ORIGINATING REGISTERS, OUTPULSING CONTROLLERS, AND "TOUCH-TONE" CALLING SIGNAL CONVERTERS OPERATION TESTS USING MANUAL TEST SET SD-32363-01 (J34727) STEP-BY-STEP COMMON CONTROL OFFICES

1. GENERAL

1.01 This section describes a method of testing operating features of the originating register, outpulsing controller, and TOUCH-TONE converter circuits, using manual test circuit SD-32362-01 and manual test set SD-32363-01. ***The procedure for applying tests is covered in 1.04.***

1.02 This section is reissued to add outpulsing controllers to the title and to add tests for testing controlled outpulsing features. Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 The tests covered are:

A. Test Calls — TOUCH-TONE Calling Only: This test checks originating register features by use of test calls of working codes.

B. Test Calls — Controlled Outpulsing With or Without TOUCH-TONE Calling: This test checks originating register outpulsing controller features by use of test calls of working codes.

C. Alternate Routing: This test checks various alternate routing options available with controlled outpulsing.

D. Register Release from Rotary Dial Call: This test checks that the register will recognize a rotary dial call and release after repeating the first digit for TOUCH-TONE only operation and for certain A digits when controlled outpulsing is provided.

E. Register Party Test: This test checks the ability of the register to perform a party test and identify a tip or ring party. A party test failure condition is simulated to check that the subscriber will not receive dial tone if the register fails to perform party test.

F. Party Retest: This test checks that the register makes a party retest when required.

G. Abandon Call: This test checks that the register will recognize and release from an abandoned call. The abandoned call may occur before loop closure, after loop closure but before dial tone, or after dial tone.

H. Two-Party Message-Rate Trunk: This test simulates the register action when a message-rate trunk is used.

I. Permanent Signal and LTO Timer: This test checks that when normal traffic conditions exist, the LTO timer will time out and cause register release approximately 20 seconds after seizure by a permanent signal. It also checks that when all registers in a subgroup are busy, the LTO timer will time out and cause register release approximately 10 seconds after seizure.

J. Register Hold: This test checks that the register will detect a trouble indication and hold itself out-of-service when the work time interval has been exceeded before dial tone is returned or after keying is completed.

K. Partial Keypulse: This test checks that the register will detect a partial registration by timing between any two keyed digits. When the time between digits exceeds approximately 10 or 20 seconds, depending upon traffic load, the register sends reorder tone for approximately 10 or 20 seconds and then releases.

L. Momentary Open Loop: This test checks that the register will detect a momentary open in the subscriber loop. If the open occurs after dial tone but before keying or after keying has started, the register returns reorder tone and releases.

M. Open or Reversed Outward Loop: This test checks the ability of the register to detect an open or reversed outward loop.

N. Stop-Go: This test checks the ability of the originating register-outpulsing controller to recognize a false or second stop signal as a trouble condition and time out.

O. High Speed Keying: This test checks the ability of the TOUCH-TONE calling signal converter circuit to register digits keyed at a high speed. An additional frequency deviation test is made automatically as the digits are keyed below, above, and at normal frequencies.

P. Three Frequency: This test checks the ability of the TOUCH-TONE calling signal converter to block when more than two frequencies are present.

Q. Frequency Deviation: This test checks the ability of the TOUCH TONE converter to operate with signal frequency deviations of 1.4 to 1.6 percent above or below nominal values.

R. Input Signal Level: This test checks that the TOUCH-TONE calling converter will function over a range of —19 minimum, —7 nominal, +3 maximum dbm signal levels.

S. Single Frequency: This test checks the ability of the TOUCH-TONE calling signal converter to block when only one TOUCH-TONE frequency is present.

1.04 The tests in this section may be applied according to local common control office arrangement as follows:

(a) Offices arranged for TOUCH-TONE calling only — Tests A, D through M, O through S (Test Chart A).

(b) Offices arranged for controlled outpulsing with or without TOUCH-TONE calling — Tests B through S (Test Chart B).

1.05 Test numbers that are outpulsed by the originating register pulse generator may be controlled and observed as displayed on the digital indicator on a digit-at-a-time basis. To make the digit control feature effective, momentarily operate the DC key when the originating register is seized and the test number is keyed or dialed. After the first digit is displayed, the originating register pulse generator is blocked. Momentarily reoperate the DC key for each subsequent digit to be displayed.

1.06 For all tests, test charts are provided for listing specific numbers to be dialed or keyed, depending on locally equipped options. These test charts should be filled out from local records in accordance with the instructions provided in Part 5, Preparation of Test Charts.

1.07 Tests E and F should be performed if party test feature is provided.

1.08 Test H should be performed if 2-party message-rate trunks are provided.

1.09 Test L should be performed if open loop test feature is provided.

1.10 *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.

2. APPARATUS

All Tests

2.01 Manual test circuit, SD-32362-01.

2.02 Manual test set, J38928 (SD-32363-01).

2.03 Patching cord, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord) (used to connect the test control circuits in the originating register to the manual test set).

2.04 Two W35A cords, used to connect equipment under test to test set.

2.05 Head telephone set.

Test I

2.06 KS-3008 stopwatch or equivalent.

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3. PREPARATION

STEP	ACTION	VERIFICATION
	Note: Belt line jacks and ORT- jacks are located on register frame and on jack, key, and lamp circuit.	
All Tests		
1	At manual test set — Restore test set keys.	
2	At manual test circuit — Plug A, B connectors of manual test set into A, B belt line jacks.	
3	At manual test set — Insert 310 plug of P3E cord into ORT- jack.	
4	At jack, key, and lamp circuit — Insert 310 plug of P3E cord into ORT- jack associated with register to be tested.	
5	At manual test set — Connect head telephone set to H1, H2 jacks.	
6a	If office is equipped for controlled outpulsing — Operate TC switch to position corresponding to desired class of service.	

