

ORIGINATING REGISTERS

DIAL PULSE OR "TOUCH-TONE®" CALLING SD-26040-01

TESTS USING OFFICE TEST FRAME TEST CIRCUIT SD-27633-01 (J23260)

NO. 5 CROSSBAR OFFICES

1. GENERAL

PAGE

1.01 This section describes a method of testing dial pulse or TOUCH-TONE originating registers SD-26040-01, using the office test frame test circuit (OTF) SD-27633-01 (J23260) in No. 5 Crossbar offices.

A.1 Range Extension For Unigauge Cabling: This test checks the ability of the originating register to receive and record dial pulses from lines arranged for range extension.

8

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.

B. DDD Call—Access Code Not Provided: This test checks the ability of the originating register to receive and record dial pulses, and using the information received from the dial tone connection, to select and transmit to a marker at the end of dialing, all information necessary for the satisfactory completion of a DDD call.

8

(a) To add pulse and loop-leak control information to TOUCH-TONE testing. This affects Tests Z through AD and AI, AJ.

C. 11X Service Codes: This test checks the ability of the originating register to operate correctly when an 11X service code is used.

9

(b) To add paragraph 1.12.

(c) To make minor changes as required.

D. X11 Service Codes: This test checks the ability of the originating register to operate correctly when an X11 service code or a DDD information code is used.

10

1.03 The tests covered are:

PAGE

A. Regular Call—Dial Pulse: This test checks the ability of the originating register to receive and record dial pulses from a noncoin or coin customer, and using information received from the dial tone connection, to select and transmit to a marker at the end of dialing, all information necessary for the satisfactory completion of a call. Coin tests are for registers arranged and those not arranged for coin service improvement (dial-tone-first) feature. Loop and leak marginal test conditions are also provided to test various relays in the originating register.

7

E. Manual Call—Coin and Noncoin: This test checks the ability of the originating register, arranged or not arranged for coin service improvement (dial-tone-first), to recognize a call from a manual customer and to treat the call as a call to zero operator without sending dial tone to the manual customer.

11

F. Zero Operator—Coin and Noncoin: This test checks the

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	PAGE
ability of the originating register, arranged or not arranged for coin service improvement (dial-tone-first), to recognize a zero operator call.	11
G. 2-Party Test and Busy Tone: This test checks the originating register 2-party test features of a 2-party class of service that requires party test. It also checks that busy tone can be transmitted by the originating register.	12
H. Abandoned Call—Coin and Noncoin: This test checks the ability of the originating register, arranged or not arranged for coin service improvement (dial-tone-first), to release on an abandoned call. If the register is arranged for coin service, the test also checks that the register coin return circuit operates properly.	15
I. Abandoned Call—DDD Call—Coin and Noncoin: This test checks the ability of the originating register, arranged or not arranged for coin service improvement (dial-tone-first), to release on an abandoned DDD call.	15
J. Register Supervision: This test checks that the originating register marker connector furnishes a holding ground for the originating register supervisory relay.	16
K. B₂ Digit Translator: This test checks the ability of the originating register to determine, from the B digit dialed, the number of digits to be dialed.	17
L. Pretranslation: This test checks the ability of the originating register to receive signals from a pretranslator which indicate to the register the number of digits to expect. It also checks that the originating register recognizes the completion of dialing when that number of digits is received.	18

	PAGE
M. Dial Tone: This test checks the ability of the originating register to: (1) Transmit dial tone. (2) Absorb a preliminary pulse. (3) Remove dial tone when a digit 2 through 9 is dialed for the A digit. (4) Remove dial tone when the access digit 1 is dialed.	18
N. Dial Tone—Register Arranged for 11X Service Codes and Digit 1 Access Code Not Provided: This test checks that the originating register removes dial tone when the prefix 11 is dialed.	19
O. Permanent Signal Timing—Coin and Noncoin: This test checks the ability of the originating register permanent signal timing circuit to time out if the first digit is not dialed in the allotted time. If the originating register is arranged for coin service, it also checks that the coin return circuit of the register operates properly.	19
P. Partial Dial Timing—Coin and Noncoin: This test checks the ability of the originating register partial dial timing circuit to time out if the second digit is not dialed in the allotted time. If the originating register is arranged for coin service, it also checks that the call is set up to the partial dial route.	21
Q. Partial Dial Timing—DDD Call: This test checks the ability of the originating register partial dial timing circuit to time out properly on DDD calls.	22
R. Timing for Extra Digit To Be Dialed: This test checks the ability of the originating register to allow the correct amount of time for the dialing of an extra digit on a call to an office having station digits or five numerals.	23
S. Register Timeout After Marker Seizure: This test checks the ability of the originating register to	

	PAGE		PAGE
time out within the allotted time after marker seizure.	24	Z. Regular Call (TOUCH-TONE):	
		This test checks the ability of the originating register to receive and record digits from a TOUCH-TONE customer.	30
T. Timing During Pretranslation:			
This test checks that, from the time the originating register calls for a pretranslator until pretranslation is completed, the partial dial timing interval is not reduced.	25	AA. Single-Frequency Test (TOUCH-TONE):	
		This test checks the ability of the TOUCH-TONE receiver to disregard signals comprised of a single TOUCH-TONE frequency.	31
U. Common Alarm Timing:			
This test checks the ability of the originating register to cause the common alarm circuit to operate in the allotted time.	25	AB. Special 3-Frequency Test (TOUCH-TONE):	
		This test checks the ability of the TOUCH-TONE receiving circuit to disregard signals comprised of three frequencies, two of which are a valid combination of TOUCH-TONE frequencies at a normal dB level with the third a frequency above the band of TOUCH-TONE frequencies at a higher dB level.	31
V. Recycle of Timing:			
This test checks the ability of the originating register to recycle its timing circuit when the operation which is being timed is completed in the allotted time interval.	26	AC. Maximum and Minimum Frequency Test (TOUCH-TONE):	
		This test checks the ability of the TOUCH-TONE receiver to function properly when it receives TOUCH-TONE signals comprised of frequencies which are higher or lower than the normal frequencies.	31
W. Tip Party Manual Test:			
This test checks the ability of the TP1 relay in the originating register to operate over the register operate current flow test path. It also checks that, if the TP1 relay fails to operate, the originating register is held off-normal.	28	AD. Low and High Level Test (TOUCH-TONE):	
		This test checks the ability of the TOUCH-TONE receiver circuit to function over a fixed range of signal input levels.	32
X. Line Location, Class of Service, and Observed Call Information—Storing and Verification of Trouble Indicator and Connector Leads:			
The following features are checked: (1) Ability of the originating register to receive, store, and transmit line location, class of service, and observed call information from and to the marker. (2) That the trouble indicator receives the proper identifying information from the originating register and the originating register marker connector when the trouble indicator is seized by the marker.	28	AE. C_Digit Translator:	
		This test checks the ability of the originating register to recognize that a call is either a DDD call or an NPA information call when an NNO code is dialed.	33
Y. Digit 0 or 1 Access Code:			
This test checks the ability of the originating register to record digit 0 or 1 and operate correctly when an access code is used.	29	AF. Interchangeable Codes:	
		This test checks the ability of the originating register to operate correctly when an interchangeable code is dialed. (Refer to paragraph 1.07)	34
		AG. Toll Diversion:	
		This test checks the ability of the originating register	

PAGE

Test T—originating register and relay rack frame

to recognize a call to a denied access toll route and to prevent completion of the call. 34

Test U, V, W—originating register

Test X—line link frame and dial tone marker

AH. A_ and B_ Digit Translator:

This test checks the ability of the originating register to determine the number of digits to be received from the combination of A and B digits dialed. 35

1.05 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.

AI. Prefix Digits 01+: This test checks the ability of the originating register to operate correctly when prefix digits 01 plus additional digits are dialed. 36

1.06 During Test H, the traffic register associated with the APD lead will operate two or three times. During Test I, the traffic registers associated with the APD and FAPD leads will operate two or three times. During Test Q, the traffic register associated with the FAPD lead will operate once. Local instructions should be followed for recording and reporting these traffic register operations.

