# DIAL PULSE OUTGOING SENDERS SD-25579-01 AND SD-26050-01 TESTS USING SENDER TEST SET SD-25674-01 (J24756A) NO. 5 CROSSBAR OFFICES

## 1. GENERAL

**1.01** When dial pulse outgoing senders SD-26050-01 are modified to outpulse multi-frequency signals, the sender will no longer be capable of outpulsing dial pulses. After modification, the sender must be tested in accordance with Section 218-156-503. When these senders are also used for line link pulsing, line link pulsing features must be tested in accordance with Section 218-150-504.

**1.02** This section is reissued for the following reasons. Revision arrows are used to emphasize the more significant changes. This issue affects Equipment Test Lists.

(a) To revise tests J and T to provide information related to the elimination of loud clicks upon completion of battery and ground outpulsing arranged with immediate reorder features.

(b) To add Test O.1 to include provisions for testing when both stuck sender trunk identification and alarm surveillance and control features are provided.

(c) To revise Test Q to provide optional checks for the elimination of stuck sender plant registration on test calls when the sender is made busy at the MTF and a TUR maintenance busy indication when the sender is held out of service in offices equipped with alarm surveillance and control feature.

(d) To add Test T.1 to include checks to detect an open loop condition during outpulsing over metallic facilities to a step-by-step office.

(e) To revise the title of Test P.

(f) To make minor changes as required

**1.03** The Tests covered are:



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**1.04** Tests F and G should be made as rapidly as possible since other senders are made busy during these tests.

**1.05** For all Tests except N.1 and Q, Test Charts are provided for listing specific priming information as required for each test. These charts should be filled out from local records in accordance with instructions provided in Part 5, Preparation of Test Chart.

**1.06** Tests N.1 and Q require verification at sender under test.

**1.07** Local instructions should be followed for recording and reporting plant register operations for registers associated with sender SS leads.

**1.08** ***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.

**1.09** 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.

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

**1.11** On Issue 76D of SD-25800-01, a group of 18 "class of test" lamps was replaced by a single "start test" lamp designated STT. Since the designation given to the lamp is not specific, the lamp will not be called out in the section, as well as the 18 discontinued lamps, such as DT, ORIG, ITDO, ITNP, OGT, etc.

## 2. APPARATUS

### All Tests Except N.1 and Q

**2.01** Master test control circuit, SD-25800-01.

**2.02** Sender test set, J24756A (SD-25674-01).

**2.03** Sender test circuit, SD-25675-01.

**2.04** Two testing cords, 20-conductor cords, 6 feet long, equipped with one KS-13875

connecting clip and one KS-13895 connecting clip (W20C cord) (for patching test set to test circuit).

**2.05** 322A (make-busy) plugs as required.

**Tests C, N, O, P**

**2.06** Patching cord, P3F cord, 4 feet long, equipped with one 309 plug and one 310 plug (3P12A cord) for digit control.

**Tests D, G, H, ▶J◀ , K, L, N, O, P, R, S, T, ▶T.1◀**

**2.07** 52-type head telephone set or equivalent

**Tests G, K, N, O, ▶O.1,◀ , P, R, S**

**2.08** KS-3008 stopwatch or equivalent.

**Tests N.1, P, Q**

**2.09** Blocking tools as required. Use tools and apply as covered in Section 069-020-801.

**Test Q**

**2.10** 67C test set, or equivalent, equipped with one KS-6278 connecting clip (for checking for the presence or absence of ground).

## 3. PREPARATION

**3.01** When sender class requires off-hook to on-hook start signal, operate and restore REV key of sender test set.

| STEP | ACTION | VERIFICATION |
|---|---|---|
| | **All Tests Except Tests N.1 and Q** | |
| | ***Note:*** Refer to paragraph 1.08, 1.09, and 1.10. | |
| 1 | Patch sender test set SDT1 jack to SDT1 jack at either MTF or outgoing sender frame. | |
| 2 | Patch sender test set SDT2 jack to SDT2 jack at either MTF or outgoing sender frame. | |
| 3 | At MTF—<br>Restore all keys and switches. | |
| 4 | Momentarily operate RL key. | All lamps extinguished. |
| 5 | Select SDT class of test. | |
| 6 | Select sender to be tested. | |
| 7 | Select marker. | |
| 8 | Select route advance to direct call to selected outgoing route. | |
| 9a | If office is equipped with stuck sender trunk identifier circuit—<br>Release SSI, ACTR keys. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| **All Tests Except N.1, O, O.1, Q** | | |
| 10b | If CTR_ key associated with sender under test is operated (pulled-out)_<br>Release (push-in) CTR_ key. | |
| **Tests D, G, H, ▶J◀ , K, L, N, O, P, R, S, T, and ▶T.1◀** | | |
| 11 | Patch head telephone set to sender test set REC jack. | |
| **Tests C, N, O, and P** | | |
| 12 | Patch SDT jack to sender MB_ jack for digit control. | |