4. METHOD

STEP	ACTION	VERIFICATION
	A. Test Calls—TOUCH-TONE Calling Only	
Tests 1 Through 13		
7	At manual test set— Operate DL or KY key, as required.	
8	Operate XPT key.	
9	Operate TST key.	If register is busy— BY lamp lights. If register is idle— DT lamp lights.
10	After DT lamp lights— Dial or key number as shown in Test Chart A.	DT lamp extinguishes. Digits displayed in sequence as shown in Test Chart A. RLC lamp lights.
11	Restore TST key.	RLC lamp extinguishes.
12b	If no further tests are to be made— Remove all cords and restore all keys.	
	B. Test Calls—Controlled Outpulsing With or Without TOUCH-TONE Calling	
Tests 1 Through 58		
7	At manual test set— Operate DL or KY key, as required.	
8	Operate XPT key.	
9	Operate TST key.	If register is busy— BY lamp lights. If register is idle— DT lamp lights.
10	After DT lamp lights— Dial or key number as shown in Test Chart B.	DT lamp extinguishes. Digits displayed in sequence as shown in Test Chart B. RLC lamp lights.
11	Restore TST key.	RLC lamp extinguishes.
12b	If no further tests are to be made— Remove all cords and restore all keys.	
	C. Alternate Routing	
Tests 59 Through 61		
7	At manual test set— Operate KY or DL key.	

STEP	ACTION	VERIFICATION
8	Operate XPT key.	
9	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
10	After DT lamp lights — Operate RB2 key.	
11	Key or dial first digit of test number as shown in Test Chart B.	DT lamp extinguishes. First digit displayed.
12	Restore RB2 key.	
13	Key or dial balance of digits of test number.	Digits displayed as indicated in Test Chart B. RLC lamp lights.
14	Restore TST key.	RLC lamp extinguishes.
Tests 62 Through 64		
15	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
16	After DT lamp lights — Momentarily operate RB1 key.	
17	Key or dial first digit of test number as shown in Test Chart B.	DT lamp extinguishes. First digit displayed.
18	Key or dial balance of digits of test number.	Digits displayed as indicated in Test Chart B. RLC lamp lights.
19	Restore TST key.	RLC lamp extinguishes.
Tests 65 Through 67		
20	Operate RB1 key.	
21	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
22	After DT lamp lights — Key or dial test number as shown in Test Chart B.	DT lamp extinguishes. Digits displayed as indicated in Test Chart B. RLC lamp lights.
23	Restore TST, RB1 keys.	RLC lamp extinguishes.
24b	If no further tests are to be made — Remove all cords and restore all keys.	

STEP	ACTION	VERIFICATION
	D. Register Release from Rotary Dial Call	
Test 1		
7	At manual test set — Operate DL key.	
8	Operate XPT key.	
9	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
10a	If office is equipped for controlled outpulsing — After DT lamp lights — Dial any digit cross-connected to PFB punching. (See Section 227-704-010 for cross-connection information.)	DT lamp extinguishes. Dialed digit displayed. RLC lamp lights.
11b	If office is not equipped for controlled outpulsing — After DT lamp lights — Dial any digit, 2 through 9.	Same as Step 10a.
12	Restore TST, XPT keys.	RLC lamp extinguishes.
13c	If no further tests are to be made — Remove all cords and restore all keys.	
	E. Register Party Test	
Test 2		
7	At manual test set — Operate KY or DL key.	
8	Operate RPT key.	
9	Operate R key.	
10	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
11	After DT lamp lights — Key any digit, 2 through 9.	DT lamp extinguishes. Keyed digit displayed. RP lamp lights.
12	Restore TST key.	All lamps extinguish.

STEP	ACTION	VERIFICATION
Test 3		
13	Operate T key.	
14	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
15	After DT lamp lights — Key any digit, 2 through 9.	DT lamp extinguishes. Keyed digit displayed. TP lamp lights.
16	Restore TST, RPT, T keys.	All lamps extinguish.
Test 4		
17	Operate PTF key.	
18	Operate TST key.	RLI lamp lights.
19	Restore TST, PTF keys.	RLI lamp extinguishes.
20b	If no further tests are to be made — Remove all cords and restore all keys.	

F. Party Retest

Test 5		
7b	If office is equipped for TOUCH-TONE calling — At manual test set — Operate KY key.	
8b	Operate RPT, T keys.	*Note:* Operating T key in Steps 8b, 13a, 17a, and R key in Steps 10b, 15a, and 19a causes the register to identify tip on retest. This produces a retest failure.
9b	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
10b	After DT lamp lights — Operate R key. Key 7-digit call number.	All but last keyed digit displayed. ROD lamp lights. After approximately 20 seconds — RLI lamp lights.
11b	Restore TST, RPT, KY keys.	All lamps extinguish.

STEP	ACTION	VERIFICATION
Test 6		
12a	If office is equipped for controlled outpulsing — At manual test set — Operate DL key.	
13a	Operate RPT, T keys.	
14a	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
15a	After DT lamp lights — Operate R key. Dial at least one digit of any 7-digit call number.	After first digit is dialed — First dialed digit displayed. ROD lamp lights. After approximately 20 seconds — RLI lamp lights.
16a	Restore TST key.	All lamps extinguish.
Test 7		
17a	Operate T key.	
18a	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
19a	After DT lamp lights — Operate R key.	
20a	Dial 1411 home area information call.	After fourth digit is dialed — Dialed digits displayed. ROD lamp lights. After approximately 20 seconds — RLI lamp lights.
21a	Restore TST, R, RPT keys.	All lamps extinguish.
22c	If no further tests are to be made — Remove all cords and restore all keys.	

G. Abandon Call

Test 8		
7	At manual test set — Operate KY or DL key.	
8	Operate ABN1 key.	

STEP	ACTION	VERIFICATION
9	Operate XPT key.	
10	Operate TST key.	If register is busy — BY lamp lights. If register is idle — RLI lamp lights.
11	Restore ABN1, TST keys.	RLI lamp extinguishes.
Test 9		
12	Operate ABN2 key.	
13	Operate TST key.	If register is busy — BY lamp lights. If register is idle — RLI lamp lights.
14	Restore ABN2, TST keys.	RLI lamp extinguishes.
Test 10		
15	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
16	After DT lamp lights — Operate ABN2 key.	DT lamp extinguishes. RLI lamp lights.
17	Restore TST, ABN2, XPT keys.	RLI lamp extinguishes.
18b	If no further tests are to be made — Remove all cords and restore all keys.	

H. Two-Party Message Rate Trunk

Test 11		
7	At manual test set — Operate KY or DL key.	
8	Operate TPT key.	
9	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT, TT lamps light.
10	Restore TST, TPT keys.	DT, TT lamps extinguish.
11b	If no further tests are to be made — Remove all cords and restore all keys.	