AJ. Prefix Digits 011+: This test checks the ability of the originating register to operate correctly when prefix digits 011 plus additional digits are dialed. This test also checks that the originating register will recognize invalid combinations and sequences on 011 + IDDD calls and will return overflow to the calling customer. 37

1.07 An interchangeable code represents both a working office code in the home area and a working foreign area code. Where pretranslators are provided, dialing of an interchangeable code will result in the pretranslator grounding the CMB lead to the originating register.

AK. Pretranslation for IDDD (SD-27849-01 Provided): This test checks the ability of the originating register to receive signals from the pretranslator, which indicate to the register the number of digits to expect. It also checks that the originating register recognizes the completion of dialing when the number of digits is received. 38

1.08 If the trouble indicator and connector circuit is not associated with the master alarm release key of the alarm sending circuit, the TIC MB key at TIC should be operated in unattended offices to prevent lamps from being lighted and generating heat sufficient to discolor and warp designating strips. A large number of lamps lighted could also result in lamp fuses operating and causing a major alarm.

1.04 In the following tests, actions and/or verifications away from the main test locations are required at:

Test E—switchboard

Test F—switchboard

Test G—completing marker

Test J—completing marker and originating register

Test O, P, S—relay rack frame

1.09 Test charts are provided for all tests which show the required priming information. Spaces are provided on the charts for listing specific priming information in accordance with local conditions. These charts should be filled out from local records using the instructions provided in Part 5, Preparation of Test Chart.

1.10 During test T all originating registers associated with group busy circuit will be on short timing.

1.11 In offices not provided with option YT (positive test call control) in the OTF (SD-27633-01, J23260), subscriber outgoing (SOG) calls used to test the originating register will result in the test failure (TF) lamp to be lighted at the OTF. The TB_ and/or OSB_ lamps will also be lighted at the trouble indicator, indicating that the failure occurred after the originating register had passed all information to the marker and the marker found the information to be satisfactory.

1.12 All completing markers should be in service on tests where the OR times before giving a marker start signal (zero operator, extra digit timing). Service call blockage can occur when a completing marker is plugged busy and these tests are being made using the OTF. The OTF and the first (zero) OR of each OR group have been modified to cancel this timing when it is necessary to test under these conditions.

2. APPARATUS

All Tests Except W

2.01 Patching cord, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord) (to patch DL jack to SP jack).

3. PREPARATION

STEP	ACTION	VERIFICATION
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Note: Refer to paragraphs 1.11, 1.12.

All Tests

- | | | |
|---|---|-------------------------|
| 1 | At OTF—
Restore all keys and switches. | All lamps extinguished. |
| 2 | At TIC—
Momentarily operate RLS key. | All lamps extinguished. |

All Tests Except W

- | | | |
|----|---|--|
| 3a | If register to be tested <i>is</i> accessible to the originating test line of the OTF—
At OTF—
Operate OTL key. | |
|----|---|--|

2.02 Patching cord, W3BF cord, equipped with a 310 plug and a 351A plug (3W19A cord) (to patch SP jack to a vacant line link location).

Tests G, J, O, P, S Through X

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

Tests H, I, and O Through U

2.04 KS-3008 stopwatch or equivalent.

Tests U, V

2.05 32A test set.

Test V

2.06 1011G dial hand test set (handset), equipped with 2W38A cord assembly consisting of a W2CK cord, 471A jack, and 310 plug.

Test X

2.07 322A make-busy plug.

SECTION 218-437-501

STEP	ACTION	VERIFICATION
4b	If the office <i>is</i> equipped with separate groups of originating registers, and the register to be tested <i>is not</i> accessible to the originating test line of the OTF (Refer to paragraph 5.01c)— At OTF— Operate OTLP key.	
5b	Patch OTL jack to SP jack.	
6b	At line link frame— Patch SP jack to vacant line link location served by the type of originating register to be tested.	
7	At OTF— Set RSG switch to ORB to select originating register group.	MBG lamp lighted.
8	Set RSS switch to select register to be tested.	
9	Operate MKR 0/1 to select completing marker and operate MKR 2/3 to select dial tone marker. <i>Note:</i> When both dial tone and completing markers are selected, both must be the same, even or odd, if frame is wired per Issue 14D or earlier. (Option YT <i>not</i> provided in OTF.)	
10	Operate FS_ key to select trunk link frame of register to be tested.	
All Tests Except J		
11c	If option YT <i>is not</i> provided— Operate OGT key.	
All Tests Except E, F, J, M, N, O, P, Q, S, AI		
12	Operate CB key.	
All Tests Except E, F, J, M, N, O, Q		
13d	If option YT <i>is</i> provided— Operate MCB key.	

4. METHOD

STEP	ACTION	VERIFICATION
A. Regular Call—Dial Pulse		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. For Tests 14 through 19— OLK lamp momentarily lighted. OLF lamp does not light. At TIC— SCK lamp lighted. For Test 19— SCN lamp lighted. At TIC— A_ through G_ lamps corresponding to setting of DIAL switches lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ through G_ lamps corresponding to setting of DIAL switches lighted.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished. For Tests 9 through 18— CR lamp momentarily lighted. CND lamp lighted. For Tests 14 through 18— OLK lamp momentarily lighted.
19	For Tests 9 through 18— Restore CN key.	CND lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21	At OTF— Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.

STEP	ACTION	VERIFICATION
22e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
A.1 Range Extension for Unigauge Cabling		
14	Patch OTL jack to SP jack.	
15	At line link frame— Patch SP jack to the dedicated vertical in a horizontal group arranged for range extension.	
16	At OTF— Operate keys and set switches in accordance with Test Chart.	
17	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ through G_ lamps corresponding to setting of DIAL switches lighted.
18c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ through G_ lamps corresponding to setting of DIAL switches lighted.
19c	At OTF— Restore MCB key.	
20	At OTF— Restore ST key.	OS, ED lamps extinguished.
21	At TIC— Momentarily operate RLS key.	All lamps extinguished.
22	Remove patching cords placed in Steps 14 and 15.	
23	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
B. DDD Call—Access Code Not Provided		
14	Operate keys and set switches in accordance with Test Chart.	

STEP	ACTION	VERIFICATION
15	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ through K_ lamps corresponding to setting of DIAL switches lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ through K_ lamps corresponding to setting of DIAL switches lighted.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

C. 11X Service Codes

14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ lamp corresponding to setting on C_ DIAL switch lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ lamp corresponding to setting on C_ DIAL switch lighted.

SECTION 218-437-501

STEP	ACTION	VERIFICATION
		At switchboard— Assistant answers.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
D. X11 Service Codes		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A, B, C lamps corresponding to setting on DIAL switches lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A, B, C lamps corresponding to setting on DIAL switches lighted. At switchboard— Assistant answers.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.

STEP	ACTION	VERIFICATION
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
E. Manual Call—Coin and Noncoin		
12	Operate keys and set switches in accordance with Test Chart.	
13	Operate ST key.	OS lamp lighted. Dial tone <i>not</i> heard. At switchboard— Assistant answers. For Test 41— At OTF— CR lamp momentarily lighted. CND lamp lighted.
14	Restore ST key.	OS lamp extinguished.
15	For Test 41— Restore CN key.	CND lamp extinguished.
16	At TIC— Momentarily operate RLS key.	All lamps extinguished.
17	At OTF— Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
18d	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

F. Zero Operator—Coin and Noncoin**For Tests 42, 43, and 44**

12	Operate keys and set switches in accordance with Test Chart.	
13	Operate ST key.	OS lamp lighted. Dial tone heard. For Test 43— CR lamp momentarily lighted. CND lamp lighted. For Tests 42 and 43— At switchboard— Operator answers.

