number.	
16b	Operate ANI key.	
17	Operate _D key for number of digits to be dialed. ***Note:*** When a 13-digit call is required, do not operate any _D key.	
18	Set CST, CSU switches, as required to select class of service.	
19c	If associated transverter connector is SD-26021-01— At transverter connector— Insulate contact 13 of SD_ relay associated with sender used in test.	
20d	If associated transverter connector is SD-26162-01— At transverter connector— Insulate contact 01 of SC_ relay associated with sender used in test.	
21	At OTF— Operate ST key.	Call completed to test line. At TIC— TV, DR_, TRS, DNK, RLR, RN_ lamps lighted. ***Note:*** It may be necessary to repeat test to obtain verification, depending on whether or not the Z relay in the transverter connector is operated at the time of the test.
22	At OTF— Restore ST key.	Call disconnected.
23	At TIC— Momentarily operate RLS key.	All lamps extinguished.
24a	◗Repeat Steps 13a, 14a, and 17 through 23 for each remaining bulk billed and detailed	

STEP	ACTION	VERIFICATION
	billed route served by sender used in test and any test line number.◀	
25c	If associated transverter connector is SD-26021-01— At transverter connector— Remove insulation from contact 13 of SD_ relay.	
26d	If associated transverter connector is SD-26162-01— At transverter connector— Remove insulator from contact 01 of SC relay.	
27	At OTF— Restore all keys and switches not required in next test.	All lamps extinguished.

C. Observing Feature

14	Select from office records a trunk and route used for detailed billed calls.	
15	At jack, lamp, and key circuit— Insert make-busy plug into TVMB_ jack associated with transverter under test.	
16	At OTF— Operate ODD or EVEN, FS_ keys and set TS switch as required to select particular detailed billed trunk.	
17	Set A through N DIAL switches, as required to select LAMA detailed billed route and any test line number.	
18	Operate _D key for number of digits to be dialed. ***Note:*** When a 13-digit call is required, do not operate any _D key.	
19	At line link frame— ***For regular crossbar switches—*** Using P3BF patching cord, insert 351A plug into jack of line link vertical associated with originating test line and insert 464B plug into SO jack associated with service observing circuit. ***For small crossbar switches—*** Using P3BE patching cord, insert 459A plug into jack of line link vertical associated with	

STEP	ACTION	VERIFICATION
	originating test line and insert 310 plug into SO jack associated with service observing circuit.	
20	At transverter under test— Block nonoperaed P1A relay.	
21	At OTF— Operate ST key.	Overflow tone heard. At TIC— TV, DR_, OBS, DNK, CI1, RN_ lamps lighted. A'2, B'0, 4 lamps lighted identifying last line of an observed initial entry of four lines. C'_, D'_ lamps lighted identifying message billing index units and tens digits. E'_, F'_ lamps lighted identifying call identity index trunk number.
22	At OTF— Restore ST key.	Overflow tone silenced.
23	At TIC— Momentarily operate RLS key.	All lamps extinguished.
24	At transverter under test— Remove blocking tool from P1A relay.	
25	At line link frame— Remove patching cord from jack of line link vertical and SO jack.	
26	At OTF— Restore all keys and switches not required in next test.	All lamps extinguished.
27	Remove make-busy plug from TVMB_ jack of transverter under test.	

D. Second Trial Feature

14	At jack, lamp, and key circuit— Insert make-busy plug into TVMB_ jack associated with transverter under test.	
15b	If transverter is arranged for LAMA— AT OTF— Set A through N DIAL switches, as required to select LAMA detailed billed route and any test line number.	
16b	Operate AMA key, if provided.	