STEP	ACTION	VERIFICATION
	I. Permanent Signal and LTO Timer	
Test 12		
7	At manual test set — Operate KY or DL key.	
8	Operate XPT key.	
9	Operate ARB key.	
10	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
11	When DT lamp lights — Start timing.	After approximately 10 seconds — PS lamp lights. DT lamp remains lighted. If not equipped with permanent signal holding trunks — RLC lamp lights. If equipped with permanent signal holding trunks — Permanent signal route digits displayed. RLC lamp lights.
12	Restore TST, ARB keys.	All lamps extinguish.
Test 13		
13	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
14	When DT lamp lights — Start timing.	After approximately 20 seconds — PS lamp lights. DT lamp remains lighted. If not equipped with permanent signal holding trunks — RLC lamp lights. If equipped with permanent signal holding trunks — Permanent signal route digits displayed. RLC lamp lights.
15	Restore TST key.	All lamps extinguish.
16b	If no further tests are to be made — Remove all cords and restore all keys.	

STEP	ACTION	VERIFICATION
	J. Register Hold	
Test 14		
7	At jack, key, and lamp circuit — Operate H1 key.	
8	At manual test set — Operate KY key.	
9	Operate PTF key.	
10	Operate TST key.	After approximately 3 seconds — RH, TH, WOK lamps light. At jack, key, and lamp circuit — OR- lamp flashes at 120 ipm. Minor alarm sounds.
11	At manual test set — Momentarily operate ABN1 key.	RH, TH, WOK lamps extinguish. RLI lamp lights.
12	At jack, key, and lamp circuit — Momentarily operate RHMN AR key.	OR- lamp extinguishes. Minor alarm silences.
13	At manual test set — Restore TST, PTF keys.	RLI lamp extinguishes.
Test 15		
14	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
15	After DT lamp lights — Key any digit, 2 through 9.	DT lamp extinguishes. Digits displayed.
16	Immediately after keying — Operate and hold DC key.	ROD, RH, TH lamps light.
	Note: DC key may be released as soon as ROD lamp lights.	After approximately 20 seconds — ROD lamp extinguishes. WOK lamp lights. At jack, key, and lamp circuit — OR- lamp flashes at 120 ipm. Minor alarm sounds.
17	At manual test set — Momentarily operate ABN1 key.	RH, TH, WOK lamps extinguish. RLI lamp lights.
18	At jack, key, and lamp circuit — Momentarily operate RHMN AR key.	OR- lamp extinguishes. Minor alarm silences.
19	Restore H1 key.	

STEP	ACTION	VERIFICATION
20	At manual test set — Restore TST key.	RLI lamp extinguishes.
21b	If no further tests are to be made — Remove all cords and restore all keys.	

K. Partial Keypulse

Test 16

7	At manual test set — Operate KY key.	
8	Operate XPT key.	
9	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
10	After DT lamp lights — Key any digit, 2 through 9.	DT lamp extinguishes. After approximately 20 seconds — ROD lamp lights. After an additional 20 seconds — ROD lamp extinguishes. RLI lamp lights.
11	Restore TST key.	RLI lamp extinguishes.
12b	If no further tests are to be made — Remove all cords and restore all keys.	

L. Momentary Open Loop

Test 17

7	At manual test set — Operate KY key.	
8	Operate XPT key.	
9	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
10	After DT lamp lights — Momentarily operate ABN2 key.	DT lamp extinguishes. Digit 1 displayed. RLI, ROD lamps light.
11	Restore TST key.	RLI, ROD lamps extinguish.

STEP	ACTION	VERIFICATION
Test 18		
12	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
13	After DT lamp lights — Key any digit, 2 through 9.	DT lamp extinguishes. Keyed digit displayed.
14	Momentarily operate ABN2 key.	Displayed digit extinguishes. ROD lamp lights. After approximately 20 seconds — ROD lamp extinguishes. RLI lamp lights.
15	Restore TST key.	RLI lamp extinguishes.
16b	If no further tests are to be made — Remove all cords and restore all keys.	

M. Open or Reversed Outward Loop

Test 19		
7	At jack, key, and lamp circuit — Operate H1 key.	
8	At manual test set — Operate KY key.	
9	Operate XPT key.	
10	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
11	After DT lamp lights — Key at least one digit of any 7-digit call number.	After first digit is keyed — DT lamp extinguishes. Each keyed digit displayed on digital indicator.
12	Immediately after keying — Operate PR key.	At jack, key, and lamp circuit — OR- lamp flashes at 120 ipm.
13	At manual test set — Operate ABN1 key.	RLI lamp lights. At jack, key, and lamp circuit — OR- lamp extinguishes.
14	At manual test set — Restore TST, PR, ABN1 keys.	RLI lamp extinguishes.
15	At jack, key, and lamp circuit — Restore H1 key.	

STEP	ACTION	VERIFICATION
16b	If no further tests are to be made — At test set — Remove all cords and restore all keys.	

N. Stop-Go

Test 20

7	At manual test set — Operate KY or DL key.	
8	Operate XPT key.	
9	Operate SGS key.	
10	Operate RB2 key.	
11	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
12	After DT lamp lights — Key or dial 7-digit call, requiring controlled outpulsing with stop-go signaling.	DT lamp extinguishes. Partial digits displayed. ROD lamp lights. After approximately 20 seconds — RLI lamp lights.
13	Restore TST, RB2 keys.	All lamps extinguish.

Test 21

14	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
15	After DT lamp lights — Key or dial 7-digit call, requiring controlled outpulsing without stop-go signaling.	DT lamp extinguishes. Partial digits displayed. ROD lamp lights. After approximately 20 seconds — RLI lamp lights.
16	Restore TST, SGS keys.	All lamps extinguish.

Test 22

17	Operate SNG key.	
18	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.

STEP	ACTION	VERIFICATION
19	After DT lamp lights — Key or dial 7-digit call, requiring controlled outpulsing with stop-go signaling.	DT lamp extinguishes. Partial digits displayed. After approximately 10 seconds — ROD lamp lights. After approximately 20 seconds — RLI lamp lights.
20	Restore TST, SNG keys.	All lamps extinguish.
21b	If no further tests are to be made — Remove all cords and restore all keys.	

O. High Speed Keying

Test 23

7	At manual test set — Operate KY key.	
8	Operate XPT key.	
9	Operate HSP key.	
10	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights. Before first digit is displayed on digital indicator — DT lamp extinguishes. Digits 5190519051 displayed in sequence on digital indicator. RLC lamp lights.
11	Restore TST key.	RLC lamp extinguishes.
12b	If no further tests are to be made — Remove all cords and restore all keys.	