STEP	ACTION	VERIFICATION
		For Test 44— OLK lamp momentarily lighted. OLF lamp does not light. At TIC— SCK lamp lighted.
14	At OTF— Restore ST key.	OS lamp extinguished. For Test 44— OLK, CR lamps momentarily lighted. CND lamp lighted.
15	For Tests 43 and 44— Restore CN key.	CND lamp extinguished.
16	At TIC— Momentarily operate RLS key.	All lamps extinguished.
For Test 44		
17	Operate ST key.	OS lamp lighted. Dial tone heard. ED lamp lighted. At TIC— SCN, A-O, CT_, CU_ lamps lighted.
18	At OTF— Restore ST key.	OS, ED lamps extinguished.
19	At TIC— Momentarily operate RLS key.	All lamps extinguished.
For All Tests		
20	At OTF— Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
21d	If no further tests are to be performed— Remove patching cord placed in Steps 5b, 6b (when required).	
G. 2-Party Test and Busy Tone		
14	Operate keys and set switches in accordance with Test Chart.	
15	At selected completing marker— Block non-operated HTR relay.	
16	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing.

STEP	ACTION	VERIFICATION
		If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— TP lamp lighted.
17c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— TP lamp lighted.
18c	At OTF— Restore MCB key.	
19	At OTF— Restore ST key.	OS, ED lamps extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21	At OTF— Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing.
	Note: Steps 22 and 23c must be completed before OTF dialing is completed.	
22	Restore TP key.	If option YT is provided— When dialing is completed— ED lamp lighted. Busy or overflow tone heard. At TIC— TP, RP lamps lighted.
23c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. Busy or overflow tone heard. At TIC— TP, RP lamps lighted.
24c	At OTF— Restore MCB key.	
25	Restore ST key.	OS, ED lamps extinguished.
26	At TIC— Momentarily operate RLS key.	All lamps extinguished.
27	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed—

SECTION 218-437-501

STEP	ACTION	VERIFICATION
		ED lamp lighted. At TIC— TP lamp lighted.
28c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— RP lamp lighted.
29c	At OTF— Restore MCB key.	
30	At OTF— Restore ST key.	OS, ED lamps extinguished.
31	At TIC— Momentarily operate RLS key.	All lamps extinguished.
32	At OTF— Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing.
	Note: Steps 33 and 34c must be completed before OTF dialing is completed.	
33	Operate TP key.	If option YT is provided— When dialing is completed— ED lamp lighted. Busy or overflow tone heard. At TIC— TP, RP lamps lighted.
34c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. Busy or overflow tone heard. At TIC— TP, RP lamps lighted.
35c	At OTF— Restore MCB key.	
36	Restore ST key.	OS, ED lamps extinguished.
37	At TIC— Momentarily operate RLS key.	All lamps extinguished.
38	Remove blocking tool from HTR relay.	
39	At OTF— Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.

STEP	ACTION	VERIFICATION
40e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
H. Abandoned Call—Coin and Noncoin		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	S, OS lamps lighted. Dial tone heard.
16	Dial a digit 2 through 9 using OTF dial.	Dial tone silenced.
17	Operate DL key.	S, OS lamps extinguished. For Tests 47 and 48 CR lamp momentarily lighted. CND lamp lighted. For Test 48 OLK lamp momentarily lighted. OLF lamp does not light.
18	Restore ST, DL keys.	
19	For tests 47 and 48— Restore CN key.	CND lamp extinguished.
20	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
21	At TIC— Momentarily operate RLS key.	All lamps extinguished.
22e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
I. Abandoned Call—DDD Call—Coin and Noncoin		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	S, OS lamps lighted. Dial tone heard.
16	Dial access code, if required, any working foreign area code, and any six digits.	Dial tone silenced.
17	Operate DL key.	S, OS lamps extinguished. For Tests 50 and 51— CR lamp momentarily lighted. CND lamp lighted.

SECTION 218-437-501

STEP	ACTION	VERIFICATION
		For Test 51— OLK lamp momentarily lighted. OLF lamp does not light.
18	Restore ST, DL keys.	
19	For Tests 50 and 51— Restore CN key.	CND lamp extinguished.
20	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
21	At TIC— Momentarily operate RLS key.	All lamps extinguished.
22e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
J. Register Supervision		
11	Operate keys and set switches in accordance with Test Chart.	
12	At completing marker used for test— Block nonoperated HTR relay.	
13	At register under test— Insulate 7B of BT relay.	
14	At OTF— Operate ST key.	OS lamp lighted. Dial tone heard. When dialing is completed— ED lamp lighted. Call <i>not</i> completed. Dial tone heard.
15	Restore ST key.	OS, ED lamps extinguished.
16	At register under test— Remove insulator from 7B of BT relay.	
17	At TIC— Momentarily operate RLS key.	All lamps extinguished.
18	At OTF— Operate ST key.	OS lamp lighted. When dialing is completed— ED lamp lighted. Audible ringing tone heard. R±, T±lamps lighted in synchronism with ringing tone. Call completed.

STEP	ACTION	VERIFICATION
19	Restore ST key.	OS, ED lamps extinguished. Ringing tone silenced, ringing lamps extinguished.
20	At completing marker used for test— Remove blocking tool from HTR relay.	
21	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
22	At TIC— Momentarily operate RLS key.	All lamps extinguished.
23c	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
K. B_ Digit Translator		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ through G_, LC_, LV_, FAK or FBK lamps for trunk route lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ through G_, LC_, LV_, FAK or FBK lamps for trunk route lighted.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

SECTION 218-437-501

STEP	ACTION	VERIFICATION
L. Pretranslation		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted At TIC— A_ through L_, as required, LC_, LV_, FAK or FBK lamps corresponding to selected route lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ through L_, as required, LC_, LV_, FAK or FBK lamps corresponding to selected route lighted.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
M. Dial Tone		
12	Operate keys and set switches in accordance with Test Chart.	
13d	If office is not arranged for use of access digit 0 or 1— Operate ST key.	OS lamp lighted. Dial tone heard.
14d	Dial digit 1.	Dial tone not silenced.
15d	Dial digit 2.	Dial tone silenced.

STEP	ACTION	VERIFICATION
16d	Restore ST key.	OS lamp extinguished.
17e	If office is arranged for use of access digit 0 or 1— Operate ST key.	OS lamp lighted. Dial tone heard.
18e	Dial digit 0.	Dial tone silenced.
19e	Restore ST key.	OS lamp extinguished.
20e	Operate ST key.	OS lamp lighted. Dial tone heard.
21e	Dial digit 1.	Dial tone silenced.
22e	Restore ST key.	OS lamp extinguished.
23	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
24f	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

N. Dial Tone—Register Arranged for 11X Service Codes and Digit 1 Access Code Not Provided

12	Operate keys and set switches in accordance with Test Chart.	
13	Operate ST key.	S, OS lamps lighted. Dial Tone heard.
14	Dial digit 1.	Dial tone not silenced.
15	Dial digit 1.	Dial tone silenced.
16	Restore ST key.	S, OS lamps extinguished.
17	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
18d	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

O. Permanent Signal Timing—Coin and Noncoin

For Test 75

12	Operate keys and set switches in accordance with Test Chart.	
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SECTION 218-437-501

STEP	ACTION	VERIFICATION
13	Operate ST key; <i>start timing</i> .	S, OS lamps lighted. Dial tone heard. In 20 to 32 seconds— Permanent signal tone or recorded announcement heard.
14	Restore ST key.	S, OS lamps extinguished. Tone or announcement silenced.
15	At TIC— Momentarily operate RLS key.	All lamps extinguished.
For Test 76		
16	Operate keys and set switches in accordance with Test Chart.	
17	Operate ST key; <i>start timing</i> .	S, OS lamps lighted. Dial tone heard. In 20 to 32 seconds— CR lamp momentarily lighted. Permanent signal tone or recorded announcement heard. CND lamp lighted. If coin service improvement (dial-tone-first) is provided— OLK lamp momentarily lighted. OLF lamp not lighted.
18	Restore ST key.	S, OS lamps extinguished. Tone or announcement silenced.
19	Restore CN key.	CND lamp extinguished.
20	At relay rack frame in originating register group-busy circuit— Block operated RB2 relay.	
21	At OTF— Operate CN key.	
22	Operate ST key; <i>start timing</i> .	S, OS lamps lighted. Dial tone heard. In 10 to 16 seconds— Permanent signal tone or recorded announcement heard. CR lamp momentarily lighted. CND lamp lighted. If coin service improvement (dial-tone-first) is provided— OLK lamp momentarily lighted. OLF lamp not lighted.