STEP	ACTION	VERIFICATION
17c	If transverter is arranged for ANI— At OTF— Select A through N DIAL switches, as required to select ANI route and any test line number.	
18c	Operate ANI key.	
19	Operate _D key for number of digits to be dialed.	
20	Set CST, CSU switches, as required to select class of service.	
21	At transverter under test— Block nonoperated 1TR relay.	
22	At OTF— Operate ST key.	Call completed to test line. At TIC— TV, DR_ lamps lighted. CK1 lamp remains extinguished.
23	At OTF— Restore ST key.	Call disconnected.
24	At TIC— Momentarily operate RLS key.	All lamps extinguished.
25	At transverter under test— Block operated 2TR relay.	
26	At TIC— Operate 2TR key.	
27	At OTF— Operate TVR key.	
28	Operate ST key.	Call completed to test line. At TIC— TV, DR_, 2TR, DNK, RN_, TLR_ lamps lighted. FU_, VG_, HG_, VF_ lamps lighted identifying line location of originating test line. OFF_, TH_, HN_, T_, U_ lamps lighted identifying directory number received from translator.
29	At OTF— Restore ST key.	Call disconnected.
30	At TIC— Momentarily operate RLS key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
31	Restore 2TR key.	
32	At transverter under test— Remove blocking tools from 1TR, 2TR relays.	
33	At OTF— Restore all keys and switches not required in next test.	
34	At jack, lamp, and key circuit— Remove make-busy plug from TVMB_ jack of transverter under test.	
E. Recorder Make-Busy and Recorder Trouble Features		
14	Select from office records a trunk and route used for bulk billed calls.	
15	Operate ODD or EVEN, FS_ keys and set TS switch, as required to select particular bulk billed trunk.	
16	Set A through N DIAL switches, as required to select LAMA bulk billed route and any test line number.	
17	Operate _D key for number of digits to be dialed.	
18	Set CST, CSU switches, as required to select class of service.	
19	Operate TVR key.	
20	At jack, lamp, and key circuit— Insert make-busy plug into MB_ jack of recorder associated with selected trunk. ***Caution: While the recorder is made busy, all bulk billed calls will be completed free and detailed billed calls will be routed to overflow.***	EMR lamp lighted while make-busy pattern is being placed on AMA tape.
21	At OTF— Operate ST key.	Call completed to test line. At TIC— TV, DR_, DNK, RD, RN_ lamps lighted. CN_, S_ lamps lighted identifying transverter connector and sender. FU_, VG_, HG_, VF_ lamps lighted identifying location of originating test line. OFF_, TH_, HN_, T_, U_ lamps lighted

STEP	ACTION	VERIFICATION
		identifying directory number received from translator.
22	At OTF— Restore ST key.	Call disconnected.
23	At TIC— Momentarily operate RLS key.	All lamps extinguished.
24	At OTF— Restore _D key.	
25	At jack, lamp, and key circuit— Remove make-busy plug from MB_ jack of recorder associated with selected trunk.	EMR lamp lighted while make-busy pattern is being placed on AMA tape.
26	Select from office records a trunk and route used for detailed billed calls.	
27	Operate ODD and EVEN, FS_ keys and set TS switch, as required to select particular detailed billed trunk.	
28	Set A through N DIAL switches, as required to select LAMA detailed billed route and any test line number.	
29	Operate _D key for number of digits to be dialed. ***Note:*** When a 13-digit call is required, do not operate any _D key.	
30	Set CST, CSU, switches, as required to select class of service.	
31	At jack, lamp, and key circuit— Insert make-busy plug into MB_ jack of recorder associated with selected trunk. ***Caution: While the recorder is made busy, and bulk billed calls will be completed free and detailed billed calls will be routed to overflow.***	EMR lamp lighted while make-busy pattern is being placed on AMA tape.
32	At OTF— Operate ST key.	Overflow tone heard. At TIC— TV, DR_, DNK, RD, RN_ lamps lighted. CN_, S_ lamps lighted identifying transverter connector and sender. FU_, VG_, HG_, VF_ lamps lighted identifying location of originating test line.

STEP	ACTION	VERIFICATION
		OFF_, TH_, HN_, T_, U_ lamps lighted identifying directory number received from translator.
33	At OTF— Restore ST key.	Overflow tone silenced.
34	At TIC— Momentarily operate RLS key.	All lamps extinguished.
35	At jack, lamp, and key circuit— Remove make-busy plug from MB_ jack of recorder associated with selected trunk.	EMR lamp lighted while make-busy pattern is being placed on AMA tape.
36b	If office is ***not*** equipped for AMA translator line verification (ATLV) test circuit— At transverter under test— Using 893 testing cords, connect directory number of originating test line to trap circuit, omitting connection from OFF_ to TR terminals.	
37b	Using W2W testing cord, connect 607A or 624B tool attached to ring conductor to OFF_ terminal of trap circuit and insert 310 plug into SP jack of miscellaneous circuit.	
38b	At recorder associated with trunk selected— Using W2W testing cord, connect 607A or 624B tool attached to ring conductor to winding terminal 12T of TBL relay and insert 310 plug into SP jack of miscellaneous circuit.	
39b	At OTF— Momentarily operate ST key.	Overflow tone heard. At TIC— TV, DR_, DNK, RD, RN_ lamps lighted. CN_, S_ lamps lighted identifying transverter connector and sender. FU_, VG_, HG_, VF_ lamps lighted identifying location of originating test line. OFF_, TH_, HN_, T_, U_ lamps lighted identifying directory number received from translator.
40b	At OTF— Restore ST key.	Overflow tone silenced.
41b	At TIC— Momentarily operate RLS key.	All lamp extinguished.
42b	At recorder associated with trunk selected— Remove testing cord from TBL relay and jack.	

