

**REPLACING PAGE ADDENDUM**  
**Filing Instructions:**

1. REMOVE FROM THE SECTION THE PAGES NUMBERED THE SAME AS THOSE ATTACHED TO THIS PINK SHEET.
2. INSERT THE ATTACHED PAGES INTO THE SECTION IN THEIR PLACE.
3. PLACE THIS PINK SHEET AHEAD OF PAGE 1 OF THE SECTION.

**TRAFFIC REGISTERS—PART 5**  
**TESTS USING MASTER TEST FRAME**  
**NO. 5 CROSSBAR OFFICES**

**1. GENERAL**

**1.001** This addendum supplements Section 218-232-506 Issue 4. The attached pages must be inserted in the section in accordance with filing instructions above.

**1.002** This addendum is issued for the following reasons:

(a) To revise title

(b) To add new paragraph 1.01 and renumber paragraphs 1.01 through 1.08 as 1.02 through 1.09

(c) To revise Test C

This addendum affects Equipment Test Lists.

**Attached:**

**Page 1 dated November 1972 revised**  
**Page 2 dated November 1972 revised**  
**Page 3 dated November 1972 revised**  
**Page 4 dated November 1972 reissued**  
**Page 5 dated November 1972 reissued**  
**Page 6 dated November 1972 revised**  
**Page 7 dated November 1972 revised**  
**Page 8 dated November 1972 reissued**  
**Page 17 dated November 1972 reissued**  
**Page 18 dated November 1972 revised**  
**Page 19 dated November 1972 revised**  
**Page 20 dated November 1972 revised.**



**TRAFFIC REGISTERS—PART 5**  
**TESTS USING MASTER TEST FRAME**  
**NO. 5 CROSSBAR OFFICES**

**1. GENERAL**

PAGE

**1.01** This section is Part 5 of a series of sections that describe methods for testing traffic registers.

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

- (a) To add Tests N and O for checking peg count registers for partial dial indications and total originating calls
- (b) To revise Tables A and B
- (c) To delete Tests B and F
- (d) To make minor changes as required.

Since this reissue is a general revision, arrows ordinarily used to indicate changes have been omitted. This reissue affects Equipment Test Lists.

**1.03** The tests covered are:

PAGE

**A. Peg Count Register for Linkage Established Between Dial Tone or Combined Markers and Originating Registers (PCMF, PCD, PCR Leads):** This test checks that the peg count register operates when linkage is established between a dial tone or combined marker and an originating register. . . . . 6

**B. Deleted** . . . . . 6

**C. Peg Count Register for Reroute to Operator Peg Count (PB Lead):** This test checks that the peg count register operates when the completing marker routes an incoming toll class call to the operator because the called line is busy. . . . . 6

**D. Peg Count Register for Announcement Line Peg Count (PC Lead):** This test checks that the peg count register operates when an announcement line is used to complete a call to an automatic announcement machine. . . . . 7

**E. Peg Count Register for Office Overflow Peg Count [TCO, (4W) TCO, PTCO Leads]:** This test checks that the peg count register operates when a customer-originated call is routed to a tone trunk. . . . . 8

**F. Deleted** . . . . . 8

**G. Overflow Register for Customer Overflow—Allotted Hunting Group OVF- Lead):** This test checks that the overflow register operates when the marker PBX allotted circuit finds all lines of the associated allotted hunting group busy. . . . . 8

**H. Overflow Register for Customer Overflow—Nonhunting Customer Line or Nonallotted Hunting Group (OF Lead):** This test checks that the overflow register operates when the marker finds a nonhunting customer line busy or a nonallotted hunting group busy. . . . . 10

**I. Matching Loss Register for Dial Tone Matching Loss (FMP Lead):** This test checks that the dial tone matching loss register operates whenever a dial tone or combined marker encounters a failure to match on the second attempt to establish a channel between a line equipment and an originating register. . . . . 12

**J. Peg Count Register for Dial Tone Marker Seizure Peg Count (TPC Lead):** This test checks that the peg count register operates each time a dial tone marker is seized or each time a combined marker is seized for a dial tone job. . . . . 13

**K. Peg Count Register for Through-Switched Call Peg Count [TOG, (4W) TOG, PTOG Leads]:** This test checks that the peg count register operates each time a completing marker is seized to complete a through-switched call. . . . . 13