STEP	ACTION	VERIFICATION
23	Restore ST key.	S, OS lamps extinguished.
24	Restore CN key.	CND lamp extinguished.
25	At TIC— Momentarily operate RLS key.	All lamps extinguished.
26	At relay rack frame in originating register group-busy circuit— Remove blocking tool from RB2 relay.	
27	At OTF— Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
28d	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
P. Partial Dial Timing—Coin and Noncoin		
For Test 77		
12	Operate keys and set switches in accordance with Test Chart.	
13	Operate ST key.	S, OS lamps lighted. Dial tone heard.
14	Dial digit other than 0, 1, or 9; <i>start timing</i> .	Dial tone silenced. In 20 to 32 seconds— Tone heard.
15	Restore ST key.	S, OS lamps extinguished. Tone silenced.
For Test 78		
16	Operate ST key.	S, OS lamps lighted. Dial tone heard.
17	Dial digit other than 0, 1, or 9; <i>start timing</i> .	Dial tone silenced. In 20 to 32 seconds— Tone heard. If coin service improvement (dial-tone-first) is provided— OLK lamp momentarily lighted. OLF lamp not lighted.
18	Restore ST key.	S, OS lamps extinguished. CR lamp momentarily lighted. CND lamp lighted.

SECTION 218-437-501

STEP	ACTION	VERIFICATION
19	Restore CN key.	CND lamp extinguished.
20	At relay rack frame in originating register group-busy circuit— Block operated RB2 relay.	
21	At OTF— Operate CN key.	
22	Operate ST key.	S, OS lamps lighted. Dial tone heard.
23	Dial digit other than 0, 1, or 9; <i>start timing</i> .	Dial tone silenced. In 5 to 8 seconds— Tone heard. If coin service improvement (dial-tone-first) is provided— OLK lamp momentarily lighted. OLF lamp not lighted.
24	Restore ST key.	S, OS lamps extinguished. CR lamp momentarily lighted. CND lamp lighted.
25	Restore CN key.	CND lamp extinguished.
26	At relay rack frame— Remove blocking tool from RB2 relay.	
27	At OTF— Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
28d	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

Q. Partial Dial Timing—DDD Call

12	Operate keys and set switches in accordance with Test Chart.	
13	Operate ST key.	S, OS lamps lighted. Dial tone heard.
14	Dial access code, if required, and any working NON or N1N code plus a fifth digit; <i>start timing</i> .	Dial tone silenced. In 20 to 32 seconds— Tone heard.
15	Restore ST key.	S, OS lamps extinguished. Tone silenced.

STEP	ACTION	VERIFICATION
16	At TIC— Momentarily operate RLS key.	All lamps extinguished.
17	At OTF— Restore all keys and switches not required in next test.	
18d	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
R. Timing for Extra Digit To Be Dialed		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key. (When option YT is provided, start timing after ED lamp lighted.)	S, OS lamps lighted. Dial tone heard. OTF begins dialing. If option YT is provided. When dialing is completed— ED lamp lighted. At register under test— If register is equipped with transistor digit timer— In 3 to 4 seconds— MST relay operated. If register is equipped with cold cathode tube digit timer— In 3 to 5 seconds— MST relay operated. At TIC— A_ through G_, LC_, LV_, FAK or FBK lamps corresponding to trunk route selected lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key. Start timing after ED lamp lighted.	When dialing is completed— ED lamp lighted. At register under test— If register is equipped with transistor digit timer— In 3 to 4 seconds— MST relay operated. If register is equipped with cold cathode tube digit timer— In 3 to 5 seconds— MST relay operated. At TIC— A_ through G_, LC_, LV_, FAK or FBK lamps corresponding to trunk route selected lighted.

SECTION 218-437-501

STEP	ACTION	VERIFICATION
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	S, OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
S. Register Timeout After Marker Seizure		
12	Operate keys and set switches in accordance with Test Chart.	
13	Operate ST key. <i>Note:</i> Steps 14 and 15c must be completed before OTF dialing is completed.	S, OS lamps lighted. Dial tone heard. OTF begins dialing.
14	Operate TP key. <i>Start Timing.</i>	If option YT is provided— When dialing is completed— ED lamp lighted. At TIC Trouble record taken. TP, RP lamps lighted. At OTF— BT lamp lighted. Busy or overflow tone heard. After 20 to 32 seconds— Busy or overflow tone silenced. Dial tone heard.
15c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— Trouble record taken. TP, RP lamps lighted. At OTF— Busy or overflow tone heard. After 20 to 32 seconds— Busy or overflow tone silenced. Dial tone heard.
16c	Restore MCB key.	

STEP	ACTION	VERIFICATION
17	Restore ST key.	Dial tone silenced.
18	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
19	At TIC— Momentarily operate RLS key.	All lamps extinguished.
20d	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

T. Timing During Pretranslation

14	Operate key and set switches in accordance with Test Chart.	
15	At register under test— Insulate 7B, 9B of PRL relay.	
16	At relay rack frame— Block operated RB2 relay in originating register group-busy circuit.	
17	At OTF— Operate ST key.	OS lamp lighted. Dial tone heard.
18	Dial A, B, C digits of a working code using OTF dial; <i>start timing</i> .	Dial tone silenced. In 20 to 32 seconds— Tone heard.
19	Restore ST key.	OS lamp extinguished. Tone silenced.
20	At register under test— Remove insulators from 7B, 9B of PRL relay.	
21	At relay rack frame— Remove blocking tool from RB2 relay.	
22	At OTF— Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
23e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

U. Common Alarm Timing

14	Operate keys and set switches in accordance with Test Chart.	
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SECTION 218-437-501

STEP	ACTION	VERIFICATION
15	At register under test— Block nonoperated MST relay.	
16	Insert plug of 32A test set into RC jack.	
17	Momentarily operate white (ST) button on 32A test set.	ON1, BS relays operated.
18	After BS relay operates— Block operated SR relay; <i>start timing</i> .	At jack, lamp, and key circuit— In 20 to 32 seconds— TO lamp associated with register under test lighted.
19	At register under test— Momentarily operate red (RL) button on 32A test set.	
20	Remove plug of 32A test set from RC jack.	
21	At OTF— Restore RSS, RSG switches; <i>start timing</i> .	MBG lamp extinguished. In 10 to 15 seconds— R-S-TOA lamp lighted. Major alarm sounds.
22	Set RSS, RSG switches to position selected in Steps 7 and 8.	MBG lamp lighted. R-S-TOA lamp extinguished. Major alarm silenced.
23	At register under test— Remove blocking tools from MST, SR relays.	
24	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
25e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

V. Recycle of Timing

For Test 84

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| 14 | Operate keys and set switches in accordance with Test Chart. |
| 15 | Patch DL jack to SP jack. |
| 16 | At frame of register under test—
Insert plug of handset into SP jack. |
| 17 | Insert plug of 32A test set into RC jack. |

STEP	ACTION	VERIFICATION
18	Momentarily operate white (ST) button on 32A test set. <i>Note:</i> Perform Step 19 within 20 seconds to avoid register timeout.	At register under test— TMA relay operated.
19	Dial A digit on handset. <i>Note:</i> Perform Step 20 within 20 seconds to avoid register timeout.	TMA relay momentarily released.
20	Dial B digit on handset. <i>Note:</i> Perform Step 21 within 20 seconds to avoid register timeout.	TMA relay momentarily released.
21	Dial C digit on handset.	TMA relay momentarily released.
22	Momentarily operate red (RL) button on 32A test set.	TMA relay released.
For Test 85		
23	Operate keys and set switches in accordance with Test Chart.	
24e	If register is arranged for coin service without coin test— Block nonoperated CR1 relay.	
25	At frame of register under test— Momentarily operate white (ST) button on 32A test set.	
26	At register under test— Manually operate TM relay.	TMA relay operated.
27	Remove blocking tool from CR1 relay.	TMA relay remains operated.
28	At frame of register under test— Momentarily operate red (RL) button on 32A test set.	TMA relay released.
29	Remove plug of 32A test set from RC jack.	
30	Remove plug of handset from SP jack.	
31	At OTF— Remove patching cord from DL, SP jacks.	
32	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.