**4. METHOD**

**A. Regular Call**

**AMA Calls and DDD AMA or CAMA Calls**

| | | |
|---|---|---|
| 11 | Operate keys and set switches in accordance with Test Chart Test 1. | |
| 12c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 13d | If check of transverter leads is not required—<br>At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A lamps lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed.<br>D lamp momentarily lighted. |
| 14d | Momentarily operate RL key. | All lamps extinguished. |
| 15e | If trouble record is required to check transverter leads—<br>At MTF—<br>Operate REC key. | |
| 16e | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A lamps lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed.<br>D lamp momentarily lighted.<br>Two trouble records taken.<br>FR_, CN_, S_, FT_, FU_, VG_, HG_, VF_, OBS or NOB, RNT0, 1, or 2, RN_, CP_, MB_, and LST, L5D, 4DG, or 5DG designations |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| | | perforated on each trouble record.<br>MKR, TP or RP, A_ through K_ for area code, office code, numericals of called number, a 7 (1 out of 5) for digit following the last digit of called number designations perforated on first trouble record.<br>TV, 2L or 4L, TPT or RPT, and A_ through K_ for area code, office code, numericals of called number (when test call is an observed 2-line entry, or a 4- or 5-line entry call) designations perforated on second trouble record. |
| 17e | Momentarily operate RL key. | All lamps extinguished. |
| 18e | At MTF—<br>Restore REC key. | |
| 19c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 20 | Repeat Steps 11 through 19c, as required for Tests 2 through 44. | |
| **Non-AMA Calls and 2-Way or Intertoll Trunk Calls** | | |
| 21 | Operate keys and set switches in accordance with Test Chart Test 45. | |
| 22c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 23 | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A lamps lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed.<br>D lamp momentarily lighted. |
| 24 | Momentarily operate RL key. | All lamps extinguished. |
| 25c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 26 | Repeat Steps 21 through 25c, as required for Tests 46 through 66. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| **Coin Zone Trunk Calls** | | |
| 27 | Operate keys and set switches in accordance with Test Chart Test 67. | |
| 28d | If check of transverter leads is not required—<br>At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | A lamp lighted.<br>If local zone call is selected—<br>TTC lamp lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed.<br>D lamp momentarily lighted. |
| 29d | Momentarily operate RL key. | All lamps extinguished. |
| 30e | If trouble record is required to check transverter leads—<br>At MTF—<br>Operate REC key. | |
| 31e | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | A lamp lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed.<br>D lamp momentarily lighted.<br>Two trouble records taken.<br>FR_, CN_, S_, FT_, FU_, VG_, HG_, VF_, OBS or NOB, RNT0, 1, or 2, RN_, CP_, MB_, and LST, L5D, 4DG or 5DG designations perforated on each trouble record.<br>MKR, TP or RP, A_ through G_ for office code, numericals of called number, a 7 (1 out of 5) for digit following last digit of called number designations perforated on first trouble record.<br>TV, 2L or 4L, TPT or RPT, and A_ through G_ for office code, numericals of called number (when test call is an observed 2-line entry or, a 4- or 5-line entry call) designations perforated on second trouble record. |
| 32e | Momentarily operate RL key. | All lamps extinguished. |
| 33e | At MTF—<br>Restore REC key. | |
| 34 | Repeat Steps 27 through 33e, as required for Tests 68 and 69. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| **Tandem Trunk Calls—Non AMA** | | |
| 35 | Operate keys and set switches in accordance with Test Chart Test 70. | |
| 36c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 37 | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A lamps lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed.<br>D lamp momentarily lighted. |
| 38 | Momentarily operate RL key. | All lamps extinguished. |
| 39c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 40 | Repeat Steps 35 through 39c as required for Test 71. | |
| **Tandem Trunk Calls—AMA** | | |
| 41 | Operate keys and set switches in accordance with Test Chart Test 72. | |
| 42c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 43d | If check of transverter leads is not required—<br>At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A lamps lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed.<br>D lamp momentarily lighted. |
| 44d | Momentarily operate RL key. | All lamps extinguished. |
| 45e | If trouble record is required to check transverter leads—<br>At MTF—<br>Operate REC key. | |
| 46e | At sender test set—<br>Momentarily operate ST key. | TTC, A lamps lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for each |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| | | digit outpulsed.<br>D lamp momentarily lighted.<br>Two trouble records taken.<br>FR_, CN_, S_, FT_, FU_, VG_, HG_, VF_, OBS or NOB, RNT0, 1, or 2, RN_, CP_, MB_, and LST, L5D, 4DG or 5DG designations perforated on each trouble record.<br>MKR, TP or RP, A_ through G_ for office code, numericals of called number, a 7 (1 out of 5) for digit following last digit of called number designations perforated on first trouble record.<br>TV, 2L or 4L, TPT or RPT, and A_ through G_for office code, numericals of called numbers (when test call is an observed 2-line or a 4- or 5-line entry call) designations perforated on second trouble record. |
| 47e | Momentarily operate RL key. | All lamps extinguished. |
| 48e | At MTF—<br>Restore REC key. | |
| 49c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 50 | Repeat Steps 41 through 49c, as required for Test 73. | |
| **All Calls** | | |
| 51 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 52a | ▶If office is equipped with stuck sender trunk identifier circuit _<br>Operate SSI or ACTR key, as required. | |
| 53 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |
| **B. Abandoned Call—AMA** | | |
| 11 | Operate keys and set switches in accordance with Test Chart Test 74. | |
| 12c | If 2-way trunk is used for selected outgoing route— | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| | At distant office—<br>Have trunk removed from service. | |
| 13 | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A, C lamps lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for all except last digit. |
| 14 | Operate DISC key. | TTC, C, A lamps remain lighted. |
| 15 | Momentarily operate RT key. | TTC, C, A lamps extinguished. |
| 16 | Momentarily operate RL key. | All lamps extinguished. |
| 17 | Restore DISC, RT keys. | |
| 18c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 19 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 20a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 21 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |

**C. Abandoned Call—Non-AMA**

| | | |
|---|---|---|
| 13 | Operate keys and set switches in accordance with Test Chart Test 75. | |
| 14c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 15 | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A lamps lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp lighted for first digit outpulsed. |
| 16 | Operate DISC key. | TTC, A lamps extinguished. |
| 17 | Momentarily operate RL key. | All lamps extinguished. |
| 18 | Restore DISC key. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 19c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 20 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 21a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 22 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |
| **D. Transverter Trouble Release—Noncoin Zone—AMA** | | |
| 12 | Operate keys and set switches in accordance with Test Charts Test 76. | |
| 13 | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | ***Detail-billing route***<br>TTC lamp lighted.<br>A lamp momentarily lighted.<br>Overflow tone heard.<br>***Bulk-billing route***<br>TTC, A lamps lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed. |
| 14 | Momentarily operate RL key. | All lamps extinguished. |
| 15 | At MTF—<br>Restore SDT2 key. | |
| 16 | Operate TOF key. | |
| 17 | At sender test set—<br>Momentarily operate ST key. | TTC lamp lighted.<br>A lamp momentarily lighted.<br>Overflow tone heard. |
| 18 | Momentarily operate RL key. | All lamps extinguished. |
| 19 | At MTF—<br>Restore TOF key. | |
| 20 | Restore all keys and switches and remove all patching cords not required in next test. | |
| 21a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 22 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |
| **E. Delay Pulsing of Last Digit—AMA** | | |
| 11 | Operate keys and set switches in accordance with Test Chart Test 77. | |
| 12 | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A, C lamps lighted.<br>One 0 to 9 lamp momentarily lighted for all except last digit. |
| 13 | Momentarily operate RT key. | One 0 to 9 lamp lighted for last digit.<br>C lamp extinguished.<br>D lamp lighted. |
| 14 | Momentarily operate RL key. | All lamps extinguished. |
| 15 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 16a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 17 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |
| **F. No-Digit Call—AMA** | | |
| 11 | Operate keys and set switches in accordance with Test Chart Test 78. | |
| 12 | At MTF—<br>Insert make-busy plugs into MB_jacks associated with all senders that use same transverter-connector as sender being tested (refer to paragraph 1.04). | |
| 13 | At sender test set—<br>Momentarily operate ST key; ***start timing.*** | TTC, C lamps lighted.<br>0 to 9 lamp not lighted.<br>In 7 to 11 seconds—<br>At MTF—<br>TO_ lamp lighted<br>At sender test set—<br>Overflow tone ***not*** heard.<br><br>***Note:*** Immediately after verification of this step, proceed to next step in order to prevent transverter timeout. |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 14 | Momentarily operate RT key. | At MTF—<br>TO_ lamp extinguished.<br>At sender test set—<br>C lamp extinguished. |
| 15 | Momentarily operate RL key. | All lamps extinguished. |
| 16 | At MTF—<br>Remove make-busy plugs from MB_ jacks associated with all senders made busy in Step 12. | |
| 17 | Restore all keys and switches and remove all patching cords not required in next test. | |
| 18a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 19 | Operate (pull-out) CTR_key associated with sender under test, if required.◀ | |