**L. Peg Count Register for Total Line Link Pulsing Peg Count (LLP Lead):** This test checks that the peg count register operates each time the completing marker is seized to direct a call to any PBX provided with line link pulsing features. (Refer to 1.07.) . . . . . 15

**M. Peg Count Overflow and Usage Registers for Line Link Pulsing Trunk Group Peg Count (LPC, LOF Leads):** The following features are checked: (1) The peg count register associated with LPC lead will operate each time the completing marker is seized to direct a call to a PBX provided with line link pulsing features. (2) The peg count register will operate when the completing marker finds all trunks of a line link pulsing group busy. . . . . 16

**Note:** Any sender group associated with a particular line link pulsing group will prevent the overflow register from scoring when all senders in the group are busy.

**N. Peg Count Register for Partial Dial Indications From Originating Registers (PDD, PDM, POP, POS Leads):** This test checks that the peg count register operates on the following: (1) partial dial DP originating calls (PDD lead), (2) partial dial MF originating calls (PDM lead), (3) partial dial overseas person-to-person calls (POP lead), and (4) partial dial overseas station-to-station calls (POS lead). . . . . 17

**O. Peg Count Register for Total Originating Calls (LTD, LTM, FAD, FAM Leads):** This test checks that the peg count register operates on the following: (1) local originating DP calls (LTD lead) and MF calls (LTM lead and (2) foreign area originating DP calls (FAD lead) and MF calls (FAM lead). . . . . 19

**1.04** Table A indicates the tests requiring action and verification at more than one location.

**TABLE A**

| ACTION AND/OR VERIFICATION REQUIRED AT:    | TESTS    |   |   |   |   |          |   |
|--|----------|---|---|---|---|----------|---|
|  | A,D, E,J | C | G | H | I | K,L, N,O | M |
| Traffic Register Cabinet                   | ✓        | ✓ | ✓ | ✓ | ✓ | ✓        | ✓ |
| Master Test Frame                          | ✓        | ✓ | ✓ | ✓ | ✓ | ✓        | ✓ |
| Marker Circuit                             | -        | - | ✓ | ✓ | - | -        | ✓ |
| Switchboard or Miscellaneous Desk Position | -        | - | - | - | ✓ | -        | - |
| Line Link Frame                            | -        | - | - | - | ✓ | -        | - |
| PBX Allotter Circuit                       | -        | - | ✓ | - | - | -        | - |

✓ As required.

**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** The manner of selecting some circuits and test conditions at the master test frame (MTF) and its associated circuits varies depending on the apparatus options furnished with these

circuits. Therefore, where variable means of selection are provided, precise instructions for the selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.

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

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

**1.09 Test N:** When testing registers associated with POS and POP leads, registers associated with PDD lead will score on dial pulse calls and register associated with PDM lead will score on MF calls.

**2. APPARATUS**

**2.01** The apparatus required for each test is listed in Table B. The details of each item are covered in the paragraph indicated by the number in parentheses. In addition, the following apparatus may also be required:

- (a) Apparatus covered in 2.07 and 2.08 is required when a portable lamp is used to determine register operation.
- (b) Two head telephone sets are required when a portable lamp is not used.
- (c) A 32A test set is required when the MTF is controlled from a remote point.
- (d) Two 26 cords are required in offices where it is necessary to patch the traffic register

**3. PREPARATION**

**STEP**

**ACTION**

**VERIFICATION**

**All Tests**

- 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.

to the circuit under test and to patch the traffic register to a battery supply.

**2.02** Master test control circuit SD-25800-01.

**2.03** MTF voltmeter test circuit SD-25792-01.

**2.04** Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, one 419A (test connector) tool (for use in connecting battery or ground to springs of nonwire-spring-type relays), one 639A (relay contact connector) tool, and one 651D (contact

**TABLE B**

| APPARATUS             | TESTS |   |   |   |   |   |   |       |     |  |
|-----------------------|-------|---|---|---|---|---|---|-------|-----|--|
|                       | A,C   | D | E | G | H | I | J | K,L,M | N,O |  |
| Test Circuit (2.02)   | 1     | 1 | 1 | 1 | 1 | 1 | 1 | 1     | 1   |  |
| Test Circuit (2.03)   |       | 1 |   |   |   |   |   |       |     |  |
| Cord (2.04)           |       |   |   | √ | 1 | 1 | 1 | 1     |     |  |
| 322A (make-busy) Plug |       |   |   |   | 1 | 1 | 1 | 1     |     |  |
| 349A (make-busy) Plug |       |   |   |   |   |   | 1 |       |     |  |

√ As required.

connector holder) tool (for use in connecting battery or ground to springs of wire-spring-type relays).

