

TRAFFIC REGISTERS FOR TEST CALL PEG COUNT
TESTS USING MASTER TEST FRAME
NO. 5 CROSSBAR OFFICES

1. GENERAL

PAGE

1.01 This section is reissued for the following reasons:

- (a) To include the traffic register lead designations in each test
- (b) To delete the reference to other BSP sections in each test and to provide a complete method of testing within this section
- (c) To make minor changes as required.

Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.02 The tests covered are:

PAGE

A. Peg Count Register for Test Calls Using Line Link Frames (PCL) and Test Calls Using Markers (PCM): This test checks that the peg count register operates when a marker uses any line link frame (PCL) on a test call. It also checks that the peg count register operates when a marker (PCM) is used on a test call. 5

B. Peg Count Register for Transverter Test Calls (PCA): This test checks that the peg count register operates when a transverter is seized for a test call. 5

C. Peg Count Register for Originating Register Test Calls (PCO): This test checks that the peg count register operates when the automatic monitor handles an originating register test call. 6

D. Peg Count Register for Incoming Register Test Calls (PCI): This test checks that the peg count register operates when the automatic monitor handles a test call of an incoming register of the type associated with the peg count register. 7

E. Peg Count Register for Outgoing Sender Test Calls (PCS): This test checks that the peg count register operates when the automatic monitor handles a test call of an outgoing sender of the type associated with the peg count register. 8

F. Peg Count Register for Master Test Frame Total Test Calls (PCT): This test checks that the peg count register operates when the master test frame (MTF) is used for a test call. 8

G. Peg Count Register for Line Verification (PCT): This test checks that the peg count register operates when a marker is used to establish required connections for verifying number group and line link frame cross-connections or when a transverter is used to establish required connections for verifying translator cross-connections. 9

1.03 Table A indicates the locations required for action and verification of each test.

1.04 A Test Chart is provided which shows information required for each test. Spaces are provided for listing specific priming information depending on local conditions. Entries should be made in this chart from local records in accordance with instructions provided in Part 5, Preparation of Test Chart.

TABLE A

ACTION AND/OR VERIFICATION REQUIRED AT	TESTS						
	A	B	C	D	E	F	G
Master Test Frame	✓	✓	✓	✓	✓	✓	
Traffic Register Cabinet	✓	✓	✓	✓	✓	✓	✓
Traffic Register Circuit	✓	✓	✓	✓	✓	✓	✓
Line Link Frame	✓						
Marker	✓						
Transverter		✓					
Originating Register			✓				
Incoming Register				✓			
Sender					✓		
Line Verification Test Frame							✓

Note: Test G may be performed at the MTF or remote line verification test frame.

1.05 Lettered Steps: A letter a, b, c, etc, added to a step number in Parts 3 and 4 of this section indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

1.06 Local instructions should be followed for recording and reporting register operations caused by performing these tests.

1.07 The manner of selecting some circuits and test conditions at the MTF and its associated circuits varies depending on the apparatus options furnished with these circuits. Therefore, where variable means of selection are provided, precise instructions for selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.

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

2. APPARATUS

2.01 The apparatus required for each test is listed in Table B. The details of each item are covered in paragraph indicated by the number in parentheses.

TABLE B

APPARATUS	TESTS			
	A, B	C, D, E	F	G
Master Test Control Circuit SD-25800-01	1	1	1	
Line Verification Circuit SD-26181-01				1
Automatic Monitor, Register and Sender Test Circuit SD-25680-01		1		
32A Test Set	1	1	1	
Cord (2.02)	2	2	2	2
Portable Lamp (2.03)	1	1	1	1
Head Telephone Set (2.04)	2	2	2	2
Cord (2.05)	2	2	2	2
322A (make-busy) Plug	1	1		

2.02 Two W2W cords, 10 feet long, each equipped with a 310 plug, two 360B tools (2W17C cords), two KS-6278 connecting clips, and two 108 cord tips (required when a portable test lamp is used).

2.03 38B lamp socket, equipped with a 2Y lamp (required when a portable test lamp is used).

2.04 Two head telephone sets are required when a portable test lamp is not used.

2.05 Two 26 cords are required in offices where it is necessary to patch the traffic register to the circuit under test and to patch the traffic register to a battery supply.

3. PREPARATION

STEP	ACTION	VERIFICATION
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Note: Refer to 1.07 and 1.08.