SECTION 218-437-501

STEP	ACTION	VERIFICATION
33f	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
W. Tip Party Manual Test		
3	At jack, lamp, and key circuit— Insert make-busy plug into ORMB_ jack associated with register under test.	
4	At register under test— Block operated 2P relay.	
5	Block nonoperated TP1 relay.	
6	Manually operate ON1 relay.	ON1 relay remains operated. ON, RL relays operated.
7	Remove blocking tool from TP1 relay.	TP1 relay momentarily operated. ON1, ON, RL relays released.
8	Manually operate ON1 relay.	TP1 relay operated while ON1 relay is manually operated.
9	Remove blocking tool from 2P relay.	
10	At jack, lamp, and key circuit— Remove make-busy plug from ORMB_ jack associated with register under test.	
X. Line Location, Class of Service, and Observed Call Information—Storing and Verification of Trouble Indicator and Connector Leads		
14	Operate keys and set switches in accordance with Test Chart.	
15	Patch OTL jack to SP jack.	
16	At line link frame— Patch SP jack to a line link frame location in accordance with Test Chart.	
17	At jack, lamp, and key circuit— Insert make-busy plug into M-D-MB jack associated with dial tone marker used for test.	
18	At dial tone marker used for test— Block nonoperated OBS2 relay.	
19	Connect ground to 1U winding terminal of OBS2 relay.	

STEP	ACTION	VERIFICATION
20	At OTF— Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— FU_, VG_, HG_, VF_, CT_, CU_, OBS lamps corresponding to line location used for test lighted.
21c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— FU_, VG_, HG_, VF_, CT_, CU_, OBS lamps corresponding to line location used for test lighted.
22c	At OTF— Restore MCB key.	
23	At OTF— Restore ST key.	OS, ED lamp extinguished.
24	At TIC— Momentarily operate RLS key.	All lamps extinguished.
25	At line link frame— Remove patching cord from SP jack, line link vertical.	
26	At dial tone marker used for test— Remove blocking tool from OBS2 relay.	
27	Remove test connection from OBS2 relay.	
28	At OTF— Remove patching cord from OTL, SP jacks.	
29	Remove make-busy plug from M-D-MB jack associated with dial tone marker used for test.	
30	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
Y. Digit 0 or 1 Access Code		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	S, OS lamps lighted. Dial tone heard.

STEP	ACTION	VERIFICATION
		<p>OTF begins dialing.</p> <p>If option YT is provided—</p> <p>When dialing is completed—</p> <p>ED lamp lighted.</p> <p>At TIC—</p> <p>For Tests 96 and 97—</p> <p>A_ through G_ lamps corresponding to setting of B_ through H_ DIAL switches lighted.</p> <p>For Tests 98 and 99—</p> <p>A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted.</p>
16c	<p>If option YT is not provided—</p> <p>Before dialing is completed—</p> <p>Operate MCB key.</p>	<p>When dialing is completed—</p> <p>ED lamp lighted.</p> <p>At TIC—</p> <p>For tests 96 and 97—</p> <p>A_ through G_ lamps corresponding to setting of B_ through H_ DIAL switches lighted.</p> <p>For Tests 98 and 99—</p> <p>A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted.</p>
17c	<p>At OTF—</p> <p>Restore MCB key.</p>	
18	<p>At OTF—</p> <p>Restore ST key.</p>	OS, S, ED lamps extinguished.
19	<p>Restore all keys and switches not required in next test.</p>	MBG lamp extinguished.
20	<p>At TIC—</p> <p>Momentarily operate RLS key.</p>	All lamps extinguished.
21e	<p>If no further tests are to be performed—</p> <p>Remove patching cords placed in Steps 5b, 6b (when required).</p>	
Z. Regular Call (TOUCH-TONE)		
14	<p>Operate keys and set switches in accordance with Test Chart.</p>	
15	<p>Operate ST key.</p>	<p>S, OS lamps lighted.</p> <p>Dial tone heard.</p> <p>OTF begins dialing.</p> <p>If option YT is provided—</p> <p>When dialing is completed—</p> <p>ED lamp lighted.</p> <p>At TIC—</p>

STEP	ACTION	VERIFICATION
		For Tests 100 through 104— A_ through G_ lamps corresponding to setting of A_ through G_ DIAL switches lighted. For Tests 105 through 109— A_ through K_ lamps corresponding to setting of A_ through K_ DIAL switches lighted. For Tests 110 through 114— A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— For Tests 100 through 104— A_ through G_ lamps corresponding to setting of A_ through G_ DIAL switches lighted. For Tests 105 through 109— A_ through K_ lamps corresponding to setting of A_ through K_ DIAL switches lighted. For Tests 110 through 114— A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	S, OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
AA.	Single-Frequency Test (TOUCH-TONE)	
AB.	Special 3-Frequency Test (TOUCH-TONE)	
AC.	Maximum and Minimum Frequency Test (TOUCH-TONE)	
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial tone heard.

SECTION 218-437-501

STEP	ACTION	VERIFICATION
		<p>OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ through G_ lamps corresponding to setting of B_ through H_ DIAL switches lighted.</p>
16c	<p>If option YT is not provided— Before dialing is completed— Operate MCB key.</p>	<p>When dialing is completed— ED lamp lighted At TIC— A_ through G_ lamps corresponding to setting of B_ through H_ DIAL switches lighted.</p>
17c	<p>At OTF— Restore MCB key.</p>	
18	<p>At OTF— Restore ST key.</p>	<p>OS, ED lamps extinguished.</p>
19	<p>Restore all keys and switches not required in next test.</p>	<p>If RSG switch is restored— MBG lamp extinguished.</p>
20	<p>At TIC— Momentarily operate RLS key.</p>	<p>All lamps extinguished.</p>
21e	<p>If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).</p>	
AD. Low and High Level Test (TOUCH-TONE)		
14	<p>Operate keys and set switches in accordance with Test Chart.</p>	
15	<p>Operate ST key.</p>	<p>OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ through G_ lamps corresponding to setting of A_ through G_ DIAL switches lighted.</p>
16c	<p>If option YT is not provided— Before dialing is completed— Operate MCB key.</p>	<p>When dialing is completed— ED lamp lighted. At TIC— A_ through G_ lamps corresponding to setting of DIAL switches lighted.</p>

STEP	ACTION	VERIFICATION
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operated RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
AE. C_ Digit Translator		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

SECTION 218-437-501

STEP	ACTION	VERIFICATION
<p>AF. Interchangeable Codes AG. Toll Diversion</p>		
14	Operate keys and sets switches in accordance with Test Chart.	
15	Operate ST key.	<p>OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. If 0/1 access digit is not required— At TIC— A_ through K_ lamps corresponding to setting of A_ through K_ DIAL switches lighted. If 0/1 access digit is required— At TIC— A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted.</p>
16c	<p>If option YT is not provided— Before dialing is completed— Operate MCB key.</p>	<p>When dialing is completed— ED lamp lighted. If 0/1 access digit is not required— At TIC— A_ through K_ lamps corresponding to setting of A_ through K_ DIAL switches lighted. If 0/1 access digit is required— At TIC— A_ through K_ lamps corresponding to setting of A_ through K_ DIAL switches lighted. If 0/1 access digit is required— A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted.</p>
17c	<p>At OTF— Restore MCB key.</p>	
18	<p>At OTF— Restore ST key.</p>	OS, ED lamps extinguished.
19	<p>Restore all keys and switches not required in next test.</p>	<p>If RSG switch is restored— MBG lamp extinguished.</p>
20	<p>At TIC— Momentarily operate RLS key.</p>	All lamps extinguished.