**G. Trunk Reversed—Off-Hook to On-Hook**

| | | |
|---|---|---|
| 12 | Operate keys and set switches in accordance with Test Chart Test 79. | |
| 13 | At sender test set—<br>Momentarily operate ST key. | TTC, A lamps lighted. |
| 14 | Momentarily restore REV key. | 0 to 9 lamp momentarily lighted.<br>A lamp extinguished.<br>Overflow tone heard. |
| 15 | Momentarily operate RL key. | All lamps extinguished. |
| 16 | Restore REV key. | |
| 17 | Repeat Steps 12 through 16 as required for Test 80. | |
| 18 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 19a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 20 | Operate (pull-out) CTR_key associated with sender under test, if required.◀ | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| **H. Trunk Reversed—Initial Off Hook** | | |
| 12 | Operate keys and set switches in accordance with Test Chart Test 81. | |
| 13c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 14 | At sender test set—<br>Momentarily operate ST key. | TTC, A lamps lighted.<br>Overflow tone heard. |
| 15 | Momentarily operate RL key. | All lamps extinguished.<br>Overflow tone silenced. |
| 16c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 17 | Repeat Steps 12 through 16c, as required for Test 82. | |
| 18 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 19a | ♦If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 20 | Operate (pull-out) CTR_key associated with sender under test, if required.♦ | |
| **I. Stop Dial Signal** | | |
| 11 | Operate keys and set switches in accordance with Test Chart Test 83. | |
| 12c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 13 | At sender test set—<br>Momentarily operate ST key. | TTC, A lamps lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed before REV key operated. |
| 14 | Operate REV key any time before the last two digits are outpulsed. | Sender outpulsing stopped. |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 15 | Restore REV key. | Sender outpulsing starts.<br>One 0 to 9 lamp momentarily lighted for remaining digits. |
| 16 | Momentarily operate RL key. | All lamps extinguished. |
| 17c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 18 | Repeat Steps 11 through 17c, as required for Test 84. | |
| 19 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 20a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 21 | Operate (pull-out) CTR_key associated with sender under test, if required.◀ | |
| **J. Battery and Ground Pulsing** | | |
| 11 | Operate keys and set switches in accordance with Test Chart Test 85. | |
| 12c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 13 | At sender test set—<br>Momentarily operate ST key. | TTC, A lamps lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed.<br>D lamp momentarily lighted.<br><br>▶***Note:*** Ensure that battery clicks are not heard at end of outpulsing.◀ |
| 14 | Momentarily operate RL key. | All lamps extinguished. |
| 15c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 16 | Repeat Steps 11 through 15c, as required for Test 86. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 17 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 18 | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 19 | Operate (pull-out) CTR_key associated with sender under test, if required.◀ | |
| **K. Trunk Test—Open Trunk** | | |
| 12 | Operate keys and set switches in accordance with Test Chart Test 87. | |
| 13 | At sender test set—<br>Momentarily operate ST key; ***start timing*** (refer to paragraph 3.01). | ***Marker on light traffic***<br>TTC lamp lighted.<br>In 2.5 to 4.5 seconds—<br>Overflow tone heard.<br>Trouble record taken.<br>TGT, sender, and trunk number designations perforated.<br><br>***Note:*** If trouble record is not taken within 5 seconds, make sure marker is on light traffic by making it busy. Repeat test. |
| 14 | Momentarily operate RL key. | All lamps extinguished.<br>Overflow tone silenced. |
| 15c | If marker was made busy in Step 13—<br>Restore marker to service. | |
| 16 | At MTF—<br>Operate HTR key. | |
| 17 | At sender test set—<br>Momentarily operate ST key; ***start timing.*** | ***Marker on heavy traffic***<br>TTC lamp lighted.<br>In 14 to 32 seconds—<br>At MTF—<br>TO_ lamp momentarily lighted.<br>At sender test set—<br>Overflow tone heard. |
| 18 | Momentarily operate RL key. | All lamps extinguished. |
| 19 | At MTF—<br>Restore HTR key. | |
| 20 | Repeat Steps 12 through 19, as required for Test 88. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 21 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 22a | ⧫If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 23 | Operate (pull-out) CTR_key associated with sender under test, if required.⧫ | |
| **L. Marker Reorder** | | |
| 12 | Operate keys and set switches in accordance with Test Chart Test 89. | |
| 13c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 14 | At sender test set—<br>Momentarily operate ST key. | TTC lamp lighted.<br>A lamp lighted for 2-way trunks only.<br>Overflow tone heard. |
| 15 | Momentarily operate RL key. | All lamps extinguished. |
| 16c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 17 | Repeat Steps 12 through 16c, as required for Test 90. | |
| 18 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 19a | ⧫If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 20 | Operate (pull-out) CTR_key associated with sender under test, if required.⧫ | |
| **M. Pulse Conversion Test** | | |
| 11 | Operate keys and set switches in accordance with Test Chart Test 91. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 12 | At sender test set—<br>Momentarily operate ST key. | SDR, A lamps lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed. |
| 13 | Momentarily operate RL key. | All lamps extinguished. |
| 14 | Repeat Steps 10 through 12, as required for Tests 92 through 96. | |
| 15 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 16a | ⧫If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 17 | Operate (pull-out) CTR_key associated with sender under test, if required.⧫ | |
| **N. Timing Test** | | |
| 13 | Operate keys and set switches in accordance with Test Chart Test 97. | |
| 14c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 15 | At sender test set—<br>Momentarily operate ST key; ***start timing*** (refer to paragraph 3.01). | TTC, A lamps lighted.<br>One 0 to 9 lamp lighted for first digit outpulsed.<br>In 14 to 22 seconds—<br>At MTF—<br>TO_ lamp momentarily lighted.<br>At sender test set—<br>Overflow tone heard.<br>A lamp extinguished. |
| 16 | Momentarily operate RL key. | All lamps extinguished. |
| 17 | Insert make-busy plugs into MB_jacks associated with all senders that use same transverter-connector as sender under test (refer to paragraph 1.04). | |
| 18 | Operate SDT3 key. | |
| 19 | At sender test set—<br>Momentarily operate ST key; ***start timing*** (refer to paragraph 3.01). | TTC, A, C lamps lighted.<br>One 0 to 9 lamp lighted for first digit outpulsed. |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| | | In 7 to 11 seconds—<br>At MTF—<br>TO_ lamp lighted.<br>At sender test set—<br>A lamp extinguished.<br>Overflow tone heard. |
| 20 | Momentarily operate RT key. | C lamp extinguished. |
| 21 | Momentarily operate RL key. | All lamps extinguished. |
| 22 | At MTF—<br>Restore SDT3 key. | |
| 23 | Remove make-busy plugs from MB_ jacks associated with all senders made busy in Step 17. | |
| 24c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 25 | Repeat Steps 13 through 16 and 24c, as required for Test 98. | |
| 26 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 27a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 28 | Operate (pull-out) CTR_key associated with sender under test, if required.◀ | |

**N.1 TM Timer Recycle**

| | | |
|---|---|---|
| 1 | At MTF—<br>Insert make-busy plug into MB_jack associated with sender under test. | |
| 2 | At sender frame—<br>At sender under test—<br>Block non-operated TRL relay. | |
| 3 | Block operated ON relay; ***start timing.*** | |
| 4 | Record length of TM timing—seconds. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 5 | Remove blocking tool from ON relay. | In 20 to 32 seconds—<br>TM relay operated. |
| 6 | Block operated TT1 relay. | |
| 7 | Block operated ON relay; ***start timing.*** | TM relay released. |
| 8 | Within 3 seconds prior to the end of TM timing—<br>Manually operate ATC1 relay for 1 second. | In 38 to 74 seconds after operation of ON relay—<br>TM relay operated. |
| 9 | Remove blocking tool from ON relay. | TM relay released. |
| 10 | Block operated SG, SG1 relays. | |
| 11 | Repeat Steps 7, 8, and 9. | |
| 12 | Remove blocking tools from TT1, SG, SG1, TRL relays. | |
| 13 | At MTF—<br>Remove make-busy plug from MB_ jack associated with sender under test. | |
| **O. Cancel-Timed Release and Alarm** | | |
| 13b | ⧫If office is equipped with alarm surveillance and control feature and the interface and control circuit is arranged to control the sender timed release feature—<br>Request remote alarm center by telephone to release stuck sender holding feature, if activated.⧫ | REM lamp extinguished. |
| 14 | Operate keys and set switches in accordance with test Chart Test 99. | |
| 15c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 16d | At MTF—<br>If CTR_ key associated with sender under test is released (pushed-in)—<br>Operate (pull-out) CTR_ key. | |
| 17 | At sender test set—<br>Momentarily operate ST key; ***starting timing*** (refer to paragraph 3.01). | TTC, A lamps lighted.<br>One 0 to 9 lamp lighted for first digit outpulsed.<br>In 14 to 22 seconds—<br>At MTF— |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| | | TO_ lamp lighted.<br>At sender test set—<br>Overflow tone heard. |
| 18 | At MTF—<br>Remove cord from sender MB_ jack; ***start timing.*** | In 10 to 15 seconds—<br>R-S-TOA lamp lighted.<br>Major alarm sounds.<br><br>***Note:*** If R-S-TOA lamp is lighted in less than 10 seconds, it may be necessary to repeat test as another circuit may have seized the common alarm circuit. |
| 19 | Insert cord into sender MB_ jack. | R-S-TOA lamp extinguished.<br>Major alarm silenced.<br>At sender test set—<br>Overflow tone still heard. |
| 20 | Momentarily operate ***DISC*** key. | Overflow tone silenced. |
| 21 | At MTF—<br>Restore (push-in) CTR_ key associated with sender under test. | TO_ lamp extinguished. |
| 22 | At sender test set—<br>Momentarily operate RL key. | All lamps extinguished. |
| 23e | If alarm sending circuit is provided—<br>Operate (pull-out) CTR_ key associated with sender under test. | |
| 24e | Operate transfer key to DB position (if provided), or to TR position.<br><br>***Note:*** All alarms will be transferred while key is operated. | |
| 25e | At sender test set—<br>Momentarily operate ST key; ***start timing*** (refer to paragraph 3.01). | TTC lamp lighted.<br>In 12 to 24 seconds—<br>Overflow tone heard.<br>At MTF—<br>TO_ lamp ***not*** lighted. |
| 26e | At sender test set—<br>Momentarily operate DISC key. | Overflow tone silenced. |
| 27e | At MTF—<br>Operate transfer key to NTR. | |
| 28e | Momentarily operate RS key. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 29e | At sender test set—<br>Momentarily operate RL key. | All lamps extinguished. |
| 30c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 31 | At MTF—<br>Remove cord from sender MB_ jack. | |
| 32 | Repeat Steps 13 through 30c, as required for Test 100. | |
| 33 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 34a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 35b | If office is equipped with alarm surveillance and control feature and the interface and control circuit is arranged to control the sender timed release feature—<br>Request remote alarm center by telephone to reactivate stuck sender holding feature, if required. | REM lamp lighted. |
| 36f | If CTR_ key associated with sender under test is released (pushed-in)—<br>Operate (pull-out) CTR_ key, if required.◀ | |