STEP	ACTION	VERIFICATION
43b	At transverter under test— Remove testing cord from OFF_ terminal and SP jack.	
44b	Remove test connections from directory number of originating test line and trap circuit.	
45	Repeat Steps 14 through 44, as required for each regular and emergency AMA recorder provided. ***Note:*** Follow standard procedures when transferring to the emergency recorder and notify the accounting department of all transfer and make-busy entries.	
46	At OTF— Restore all keys and switches not required in next test.	

F. Translator Make-Busy Feature

14b	If transverter is arranged for LAMA— At OTF— Set A through N DIAL switches, as required to select LAMA bulk billed route and any test line number.	
15b	Operate AMA key, if provided.	
16c	If transverter is arranged for ANI— Set A through N DIAL switches, as required to select ANI route and any test line number.	
17	Operate ANI key.	
18	Operate _D key for number of digits to be dialed. ***Note:*** When a 13-digit call is required, do not operate any _D key.	
19	Set CST, CSU switches, as required to select class of services. ***Caution: While the translator is made busy, all bulk billed calls will be completed free and detailed billed calls will be routed to overflow. All ANI calls will require operator identification.***	

STEP	ACTION	VERIFICATION
20	At jack, lamp, and key circuit— Insert make-busy plug into translator AMAT-MB_ or TRNSL-MB_jack associated with originating test line.	
21	At OTF— Operate ST key. ***Note:*** If test call is completed to an operator, inform operator that this is a test call and proceed to next step.	If LAMA transverter is under test— Call completed to test line. If ANI transverter is under test— Call completed to operator for calling line number identification.
22	Restore ST key.	Call disconnected.
23	At jack, lamp, and key circuit— Remove make-busy plug from AMAT-MB_ or TRNSL-MB_ jack.	
24b	If transverter is arranged for LAMA— At OTF— Set A through N DIAL switches, as required to select LAMA detailed billed route and any test line number.	
25b	Operate _D key for number of digits to be dialed. ***Note:*** When 13-digit call is required, do not operate and _D key.	
26b	Set CST, CSU switches, as required to select class of service. ***Caution: While the translator is made busy, all bulk billed calls will be completed free and detailed billed calls will be routed to overflow. All ANI calls will require operator identification.***	
27b	At jack, lamp, and key circuit— Insert make-busy into translator AMAT-MB_ or TRNSL-MB_jack associated with originating test line.	
28b	At OTF— Operate ST key.	Overflow tone heard.
29b	Restore ST key.	Overflow tone silenced.

STEP	ACTION	VERIFICATION
30b	At jack, lamp, and key circuit— Remove make-busy plug from AMAT-MB_ or TRNSL-MB_ jack.	
31	At OTF— Restore all keys and switches not required in next test.	

G. Translator Double-Connection Feature

14b	If transverter is arranged for LAMA— At OTF— Set A through N DIAL switches as required to select LAMA detailed billed route and any test line number.	
15b	Operate AMA key, if provided.	
16c	If transverter is arranged for ANI— At OTF— Set A through N DIAL switches as required to select ANI route and any test line number.	
17c	Operate ANI key.	
18	Operate _D key for number of digits to be dialed. ***Note:*** When a 13-digit call is required, do not operate any _D key.	
19	Set CST, CSU switches, as required to select class of service.	
20	At jack, lamp, and key circuit— Insert make-busy plug into TVMB_ jack associated with transverter under test.	
21	At transverter under test— Determine which TS_ relay will operate for originating test line. ***Caution: If transverter is not made busy while the connection is placed in Step 22 all AMA calls associated with TS_ relays crossed will be completed free or routed to overflow. All ANI customers will need the assistance of an operator.***	
22	Using 893 testing cord, connect SC_ terminal associated with selected TS_ relay to SC_	