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

**2.06** 38B lamp socket, equipped with a 2Y lamp (required when a portable test lamp is used).

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| <b>STEP</b> | <b>ACTION</b>  | <b>VERIFICATION</b> |
|-------------|--|---------------------|
| 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—<br>At traffic register cabinet—<br>Operate C- toggle switch to ON.       |                     |
| 6c          | If traffic registers are not arranged for patching—<br>Determine from local office records functional designation of peg count BAT key associated with register to be tested.                              |                     |
| 7c          | At traffic register circuit—<br>Operate BAT key associated with register to be tested.   |                     |
| 8d          | If tests are to be performed without portable lamp—<br>Establish talking circuit between frames where test is to be performed and observations are to be made.   |                     |
| 9e          | If tests are to be performed with portable lamp—<br>At frame where action is to be taken—<br>Insert plug of 2W17C cord, equipped with two KS-6278 connecting clips, into SP jack of miscellaneous circuit. |                     |
| 10e         | Determine from circuit drawing of circuit associated with register to be tested location of terminal on terminal strip at which common lead to traffic register circuit is connected.                      |                     |
| 11e         | Connect one lead of 2W17C cord to terminal on terminal strip determined in Step 10e.   |                     |
| 12e         | Connect other lead of 2W17C cord to battery.   |                     |

| STEP | ACTION   | VERIFICATION            |
|------|--|-------------------------|
| 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—<br>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—<br>Observe lamp when register operates.   | Lamp lighted.           |
| 18e  | If tests are to be performed with portable lamp—<br>Observe scoring of register when using test lamp and proceed as follows:<br><br>(a) For first observation of scoring of register, observe that lamp indicates proper condition on common lead and that register scores as required.<br><br>(b) For subsequent observations of scoring of same register, observe lamp indications <i>only</i> .<br><br><i>Note:</i> When the register to be tested scores at timed intervals, the lamp will not flash with the scoring of the register. |                         |
| 19   | At MTF—<br>Restore all keys and switches.  |                         |
| 20   | Momentarily operate RL key.  | All lamps extinguished. |

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**4. METHOD**

| <b>STEP</b>   | <b>ACTION</b>   | <b>VERIFICATION</b>                                   |
|---|---|---|
| <b>A. Peg Count Register for Linkage Established Between Dial Tone or Combined Markers and Originating Registers (PCMF, PCD, PCR Leads)</b> |   |   |
| 21  | Select DT class of test.  |   |
| 22  | Select originating register group associated with traffic register being tested.                        |   |
| 23  | Select marker associated with traffic register being tested.  |   |
| 24  | Select line location having access to selected originating register group.                              |   |
| 25h   | If 4-wire switching route is selected—<br>Operate 4W key.   |   |
| 26  | Momentarily operate ST key.   | At traffic register cabinet—<br>Register scored once. |
| 27  | At MTF—<br>Momentarily operate RL key.  | All lamps extinguished.                               |
| 28  | Restore all keys and switches and remove all patching cords used for test.                              |   |
| <b>B. Deleted</b>   |   |   |
| <b>C. Peg Count Register for Reroute to ♦Operator♦ Peg Count (PB Lead)</b>  |   |   |
| 21  | Select INC class of test.   |   |
| 22  | Select A- through G- digits as required to select permanent busy number.                                |   |
| 23  | Select TOL incoming class of call with translator indication as required for completion to called line. |   |
| 24  | Select incoming trunk class as required for completion to called line.                                  |   |
| 25  | Select any trunk link frame.  |   |
| 26  | ♦Operate 4W key.♦   |   |