**O.1 ▶Stuck Sender Trunk Identification**

| | | |
|---|---|---|
| 12b | If office is equipped with alarm surveillance and control feature and the interface and control circuit is arranged to control the sender timed release feature—<br>Request remote alarm center by telephone to release stuck sender holding feature, if activated. | REM lamp extinguished. |
| 13 | Operate keys and set switches in accordance with Test Chart Test 101. | |
| 14c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from sevice. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 15d | At MTF—<br>If CTR_ key associated with sender under test is released (pushed-in)—<br>Operate (pull-out) CTR_ key. | |
| 16 | At sender test set—<br>Momentarily operate ST key; ***start timing*** (refer to paragraph 3.01). | TTC, A lamps lighted.<br>One 0 to 9 lamp lighted for each digit outpulsed.<br>In 14 to 22 seconds—<br>At MTF—<br>TO_ lamp lighted.<br>In 10 to 15 seconds—<br>R-S-TOA lamp lighted.<br>Major alarm sounds. |
| 17 | Insert make-busy plug into MB_ jack associated with sender under test. | R-S-TOA lamp extinguished.<br>Major alarm silenced. |
| 18 | Operate SSI key. | SSTI lamp lighted.<br>In 20 to 25 seconds—<br>LH/RH, FT_, FU_, SWT_, SW_, VU_ lamps lighted indicating OSL switch and vertical associated with stuck sender.<br><br>***Note:*** If no sender is stuck, the END lamp will light at the end of the scan cycle and remain lighted until the SSI key is restored. |
| 19 | Restore SSI key. | SSTI, LH/RH, FT_, FU_, SWT_, SW_, VU_ lamps extinguished. |
| 20 | Restore (push-in) CTR_ key associated with sender under test. | OK lamp lighted. |
| 21 | At sender test set—<br>Momentarily operate RL key. | All lamps extinguished. |
| 22e | At MTF—<br>If automatic tracing feature is provided—<br>Operate ACTR key. | |
| 23e | At sender test set—<br>Momentarily operate ST key; ***start timing*** (refer to paragraph 3.01). | TTC, A lamps lighted.<br>One 0 to 9 lamp lighted for each digit outpulsed.<br>In 20 to 25 seconds—<br>At MTF—<br>MN-SSTI lamp lighted.<br>Minor alarm sounded.<br>Trouble record taken.<br>SSTI, OSG_, SSA/SSB, OS_ designations perforated indicating sender group assignment.<br>LH/RH, FT_, FU_, SWT_, SW_, VU_ |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| | | designations perforated indicating OSL switch and vertical associated with stuck sender. |
| 24e | Restore ACTR key. | |
| 25e | Momentarily operate SSTI-AR key. | MN-SSTI lamp extinguished.<br>Minor alarm silenced. |
| 26e | At sender test set—<br>Momentarily operate RL key. | All lamps extinguished. |
| 27c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 28 | Repeat Steps 13 through 27c, as required for Test 102. | |
| 29 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 30 | Operate SSI or ACTR key, as required for manual or automatic stuck sender trunk identification. | |
| 31f | If office is equipped with alarm surveillance and control feature and the interface and control circuit is arranged to control the sender timed release feature—<br>Request remote alarm center by telephone to reactivate stuck sender holding feature, if activated. | REM lamp lighted. |
| 32 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |
| **P. Intersender Timing—Wire-Spring ▶and Nonwire-Spring Relay Type Senders◀** | | |
| 13 | Operate keys and set switches in accordance with Test Chart Test 103. | |
| 14c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 15 | At MTF—<br>Insert make-busy plug into MB_jack associated with sender under test. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 16 | At sender under test—<br>Block nonoperated SP relay. | |
| 17 | At outgoing sender group release circuit—<br>Block operated R_ relay of sender group containing sender under test. | |
| 18 | At sender test set—<br>Momentarily operate ST key; ***start timing.*** | TTC, A lamps lighted.<br>Within 4 to 8 seconds—<br>Overflow tone heard.<br>A lamp extinguished. |
| 19 | Momentarily operate RL key. | All lamps extinguished. |
| 20 | At outgoing sender group release circuit—<br>Remove blocking tool from R_ relay. | |
| 21 | At sender under test—<br>Remove blocking tool from SP relay. | |
| 22 | At MTF—<br>Remove make-busy plug from MB_ jack associated with sender under test. | |
| 23c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 24 | Repeat Steps 13 through 23c, as required for Test 104. | |
| 25 | ▶At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 26a | If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 27 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |

**Q. Sender Busy**

| | | |
|---|---|---|
| 1 | When sender being tested is idle—<br>At sender under test—<br>Block operated SB relay. | |
| 2 | At MTF—<br>Insert make-busy plugs into MB_ jacks of all other senders in subgroup associated with | At sender frame—<br>***Nonwire-spring relay type senders***<br>Check for absence of ground on ▶terminals |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| | sender under test (refer to paragraph 1.07). | 29 and 30 of terminal strip D and terminal 19 of terminal strip C of sender control unit.◀<br>***Wirespring relay type senders***<br>Check for absence of ground on terminals 16 and 27 of terminal strip A and 17 of terminal strip B of sender control unit. |
| 3 | At MTF—<br>Insert make-busy plug into MB_ jack associated with sender under test. | |
| 4 | At sender under test—<br>Remove blocking tool from SB relay. | ***Nonwire-spring relay type senders***<br>Check for absence of ground on ▶terminals 29 and 30 of terminal strip D and terminal 19 of terminal strip C of sender control unit.◀<br>***Wire-spring relay type senders***<br>Check for absence of ground on terminals 16, 27 of terminal strip A and 17 of terminal strip B of sender control unit. |
| 5 | At MTF—<br>Remove make-busy plug from MB_ jack associated with sender under test. | At sender frame—<br>***Nonwire-spring relay type senders***<br>Check for presence of ground on terminals 29 and 30 of terminal strip D and terminal 19 of terminal strip C of sender control unit.<br>***Wire-spring relay type senders***<br>Check for presence of ground on terminals 16 and 27 of terminal strip A and 17 of terminal strip B of sender control unit. |
| 6a | ▶If option is provided for elimination of stuck sender plant registration on test calls when sender is made busy at MTF—<br>At MTF—<br>Insert make-busy plug into MB_ jack of sender under test. | |
| 7a | At sender frame—<br>***Nonwire-spring-relay type senders***<br>Block TRL relay operated.<br>***Wire-spring-relay type senders***<br>Block ON1, TRL relays operated. | ***Nonwire-spring-relay type senders***<br>Check for absence of ground on terminal 32 of terminal strip D on sender control unit.<br>***Wire-spring-relay type senders***<br>Check for absence of ground on terminal 36 of terminal strip A on sender control unit. |
| 8a | At MTF—<br>Remove make-busy plug from MB_ jack of sender under test. | At sender frame—<br>***Nonwire-spring-relay type senders***<br>Check for presence of ground on terminal 32 of terminal strip D on sender control unit.<br>***Wire-spring-relay type senders***<br>Check for presence of ground on terminal 36 of terminal strip A on sender control unit. |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 9a | Remove blocking tool(s) placed in Step 7a. | |
| 10b | If option is provided for TUR maintenance busy indication in offices equipped with alarm surveillance and control feature—<br>At MTF—<br>Insert make-busy plug into MB_ jack of sender under test. | At sender frame—<br>***Nonwire-spring-relay type senders***<br>Check for presence of ground on terminal 5 of terminal strip D on sender control unit.<br>***Wire-spring-relay type senders***<br>Check for presence of ground on terminal 32 of terminal strip B of sender control unit. |
| 11b | At MTF—<br>Remove make-busy plug from MB_ jack of sender under test. | At sender frame—<br>***Nonwire-spring-relay type senders***<br>Check for absence of ground on terminal 5 of terminal strip D on sender control unit.<br>***Wire-spring-relay type senders***<br>Check for absence of ground on terminal 32 of terminal strip B of sender control unit. |
| 12b | Block operated TM, TRL relays. | At MTF—<br>TO_ LAMP lighted.<br>R-S-TOA lamp lighted.<br>Major alarm sounded.<br>At sender frame—<br>***Nonwire-spring-relay type senders***<br>Check for presence of ground on terminal 31 of terminal strip D on sender control unit.<br>***Wire-spring-relay type senders***<br>Check for presence of ground on terminal 32 of terminal strip B of sender control unit. |
| 13b | Remove blocking tools placed in Step 12b. | At MTF—<br>TO_ lamp extinguished.<br>R-S-TOA lamp extinguished.<br>Major alarm silenced. |
| 14 | Remove all make-busy plugs placed in Step 2.◆ | |
| **R. Antiglare Test** | | |
| 12 | At MTF—<br>Operate keys and set switches in accordance with Test Chart Test 105. | |
| 13c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 14 | At sender test set—<br>Momentarily operate ST key. | TTC, A lamps lighted.<br>One 0 through 9 lamp momentarily lighted indicating each digit outpulsed. |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 15 | Momentarily operate RL key. | All lamps extinguished. |
| 16 | Operate REV key. | |
| 17 | Momentarily operate ST key; ***start timing.*** | TTC, A lamps lighted. |
| 18 | Within 2 seconds—<br>Restore REV key. | One 0 through 9 lamp momentarily lighted indicating each digit outpulsed. |
| 19 | Momentarily operate RL key. | All lamps extinguished. |
| 20 | Operate REV key. | |
| 21 | Momentarily operate ST key; ***start timing.*** | TTC, A lamps lighted. |
| 22 | Within 2 seconds—<br>Momentarily restore REV key. | A lamp extinguished.<br>Overflow tone heard. |
| 23 | Momentarily operate RL key. | All lamps extinguished.<br>Overflow tone ***not*** heard. |
| 24 | Momentarily operate ST key; ***start timing.*** | TTC, A lamps lighted. |
| 25 | Within 2 seconds—<br>Restore, reoperate, and restore REV key quickly. | One 0 through 9 lamp lighted momentarily indicating each digit outpulsed. |
| 26 | Momentarily operate RL key. | All lamps extinguished. |
| 27 | Operate REV key. | |
| 28 | Momentarily operate ST key; ***start timing.*** | TTC, A lamps lighted. |
| 29 | Within 2 seconds—<br>Momentarily restore REV key twice. | A lamp extinguished.<br>Overflow tone heard. |
| 30 | Momentarily operate RL key. | All lamps extinguished.<br>Overflow tone ***not*** heard. |
| 31c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 32 | Repeat Steps 12 through 31c, as required for Test 106. | |
| 33 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 34a | If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 35 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |
| **S. Distant Trunk Reversed or Busy** | | |
| 12 | Operate keys and set switches in accordance with Test Chart Test 107. | |
| 13c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 14 | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A lamps lighted.<br>One 0 to 9 lamp momentarily lighted for digits outpulsed before REV key is operated. |
| 15 | When pulsing starts—<br>Operate REV key. | Sender stops outpulsing. |
| 16 | Restore REV key. | Outpulsing starts.<br>One 0 to 9 lamp momentarily lighted for digits outpulsed before REV key is again operated. |
| 17 | When pulsing starts—<br>Operate REV key. | Sender stops outpulsing.<br>Overflow tone heard except for class CL2 calls. |
| 18 | Momentarily operate RL key. | All lamps extinguished.<br>Overflow tone silenced. |
| 19c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 20 | Repeat Steps 12 through 19c, as required for Tests 108 and 109. | |
| 21 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 22a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 23 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |
| | **T. Immediate Reorder on Stop Dial Signal** | |
| 12 | Operate keys and set switches in accordance with Test Chart Test 110. | |
| 13c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 14 | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A lamps lighted.<br>One 0 to 9 lamp momentarily lighted for digits outpulsed before REV key is operated. |
| 15 | When outpulsing begins—<br>Momentarily operate REV key. | Overflow tone heard. |
| 16 | Momentarily operate RL key. | All lamps extinguished. |
| 17c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 18 | Repeat Steps 12 through 17c, as required for Test 111. | |
| 19 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 20a | ▶If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 21 | Operate (pull-out) CTR_ key associated with sender under test, if required.◀ | |
| | **T.1 ▶Open Loop Detection Between Digits** | |
| 12 | Operate keys and set switches in accordance with Test Chart Test 112. | |
| 13c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| 14 | At sender test set—<br>Momentarily operate ST key (refer to paragraph 3.01). | TTC, A lamps lighted.<br>One 0 to 9 lamp momentarily lighted for digits outpulsed before REV key is operated |
| 15 | When outpulsing begins—<br>Momentarily operate REV key. | Overflow tone heard. |
| 16 | Momentarily operate RL key. | All lamps extinguished. |
| 17c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 18 | Repeat Steps 12 through 17c, as required for Test 113. | |
| 19 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 20a | If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 21 | Operate (pull-out) CTR_key associated with sender under test, if required.◀ | |