STEP	ACTION	VERIFICATION
	terminal associated with any other TS_ relay on terminal strip of auxiliary transverter unit.	
23	At OTF— Operate ST key. ***Note:*** If test call is completed to an operator, inform the operator that this is a test call and proceed to next step.	If LAMA transverter is under test— Overflow tone heard. If ANI transverter is under test— Call completed to operator for calling line number identification. At TIC— TV, DR_ lamps lighted. DNK lamp remains extinguished.
24	At OTF— Restore ST key.	Overflow tone silenced or operator disconnected.
25	At TIC— Momentarily operate RLS key.	All lamps extinguished.
26	At transverter under test— Remove test connection from SC_ terminals on terminal strip of auxiliary transverter unit.	
27	At jack, lamp, and key circuit— Remove make-busy plug from TVMB_ jack of transverter under test.	
28	At OTF— Restore all keys and switches not required in next test.	

H. AMA Translator Selection and Directory Number Register Relays

Note: Refer to paragraph 3.01.

14	Set A through N DIAL switches, as required to select LAMA route and any test line number.	
15	Operate _D key for number of digits to be dialed. ***Note:*** When a 13-digit call is required, do not operate any _D key.	
16	Operate OTLP, TVR keys.	
17	At line link frame— ***For regular crossbar switches—*** Using P3U patching cord, insert 351A plug into jack of line link vertical of line location associated with translator to be selected, and insert 310 plug into SP jack of miscellaneous	

STEP	ACTION	VERIFICATION
	circuit. ***For small crossbar switches—*** Using P3BE patching cord, insert 459A plug into jack of line link vertical of line location associated with translation to be selected, and insert 310 plug into SP jack of miscellaneous circuit.	
18b	At OTF— If tip translator is selected— Operate TP key.	
19	At jack, lamp, and key circuit— Using P3E patching cord, insert 310 plugs into SP and OTL jacks.	
20	At OTF— Operate ST key.	Call completed to test line. At TIC— TV, DR_, DNK, TLR_ lamps lighted. FU_, VG_, HG_, VF_ lamps lighted identifying selected line location associated with particular translator. OFF_, TH_, HN_, T_, U_ lamps lighted identifying directory number received from translator.
21	At OTF— Restore ST key.	
22	At TIC— Momentarily operate RLS key.	All lamps extinguished.
23	At line link frame— Remove patching cord from SP jack and line link vertical.	
24	Repeat Steps 17 through 23 for each vertical group for each translator.	
25	At jack, lamp, and key circuit— Remove patching cord from SP and OTL jacks.	
26	At OTF— Restore all keys and switches not required in next test.	

STEP	ACTION	VERIFICATION
I.	**ANI Translator Selection and Directory Number Register Relays**	
	Note: Refer to paragraph 3.01.	
10	Set A through N DIAL switches, as required to select ANI route and any test line number.	
11	Operate ANI key.	
12	Operate _D key for number of digits to be dialed. ***Note:*** When a 13-digit call is required, do not operate any _D key.	
13	Operate _SD key for number of digits to be outpulsed by sender.	
14	Set A through K SDR switches, as required corresponding to digits to be outpulsed by sender.	
15	Operate OTLP, OGT, NCH, MFS keys.	
16a	If wink start signal to sender is required— Operate WK key.	
17b	If immediate closure of pulsing loop is required— Operate CL2S key.	
18c	If variable frequency combination are used to TSPS offices— Set STP switch as required.	
19	At line link frame— ***For regular crossbar switches—*** Using P3U patching cord, insert 351A plug into jack of line link vertical of line location associated with translator to be selected, and insert 310 plug into SP jack of miscellaneous circuit. ***For small crossbar switches—*** Using P3BE patching cord, insert 459A plug into jack of line link vertical of line location associated with translator to be selected, and insert 310 plug into SP jack of miscellaneous circuit.	
20	At jack, lamp, and key circuit— Using P3E patching cord, insert 310 plugs into SP and OTL jacks.	