STEP	ACTION	VERIFICATION
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
AH. A_ and B_ Digit Translator		
For Tests 139 Through 158		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial Tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— If 0/1 access digit is not required— A_ through K_ lamps corresponding to A_ through K_ setting of DIAL switches lighted. If 1X code is being tested— A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted. If 11X code is being tested— A_ through K_ lamps corresponding to setting of C_ through M_ DIAL switches lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— If 0/1 access digit is not required— A_ through K_ lamps corresponding to setting of A_ through K_ DIAL switches lighted. If 1X code is being tested— A_ through K_ lamps corresponding to setting of B_ through L_ DIAL switches lighted. If 11X code is being tested— A_ through K_ lamps lighted corresponding to setting of C_ through M_ DIAL switches lighted.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished.

SECTION 218-437-501

STEP	ACTION	VERIFICATION
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
Al. Prefix Digits 01+		
For Tests 159 Through 178		
12	Operate keys and set switches in accordance with Test Chart.	
13	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ through M_ lamps corresponding to setting of C_ through P_ DIAL switches lighted.
14c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ through M_ lamps corresponding to setting of C_ through P_ DIAL switches lighted.
15c	At OTF— Restore MCB key.	
16c	At OTF— Restore ST key.	OS, ED lamps extinguished.
17	At TIC— Momentarily operate RLS key.	

For Tests 179, 180, and 181

18	Operate keys and set switches in accordance with Test Chart.	
19	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing.

STEP	ACTION	VERIFICATION
		If option YT is provided— Overflow tone heard.
20c	If option YT is not provided— Before dialing is completed— Operate MCB key.	Overflow tone heard.
21c	Restore MCB key.	
22	Restore ST key.	OS lamp extinguished. Overflow tone silenced.
23	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
24	At TIC— Momentarily operate RLS key.	
25d	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
AJ. Prefix Digits 011+		
For Tests 182 and 183		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. Dial tone heard. At TIC— A_ through M_ lamps corresponding to setting of D_ through Q_ DIAL switches lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. Dial tone heard. At TIC— A_ through M_ lamps corresponding to setting of D_ though Q_ DIAL switches lighted.
17c	Restore MCB key.	
18	Restore ST key.	OS, ED lamps extinguished. Dial tone silenced.

SECTION 218-437-501

STEP	ACTION	VERIFICATION
For Tests 184 Through 209		
19	Operate keys and set switches in accordance with Test Chart.	
20	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ through M_ lamps corresponding to setting of D_ through Q_ DIAL switches lighted.
21c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ through M_ lamps corresponding to setting of D_ through Q_ DIAL switches lighted.
22c	At OTF— Restore MCB key.	
23	At OTF— Restore ST key.	OS, ED lamps extinguished.
24	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
25	At TIC— Momentarily operate RLS key.	All lamps extinguished.
26c	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	
AK. Pretranslation for IDDD		
14	Operate keys and set switches in accordance with Test Chart.	
15	Operate ST key.	OS lamp lighted. Dial tone heard. OTF begins dialing. If option YT is provided— When dialing is completed— ED lamp lighted. At TIC— A_ through M_ lamps corresponding

STEP	ACTION	VERIFICATION
		to setting of C_ or D_ through Q_ DIAL switches lighted.
16c	If option YT is not provided— Before dialing is completed— Operate MCB key.	When dialing is completed— ED lamp lighted. At TIC— A_ through M_ lamps corresponding to setting of C_ or D_ through Q_ DIAL switches lighted.
17c	At OTF— Restore MCB key.	
18	At OTF— Restore ST key.	OS, ED lamps extinguished.
19	Restore all keys and switches not required in next test.	If RSG switch is restored— MBG lamp extinguished.
20	At TIC— Momentarily operate RLS key.	All lamps extinguished.
21e	If no further tests are to be performed— Remove patching cords placed in Steps 5b, 6b (when required).	

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 as follows:

- (a) Record the various classes of service required for selected call under CLASS OF SERVICE columns. If class of service is two-party, record TP key in the MISCELLANEOUS KEYS AND/OR SWITCHES column. Do not use a manual or coin class of service unless it is specified.
- (b) In the DIGITS—CODE(S) AND NUMBER columns, record A_ through F_ digits as required for area and/or office codes. The selection of codes should be made so that each usable numerical is employed for each dialable digit. When selecting an office code for a 7-digit call, select any B_ digit other than 0 or 1, or any numerical that will not be recognized as a code or treated as an unused digit.
- (c) When the office is equipped with separate groups of originating registers, and the

register to be tested is not accessible to the originating test line, record the vacant line location served by the type of originating register to be tested under LINE LOCATION columns.

- (d) When a specific ringing combination is required, record RS1 and/or RS2 switches under MISCELLANEOUS KEYS AND/OR SWITCHES columns.
- (e) Record A_ through G_ digits assigned to the OTF terminating test line under DIGITS—CODE(S) AND NUMBER columns.

5.02 Test A

- (1) For Tests 1 through 8 apply (a), (b), and (c) of 5.01, selecting a noncoin class of service other than manual.
- (2) For Tests 9 through 13 [coin service improvement (dial-tone-first) not provided] apply (a), (b), and (c) of 5.01, selecting coin classes of service.
- (3) For Tests 14 through 19 [coin service improvement (dial-tone-first) provided] apply

SECTION 218-437-501

(a), (c), (d), and (e) of 5.01, selecting coin classes of service.

5.03 Test A.1

(1) Record the line location of a dedicated vertical in a horizontal group arranged for range extension under LINE LOCATION columns.

(2) Apply (a) and (b) of 5.01.

5.04 Test B

(1) Apply (a), (b), and (c) of 5.01, using working X0X, X1X, and NN0-type area codes.

5.05 Test C

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

(2) Record the C_ digit of working 11X service codes in the C_ column under DIGITS—CODE(S) AND NUMBER.

5.06 Test D

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

(2) Record the A_ digit of working X11 service codes in the A_ column under DIGITS—CODE(S) AND NUMBER.

5.07 Test E

(1) For Test 40, apply (a) of 5.01, selecting a manual non-coin class of service.

(2) For Test 41, apply (a) of 5.01 selecting a manual coin class of service.

5.08 Test F

(1) For Test 42, apply (a) and (c) of 5.01, selecting a non-coin class of service other than manual.

(2) When coin service improvement (dial-tone-first) is not provided, perform Test 43. Apply (a) and (c) of 5.01, selecting a coin class of service.

(3) When coin service improvement (dial-tone-first) is provided, perform Test 44. Apply (a) and (c) of 5.01, selecting a coin class of service.

5.09 Test G

(1) Apply (a), (c), (d) and (e) of 5.01, selecting a two-party class of service.

5.10 Tests H and I

(1) For Tests 46 and 49, apply (a) and (c) of 5.01, selecting a non-coin class of service other than manual.

(2) When coin service improvement (dial-tone-first) is not provided, perform Tests 47 and 50. Apply (a) and (c) of 5.01, selecting a coin class of service.

(3) When coin service improvement (dial-tone-first) is provided, perform Tests 48 and 51. Apply (a) and (c) of 5.01, selecting a coin class of service.

5.11 Test J

(1) Apply (a), (c), (d), and (e) of 5.01, selecting a two-party class of service.

5.12 Test K

(1) For all Tests, apply (a) and (c) of 5.01.

(2) For Test 53, record A_, B_, C_ digits of a local office code.

(3) For Tests 54, 55, 57, and 58, record the A_ and C_ digits of a working foreign area code and office code, or the A_ and C_ digits of an interchangeable code.

(4) For Test 56, also apply (b) of 5.01.

5.13 Test L

(1) For Tests 59 and 60, record the A_, B_, and C_ digits of local office codes under the A, B, and C columns of DIGITS CODE(S) AND NUMBER.

(2) For Tests 61 and 62, record the A_, B_, and C_ digits of an office code within the same area other than a local office code under the B, C, and D columns of DIGITS—CODE(S) AND NUMBER.