**U. Directory Assistance Charging**

| | | |
|---|---|---|
| 12 | Operate keys and set switches in accordance with Test Chart Test 114. | |
| 13c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk removed from service. | |
| 14 | At MTF—<br>Operate REC key. | |
| 15 | At sender test set—<br>Momentarily operate ST key. | TTC, A lamps lighted.<br>D lamp momentarily lighted.<br>One 0 to 9 lamp momentarily lighted for each digit outpulsed.<br>D lamp momentarily lighted.<br>Two trouble records taken.<br>***Both trouble records***<br>FR_, CN_, S_, calling line location, OBS or NOB, RNT0, 1, or 2, RN_ designations perforated.<br>If test is for 411 or 555-1212 ***observed*** or |

| STEP | ACTION | VERIFICATION |
|---|---|---|
| | | ***nonobserved*** 2-line entry—<br>CP3, MB6, LST designations perforated.<br>If test is for 555-1212 ***observed*** or ***nonobserved*** 4-line entry—<br>CP3, MB9, 4DG designations perforated.<br>***First trouble record***<br>SRT, MKR, called number, called number class, TP or RP designations perforated.<br>***Second trouble record***<br>TV, 2L or 4L, TPT or RPT designations perforated.<br>If test is for 411 or 555-1212 ***observed*** or ***nonobserved*** 2-line entry—<br>Called number designations ***not*** perforated.<br>If test is for 555-1212 ***observed*** or ***nonobserved*** 4-line entry—<br>Called number designations perforated. |
| 16 | Momentarily operate RL key. | All lamps extinguished. |
| 17c | If 2-way trunk is used for selected outgoing route—<br>At distant office—<br>Have trunk restored to service. | |
| 18 | Repeat Steps 12 through 17c, as required for Tests 115 through 117. | |
| 19 | At MTF—<br>Restore all keys and switches and remove all patching cords not required in next test. | |
| 20a | ♦If office is equipped with stuck sender trunk identifier circuit—<br>Operate SSI or ACTR key, as required. | |
| 21 | Operate (pull-out) CTR_key.<br>associated with sender under test, if required.♦ | |

## 5. PREPARATION OF TEST CHART

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

(a) ***Selection of a Particular Trunk:*** When it is desired to use a particular trunk for test, select the trunk as follows:

***Note:*** When 2-way trunks are required to be used for the selected outgoing route, a particular trunk must always be selected.

(1) Consult local office records for location of desired trunk. Wherever possible, avoid the use of 2-way or intertoll trunks.

(2) Record trunk location and trunk number in the TRUNK SELECTION column.

(3) In the MISCELLANEOUS KEYS AND/OR SWITCHES column, record FS, TS keys.

(4) For trunks requiring CX supervision, record DP-OCX in SENDER TEST SET, SDT column. For all other trunks record DP-LP or DP-BG, as required.

(5) Record GPA or GPB as required in the MISCELLANEOUS KEYS AND/OR SWITCHES column when the trunks served by the sender are in allotted groups.

(6) Record TOL-RB key when trunk is arranged for E-M signaling and reverse battery supervision through the switches.

(b) When it is necessary to simulate a test call from an incoming trunk to reach a desired outgoing tandem or intertoll trunk, record an incoming subclass of test for the selected route.

(c) For non-DDD calls, record the A_, B_, and C_ digits for an office code that can be reached by the sender.

(d) For DDD calls, record the A_, B_, and C_ digits for the area code sent by the sender, and the office code D_, E_, and F_ digits that can be reached by the sender.

(e) Record an originating class of call and translator indication required by the marker to select a route and sender group associated with sender under test.

(f) Record the various classes of service and when the office is arranged for rate treatment, record various rate treatments. When 2-party class of service is selected, record TP in the MISCELLANEOUS KEYS AND/OR SWITCHES column.

(g) Record any arbitrary digits, sender class marks, and delete digit marks in appropriate columns of MISCELLANEOUS INFORMATION.

(h) Record the line location when a specific line location is required.

***Note:*** When a specific line location is not required, record the appropriate SDT switch position.

(i) Record NTC key in the MISCELLANEOUS KEYS AND/OR SWITCHES column when a specific line location (h) is required.

**5.02** ***Test A***

(1) Determine from local office records:

(a) The office code for each office that can be reached by the sender on an AMA or non-AMA basis.

(b) The DDD codes being sent by the sender.

(2) For Test 1 through 34, apply (a), (c), and (e) through (i) of paragraph 5.01, selecting AMA office codes and classes of service that will check office code (A_, B_, and C_), class (CL_), and deletion (DL_) leads.

(3) For Tests 35 through 44 apply (a), (d), and (e) through (i) of paragraph 5.01, selecting DDD codes used with AMA or CAMA and classes of service. When call is AMA, record SDT1, REC keys in MISCELLANEOUS KEYS AND/OR SWITCHES column.

(4) For Tests 45 through 62, apply (a) through (i) of paragraph 5.01, selecting office codes and classes of service that do not require AMA.

(5) For Tests 63 through 66, apply (a) through (i) of paragraph 5.01, selecting office codes and classes of service that require 2-way or intertoll routing.

(6) For Tests 67 and 68, apply (a) through (i) of paragraph 5.01, selecting office codes and classes of service that require coin zone trunk in junctor of service that require coin zone trunk in junctor routing.

(7) For Test 69, apply (a) through (i) of paragraph 5.01, selecting office code and class of service that requires local coin zone trunk or junctor routing.

(8) For Tests 70 and 71, apply (a) through (i) of paragraph 5.01, selecting office code and class of service that requires tandem trunk routing (non-AMA).

(9) For Tests 72 and 73, apply (a) through (i) of paragraph 5.01, selecting office code and class of service for CCSA AMA tandem trunk routing.

**5.03 *Test B***

(1) Apply (a) through (i) of paragraph 5.01, selecting an office code, class of service, and a particular trunk that requires AMA routing.

**5.04 *Test C***

(1) Apply (a) through (i) of paragraph 5.01, selecting a non-AMA office code, class of service, and a particular trunk.

**5.05 *Test D***

(1) Do not use 2-way or intertoll trunks.

(2) Apply (a) through (i) of paragraph 5.01, selecting an office code and class of service for a detail-billed AMA call. If a bulk-billed AMA call must be used, record the TOF key in MISCELLANEOUS KEYS AND/OR SWITCHES column.

**5.06 *Test E***

(1) Do not use 2-way or intertoll trunks.

(2) Apply (a) through (i) of paragraph 5.01, selecting an office code and class of service requiring AMA routing.

**5.07 *Test F***

(1) Do not use 2-way or intertoll trunks.

(2) Apply (a) through (i) of paragraph 5.01, selecting an office code, class of service, and an interoffice trunk requiring AMA routing.

**5.08 *Test G***

(1) Do not use 2-way or intertoll trunks.

(2) Select an office code that will operate sender class relay CL3.

(3) Apply (a) through (i) of paragraph 5.01.

**5.09 *Test H***

(1) Select an office code that will not operate sender class relays CL2, CL3, or CL6.

(2) Apply (a) through (i) of paragraph 5.01.

**5.10 *Test I***

(1) Select an office code that will operate sender class relay CL2, CL2 and CL6, or a code that will not operate sender class relays CL2, CL3, or CL6.

(2) Apply (a) through (i) of paragraph 5.01.

**5.11 *Test J***

(1) Select an office code that will operate sender class relay CL5.

(2) Apply (a) through (i) of paragraph 5.01.

**5.12 *Test K***

(1) Do not use 2-way or intertoll trunk.

(2) Apply (a) through (i) of paragraph 5.01.

**5.13 *Test L***

(1) Select an interoffice route.

(2) Apply (a) through (i) of paragraph 5.01.

**5.14** ***Test M***

(1) Record the PCD or PCD1 key under MTF MISCELLANEOUS KEYS AND/OR SWITCHES column to direct marker to sender group where sender appears.

**5.15** ***Test N, O, ▶O.1◀ and P***

(1) For Tests N and O, use interoffice codes.

(2) Test O cannot be made on trunks with CX.

(3) Apply (a) through (i) of paragraph 5.01.

**5.16** ***Test R***

(1) Select an office code that will operate sender class relays CL2 and CL6.

(2) Apply (a) through (i) of paragraph 5.01.

**5.17** ***Test S***

(1) Select an office code that will not operate sender class relays CL2 or CL3, or that will operate CL2.

(2) Apply (a) through (i) of paragraph 5.01.