All Tests

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|----|--|--|
| 1a | If traffic registers are arranged for patching—
At traffic register cabinet—
Insert cord tip of 26 patching cord into P-jack for circuit associated with register to be tested. | |
| 2a | Insert cord tip on other end of 26 patching cord into black jack associated with register to be tested. (Black jack is located on mounting plate with register.) | |
| 3a | Insert cord tip of 26 cord into red jack on mounting plate with register to be tested. | |
| 4a | Insert cord tip on other end of 26 cord into any S- jack located at bottom of jack field. | |
| 5b | If traffic registers are arranged for patching and if battery supply for register to be tested is controlled by C- toggle switch—
At traffic register cabinet—
Operate C- toggle switch to ON. | |
| 6c | If traffic registers are not arranged for patching—
Determine from local office records functional designation of peg count BAT key associated with register to be tested. | |
| 7c | At traffic register circuit frame—
Operate BAT key associated with register to be tested. | |
| 8d | If tests are to be performed without portable lamp—
Establish talking circuit between frames where test is to be performed and where observations are to be made. | |
| 9e | If tests are to be performed with portable lamp—
At frame where action is to be taken—
Insert plug of 2W17C cord, equipped with two KS-6278 connecting clips, into SP jack of miscellaneous circuit. | |

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STEP	ACTION	VERIFICATION
10e	Determine from circuit drawing of circuit associated with register to be tested location of punching on terminal strip at which common lead to traffic register circuit is connected.	
11e	Connect one lead of 2W17C cord to punching on terminal strip determined in Step 10e.	
12e	Connect other lead of 2W17C cord to battery.	
13e	Connect leads of 38B lamp socket to leads of another 2W17C cord equipped with two KS-6278 connecting clips.	
14e	Insert plug of this 2W17C cord into any appearance of selected SP jack of miscellaneous circuit close to position where test is to be performed.	
15e	Place lamp so that it can be easily observed.	
16f	If tests are performed with portable lamp and circuit associated with register to be tested removes ground from common lead to traffic register circuit to operate register— Observe lamp when register operates.	Lamp extinguished.
17g	If tests are performed with portable lamp and circuit associated with register to be tested applies ground to common lead to traffic register circuit to operate register— Observe lamp when register operates.	Lamp lighted.
18e	If tests are to be performed with portable lamp— To observe scoring of register when using test lamp, proceed as follows: (a) For first observation of scoring of register, observe that test lamp indicates proper condition on common lead and that register scores as required. (b) For subsequent observations of scoring of same register, observe lamp indications only.	
	Note: When the register to be tested scores at timed intervals, the test lamp will not flash with the scoring of the register.	

STEP	ACTION	VERIFICATION
Tests A Through F		
19	At MTF— Restore all keys and switches.	
20	Momentarily operate RL key.	All lamps extinguished.

4. METHOD

STEP	ACTION	VERIFICATION
A. Peg Count Register for Test Calls Using Line Link Frames (PCL) and Test Calls Using Markers (PCM)		
21	Select DT class of test.	
22	Select marker.	
23	Operate keys and set switches in accordance with Test 1 on Test Chart.	
24	Momentarily operate ST key.	At traffic register cabinet— Register scored once.
25	Momentarily operate RL key.	All lamps extinguished.
26h	If dial tone markers are provided— Select a dial tone marker.	
27h	Operate keys and set switches in accordance with Test 2 on Test Chart.	
28h	Momentarily operate ST key.	At traffic register cabinet— Register scored once.
29h	Momentarily operate RL key.	All lamps extinguished.
30	Restore all keys and switches not required in next test.	
31	Remove all patching cords and/or head telephone sets.	
32	Restore C- switch or BAT key.	

B. Peg Count Register for Transverter Test Calls (PCA)

Note: This test is applicable only to SD-25591-01 and SD-27809-01.

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STEP	ACTION	VERIFICATION
21	Insert make-busy plug into TV-MB jack for transverter associated with register being tested.	
22	Select transverter made busy.	
23	Select TVT (AMA) class of test.	
24	Operate keys and set switches in accordance with Test Chart.	
25	Momentarily operate ST key.	At traffic register cabinet— Register scored once.
26	At MTF— Momentarily operate RL key.	All lamps extinguished.
27	Remove make-busy plug from TV-MB jack.	
28	Restore all keys and switches not required in next test.	
29	Remove patching cords and/or head telephone sets.	
30	Restore C- switch or BAT key.	

C. Peg Count Register for Originating Register Test Calls (PCD)

21	Insert make-busy plug into ORMB- jack of originating register associated with traffic register being tested.	
22	Select marker.	
23	Select OR class of test.	
24	Select route advance 0.	
25	Select originating register made busy.	
26	Operate keys and set switches in accordance with Test Chart.	
	<i>Note:</i> Allow 1 minute for tubes to heat.	
27	Momentarily operate ST key.	OK lamp lighted. At traffic register cabinet— Register scored once.