- (3) For Tests 63 and 64, record the A_ or A_ B_ digits of a 11X or 11XX code under C through F columns (as required) of DIGITS—CODE(S) AND NUMBER.
- (4) For Tests 65, 66, 67, 69, 70, and 71, record the A_ and C_, A_ and B_, or A_ B_ and C_ digits of working NON, N1N, and NN0 foreign area and/or office codes, as required, under DIGITS—CODE(S) AND NUMBER columns.
- (5) For Tests 68 and 72, record an interchangeable area code and office code.
- (6) For all Tests, apply (a) and (c) of 5.01.
- 5.14 Test M**
- (1) Apply (a) and (c) of 5.01, selecting a non-coin class of service.
- 5.15 Test N**
- (1) Apply (a) and (c) of 5.01, selecting a non-coin class of service.
- 5.16 Test O**
- (1) For Test 75, apply (a) and (c) of 5.01, selecting a non-coin class of service.
- (2) For Test 76, apply (a) and (c) of 5.01, selecting a coin class of service.
- 5.17 Test P**
- (1) For Test 77, apply (a) and (c) of 5.01, selecting a non-coin class of service.
- (2) For Test 78, apply (a) and (c) of 5.01, selecting a coin class of service.
- 5.18 Test Q**
- (1) Apply (a) and (c) of 5.01, selecting a non-coin class of service.
- 5.19 Test R**
- (1) Record A_ through H_ digits to select an office code and station code that require station delay treatment.
- (2) Apply (a) and (c) of 5.01, selecting a non-coin class of service.
- 5.20 Test S**
- (1) Apply (a), (c), (d), and (e) of 5.01, selecting a two-party class of service.
- 5.21 Test T**
- (1) Apply (a) and (c) of 5.01, selecting a non-coin class of service.
- 5.22 Test U**
- (1) Apply (a), (c), (d), and (e) of 5.01, selecting a non-coin class of service.
- 5.23 Test V**
- (1) For Test 84, apply (a) and (c) of 5.01, selecting a non-coin class of service.
- (2) For Test 85, apply (a) and (c) of 5.01, selecting a coin class of service.
- 5.24 Test X**
- (1) Apply (a) of 5.01, selecting class of service as required, until all transmitting leads have been selected as follows: CT_ leads on a 1-out-of-3 basis or 2-out-of-5 basis, CU_ leads on a 2-out-of-5 basis, and when CGA or CGB relay is associated with class of service, at least on test using the associated CGB relay.
- (2) For all tests except manual class of service, apply (d) and (e) of 5.01.
- (3) Select line locations, as required, until all transmitting leads have been selected as follows: FT_ leads on a 1-out-of-3 basis or 2-out-of-4 basis, FU_ leads on a 2-out-of-5 basis, VG_ leads on a 2-out-of-5 basis, HG_ leads on a 2-out-of-5 basis, VG_ leads on a 1-out-of-5 basis.
- (4) When manual class of service is used, record MAN in the MISCELLANEOUS KEYS AND/OR SWITCHES column.
- 5.25 Test Y**
- (1) Apply (a) and (c) of 5.01, selecting a non-coin class of service.

SECTION 218-437-501

- (2) Apply (b) of 5.01.

5.26 Test Z

- (1) Apply (a) and (c) of 5.01, selecting a TOUCH-TONE class of service.
- (2) For Tests 105 through 114, apply (b) of 5.01.

5.27 Tests AA, AB, and AC

- (1) Apply (a) and (c) of 5.01, selecting a TOUCH-TONE class of service.
- (2) Apply (d) and (e) of 5.01, recording digits under columns B through H of DIGITS CODE(S) AND NUMBER.

5.28 Test AD

- (1) Apply (a) and (c) of 5.01, selecting a TOUCH-TONE class of service.
- (2) Apply (d) and (e) of 5.01.

5.29 Test AE

- (1) Apply (a) and (c) of 5.01, selecting a non-coin class of service.
- (2) Apply (b) of 5.01, recording the A_ and B_ digits of a working NN0 interchangeable code and the D_, E_, F_ digits of an office code.

5.30 Test AF

- (1) When pretranslator is not provided, perform all tests.
- (2) When pretranslator is provided, perform Tests 132, 133, and 134.
- (3) Apply (a) and (c) of 5.01 selecting a non-coin class of service.
- (4) For Test 132, apply (b) of 5.01, recording the A_, B_, and C_ digits of a local interchangeable code.
- (5) For Tests 133 and 135, apply (b) of 5.01, recording the A_, B_, and C_ digits of an interchangeable office code in the same area that is not a local code.

- (6) For Tests 134 and 136, apply (b) of 5.01, recording an interchangeable area code.

5.31 Test AG

- (1) Apply (a) and (c) of 5.01, selecting a class of service for denied access to toll routes.
- (2) Apply (b) of 5.01.

5.32 Test AH

- (1) For all Tests, apply (a) and (c) of 5.01.
- (2) For Tests 139 through 144, apply (b) of 5.01, recording unused A_ digits and/or used A_ digits and unused B_ digits that the register will translate.
- (3) For Tests 145 through 150, apply (b) of 5.01, recording used A_ and B_ digits of a 1X or 1XX-type code that the register will translate.
- (4) For Tests 151 through 158, apply (b) of 5.01, recording used A_ and B_ digits of a 11X or 11XX-type code that the register will translate. For one test, record A_ digit of a 11-type foreign area directing code.
- (5) For all tests, record any additional digits required for the register to engage a marker.
- (6) For all tests, record _D keys, as required to agree with number of digits set on A_ through Q_ DIAL switches under MISCELLANEOUS KEYS AND/OR SWITCHES.

5.33 Test AI

- (1) Apply (a) and (c) of 5.01, using a class of service having access to IDDD routing.
- (2) Record country code and additional digits under DIGITS-CODE(S) AND NUMBER (CALLED NUMBER) column as follows:
 - (a) For Tests 160, 161, 162, 168, 169, 170, select working country code and digits through J, K, and L, respectively, when the register is arranged to time for additional digits after 7, 8, or 9 digits.
 - (b) For Tests 163 through 166 and 171 through 174, select working country codes and

digits through L, M, N, and P, respectively, when register is arranged for marker start after 9, 10, 11, and/or 12 digit.

(c) For Tests 175 through 178, select working country codes and digits through K, L, M, and N, respectively when the register is arranged to (1) require an end-of-dial signal after 8, 9, 10, or 11 digits, or (2) recognize an end-of-dial signal after the register has begun timing for additional digits.

(d) For Test 179 select working country code and digits through K, L, M, N, and P, respectively, when the register is arranged to require an end-of-dial signal after 8, 9, 10, or 11 digits.

(e) For Test 180 select working country code and digits through G and H when the register is arranged to recognize an end-of-dial signal.

(f) For Test 181 select working country code and digits through J, K, L, M, and N, when the register is arranged to recognize an end-of-dial signal.

5.34 Test AJ

(1) Apply (a) and (c) of 5.01, using a class of service for IDDD routing.

(2) Record country code and additional digits under DIGITS-CODE(S) and NUMBER (CALLED NUMBER) column as follows:

(a) For Tests 184 through 187 and 195 through 198, select working country codes that will allow the register to record the maximum number of digits.

(b) For Tests 188 through 190 and 199 through 201, select working country codes and digits through K, L, and M, respectively, when the register is arranged to time for additional digits after 7, 8, or 9 digits.

(c) For Tests 191 through 194 and 202 through 205, select working country codes and digits through M, N, P, and Q, respectively, when the register is arranged for marker start after 9, 10, 11, and/or 12 digits.

(d) For Tests 206 through 209, select working country codes and digits through L, M, N, and P, respectively, when the register is arranged to (1) require an end-of-dial signal after 8, 9, 10, or 11 digits, or (2) recognize an end-of-dial signal after the register has begun timing for additional digits.

5.35 Test AK

(1) Apply (a) and (c) of 5.01, using a class of service for IDDD routing.

(2) When tests are to be performed using dial pulse, record 11/44 under PULSING CONTROL and 0 under LOOP-LEAK CONTROL.