**5.18** ***Test I and ▶T.1◀***

(1) Select an office code that will not operate sender class relays CL2, CL3, or CL6.

(2) Apply (a) through (i) of paragraph 5.01.

**5.19** ***Test U***

(1) Apply (a), (e), (f), (h), and (i) of paragraph 5.01 selecting a class of service requiring AMA routing.

## TEST CHART

| TEST | TEST TITLE | TEST NO. | LINE LOCATION | | | | | | TRUNK SELECTION | | | | CLASS OF SERVICE | | RATE TREAT. | | MASTER TEST FRAME PRIMING INFORMATION | | | | | | | | | | | | | SUB-CLASS OF TEST | CLASS OF CALL | TRANSLATOR INDICATION | MISCELLANEOUS KEYSAND/OR SWITCHES | | | SENDER TEST SET | | MISC INFORMATION | | | | | | | TEST NO. | TEST |
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| | | | FRAME NO. | | VERT GR | | HOR GR | VERT FILE | TRK LK | | TRK NO. | | | | | | DIGITS – CODE(S) AND NUMBER (CALLED NUMBER) | | | | | | | | | | | | | | | | | | | | SENDER TEST SET | | ARBITRARY DIGITS | | | SENDER CLASS MARKS | | DELETE DIGIT MRK | | | |
| | | | TENS | UNITS | TENS | UNITS | | | GR | FR | TENS | UNITS | TENS | UNITS | TENS | UNITS | A | B | C | D | E | F | G | H | J | K | L | M | | | | | | | SDT SWITCH | MISC KEYS AND/OR SWITCHES | AR- | BR- | CR- | CL- | CL- | DL- | | | |
| A | Regular Call | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | 1 | 3 | 6 | 0 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 1 | A |
| | | 2 | 1* | 1* | 0 | 1 | 1 | 1 | | | | | | | | | | | | 3 | 6 | 0 | 7 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 2 | |
| | | 3 | 2* | 2* | 0 | 2 | 2 | 2 | | | | | | | | | | | | 6 | 0 | 7 | 1 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 3 | |
| | | 4 | 3* | 3* | 0 | 3 | 3 | 3 | | | | | | | | | | | | 0 | 7 | 1 | 3 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 4 | |
| | | 5 | 4* | 4* | 0 | 4 | 4 | 4 | | | | | | | | | | | | 7 | 1 | 3 | 6 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 5 | |
| | | 6 | 5* | 5* | 0 | 5 | 5 | 0 | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 6 | |
| | | 7 | 0 | 6* | 0 | 6 | 6 | 0 | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 7 | |
| | | 8 | 1* | 7* | 0 | 7 | 7 | 2 | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 8 | |
| | | 9 | 2* | 8* | 0 | 8 | 8 | 3 | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 9 | |
| | | 10 | 3* | 9* | 0 | 9 | 9 | 4 | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 10 | |
| | | 11 | 4* | 0 | 1* | 0 | 0 | 0 | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 11 | |
| | | 12 | 5* | 0 | 1* | 1 | 0 | 1 | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | NTC | | | | | | | | | | | 12 | |
| | AMA | 13 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 13 | |
| | | 14 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 14 | |
| | | 15 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 15 | |
| | | 16 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 16 | |
| | | 17 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 17 | |
| | | 18 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 18 | |
| | | 19 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 19 | |
| | | 20 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 20 | |
| | | 21 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 21 | |
| | | 22 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 22 | |
| | | 23 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 23 | |
| | | 24 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 24 | |
| | | 25 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 25 | |

## TEST CHART

| TEST | TEST TITLE | TEST NO. | LINE LOCATION | | | | | | TRUNK SELECTION | | | | CLASS OF SERVICE | | RATE TREAT. | | MASTER TEST FRAME PRIMING INFORMATION | | | | | | | | | | | | | SUB-CLASS OF TEST | CLASS OF CALL | TRANSLATOR INDICATION | MISCELLANEOUS KEYSAND/OR SWITCHES | | | SENDER TEST SET | | MISC INFORMATION | | | | | | | TEST NO. | TEST |
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| | | | FRAME NO. | | VERT GR | | HOR GR | VERT FILE | TRK LK | | TRK NO. | | | | | | DIGITS – CODE(S) AND NUMBER (CALLED NUMBER) | | | | | | | | | | | | | | | | | | | SDT SWITCH | MISC KEYS AND/OR SWITCHES | ARBITRARY DIGITS | | | SENDER CLASS MARKS | | DELETE DIGIT MRK | | | |
| | | | TENS | UNITS | TENS | UNITS | | | GR | FR | TENS | UNITS | TENS | UNITS | TENS | UNITS | A | B | C | D | E | F | G | H | J | K | L | M | | | | | | | | | AR- | BR- | CR- | CL- | CL- | DL- | | |
| A (Cont) | Regular Call | 26 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 26 | A (Cont) |
| | | 27 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 27 | |
| | | 28 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 28 | |
| | | 29 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 29 | |
| | AMA | 30 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 30 | |
| | | 31 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 31 | |
| | | 32 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 32 | |
| | | 33 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 33 | |
| | | 34 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 34 | |
| | | 35 | | | | | | | | | | | | | | | | | | | | | 1 | 3 | 6 | 0 | | | | | | | | | | | | | | | | | 35 | |
| | | 36 | | | | | | | | | | | | | | | | | | | | | 3 | 6 | 0 | 7 | | | | | | | | | | | | | | | | | 36 | |
| | | 37 | | | | | | | | | | | | | | | | | | | | | 6 | 0 | 7 | 1 | | | | | | | | | | | | | | | | | 37 | |
| | | 38 | | | | | | | | | | | | | | | | | | | | | 0 | 7 | 1 | 3 | | | | | | | | | | | | | | | | | 38 | |
| | DDD | 39 | | | | | | | | | | | | | | | | | | | | | 7 | 1 | 3 | 6 | | | | | | | | | | | | | | | | | 39 | |
| | AMA or CAMA | 40 | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | 40 | |
| | | 41 | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | 41 | |
| | | 42 | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | 42 | |
| | | 43 | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | 43 | |
| | | 44 | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | 44 | |
| | | 45 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | 45 | |
| | | 46 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | 46 | |
| | Non-AMA | 47 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | 47 | |
| | | 48 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | 48 | |
| | | 49 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | 49 | |
| | | 50 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | 50 | |

## TEST CHART

| TEST | TEST TITLE | TEST NO. | LINE LOCATION | | | | | | TRUNK SELECTION | | | | CLASS OF SERVICE | | RATE TREAT. | | MASTER TEST FRAME PRIMING INFORMATION | | | | | | | | | | | | SUB-CLASS OF TEST | CLASS OF CALL | TRANSLATOR INDICATION | MISCELLANEOUS KEYSAND/OR SWITCHES | | | SENDER TEST SET | | MISC INFORMATION | | | | | | | TEST NO. | TEST |
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| | | | FRAME NO. | | VERT GR | | HOR GR | VERT FILE | TRK LK | | TRK NO. | | | | | | DIGITS – CODE(S) AND NUMBER (CALLED NUMBER) | | | | | | | | | | | | | | | | | | SDT SWITCH | MISC KEYS AND/OR SWITCHES | | ARBITRARY DIGITS | | | SENDER CLASS MARKS | | DELETE DIGIT MRK | | |
| | | | TENS | UNITS | TENS | UNITS | | | GR | FR | TENS | UNITS | TENS | UNITS | TENS | UNITS | A | B | C | D | E | F | G | H | J | K | L | M | | | | | | | | | | | | | | | | | |
| A (Cont) | Regular Call | 51 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 51 | A (Cont) |
| | | 52 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 52 | |
| | | 53 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 53 | |
| | | 54 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 54 | |
| | | 55 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 55 | |
| | Non-AMA | 56 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 56 | |
| | | 57 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 57 | |
| | | 58 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 58 | |
| | | 59 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 59 | |
| | | 60 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 60 | |
| | | 61 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 61 | |
| | | 62 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 62 | |
| | | 63 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 63 | |
| | 2-Way or Intertoll Trunks | 64 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 64 | |
| | | 65 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 65 | |
| | | 66 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 66 | |
| | | 67 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 67 | |
| | Coin Zone Trunks | 68 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 68 | |
| | | 69 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 69 | |
| | Tandem Trunks – Non-AMA | 70 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 70 | |
| | | 71 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | 71 | |
| | AMA | 72 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | SDT1 | | | | | | | | | 72 | |
| | | 73 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | SDT1 | | | | | | | | | 73 | |
| B | Abandoned Call – AMA | 74 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | SDT3 | | | | | | | | | 74 | B |
| C | Abandoned Call – Non-AMA | 75 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | DC | | | | | | | | | 75 | C |

