

OUTGOING INTERTOLL TRUNKS
TESTS USING TRUNK TEST CIRCUIT SD-25918-01
NO. 5 CROSSBAR OFFICES

1. GENERAL

PAGE

1.01 This section covers a method of testing outgoing intertoll trunks SD-25846-02, SD-25847-01, SD-25895-01, SD-25944-01, SD-26174-01 and associated auxiliary trunks; outgoing features of 2-way intertoll trunks SD-25842-02, SD-25853-01 SD-25845-01, SD-27912-01, SD-28066-01 and associated auxiliary trunks SD-25502-01, SD-26111-01, and SD-27541-01, using the trunk test circuit SD-25918-01 and the master test control circuit in No. 5 crossbar offices.

a tone-on tone-off condition if the intertoll trunk is associated with an auxiliary trunk circuit that provides customer and/or incoming tandem trunk access.

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1.02 This section is reissued for the reasons listed below. Revision arrows are used to emphasize the more significant changes. This reissue does not affect Equipment Test Lists.

C. Trunk Busy Features: This test checks that only a test call can complete to an idle made-busy trunk, except when provided, operation of the DR relay (apparatus Fig. 6) denies outgoing calls from a customer or from the master test frame (MTF). It also checks that a service call can complete to an idle trunk, except when provided, the DR relay is operated to deny outgoing calls.

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- (a) To add busy line verification feature (BLV) to tests A through D, H through J.
- (b) To make minor changes as required.

D. Call to Distant Office: This test checks the trunk for seizure, continuity of talking path, and supervisory features in combination with the incoming intertoll trunks at the distant office and with the auxiliary trunk circuit used to provide customer and/or incoming tandem trunk access, if provided.

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1.03 The tests covered are:

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A. Trunk Seizure and Release Features: This test checks the trunk for seizure, supervision, rering, and release. If the intertoll trunk is associated with an auxiliary trunk circuit that provides access to the intertoll trunk by customers and/or incoming tandem trunks, this test also checks that E and M lead supervision is changed to reverse battery.

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E. Pad Control Features: This test checks that the pad control features function properly, if provided.

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B. Trunk Overflow Features: This test checks the ability of the trunk to send back overflow signals to the originating operator. It also checks that a flashing condition is converted to

F. Timed Release Features: This test checks that the trunk is held busy for about 1 second after the originating end disconnects. If the intertoll trunk is associated with an auxiliary trunk circuit that provides access to the intertoll trunk by customers and/or incoming tandem trunks, this test also

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checks that a calling line is prevented from holding a called line out of service.

G. Busy Indications to Toll Switchboard—Testing at Relay Rack Frame:

This test checks that the trunk tests busy at the toll switchboard when made busy on an outgoing call through the switches. Tests for trunk-idle or trunk-busy lamp indications at the switchboard are covered in other sections.

H. Busy Indications to Toll Switchboard—Testing at Toll Switchboard:

This test checks that the trunk tests busy at the toll switchboard when the trunk is seized on an outgoing call through the switches.

I. Charge and Noncharge Supervision—Auxiliary Trunk Circuit to Provide Customer Access:

This test checks that a charge condition is established only when the connection is held over 2 seconds or immediately when testing data timing trunks.

J. Cancel Disconnect Entry—Auxiliary Trunk Circuit Arranged for AMA Operation (ETS or LAMA-C Not Provided):

This test checks the canceling of the disconnect entry and release of the circuit if the disconnect entry is not made within 2 to 5 seconds after disconnect.

K. Trunk Make-busy and Splitting Feature—Remote Testing from Telegraph Testboard Provided:

This test checks that the trunk can be made busy from the telegraph testboard and that the trunk can be split for testing purposes.

L. Glare Detection Feature: This test checks the glare detection feature of the trunk on local originated call.

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1.07 Test C requires that all other trunks in the same trunk group and on the same trunk link frame as the trunk under test be made busy.

1.08 **Lettered Steps:** A letter a, b, c, etc, added to 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 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 When the office is arranged for LAMA-C or ETS, the distributor and scanner associated with the marker and trunk used in the test call must be in service or in a *maintenance-busy* condition—not in an *out-of-service* condition. To change a scanner or distributor from an *out-of-service* to a *maintenance-busy* condition, use the procedure given in the following sections for the office arrangement:

218-798-308—Taking LAMA-C Equipment Out-of-Service.

218-799-701—Taking ETS Equipment Out-of-Service.