P. Three Frequency

Test 24

7	At manual test set — Operate KY key.	
8	Operate XPT key.	
9	Operate ARB key.	
10	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.

STEP	ACTION	VERIFICATION
11	After DT lamp lights — Operate TF key. Simultaneously key a digit.	DT lamp extinguishes. After approximately 10 seconds — PS lamp lights. RLC lamp lights.
12	Restore TST key.	RLC, PS lamps extinguish.
13b	If no further tests are to be made — Remove all cords and restore all keys.	

Q. Frequency Deviation

Test 25

7	At manual test set — Operate KY key.	
8	Operate XPT key.	
9	Operate MIN key.	
10	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
11	After DT lamp lights — Key any 7-digit call number.	After first digit is keyed — DT lamp extinguishes. Each keyed digit displayed in sequence on digital indicator. After digits are displayed — RLC lamp lights.
12	Restore MIN, TST keys.	RLC lamp extinguishes.

Test 26

13	Operate MAX key.	
14	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
15	After DT lamp lights — Key any 7-digit call number.	After first digit is keyed — DT lamp extinguishes. Each keyed digit displayed in sequence on digital indicator. After digits are displayed — RLC lamp lights.
16	Restore TST key.	RLC lamp extinguishes.
17b	If no further tests are to be made — Remove all cords and restore all keys.	

STEP	ACTION	VERIFICATION
	R. Input Signal Level	
Test 27		
7	At manual test set — Operate KY key.	
8	Operate XPT key.	
9	Operate LL key.	
10	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
11	After DT lamp lights — Key any 7-digit call number.	After first digit is keyed — DT lamp extinguishes. Each keyed digit displayed in sequence on digital indicator. After digits are displayed — RLC lamp lights.
12	Restore LL, TST keys.	RLC lamp extinguishes.
Test 28		
13	Operate HL key.	
14	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
15	After DT lamp lights — Key any 7-digit call number.	After first digit is keyed — DT lamp extinguishes. Each keyed digit displayed in sequence on digital indicator. After digits are displayed — RLC lamp lights.
16	Restore TST, HL keys.	RLC lamp extinguished.
17b	If no further tests are to be made — Remove all cords and restore all keys.	
	S. Single Frequency	
Test 29		
7	At manual test set — Operate KY key.	
8	Operate XPT key.	

STEP	ACTION	VERIFICATION
9	Operate ARB key.	
10	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
11	After DT lamp lights — Operate SFH key.	After approximately 10 seconds — PS lamp lights. RLC lamp lights. DT lamp extinguishes.
12	Restore SFH, TST keys.	RLC, PS lamps extinguish.
Test 30		
13	Operate TST key.	If register is busy — BY lamp lights. If register is idle — DT lamp lights.
14	After DT lamp lights — Operate SFL key.	After approximately 10 seconds — PS lamp lights. RLC lamp lights. DT lamp extinguishes.
15	Restore TST, SFL, ARB keys.	RLC, PS lamps extinguish.
16b	If no further tests are to be made — Remove all cords and restore all keys.	

5. PREPARATION OF TEST CHARTS

5.01 The test charts at the end of this section are intended for use as particular number charts. These charts show test set keys to be operated and lamps lighted for each test. Information obtained from local office records should be used to fill in the test charts.

5.02 For Test Charts A and B, consult Parts 3 and 4 of this section for the sequence of operation of test keys, switches, and lamps.

5.03 The KEYED OR DIALED DIGITS columns and the DISPLAYED DIGITS columns of Test Charts A and B should be filled out in accordance with the explanation of the type of test call as listed in Tables A and B, respectively.

5.04 Some types of test call digits are indicated on the tables in the abbreviated method as follows:

N — any lettered digit (2 to 9)

0/1 — any nonlettered digit (0 or 1)

X — any digit (0 to 9)

TABLE A

BSP TEST	TEST NO.	TYPE CALL (NOTE)	PREFIX DIGIT	TEST CALL NUMBER KEYED OR DIALED DIGITS	DISPLAYED DIGITS — REMARKS
A	1	TT		Zero operator call	Zero
	2	RD		Zero operator call	Zero
	3	TT		3-digit service call (11X or X11)	Service code digits
	4	TT		4- or 5-digit reverting call (11XX or 11XXX)	Reverting code digits
	5	TT		Local information call (411)	3-digit information code
	6	TT	1	Home area information call (1 + 411)	1 + 3-digit information code
	7	TT	1	Foreign area information call (1 + NXX + 411)	1 + 6-digit area and information code
	8	TT		7-digit local call	7 keyed digits
	9	TT	1	7-digit home area call, interchangeable code	8 keyed digits
	10	TT	1	7-digit home area call	8 keyed digits
	11	TT	0/1	10-digit foreign area call	11 keyed digits
	12	TT	0/1	10-digit foreign area call, interchangeable code	11 keyed digits
	13	TT		Vacant code call	Partial digits
D	1	RD		Any digit 2 through 9	Dialed digit, register release after first digit outpulsed
E	2	X		Any digit 2 through 9	Keyed/dialed digit, ring party simulated
	3	X		Any digit 2 through 9	Keyed/dialed digit, tip party simulated
	4	X		No digits	Party test failure simulated
F	5	TT		7-digit call, no controlled outpulsing required	Party retest failure, all but last keyed digit displayed
	7	TT	1	Home area information call (1 + 411)	Dialed digits displayed, party retest failure
G	8	X		No digits	Call abandoned before loop closure
	9	X		No digits	Call abandoned after loop closure but before dial tone
	10	X		No digits	Call abandoned after dial tone
H	11	X		No digits	Trunk makes party test
I	12	X		No digits	Permanent signal route digits, 10-second timing
	13	X		No digits	Permanent signal route digits, 20-second timing
J	14	TT		No digits	Register held, minor alarm, 3-second timing
	15	TT		Any digit 2 through 9	Time-out after keying, 20-second timing
K	16	TT		Any digit 2 through 9	Keyed digit displayed, reorder tone returned

TABLE A (Cont)