(3) When tests are to be performed using TOUCH-TONE, record TT key under MISCELLANEOUS KEYS AND/OR SWITCHES.

(4) For all tests, record D key as required to agree with number of digits set on A through Q switches under MISCELLANEOUS KEYS AND/OR SWITCHES.

(5) Record working country codes and additional digits in DIGITS-CODE(S) AND NUMBER (CALLED NUMBER) column as follows:

(a) When selecting country codes, the selection of the codes should be made so that each usable numerical is employed for each dialable or TOUCH-TONE digit.

(b) For Tests 210 through 212 select working country codes and digits through L, N, and P, respectively, when the pretranslator indicates to the register to engage a marker after 9, 10 or 11 digits.

(c) For Tests 213 through 215, select working country codes and digits through K, L, and M, respectively, when the pretranslator indicates to the register to time for additional digits after 7, 8, or 9 digits.

(d) For Test 216, select the D, E, and F digits that the pretranslator will recognize as a vacant code.

(e) For Tests 217 through 226 select various working country codes, as required, that

SECTION 218-437-501

will check the A, B, and C digit leads to the pretranslator on a 2-out-5 basis.

(f) For Tests 217 through 226, select additional digits, as required, for the register to engage a marker.

(6) When an end-of-dial signal is required, record TST in the digit column and record SSR in MISCELLANEOUS KEYS AND SWITCHES column.

TEST CHART

TEST	TYPE OF TEST	TEST NO.	OFFICE TEST FRAME PRIMING INFORMATION																							TEST NO.	TEST													
			LINE LOCATION				CLASS OF SERVICE	DIGITS — CODE(S) AND NUMBER (CALLED NUMBER)													PULSING CONTROL	LOOP-LEAK CONTROL	MISCELLANEOUS KEYS AND/OR SWITCHES																	
			FRAME NO.		VERTICAL GROUP			HOR GR	VERT FILE	TENS		UNITS		A	B	C	D	E	F	G								H	J	K	L	M	N	P	Q					
			TENS	UNITS	TENS	UNITS	TENS			UNITS																														
A	Regular Call — Dial Pulse Non-Coin Call	1								3	6	0	7	1	3	6										24/55	0	7D								1	A			
		2								6	0	7	1	3	6	0											7/50	1	7D									2		
		3								7	7	1	3	6	0	7											7/80	1	7D									3		
		4								7	1	3	6	0	7	1											15/65	3	7D									4		
		5								3	3	6	0	7	1	3											15/65	4	7D									5		
		6												1	2	3	4										24/55	5	7D									6		
		7												1	2	3	4										24/70	6	7D									7		
		8												1	2	3	4										11/44	7	7D									8		
	Coin Call — Coin Service Improvement (Dial-Tone-First) not provided	9											1	2	3	4										24/55	0	7D	CN	RRC*								9		
		10											1	2	3	4											7/50	2	7D	CN	RRC*								10	
		11											1	2	3	4											7/80	2	7D	CN	RRC*								11	
		12											1	2	3	4											15/65	3	7D	CN	RRC*								12	
		13											1	2	3	4											24/55	6	7D	CN	RRC*								13	
		14																									24/55	0	7D	CN	ORCT	RRC*								14
	Coin Call — Coin Service Improvement (Dial-Tone-First) provided	15																									7/50	2	7D	CN	ORCT	RRC*								15
		16																									7/80	2	7D	CN	ORCT	RRC*								16
		17																									15/65	3	7D	CN	ORCT	RRC*								17
		18																									24/55	6	7D	CN	ORCT	RRC*								18
	Simulated Cable Discharge	19																									11/44	0	7D	SCD	ORCT	RRC*								19
A.1		Range Extension for Uniguage Cabling	20									1	2	3	4											11/44	0	7D	OTLP	RET	LOLL							20		
21												1	2	3	4											11/44	0	7D	OTLP	RET	LOLL							21		
B	DDD Call — Access Code Not Provided	22														1	7	3	6							24/55	0	10D									22			
		23															3	1	6	0							7/50	1	10D									23		
		24																6	3	0	7							7/80	1	10D									24	
		25																0	6	7	1							15/65	3	10D									25	

* When Provided

TEST CHART

TEST	TYPE OF TEST	TEST NO.	OFFICE TEST FRAME PRIMING INFORMATION																								TEST NO.	TEST											
			LINE LOCATION				CLASS OF SERVICE	DIGITS - CODE(S) AND NUMBER (CALLED NUMBER)																PULSING CONTROL	LOOP-LEAK CONTROL	MISCELLANEOUS KEYS AND/OR SWITCHES													
			FRAME NO.		VERTICAL GROUP			HOR GR	VERT FILE	TENS		UNITS		A	B	C	D	E	F	G	H	J	K							L	M	N	P	Q					
			TENS	UNITS	TENS	UNITS	TENS			UNITS																													
AH (Cont)		156									1	1														11/44	0									156	AH		
		157									1	1															11/44	0									157	(Cont)	
		158									1	1															11/44	0									158		
AI	Prefix Digits 01+	159									0	1	0													11/44	0	3D	CB							159	AI		
		160									0	1															11/44	0	9D	CB							160		
		161									0	1															11/44	0	10D	CB							161		
		162									0	1															11/44	0	11D	CB							162		
		163									0	1															11/44	0	11D	CB							163		
		164									0	1															11/44	0	12D	CB							164		
	Dial Pulse	165									0	1															11/44	0	13D	CB							165		
		166									0	1															11/44	0	14D	CB							166		
		167									0	1	0														11/44	0	3D	TT	CB						167		
		168									0	1															11/44	0	9D	TT	CB						168		
		169									0	1															11/44	0	10D	TT	CB						169		
		170									0	1															11/44	0	11D	TT	CB						170		
		171									0	1															11/44	0	11D	TT	CB						171		
		172									0	1															11/44	0	12D	TT	CB						172		
		173									0	1															11/44	0	13D	TT	CB						173		
		TOUCH-TONE	174									0	1														11/44	0	14D	TT	CB						174		
			175									0	1											TST				11/44	0	11D	TT	SSR	CB					175	
			176									0	1												TST			11/44	0	12D	TT	SSR	CB					176	
177										0	1													TST		11/44	0	13D	TT	SSR	CB					177			
178										0	1													TST		11/44	0	14D	TT	SSR	CB					178			
179										0	1															11/44	0	14D	TT						179				
180									0	1													TST		11/44	0	9D	TT	SSR						180				
181									0	1														TST	11/44	0	14D	TT	SSL						181				

TEST CHART

TEST	TYPE OF TEST	TEST NO.	OFFICE TEST FRAME PRIMING INFORMATION																								TEST NO.	TEST														
			LINE LOCATION				CLASS OF SERVICE	DIGITS - CODE(S) AND NUMBER (CALLED NUMBER)													PULSING CONTROL	LOOP-LEAK CONTROL	MISCELLANEOUS KEYS AND/OR SWITCHES																			
			FRAME NO.		VERTICAL GROUP			HOR GR	VERT FILE	TENS		UNITS		A	B	C	D	E	F	G									H	J	K	L	M	N	P	Q						
			TENS	UNITS	TENS	UNITS	TENS			UNITS																																
AJ (Cont)	TOUCH-TONE	207								0	1	1												TST		11/44	0	13D	TT	SSR					207	AJ						
		208									0	1	1												TST		11/44	0	14D	TT	SSR					208	(Cont)					
		209									0	1	1													TST	11/44	0		TT	SSR					209						
AK	Pretranslation for IDDD (SD-27849-01 provided)	210								0	1	1																								210	AK					
		211								0	1	1																									211					
		212								0	1	1																										212				
		213								0	1	1										†																213				
		214								0	1	1											†																214			
		215								0	1	1												†															215			
		216								0	1	1																											216			
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		222								0	1	1																													222	
		223								0	1	1																													223	
224								0	1	1																													224			
225								0	1	1																													225			
226								0	1	1																													226			

† End-Of-Dial When Required (Dial switch to TST, SSR key operated.)