1.12 When the trunk under test is arranged for ETS, the first completed test call from the MTF will cause the TST bit to be set in the trunk register associated with the selected trunk, enabling trunk supervisory scanning to be repeated on the FT, CS, and S1 lamps at the MTF trunk test circuit. As long as the TST bit is set in the trunk register, supervision will continue to be repeated on the lamps, even on service calls. The TST bit will remain set in the trunk register until (1) a

test call is made from the MTF to another trunk, or (2) the command **STOP:TRK TST** is entered at the maintenance TTY.

1.13 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.

1.14 When CDT (calling data transmitter) billing system is provided in the office, this trunk may or may not handle billable calls. When it is arranged for billable calls, supervisory scan points will be assigned and supervision will be repeated from the scan points on test calls to the MTF by CS and S1 lamps.

1.15 When CDT is provided, there may be several configurations in the office - single controller, dual controller with the trunk assigned to one controller, or dual controller and the trunk is assigned to both controllers. When assigned to both controllers in a dual controller configuration, one test must be made to each controller to verify scan points for each controller.

3. PREPARATION

Refer to paragraphs 1.08 through 1.15.

| STEP | ACTION | VERIFICATION |
|------|--------|--------------|
|------|--------|--------------|

All Tests Except Test K

| | | |
|----|--|--|
| 1a | If trunk under test is 2-way— Have trunk made busy at distant office. | |
|----|--|--|

Tests A Through D, H Through J

| | | |
|---|---|-------------------------|
| 2 | At MTF— Restore all keys and switches. | |
| 3 | Momentarily operate RL key. | All lamps extinguished. |
| 4 | Select trunk to be tested. | |
| 5 | Select completing marker. | |
| 6 | Operate FS, TS, TLK, E-M, KY keys. | |

2. APPARATUS

Test C

2.01 322A (make-busy) plug.

Tests A Through D, H Through J

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

2.03 Trunk test circuit, SD-25918-01.

Tests E Through G, J

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

Tests F, I, J

2.05 KS-3008 stopwatch or equivalent.

Test G

2.06 67C test set, or equivalent, equipped with one KS-6278 connecting clip (for use in checking the presence or absence of battery or ground).

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| STEP | ACTION | VERIFICATION |
|-------------|--|---------------------|
| 7b | If ETS provided— Operate PCS, PTS keys. | |
| 8 | Operate GPA/GPB key as required when trunk is in an allotted trunk group. | |
| 9c | ◆If busy line verification is provided and trunk under test is SD-26174-01— Operate VFO key.◆ | |

Tests A, B, D and I

| | | |
|-----|---|--|
| 10d | If trunk is to be tested for CDT— Operate CDTT key. | |
| 11d | When trunk is assigned to CDT dual controllers, select controller— Operate CDC 0/1 key. | |
| 12d | When a trouble record is to be taken from the CDT translator access (TA) circuit— Operate TREC key. | |
| 13d | When the CDT controller operates with both shared and dedicated translator circuits and a particular translator circuit is to be used for the test— Operate TAD key to select dedicated TA circuit or operate TAS key to select shared TA circuit. | |

Note: When a TA circuit is not selected the controller will select the next available TA circuit.

4. METHOD

| STEP | ACTION | VERIFICATION |
|--|---|---------------------|
| A. Trunk Seizure and Release Features | | |
| 14 | Operate TTL key. | |
| 15 | Select OGT class of test. | |
| 16 | Select TOL subclass of test. | |
| 17 | Select A- through F- digits as required for access to trunk under test. | |
| 18 | Select route advance as required for access to selected route. | |

| STEP | ACTION | VERIFICATION |
|------|--|--|
| 19 | Momentarily operate ST key. | TAS, E lamps lighted. If ETS provided— FT lamp lighted. |
| 20 | Operate ANS key. | Steady high tone heard. OGT-CS lamp lighted. |
| 21e | If RR key is provided— Momentarily operate RR key. | E lamp momentarily extinguished. |
| 22b | If RR key is not provided— Using dial of MTF telephone circuit— Dial digit 1. | E lamp momentarily extinguished. |
| 23 | Restore ANS key. | OGT-CS lamp extinguished. |
| 24 | Restore TLK key. | E, TAS lamps extinguished. If ETS provided— FT lamp extinguished. |
| 25 | Momentarily operate RL key. | All lamps extinguished except TOL. |
| 26 | Restore keys and switches used to select TOL class of test. | TOL lamp extinguished. |
| 27g | If auxiliary trunk circuit is provided to allow customer access to trunk under test— Select class of service and rate treatment as required to gain access to trunk under test. | |
| 28g | Operate TLK key. | |
| 29g | Momentarily operate ST key. | If CDTT key is operated— S1 lamp lighted. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. AS, E lamps lighted. If toll diversion is required for any dial PBX having access to this circuit— PK lamp lighted. |
| 30g | Operate ANS key. | If CDTT key is operated— CS lamp lighted. If ETS or LAMA-C provided— CS lamp lighted. Steady high tone heard. OGT-CS lamp lighted. |
| 31g | Restore ANS key. | If CDTT key is operated— CS lamp extinguished. |