STEP	ACTION	VERIFICATION
21	Operate ST key.	
22	Restore ST key.	OS, EP lamps lighted. CS lamp lighted indicating that number outpulsed by sender matched number set up or SDR switches.
23	At line link frame— Remove patching cord from SP jack and line link vertical.	
24	Repeat Steps 19 through 23 for each vertical group for each translator.	***Note:*** If the line number set up on the SDR switch does not match the translation of the translator, the call will block. The failure may be identified by checking the A/1 through K/0 lamps.
25	At jack, lamp, and key circuit— Remove patching cord from SP and OTL jacks.	All lamp extinguished.
26	At OTF— Restore all keys and switches not required in next test.	

J. Information Code—Home Area (411) and Foreign Area (NPA 411)

14	Select from office records a trunk and route used for home area (411) and a trunk and route used for foreign area (NPA 411) information code.	
15	At jack, lamp, and key circuit— Insert make-busy plug into TVMB_ jack associated with transverter under test.	
16b	If home area information code 411 is selected— At OTF— Set A through C DIAL switches to select code 411.	
17b	Operate 3D key.	
18c	If foreign area information code NPA 411 is selected— At OTF— Set A through F DIAL switches to select foreign area code and information code 411.	
19c	Operate 6D key.	

STEP	ACTION	VERIFICATION
20	Operate ODD or EVEN, FS_ keys and set TS switch to select particular trunk used in test.	
21	Set CST CSU switches, as required to select class of service.	
22	At transverter under test— Block nonoperated P3A relay.	
23	At OTF— Operate ST key.	Overflow tone heard. At TIC— TV, DR_, DNK, CI3, RN_ lamps lighted. A'0 lamp lighted identifying supplementary line. B'_, C'_, lamps lighted identifying local area index and category of class of call index. D'0,4; E'0,1; F'0,1 lamps lighted identifying ***called*** office code.
24	At OTF— Restore ST key.	Overflow tone silenced.
25	At TIC— Momentarily operate RLS key.	All lamps extinguished.
26	At transverter under test— Remove blocking tool from P3A relay.	
27c	If foreign area information code NPA 411 is selected— At transverter under test— Block nonoperated PFAA relay.	
28c	At OTF— Operate ST key.	Overflow tone heard. At TIC— TV, DR_, DNK, CIFA, RN_ lamps lighted. A'0 lamp lighted identifying supplementary line. B'4, 7; C'4, 7 lamps lighted identifying filler digits. D'_ through F'_ lamps lighted identifying selected foreign area code.
29c	At OTF— Restore ST key.	Overflow tone silenced.
30c	At TIC— Momentarily operate RLS key.	All lamps extinguished.
31c	At transverter under test— Remove blocking tool from PFAA relay.	

STEP	ACTION	VERIFICATION
32	At jack, lamp, and key circuit— Remove make-busy plug from TVMB_ jack.	
33	At OTF— Restore all keys and switches.	

K. Forced Four-Line Entry

11	Select from office records a trunk and route used for bulk billed calls.	
12	At jack, lamp, and key circuit— Insert make-busy plug into TVMB— jack associated with transverter under test.	
13	Operate ODD or EVEN, FS_ keys and set TS switch, as required to select particular bulk billed trunk.	
14	Set A through N DIAL switches, as required to select LAMA bulk billed route and any test line number.	
15	Operate _D key for number of digits to be dialed.	
16	Operate _SD key for number of digits to be outpulsed by sender.	
17	Set CST, CSU switches, as required to select class of service.	
18	Set A_ through K_ SDR switches, as required corresponding to digits to be outpulsed by sender.	
19	Operate OGT, NCH keys.	
20a	If associated sender is arranged for dial pulsing— Operate DPS key.	
21b	If associated sender is arranged for multifrequency pulsing— Operate MFS key.	
22c	If wink start signal to sender is required— Operate WK key.	
23d	If immediate closure of pulsing loop is required— Operate CL2S key.	