STEP	ACTION	VERIFICATION
28	At MTF— Momentarily operate RL key.	All lamps extinguished.
29	Remove make-busy plug from ORMB- jack.	
30	Restore all keys and switches not required in next test.	
31	Remove all patching cords and/or head telephone sets.	
32	Restore C- switch or BAT key.	
D. Peg Count Register for Incoming Register Test Calls (PCI)		
21	Insert make-busy plug into IRMB- jack of incoming register associated with traffic register under test.	
22	Select incoming register made busy.	
23	Operate keys and set switches in accordance with Test Chart. <i>Note:</i> Allow 1 minute for tubes to heat.	
24	Select IR class of test.	
25	Select an equipped incoming class of call and associated translator indication.	
26h	If incoming register is arranged for MF pulsing— Operate MF key.	
27i	If incoming register is arranged for 4-wire MF pulsing— Operate 4W or 4WM key.	
28	Momentarily operate ST key.	OK lamp lighted. At traffic register cabinet— Register scored once.
29	At MTF— Momentarily operate RL key.	All lamps extinguished.
30	Remove make-busy plug from IRMB- jack.	
31	Restore all keys and switches not required in next test.	

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STEP	ACTION	VERIFICATION
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32	Remove all patching cords and/or head telephone sets.	
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33	Restore C- switch or BAT key.	
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E. Peg Count Register for Outgoing Sender Test Calls (PCS)

21	Select sender.	
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22	Select marker.	
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23	Select route advance 0.	
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24	Select SDR class of test.	
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25h	If sender is arranged for 4-wire MF operation— Operate 4W or 4WM key.	
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26i	If sender is arranged for MF operation— Operate MF key.	
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27	Release (push in) CTR- key.	
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28	Operate keys and set switches in accordance with Test Chart.	
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Note: Allow 1 minute for tubes to heat.

29	Momentarily operate ST key.	
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OK lamp lighted.
At traffic register cabinet—
Register scored once.

30	At MTF— Momentarily operate RL key.	
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All lamps extinguished.

31	Restore all keys and switches not required in next test.	
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32	Operate CTR- key.	
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33	Remove all patching cords and/or head telephone sets.	
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34	Restore C- switch or BAT key.	
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F. Peg Count Register for Master Test Frame Total Test Calls (PCT)

21	Select marker.	
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STEP	ACTION	VERIFICATION
22	Operate keys and set switches in accordance with Test Chart.	
23	Select DT class of test.	
24	Momentarily operate ST key.	At traffic register cabinet— Register scored once.
25	At MTF— Momentarily operate RL key.	All lamps extinguished.
26	Restore all keys and switches.	
27	Remove all patching cords and/or head telephone sets.	
28	Restore C- switch or BAT key.	

G. Peg Count Register for Line Verification (PCT)

19	At line verification test frame— Restore all keys and switches.	
20	Momentarily operate RL key.	All lamps extinguished.
21	Operate MLV0 key.	
22	Operate keys and set switches in accordance with Test Chart.	
23	Momentarily operate ST key.	At traffic register cabinet— Register scored once.
24	At line verification test frame— Restore MLV0 key.	
25	Momentarily operate RL key.	All lamps extinguished.
26	Repeat Steps 21 through 25 using MLV1 key.	
27	Operate TLV0 key.	
28	Momentarily operate ST key.	At traffic register cabinet— Register scored once.
29	At line verification test frame— Restore TLV0 key.	
30	Momentarily operate RL key.	All lamps extinguished.
31	Repeat Steps 27 through 30, using TLV1 key.	

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STEP	ACTION	VERIFICATION
32	Restore all keys and switches.	
33	Remove all patching cords and/or head telephone sets.	
34	Restore C- switch or BAT key.	

5. PREPARATION OF TEST CHART

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

Tests A Through F

- (a) Any desired class of service except manual or coin may be used.
- (b) In the DIGITS-CODE(S) AND NUMBER column, record a working office code and numericals as required.

Test B

- (a) In MTF MISCELLANEOUS KEYS AND/OR SWITCHES column, record code pattern for route selected and message billing index.

Test G

- (a) Record a line location, class of service, and directory number that will provide a match.
- (b) In MTF MISCELLANEOUS KEYS AND/OR SWITCHES column, record ringing combination of selected directory number.

MISCELLANEOUS KEYS AND/OR SWITCHES			AUTO. MON				TEST NO.	TEST
			MISCELLANEOUS KEYS AND/OR SWITCHES					
							1	A
							2	
							3	B
							4	
			MAC	STT			5	C
CN			MAC	STT			6	
			MAC	STT			7	D
			MAC	STT			8	
			MAC	STT			9	
			MAC	STT			10	
			MAC	STT			11	
			MAC	STT			12	E
			MAC	STT			13	
			MAC	STT			14	
			MAC	STT			15	
			MAC	STT			16	
			MAC	STT			17	F
							18	G