| STEP | ACTION | VERIFICATION |
|------|--|--|
| | | If ETS or LAMA-C provided— CS lamp extinguished. AS lamp remains lighted. |
| 32g | Restore TLK key. | If CDTT key is operated— S1 lamp extinguished. If ETS provided— FT, S1 lamps extinguished. If LAMA-C provided— S1 lamp extinguished. E, AS lamps extinguished. |
| 33g | Momentarily operate RL key. | All lamps extinguished. |
| 34g | Restore keys and switches used to select class of service and rate treatment. | |
| 35h | If auxiliary trunk circuit is provided to allow incoming tandem trunks access to trunk under test— Select TAN subclass of test. | TAN lamp lighted. |
| 36h | Operate TLK key. | |
| 37h | Momentarily operate ST key. | If ETS provided— FT lamp lighted. AS, E lamps lighted. |
| 38h | Operate ANS key. | Steady high tone heard. OGT-CS lamp lighted. |
| 39h | Restore TLK key. | If ETS provided— FT lamp extinguished. E, AS lamps extinguished. |
| 40h | Restore keys and switches used to select TAN subclass of test. | TAN lamp extinguished. |
| 41h | Momentarily operate RL key. | All lamps extinguished. |
| 42a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |
| 43 | Restore all keys and switches not required in next test. | |

B. Trunk Overflow Features

14 Operate TTL key.

| STEP | ACTION | VERIFICATION |
|------|--|---|
| 15 | Select OGT class of test. | |
| 16 | Select TOL subclass of test. | TOL lamp lighted. |
| 17 | Operate ROT key. | |
| 18 | Select A- through F- digits as required for access to trunk under test. | |
| 19 | Select route advance as required for access to selected route. | |
| 20 | Momentarily operate ST key. | Overflow tone heard or OGT-CS lamp flashes at 120 ipm. |
| 21 | Momentarily operate RL key. | All lamps extinguished except TOL. |
| 22 | Restore keys and switches used to select TOL class of test. | TOL lamp extinguished. |
| 23e | If auxiliary trunk circuit is provided to allow customer access to trunk under test— Select class of service and rate treatment as required to gain access to trunk under test. | |
| 24e | Momentarily operate ST key; <i>start timing</i> . | If CDTT key is operated— S1 lamp lighted. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. AS lamp lighted. If auxiliary trunk provided is other than SD-27541-01— Busy tone heard. If auxiliary trunk provided is SD-25502-01— In 13 to 32 seconds— AS lamp extinguished. If ETS provided— FT, S1 lamps extinguished. If LAMA-C provided— S1 lamp extinguished. If CDTT key is operated— S1 lamp extinguished. |
| 25e | Momentarily operate RL key. | All lamps extinguished. |
| 26a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |

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| STEP | ACTION | VERIFICATION |
|-------------------------------|---|--|
| 27 | Restore all keys and switches not required in next test. | |
| C. Trunk Busy Features | | |
| 10 | Select OGT class of test. | |
| 11 | Select TOL subclass of test. | TOL lamp lighted. |
| 12 | Select A- through F- digits as required for access to trunk under test. | |
| 13 | Select route advance as required for access to selected route. | |
| 14 | Operate TTL key. | |
| 15 | Insert make-busy plug into OGT-MB jack of trunk under test. | |
| 16 | Operate NTTS, NTFS keys. | |
| 17 | Momentarily operate ST key. | If ETS provided— FT lamp lighted. TAS, E lamps lighted. |
| 18 | Momentarily operate RL key. | TAS, E lamps extinguished. If ETS provided— FT lamp remains lighted. |
| 19 | Operate FS, TS keys. | |
| 20 | Momentarily operate ST key. | TB lamp lighted. |
| 21 | Momentarily operate RL key. | TB lamp extinguished. |
| 22d | ◆If trunk under test uses E and M lead signaling with carrier facilities and carrier group alarm is provided— At trunk under test— Block operated E relay.◆ | |
| 23d | At MTF— Momentarily operate ST key. | TB lamp lighted. |
| 24d | Momentarily operate RL key. | TB lamp extinguished. |
| 25d | Remove make-busy plug placed in Step 15. | If ETS provided— FT lamp remains lighted. |
| 26d | Momentarily operate ST key. | TB lamp lighted. |