BSP TEST	TEST NO.	TYPE CALL (NOTE)	PREFIX DIGIT	TEST CALL NUMBER KEYED OR DIALED DIGITS	DISPLAYED DIGITS — REMARKS
L	17	TT		No digits	Digit 1 displayed, momentary open loop before keying
	18	TT		Any digit 2 through 9	Keyed digit displayed, momentary open loop after keying
M	19	TT		One or more digits of 7-digit call number	Keyed digits displayed, open and reversed outward loop
O	23	TT		No digits	Digits 5190519051 displayed
P	24	TT		Any digit 2 through 9	Call blocks on third frequency
Q	25	TT		7-digit call	Keyed digits displayed, low-frequency condition
	26	TT		7-digit call	Keyed digits displayed, high-frequency condition
R	27	TT		7-digit call	Keyed digits displayed, low-level signal condition
	28	TT		7-digit call	Keyed digits displayed, high-level signal condition
S	29	TT		No digits	Single-frequency high condition
	30	TT		No digits	Single-frequency low condition

Note: TT — TOUCH-TONE call
RD — Rotary dial call
X — Optional (rotary dial or TOUCH-TONE call)

TABLE B

BSP TEST	TEST NO.	TYPE CALL (NOTE 1)	PREFIX DIGIT	TEST CALL NUMBER KEYED OR DIALED DIGITS	DISPLAYED DIGITS — REMARKS
				Calls Not Requiring Controlled Outpulsing	
B	1	X		Zero operator call	Zero
	2	X		3-digit service call (11X or X11)	Service code digits
	3	X		4-digit reverting call (11XX)	Reverting code digits
	4	X		5-digit reverting call (11XXX)	Reverting code digits
	5	X		Local information call (411)	Information code digits
	6	X	1	Home area information call (1 + 411)	1 + information code digits
	7	RD		7-digit local call	Office code digits
	8	TT		7-digit local call	Keyed digits
	9	RD	0/1	7-digit home area call	Prefix + office code digits
	10	TT	0/1	7-digit home area call	Keyed digits
	11	RD	0/1	10-digit foreign area call	Prefix + area code digits
	12	TT	0/1	10-digit foreign area call	Keyed digits
	13	RD	1	Foreign area information call (1 + NXX + 411)	Prefix + area code digits
	14	TT	1	Foreign area information call (1 + NXX + 411)	Keyed digits
	15	RD	0/1	7-digit call, interchangeable code	Partial digits
	16	TT	0/1	7-digit call, interchangeable code	Keyed digits
	17	RD	0/1	10-digit call, interchangeable code	Partial digits
	18	TT	0/1	10-digit call, interchangeable code	Keyed digits
				Calls Requiring Controlled Outpulsing	
	19	RD		Zero operator call	Operator route digits – refer to Note 2 for Test No. 19 through 66.
	20	TT		Zero operator call	Operator route digits
	21	RD		3-digit service call (11X or X11)	Service code route digits
	22	TT		3-digit service call (11X or X11)	Service code route digits
	23	RD		4-digit reverting call (11XX)	Reverting code digits
	24	TT		4-digit reverting call (11XX)	Reverting code digits
	25	RD		5-digit reverting call (11XXX)	Reverting code digits
	26	TT		5-digit reverting call (11XXX)	Reverting code digits
	27	RD		Local information call (411)	Information route digits
	28	TT		Local information call (411)	Information route digits
	29	RD	1	Home area information call (1 + 411)	Home area information route digits
	30	TT	1	Home area information call (1 + 411)	Home area information route digits
	31	RD	1	Foreign area information call (1 + NXX + 411) – DP (no stop-go)	Foreign area information route digits

TABLE B (Cont)

BSP TEST	TEST NO.	TYPE CALL (NOTE 1)	PREFIX DIGIT	TEST CALL NUMBER KEYED OR DIALED DIGITS	DISPLAYED DIGITS — REMARKS
Calls Requiring Controlled Outpulsing (Cont)					
	32	TT	1	Foreign area information call (1 + NXX + 411) – DP (no stop-go)	Foreign area information route digits
	33	RD	1	Foreign area information call (1 + NXX + 411) – DP (stop-go)	Foreign area information route digits
	34	TT	1	Foreign area information call (1 + NXX + 411) – DP (stop-go)	Foreign area information route digits
	35	RD	1	Foreign area information call (1 + NXX + 411) – MF (stop-go)	Foreign area information route digits
	36	TT	1	Foreign area information call (1 + NXX + 411) – MF (stop-go)	Foreign area information route digits
	37	RD	0/1	7-digit home area call – DP outpulsing (no stop-go)	Initial route digits
	38	TT	0/1	7-digit home area call – DP outpulsing (no stop-go)	Initial route digits
	39	RD	0/1	7-digit home area call – DP outpulsing (stop-go)	Initial route digits
	40	TT	0/1	7-digit home area call – DP outpulsing (stop-go)	Initial route digits
	41	RD	0/1	7-digit home area call – MF outpulsing (stop-go)	Initial route digits
	42	TT	0/1	7-digit home area call – MF outpulsing (stop-go)	Initial route digits
	43	RD	0/1	10-digit foreign area call – DP outpulsing (no stop-go)	Initial route digits
	44	TT	0/1	10-digit foreign area call – DP outpulsing (no stop-go)	Initial route digits
	45	RD	0/1	10-digit foreign area call – DP outpulsing (stop-go)	Initial route digits
	46	TT	0/1	10-digit foreign area call – DP outpulsing (stop-go)	Initial route digits
	47	RD	0/1	10-digit foreign area call – MF outpulsing (stop-go)	Initial route digits
	48	TT	0/1	10-digit foreign area call – MF outpulsing (stop-go)	Initial route digits
	49	RD	0/1	10-digit foreign area translator (FAT) call – DP (no stop-go)	Initial route digits
	50	TT	0/1	10-digit foreign area translator (FAT) call – DP (no stop-go)	Initial route digits
	51	RD	0/1	10-digit foreign area translator (FAT) call – DP (stop-go)	Initial route digits
	52	TT	0/1	10-digit foreign area translator (FAT) call – DP (stop-go)	Initial route digits
	53	X	0/1	Interchangeable code – 7-digit call, same route	Initial route digits, 7-digit route
	54	X	0/1	Interchangeable code – 10-digit call, same route	Initial route digits, 7-digit route
	55	X	0/1	Interchangeable code – 7-digit call, different route	Initial route digits, 7-digit route
	56	X	0/1	Interchangeable code – 10-digit call, different route	Initial route digits, 10-digit route
	57	X		Vacant code call	Intercept route digits (operator or announcement)

Table B (Cont)

TABLE B (Cont)