| STEP   | ACTION  | VERIFICATION  |
|--|---|---|
| 27h  | If office is arranged for multilevel preemption—<br>Select CDP-, CD-, CDA- control digits as<br>required for completion to called line.       |   |
| 28i  | If office is arranged for multilevel preemption<br>and call is directed to line with multilevel<br>preemption features—<br>Operate AD key.    |   |
| 29j  | If office is arranged for multilevel preemption<br>and call is directed to line without multilevel<br>preemption features—<br>Operate OD key. |   |
| 30   | Select marker associated with traffic register<br>being tested.   |   |
| 31   | Momentarily operate ST key.   | At traffic register cabinet—<br>Register scored once. |
| 32   | At MTF—<br>Momentarily operate RL key.  | All lamps extinguished.                               |
| 33   | Repeat Steps 30, 31, 32 for each marker<br>associated with traffic register being tested.   |   |
| 34   | Restore all keys and switches and remove all<br>patching cords used for test.   |   |
| <b>D. Peg Count Register for Announcement Line Peg<br/>Count (PC Lead)</b> |   |   |
| 21   | Select LT class of test.  |   |
| 22   | Select A- through D- digits as required to<br>direct call to announcement line.   |   |
| 23   | Select INC class of call with translator indication<br>as required for completion to called line.   |   |
| 24   | Select marker 0 or 1.   |   |
| 25   | Operate T key.  |   |
| 26   | Momentarily operate ST key.   | At traffic register cabinet—<br>Register scored once. |
| 27   | At MTF—<br>Momentarily operate RL key.  | All lamps extinguished.                               |

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| <b>STEP</b>  | <b>ACTION</b>   | <b>VERIFICATION</b>                                   |
|--|---|---|
| 28   | Repeat Steps 22 through 27 for each announcement line associated with traffic register being tested.                          |   |
| 29   | Restore all keys and switches; remove all patching cords used for test.   |   |
| <b>E. Peg Count Register for Office Overflow Peg Count (TCO, [4W] TCO, PTCO Leads)</b> |   |   |
| 21   | Select ORIG class of test.  |   |
| 22   | Select A- through G- digits to route call to a tone trunk.  |   |
| 23   | Select OR class of call with LT translator indication.  |   |
| 24   | Select line location having originating service.  |   |
| 25   | Select class of service and rate treatment as required for access to selected route.  |   |
| 26h  | If 4-wire switching route is selected—<br>Operate 4W key.   |   |
| 27i  | If office is arranged for multilevel preemption—<br>Select CD-, CDP- control digits as required for access to selected route. |   |
| 28   | Select marker associated with traffic register under test.  |   |
| 29   | Momentarily operate ST key.   | At traffic register cabinet—<br>Register scored once. |
| 30   | At MTF—<br>Momentarily operate RL key.  | All lamps extinguished.                               |
| 31   | Restore all keys and switches and remove all patching cords used for test.  |   |
| <b>F. Deleted</b>  |   |   |
| <b>G. Overflow Register for Customer Overflow—Allotted Hunting Group (OVF- Lead)</b>   |   |   |
| 21   | Insert make-busy plug into MMB- jack of marker associated with traffic register being tested.                                 |   |
| 22h  | If marker made busy is nonwire-spring-relay type—   |   |

| STEP | ACTION   | VERIFICATION  |
|------|--|---|
| 36i  | If individual peg count and overflow indications per LR- relay is provided—<br>Momentarily operate ST key.   | At traffic register cabinet—<br>Register associated with LPC lead scored once.        |
| 37i  | At MTF—<br>Momentarily operate RL key.   | All lamps extinguished.   |
| 38i  | Operate EBH key.   |   |
| 39i  | Momentarily operate ST key.  | At traffic register cabinet—<br>Registers associated with LPC, LOF leads scored once. |
| 40i  | At MTF—<br>Momentarily operate RL key.   | All lamps extinguished.   |
| 41   | At marker frame—<br>Remove ground from PEG1 relay.   |   |
| 42   | At MTF—<br>Remove make-busy plug from MMB- jack of marker used in test.  |   |
| 43   | Repeat Steps 21 through 42 for each marker associated with traffic register being tested.  |   |
| 44   | Restore all keys and switches and remove all patching cords used for test.   |   |
| 45h  | If individual peg count and overflow indications per LR- relay are not provided—<br>At traffic register cabinet—<br>Restore C- toggle switches used in test. |   |

**N. Peg Count Register for Partial Dial Indications  
From Originating Registers (PDD, PDM, POP,  
POS Leads)**

**Partial Dial Originating Calls (PDD, PDM Leads)**

- 21 Select ORIG class of test.
- 22 Select line location for line having originating service.
- 23 Select class of service and rate treatment as required for originating service.
- 24 Select PD auxiliary originating translator indication.