STEP	ACTION	VERIFICATION
24	At jack, lamp, and key circuit— Operate MDLC key.	When all transverters serving calls at time MDLC key is operated have released— MUD lamp lighted.
25	At transverter under test— Block nonoperated TVT, TVTA relays.	
26	At AMA perforator— Using red china marking pencil, mark AMA tape at input chute of perforator associated with trunk selected.	
27	Operate ST key.	Call completed to test line.
28	Restore ST key.	Call disconnected.
29	At AMA perforator— Using tape reader, observe test call entry by locating call indentity index number of trunk used on test.	4-line initial entry perforated. ***First line*** A0 digit indicates supplementary line. B_, C_, D_, E_ digits indicate numericals of ***called*** number. F_ digits indicates class of call index. ***Second line*** A0 digit indicates supplementary line. B_ digit indicates home area index or compressed code, representing a foreign area code. C_ digit indicates category of class of call index. D_, E_, F_ digits indicate ***called*** office code. ***Third line*** A0 digit indicates supplementary line. B_ digit indicates ***calling*** office index. C_ through F_ digits indicate numericals of ***calling*** number. ***Fourth line*** A2, B_ digits indicate last line of observed or nonobserved 4-line initial entry. C_, D_ digits indicate message billing index units and tens digits. E_, F_ digits indicate call identity index trunk number.
30	At jack, lamp, and key circuit— Remove make-busy plug from TVMB— jack of transverter under test.	
31	Restore MDLC key, if not operated before start of test.	
32	At transverter under test— Remove blocking tools from TVT, TVTA relays.	

STEP	ACTION	VERIFICATION
33	At OTF— Restore all keys and switches not required in next test.	
L. Directory Assistance Charging		
14	At jack, lamp, and key circuit— Insert make-busy plug into TVMB_ jack associated with transverter under test.	
15	Select from office records a trunk and route used for local information (411).	
16	At OTF— Operate ODD or EVEN, FS_ keys and set TS switch to select particular trunk used in test.	
17	Set A through C DIAL switches to select local information code 411.	
18	Operate 3D key.	
19	Set CST, CSU switches, as required to select class of service.	
20	At transverter under test— Block nonoperated P2A relay.	
21	At OTF— Operate ST key.	Overflow tone heard. At TIC— TV, DR_, DNK, CI2, MB2, 4; RN_ lamps lighted. A'0 lamp lighted identifying supplementary line. B'_ lamp lighted identifying ***calling*** office index. C'_ through F'_ lamps lighted identifying numericals of ***calling*** number.
22	At OTF— Restore ST key.	Overflow tone silenced.
23	At TIC— Momentarily operate RLS key.	All lamps extinguished.
24	At transverter under test— Remove blocking tool from P2A relay.	
25	Block nonoperated P1A relay.	

STEP	ACTION	VERIFICATION
26	At OTF— Operate ST key.	Overflow tone heard. At TIC— TV, DR_, DNK, CI2, CI1, MB2, 4; RN_ lamps lighted. A'0, B'0, 1 lamp lighted identifying last line of nonobserved 2-line initial entry. C'2, 4; D'0, 1 lamp lighted identifying message billing index units and tens digits. E'_, F'_ lamps lighted identifying call identity index trunk number.
27	At OTF— Restore ST key.	Overflow tone silenced.
28	At TIC— Momentarily operate RLS key.	
29	At transverter under test— Remove blocking tool from P1A relay.	
30	At OTF— Restore 3D key.	
31	Select from office records a trunk and route used for home NPA information (555-1212).	
32	Operate ODD or EVEN, FS_ keys and set TS switch to select particular trunk used in test.	
33	Set A through G DIAL switches as required, to select home NPA information code 555-1212.	
34	Operate 7D key.	
35	Set CST, CSU, switches, as required to select class of service.	
36	Repeat Steps 20 through 30.	
37	♦At transverter under test— Block nonoperated 1TR relay.	
38	Block operated 2TR relay.	
39	At TIC— Operate 2TR key.	
40	At OTF— Operate TVR key.	

STEP	ACTION	VERIFICATION
41	Operate ST key.	Call completed to test line. If transverter is arranged to provide a trouble release on a second trial call (RS option)— Overflow tone heard. If transverter is arranged to provide a regular release on a second trial call (RT option)— Overflow tone ***not*** heard. At TIC— TV, DR_, 2TR lamps lighted.
42	At OTF— Restore ST key.	Call disconnected.
43	At TIC— Momentarily operate RLS key.	All lamps extinguished.
44	Restore 2TR key.	
45	At transverter under test— Remove blocking tools from 1TR, 2TR relays.	
46	At OTF— Restore all keys and switches not required in next test.	
47	At jack, lamp, and key circuit— Remove make-busy plug from TVMB_ jack of transverter under test.◀	