BSP TEST	TEST NO.	TYPE CALL (NOTE 1)	PREFIX DIGIT	TEST CALL NUMBER KEYED OR DIALED DIGITS	DISPLAYED DIGITS — REMARKS
C	58	X	0/1	7-digit call, no controlled outpulsing required – alternate route available, busy indication on decoder seizure	Alternate route digits
	59	X	0/1	7-digit call, no controlled outpulsing required – no alternate route available, busy indication on decoder seizure	Overflow route digits
	60	X	0/1	7-digit call, controlled outpulsing required – alternate route available, busy indication on decoder seizure	Initial route digits
	61	X	0/1	7-digit call, controlled outpulsing required – alternate route available, busy indication after decoder release	Alternate route digits
	62	X	0/1	7-digit call, interchangeable code, controlled outpulsing required – alternate route available, busy indication after decoder release	Alternate route digits
	63	X	0/1	10-digit call, interchangeable code, controlled outpulsing required – alternate route available, busy indication after decoder release	Alternate route digits
	64	X	0/1	7-digit call, controlled outpulsing required – alternate route available, busy indication after decoder reseizure and release	Exit digit(s) and release
	65	X	0/1	7-digit call, interchangeable code, controlled outpulsing required – alternate route available, busy indication after decoder reseizure and release	Exit digit(s) and release
	66	X	0/1	10-digit call, interchangeable code, controlled outpulsing required – alternate route available, busy indication after decoder reseizure and release	Exit digit(s) and release
D	1	RD		Any digit 2 through 9 cross-connected to PFB punching. (See Section 227-704-010 for cross-connection information.)	Dialed digit, register release after 1st digit outpulsed
E	2	X		Any digit 2 through 9	Keyed/dialed digit, ring party simulated
	3	X		Any digit 2 through 9	Keyed/dialed digit, tip party simulated
	4	X		No digits	Party test failure simulated
F	5	TT		7-digit call, no controlled outpulsing required	Party retest failure, all but last keyed digit displayed
	6	RD	0/1	7-digit call, controlled outpulsing required	Party retest failure, all but last digit of initial route digits displayed
	7	RD	1	Home area information call (1 + 411)	Dialed digits displayed, party retest failure
G	8	X		No digits	Call abandoned before loop closure
	9	X		No digits	Call abandoned after loop closure but before dial tone
	10	X		No digits	Call abandoned after dial tone

Table B (Cont)

TABLE B (Cont)

BSP TEST	TEST NO.	TYPE CALL (NOTE 1)	PREFIX DIGIT	TEST CALL NUMBER KEYED OR DIALED DIGITS	DISPLAYED DIGITS — REMARKS
H	11	X		No digits	Trunk makes party test
I	12	X		No digits	Permanent signal route digits, 10-second timing
	13	X		No digits	Permanent signal route digits, 20-second timing
J	14	TT		No digits	Register held, minor alarm, 3-second timing
	15	TT		Any digit 2 through 9	Time-out after keying, 20-second timing
K	16	TT		Any digit 2 through 9	Keyed digit displayed, reorder tone returned
L	17	TT		No digits	Digit 1 displayed, momentary open loop before keying
	18	TT		Any digit 2 through 9	Keyed digit displayed, momentary open loop after keying
M	19	TT		One or more digits of 7-digit call number	Keyed digits displayed, open and reversed outward loop
N	20	X	0/1	7-digit call requiring controlled outpulsing with stop-go signaling	Reorder tone received, second stop-go signal
	21	X	0/1	7-digit call requiring controlled outpulsing without stop-go signaling	Reorder tone received, false stop-go signal
	22	X	0/1	7-digit call requiring controlled outpulsing with stop-go signaling	Reorder tone received, stop-no-go 10-second intersender timing
O	23	TT		No digits	Digits 5190519051 displayed
P	24	TT		Any digit 2 through 9	Call blocks on third frequency
Q	25	TT		7-digit call, no controlled outpulsing required	Keyed digits displayed, low-frequency condition
	26	TT		7-digit call, no controlled outpulsing required	Keyed digits displayed, high-frequency condition
R	27	TT		7-digit call, no controlled outpulsing required	Keyed digits displayed, low-level signal condition
	28	TT		7-digit call, no controlled outpulsing required	Keyed digits displayed, high-level signal condition
S	29	TT		No digits	Single-frequency high condition
	30	TT		No digits	Single-frequency low condition

Note 1: TT — TOUCH-TONE call
RD — Rotary dial call
X — Optional (rotary dial or TOUCH-TONE call)

Note 2: On all calls that require controlled outpulsing, a partial display of the keyed or dialed digits will occur before the route digits are displayed.

Table B (Cont)

TEST CHART A

"TOUCH-TONE" CALLING ONLY

BSP TEST	TEST NO.	TEST CIRCUIT SWITCHES		TEST CIRCUIT KEYS		JACK, KEY, AND LAMP CIRCUIT KEYS		TEST SET KEYS																											
		TC	TDS	DRR	DTR	RHMN-AR	H1	DL	KY	ABN1	ABN2	ARB	CC	CLX	DC	HL	HSP	LL	MIN	MAX	PTF	R	RB1	RB2	RPT	SFH	SFL	SGS	SNG	T	TF	TPT	XPT	XTMG	TST
A	1								√																								√		√
	2							√																									√		√
	3								√																								√		√
	4								√																								√		√
	5								√																								√		√
	6								√																								√		√
	7								√																								√		√
	8								√																								√		√
	9								√																								√		√
	10								√																								√		√
	11								√																								√		√
	12								√																								√		√
	13								√																								√		√
D	1							√																									√		√
E	2							X	X													√			√										√
	3							X	X																√					√					√
	4							X	X												√														√
F	5								√													√			√					√					√
	7							√														√			√					√					√
G	8							X	X	√																							√		√
	9							X	X		√																						√		√
	10							X	X		√																						√		√
H	11							X	X																							√			√
I	12							X	X			√																					√		√
	13							X	X																								√		√
J	14					M	√		√	M											√														√
	15					M	√		√	M					√																				√

BSP TEST	TEST NO.	MISC KEYS	KEYED/DIALED DIGITS											DISPLAYED DIGITS	TEST SET LAMPS								MISC LAMPS	TIMING (SECONDS)	BSP TEST	TEST NO.
			A	B	C	D	E	F	G	H	J	K	L		DT	RLC	RLI	ROD	PS	WOK	RP	TP				
A	1		0											0	√	√									A	1
	2		0											0	√	√										2
	3														√	√										3
	4														√	√										4
	5		4	1	1										√	√										5
	6		1	4	1	1									√	√										6
	7		1				4	1	1						√	√										7
	8														√	√										8
	9														√	√										9
	10														√	√										10
	11														√	√										11
	12														√	√										12
	13														√	√										13
D	1														√	√									D	1
E	2														√						√				E	2
	3														√							√				3
	4																√									4
F	5														√		√	√							F	5
	7		1	4	1	1									√		√	√								7
G	8																√								G	8
	9																√									9
	10														√		√									10
H	11														√								TT		H	11
I	12														√	√			√					10	I	12
	13														√	√			√					20		13
J	14																√			√			TH, RH, OR–*	3	J	14
	15														√			√		√			TH, RH, OR–*	20		15

√ — Operate.
M — Momentarily operate.
X — Optional (rotary dial or TOUCH-TONE call).
* — OR– lamp located at jack, key, and lamp circuit.