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| <b>STEP</b>   | <b>ACTION</b>   | <b>VERIFICATION</b>  |
|---|---|--|
| 25  | Select OR class of call with LT translator indication.  |  |
| 26h   | If testing traffic register associated with PDM lead—<br>Select ♦TOUCH-TONE♦ originating register group.          |  |
| 27  | Select marker.  |  |
| 28  | Momentarily operate ST key.   | At traffic register cabinet—<br>Register scored once.                  |
| 29  | At MTF—<br>Momentarily operate RL key.  | All lamps extinguished.  |
| 30  | Repeat Steps 27, 28, 29 for each marker associated with traffic register being tested.                            |  |
| 31  | Restore all keys and switches and remove all patching cords used for test.  |  |
| <b>Partial Dial Overseas Calls (POS, POP Leads)</b> |   |  |
| 32  | Select ORIG class of test.  |  |
| 33  | Select line location for line having originating service.   |  |
| 34  | Select class of service and rate treatment as required having DDD access.   |  |
| 35  | Select PD auxiliary originating translator indication.  |  |
| 36i   | If testing traffic register associated with POS lead—<br>Select FAC class of call with 11 translator indication.  |  |
| 37j   | If testing traffic register associated with POP lead—<br>Select FAC class of call with FVD translator indication. |  |
| 38  | Select marker.  |  |
| 39  | Momentarily operate ST key.   | At traffic register cabinet—<br>Register scored once. (Refer to 1.08.) |
| 40  | At MTF—<br>Momentarily operate RL key.  | All lamps extinguished.  |

| STEP  | ACTION  | VERIFICATION  |
|---|---|---|
| 41  | Repeat Steps 38, 39, 40 for each marker associated with traffic register being tested.                        |   |
| 42  | Restore all keys and switches and remove all patching cords used for test.                                    |   |
| <b>O. Peg Count Register for Total Originating Calls (LTD, LTM, FAD, FAM Leads)</b> |   |   |
| <b>Local Originating Calls (LTD, LTM Leads)</b>                                     |   |   |
| 21  | Select ORIG class of test.  |   |
| 22  | Select A- through G- digits as required to direct call through intraoffice route to an individual line.       |   |
| 23  | Select OR class of call with translator indication as required for access to selected route.                  |   |
| 24  | Select line location of line having originating service.  |   |
| 25  | Select class of service and rate treatment as required for access to selected route.                          |   |
| 26h   | If testing traffic register associated with LTM lead—<br>Select <b>TOUCH-TONE</b> originating register group. |   |
| 27  | Select marker associated with traffic register being tested.  |   |
| 28  | Momentarily operate ST key.   | At traffic register cabinet—<br>Register scored once. |
| 29  | At MTF—<br>Momentarily operate RL key.  | All lamps extinguished.                               |
| 30  | Repeat Steps 27, 28, 29 for each marker associated with traffic register being tested.                        |   |
| 31  | Restore all keys and switches and remove all patching cords used for test.                                    |   |
| <b>Foreign Area Originating Calls (FAD, FAM Leads)</b>                              |   |   |
| 32  | Select ORIG class of test.  |   |
| 33  | Select A- through K- digits as required to select foreign area code, office code, and any line numerals.      |   |

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| <b>STEP</b> | <b>ACTION</b>   | <b>VERIFICATION</b>                                   |
|-------------|---|---|
| 34          | Select FAC class of call with translator indication as required for access to selected route.                 |   |
| 35          | Select line location of line having originating service.  |   |
| 36          | Select class of service and rate treatment as required having DDD access.                                     |   |
| 37i         | If testing traffic register associated with FAM lead—<br>Select <b>TOUCH-TONE</b> originating register group. |   |
| 38          | Select marker associated with traffic register being tested.  |   |
| 39          | Momentarily operate ST key.   | At traffic register cabinet—<br>Register scored once. |
| 40          | At MTF—<br>Momentarily operate RL key.  | All lamps extinguished.                               |
| 41          | Repeat Steps 38, 39, 40 for each marker associated with traffic register being tested.                        |   |
| 42          | Restore all keys and switches and remove all patching cords used for test.                                    |   |