## TEST CHART

| TEST | TEST TITLE | TEST NO. | LINE LOCATION | | | | | | TRUNK SELECTION | | | | CLASS OF SERVICE | | RATE TREAT. | | MASTER TEST FRAME PRIMING INFORMATION | | | | | | | | | | | | | SUB-CLASS OF TEST | CLASS OF CALL | TRANSLATOR INDICATION | MISCELLANEOUS KEYSAND/OR SWITCHES | | | SENDER TEST SET | | MISC INFORMATION | | | | | | TEST NO. | TEST |
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| | | | FRAME NO. | | VERT GR | | HOR GR | VERT FILE | TRK LK | | TRK NO. | | | | | | DIGITS – CODE(S) AND NUMBER (CALLED NUMBER) | | | | | | | | | | | | | | | | | | | SDT SWITCH | MISC KEYS AND/OR SWITCHES | | ARBITRARY DIGITS | | | SENDER CLASS MARKS | | DELETE DIGIT MRK | | |
| | | | TENS | UNITS | TENS | UNITS | | | GR | FR | TENS | UNITS | TENS | UNITS | TENS | UNITS | A | B | C | D | E | F | G | H | J | K | L | M | | | | | | | | | | AR- | BR- | CR- | CL- | CL- | DL- | | |
| D | Transverter Trouble Release – AMA | 76 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT2 | | | | | | | | | | | | 76 | D |
| E | Delay Pulsing of Last Digit – AMA | 77 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT3 | | | | | | | | | | | | 77 | E |
| F | No-Digit Call – AMA | 78 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT3 | ND | | | | | | | | | | | 78 | F |
| G | Trunk Reversed – AMA | 79 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 79 | G |
| | Off Hook to On Hook Non-AMA | 80 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | 80 | |
| H | Trunk Reversed – AMA | 81 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | REV | | | | | | | | 81 | H |
| | Initial Off Hook Non-AMA | 82 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | REV | | | | | | | | 82 | |
| I | Stop Dial Signal AMA | 83 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | | | | | | | | | 83 | I |
| | Non-AMA | 84 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | 84 | |
| J | Battery and Ground Pulsing AMA | 85 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | DP-BG | | | | | | | | | 85 | J |
| | Non-AMA | 86 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | DP-BG | | | | | | | | | 86 | |
| K | Trunk Test – Open Trunk AMA | 87 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | OT | | | | | | | | 87 | K |
| | Non-AMA | 88 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | OT | | | | | | | | 88 | |
| L | Marker Reorder AMA | 89 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | ROT | | | | | | | | | | | 89 | L |
| | Non-AMA | 90 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | ROT | | | | | | | | | | | | 90 | |
| M | Pulse Conversion Test | 91 | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | ITC-RN0 | | | | | | | | | | | | 91 | M |
| | | 92 | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | ITC-RN0 | | | | | | | | | | | | 92 | |
| | | 93 | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | ITC-RN2 | | | | | | | | | | | | 93 | |
| | | 94 | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | ITC-RN2 | | | | | | | | | | | | 94 | |
| | | 95 | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | ITC-RN5 | | | | | | | | | | | | 95 | |
| | | 96 | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | ITC-RN5 | | | | | | | | | | | | 96 | |
| N | Timing Test AMA | 97 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | DC | | | | | | | | 97 | N |
| | Non-AMA | 98 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | DC | | | | | | | | 98 | |
| O | Cancel Timed Release AMA | 99 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | SDT1 | | | | DC | | | | | | | | 99 | O |
| | and Alarm Non-AMA | 100 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | DC | | | | | | | | 100 | |

## TEST CHART

| TEST | TEST TITLE | | TEST NO. | LINE LOCATION | | | | | | TRUNK SELECTION | | | | CLASS OF SERVICE | | RATE TREAT. | | MASTER TEST FRAME PRIMING INFORMATION | | | | | | | | | | | | | SENDER TEST SET | | MISC INFORMATION | | | | | | TEST NO. | TEST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | FRAME NO. | | VERT GR | | HOR GR | VERT FILE | TRK LK | | TRK NO. | | | | | | DIGITS – CODE(S) AND NUMBER (CALLED NUMBER) | | | | | | | | | | | SUB-CLASS OF TEST | CLASS OF CALL | TRANSLATOR INDICATION | MISCELLANEOUS KEYSAND/OR SWITCHES | | | SDT SWITCH | MISC KEYS AND/OR SWITCHES | | ARBITRARY DIGITS | | | SENDER CLASS MARKS | | DELETE DIGIT MRK | | |
| | | | | TENS | UNITS | TENS | UNITS | | | GR | FR | TENS | UNITS | TENS | UNITS | TENS | UNITS | A | B | C | D | E | F | G | H | J | K | L | M | | | | | | | | | | | | AR- | BR- | CR- | CL- | CL- | DL- | | |
| 0.1 | Stuck Sender Identification | AMA | 101 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | SDT1 | | | | DC | | | | | | | | 101 | 0.1 |
| | | Non-AMA | 102 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | DC | REV | | | | | | | 102 | |
| P | Intersender Timing – Wire-Spring | AMA | 103 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | SDT1 | | | | DC | REV | | | | | | | 103 | P |
| | Relay Type Senders Only | Non-AMA | 104 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | DC | REV | | | | | | | 104 | |
| R | Antiglare Test | AMA | 105 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | DP-OCX | | | | | | | | 105 | R |
| | | Non-AMA | 106 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | DP-OCX | | | | | | | | 106 | |
| S | Distant Trunk Reversed or Busy | | 107 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | 107 | S |
| | | | 108 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | 108 | |
| | | | 109 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | 109 | |
| T | Immediate Reorder on | AMA | 110 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | SDT1 | | | | | | | | | | | | 110 | T |
| | Stop Dial Signal | Non-AMA | 111 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | 111 | |
| T.1 | Open Loop Detection | AMA | 112 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | SDT1 | SOTR | | | | | | | | | | | 112 | T.1 |
| | Between Digits | Non-AMA | 113 | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | | | | | | | SOTR | | | | | | | | | | | | 113 | |
| U | Directory Assistance Charging | AMA | 114 | | | | | | | | | | | | | | | 4 | 1 | 1 | | | | | | | | | | | | SDT1 | | | | | | | | | | | | 114 | U |
| | | | 115 | | | | | | | | | | | | | | | 4 | 1 | 1 | | | | | | | | | | | | SDT1 | OBS | | | | | | | | | | | 115 | |
| | | | 116 | | | | | | | | | | | | | | | 5 | 5 | 5 | 1 | 2 | 1 | 2 | | | | | | | | SDT1 | | | | | | | | | | | | 116 | |
| | | | 117 | | | | | | | | | | | | | | | 5 | 5 | 5 | 1 | 2 | 1 | 2 | | | | | | | | SDT1 | OBS | | | | | | | | | | | 117 | |