TEST CHART A (Cont)

BSP TEST	TEST NO.	TEST CIRCUIT SWITCHES: TC	TEST CIRCUIT SWITCHES: TDS	TEST CIRCUIT KEYS: DRR	TEST CIRCUIT KEYS: DTR	JACK, KEY, AND LAMP CIRCUIT KEYS: RHMN-AR	JACK, KEY, AND LAMP CIRCUIT KEYS: H1
K	16						
L	17						
	18						
M	19						√
O	23						
P	24						
Q	25						
	26						
R	27						
	28						
S	29						
	30						

TEST SET KEYS

BSP TEST	TEST NO.	DL	KY	ABN1	ABN2	ARB	CC	CLX	DC	HL	HSP	LL	MIN	MAX	PTF	R	RB1	RB2	RPT	SFH	SFL	SGS	SNG	T	TF	TPT	XPT	XTMG	TST
K	16		√																								√		√
L	17		√		M																						√		√
	18		√		M																						√		√
M	19		√	√																							√		√
O	23		√								√																√		√
P	24		√			√																			√		√		√
Q	25		√										√														√		√
	26		√											√													√		√
R	27		√									√															√		√
	28		√							√																	√		√
S	29		√			√														√							√		√
	30		√			√															√						√		√

MISC KEYS	KEYED/DIALED DIGITS: A	B	C	D	E	F	G	H	J	K	L	DISPLAYED DIGITS	TEST SET LAMPS: DT	RLC	RLI	ROD	PS	WOK	RP	TP	MISC LAMPS	TIMING (SECONDS)	BSP TEST	TEST NO.
													√		√	√						20	K	16
													√		√	√							L	17
													√		√	√						20		18
													√		√						OR–		M	19
												5 1 9 0 5 1 9 0 5 1	√	√									O	23
PR													√	√			√					10	P	24
													√	√									Q	25
													√	√										26
													√	√									R	27
													√	√										28
													√	√			√					10	S	29
													√	√			√					10		30

√ — Operate.
M — Momentarily operate.
X — Optional (rotary dial or TOUCH-TONE call).
* — OR– lamp located at jack, key, and lamp circuit.

TEST CHART B

CONTROLLED OUTPULSING WITH OR WITHOUT "TOUCH-TONE" CALLING

BSP TEST	TEST NO.	TEST CIRCUIT SWITCHES		TEST CIRCUIT KEYS		JACK, KEY, AND LAMP CIRCUIT KEYS		TEST SET KEYS																												MISC KEYS
		TC	TDS	DRR	DTR	RHMN-AR	H1	DL	KY	ABN1	ABN2	ARB	CC	CLX	DC	HL	HSP	LL	MIN	MAX	PTF	R	RB1	RB2	RPT	SFH	SFL	SGS	SNG	T	TF	TPT	XPT	XTMG	TST	
B	1	√						X	X																								√		√	
	2	√						X	X																								√		√	
	3	√						X	X																								√		√	
	4	√						X	X																								√		√	
	5	√						X	X																								√		√	
	6	√						X	X																								√		√	
	7	√						√																									√		√	
	8	√							√																								√		√	
	9	√						√																									√		√	
	10	√							√																								√		√	
	11	√						√																									√		√	
	12	√							√																								√		√	
	13	√						√																									√		√	
	14	√							√																								√		√	
	15	√						√																									√		√	
	16	√							√																								√		√	
	17	√						√																									√		√	
	18	√							√																								√		√	
	19	√						√																									√		√	
	20	√							√																								√		√	
	21	√						√																									√		√	
	22	√							√																								√		√	
	23	√						√																									√		√	
	24	√							√																								√		√	
	25	√						√																									√		√	
	26	√							√																								√		√	

KEYED/DIALED DIGITS											DISPLAYED DIGITS	TEST SET LAMPS								MISC LAMPS	TIMING (SECONDS)	BSP TEST	TEST NO.
A	B	C	D	E	F	G	H	J	K	L		DT	RLC	RLI	ROD	PS	WOK	RP	TP				
0												√	√									B	1
												√	√										2
												√	√										3
												√	√										4
4	1	1										√	√										5
1	4	1	1									√	√										6
												√	√										7
												√	√										8
												√	√										9
												√	√										10
												√	√										11
												√	√										12
1												√	√										13
1												√	√										14
												√	√										15
												√	√										16
												√	√										17
												√	√										18
0												√	√										19
0												√	√										20
												√	√										21
												√	√										22
												√	√										23
												√	√										24
												√	√										25
												√	√										26

√ — Operate.
M — Momentarily operate.
X — Optional (rotary dial or TOUCH-TONE call).
* — OR– lamp located at jack, key, and lamp circuit.

TEST CHART B (Cont)

BSP TEST	TEST NO.	TEST CIRCUIT SWITCHES TC	TDS	TEST CIRCUIT KEYS DRR	DTR	JACK, KEY, AND LAMP CIRCUIT KEYS RHMN-AR	H1	TEST SET KEYS DL	KY	ABN1	ABN2	ARB	CC	CLX	DC	HL	HSP	LL	MIN	MAX	PTF	R	RB1	RB2	RPT	SFH	SFL	SGS	SNG	T	TF	TPT	XPT	XTMG	TST	MISC KEYS	KEYED/DIALED DIGITS A	B	C	D	E	F	G	H	J	K	L	DISPLAYED DIGITS	TEST SET LAMPS DT	RLC	RLI	ROD	PS	WOK	RP	TP	MISC LAMPS	TIMING (SECONDS)	BSP TEST	TEST NO.
B (Cont)	27	√						√																									√		√		4	1	1										√	√									B (Cont)	27
	28	√							√																								√		√		4	1	1										√	√										28
	29	√						√																									√		√		1	4	1	1									√	√										29
	30	√							√																								√		√		1	4	1	1									√	√										30
	31	√						√																									√		√		1				4	1	1						√	√										31
	32	√							√																								√		√		1				4	1	1						√	√										32
	33	√						√																									√		√		1				4	1	1						√	√										33
	34	√							√																								√		√		1				4	1	1						√	√										34
	35	√						√																									√		√		1				4	1	1						√	√										35
	36	√							√																								√		√		1				4	1	1						√	√										36
	37	√						√																									√		√														√	√										37
	38	√							√																								√		√														√	√										38
	39	√						√																									√		√														√	√										39
	40	√							√																								√		√														√	√										40
	41	√						√																									√		√														√	√										41
	42	√							√																								√		√														√	√										42
	43	√						√																									√		√														√	√										43
	44	√							√																								√		√														√	√										44
	45	√						√																									√		√														√	√										45
	46	√							√																								√		√														√	√										46
	47	√						√																									√		√														√	√										47
	48	√							√																								√		√														√	√										48
	49	√						√																									√		√														√	√										49
	50	√							√																								√		√														√	√										50
	51	√						√																									√		√														√	√										51
	52	√							√																								√		√														√	√										52
	53	√						X	X																								√		√														√	√										53
	54	√						X	X																								√		√														√	√										54

√ — Operate.
M — Momentarily operate.
X — Optional (rotary dial or TOUCH-TONE call).
* — OR– lamp located at jack, key, and lamp circuit.

TEST CHART B (Cont)

BSP TEST	TEST NO.	TEST CIRCUIT SWITCHES TC	TDS	TEST CIRCUIT KEYS DRR	DTR	JACK, KEY, AND LAMP CIRCUIT KEYS RHMN-AR	H1	TEST SET KEYS DL	KY	ABN1	ABN2	ARB	CC	CLX	DC	HL	HSP	LL	MIN	MAX	PTF	R	RB1	RB2	RPT	SFH	SFL	SGS	SNG	T	TF	TPT	XPT	XTMG	TST
B (Cont)	55	√						X	X																								√		√
	56	√						X	X																								√		√
	57	√						X	X																								√		√
C	58	√						X	X															√									√		√
	59	√						X	X															√									√		√
	60	√						X	X															√									√		√
	61	√						X	X														M										√		√
	62	√						X	X														M										√		√
	63	√						X	X														M										√		√
	64	√						X	X														√										√		√
	65	√						X	X														√										√		√
	66	√						X	X														√										√		√
D	1	√						√																									√		√
E	2	√						X	X													√			√										√
	3	√						X	X																√					√					√
	4	√						X	X												√														√
F	6	√						√														√			√					√					√
	7	√						√														√			√					√					√
G	8	√						X	X	√																							√		√
	9	√						X	X		√																						√		√
	10	√						X	X		√																						√		√
H	11	√						X	X																							√			√
I	12	√						X	X			√																					√		√
	13	√						X	X																								√		√
J	14	√				√	√		√	√											√														√
	15	√				√	√		√	√					√																				√
K	16	√							√																								√		√

MISC KEYS	KEYED/DIALED DIGITS A	B	C	D	E	F	G	H	J	K	L	DISPLAYED DIGITS	TEST SET LAMPS DT	RLC	RLI	ROD	PS	WOK	RP	TP	MISC LAMPS	TIMING (SECONDS)	BSP TEST	TEST NO.
													√	√									B (Cont)	55
													√	√										56
													√	√										57
													√	√									C	58
													√	√										59
													√	√										60
													√	√										61
													√	√										62
													√	√										63
													√	√										64
													√	√										65
													√	√										66
													√	√									D	1
													√						√				E	2
													√							√				3
															√									4
													√		√	√							F	6
	1	4	1	1									√		√	√								7
															√								G	8
															√									9
													√		√									10
													√								TT		H	11
													√	√			√					10	I	12
													√	√			√					20		13
															√			√			RH, TH, OR–*	3	J	14
													√			√		√			RH, TH, OR–*	20		15
													√		√	√						20	K	16

√ — Operate.
M — Momentarily operate.
X — Optional (rotary dial or TOUCH-TONE call).
* — OR– lamp located at jack, key, and lamp circuit.

TEST CHART B (Cont)

BSP TEST	TEST NO.	TEST CIRCUIT SWITCHES TC	TEST CIRCUIT SWITCHES TDS	TEST CIRCUIT KEYS DRR	TEST CIRCUIT KEYS DTR	JACK, KEY, AND LAMP CIRCUIT KEYS RHMN-AR	JACK, KEY, AND LAMP CIRCUIT KEYS H1	TEST SET KEYS DL	KY	ABN1	ABN2	ARB	CC	CLX	DC	HL	HSP	LL	MIN	MAX	PTF	R	RB1	RB2	RPT	SFH	SFL	SGS	SNG	T	TF	TPT	XPT	XTMG	TST
L	17	√							√		M																						√		√
	18	√							√		M																						√		√
M	19	√					√		√	√																							√		√
N	20	√						X	X															√				√					√		√
	21	√						X	X																			√					√		√
	22	√						X	X																				√				√		√
O	23	√							√								√																√		√
P	24	√							√			√																			√		√		√
Q	25	√							√										√														√		√
	26	√							√											√													√		√
R	27	√							√									√															√		√
	28	√							√							√																	√		√
S	29	√							√			√														√							√		√
	30	√							√			√															√						√		√

TEST NO.	MISC KEYS	KEYED/DIALED DIGITS A	B	C	D	E	F	G	H	J	K	L	DISPLAYED DIGITS	TEST SET LAMPS DT	RLC	RLI	ROD	PS	WOK	RP	TP	MISC LAMPS	TIMING (SECONDS)	BSP TEST	TEST NO.
17														√		√	√							L	17
18														√		√	√						20		18
19	PR													√		√						OR–*		M	19
20														√		√	√						20	N	20
21														√		√	√						20		21
22														√		√	√						10, 20		22
23													5 1 9 0 5 1 9 0 5 1	√	√									O	23
24														√	√			√					10	P	24
25														√	√									Q	25
26														√	√										26
27														√	√									R	27
28														√	√										28
29														√	√			√					10	S	29
30														√	√			√					10		30

V—Operate.
M — Momentarily operate.
X — Optional (rotary dial or TOUCH-TONE call).
* — OR– lamp located at jack, key, and lamp circuit.

Test Chart B (Cont)