| STEP | ACTION | VERIFICATION |
|------|--|---|
| 27d | Momentarily operate RL key. | TB lamp extinguished. |
| 28d | ◆At trunk under test— Remove blocking tool placed in Step 22d.◆ | If ETS provided— FT lamp extinguished. |
| 29d | At MTF— Replace make-busy plug removed in Step 25d. | If ETS provided— FT lamp lighted. |
| 30 | Insert make-busy plugs into OGT-MB jacks associated with all intertoll trunks of same route on same trunk link frame as trunk under test. | |
| 31 | Remove make-busy plug from OGT-MB jack of trunk under test. | If ETS provided— FT lamp extinguished. |
| 32 | While trunk is idle— Momentarily operate ST key. | If ETS provided— FT lamp lighted. |
| 33 | Momentarily operate RL key. | All lamps extinguished except TOL. |
| 34 | Remove make-busy plugs inserted in Step 30. | |
| 35e | If DR relay provided in trunk under test— Block operated DR relay. | If ETS provided— FT lamp lighted. |
| 36e | At MTF— Operate NTTS, NTFS keys. | |
| 37e | Momentarily operate ST key. | TB lamp lighted. |
| 38e | Momentarily operate RL key. | TB lamp extinguished. |
| 39e | At trunk under test— Remove blocking tool from DR relay. | If ETS provided— FT lamp extinguished. |
| 40b | If trunk made-busy indication to directional reservation equipment is provided by B relay in trunk circuit— At trunk under test— Block operated B relay. | If ETS provided— FT lamp lighted. |
| 41b | At MTF— Operate TS, FS keys. | |
| 42b | Momentarily operate ST key. | TB lamp lighted. |
| 43b | Momentarily operate RL key. | TB lamp extinguished. |
| 44b | At trunk under test— Remove blocking tool from B relay. | If ETS provided— FT lamp extinguished. |

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| STEP | ACTION | VERIFICATION |
|----------------------------------|--|--|
| 45a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |
| 46 | Restore all keys and switches not required in next test. | TOL lamp extinguished. |
| D. Call to Distant Office | | |
| 14 | Select MISC class of test. | |
| 15 | Select TOL subclass of test. | TOL lamp lighted. |
| 16 | Select A- through L- digits as required for access to route and test line number in distant office. | |
| 17 | Select route advance as required for access to selected route. | |
| 18e | If test line is reached via 10X code— Operate DL3 or DL6 key as required. | |
| 19 | Momentarily operate ST key. | If ETS provided— FT lamp lighted. TAS lamp lighted. OGT-CS lamp may flash or light; tone may be heard depending on type of test line in distant office. |
| | | Note: Signals received on test of first circuit indicate signals to be expected on successive tests to same office. |
| 20b | If test line in distant office requires re-ring signals and RR key is provided— Momentarily operate RR key. | OCT-CS lamp extinguished. |
| 21b | Momentarily reoperate RR key. | OGT-CS lamp flashes at 120 ipm. |
| 22g | If test line in distant office requires re-ring signals and RR key is not provided— Using dial of MTF telephone circuit— Dial digit 1. | OGT-CS lamp extinguished. |
| 23g | Dial digit 1. | OGT-CS lamp flashes at 120 ipm. |
| 24 | Momentarily operate RL key. | All lamps extinguished except TOL. |
| 25 | Restore keys and switches used to select TOL subclass of test. | TOL lamp extinguished. |

| STEP | ACTION | VERIFICATION |
|--------------------------------|--|---|
| 26h | If auxiliary trunk circuit is provided to allow customer access to trunk under test— Select class of service and rate treatment as required to gain access to trunk under test. | |
| 27h | Momentarily operate ST key. | If CDTT key is operated— S1 lamp lighted. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. AS lamp lighted. OGT-CS lamp may flash or light; tone may be heard depending on type of test line in distant office. If ETS or LAMA-C provided or if CDTT key is operated— CS lamp lighted, and follows supervisory flashes. |
| 28h | Momentarily operate RL key. | All lamps extinguished. |
| 29a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |
| 30 | Restore all keys and switches not required in next test. | |
| E. Pad Control Features | | |
| 2 | At relay rack frame— Observe that SL, TM relays of trunk are nonoperated. | |
| 3a | If trunk under test is 2-way— Observe that IN relay is nonoperated. | |
| 4b | If trunk under test has appearance at No. 3C or 3CL toll switchboard— At associated pad control circuit— Observe that P1 relay is nonoperated. | |
| 5b | At trunk circuit— Momentarily operate TM relay. | At associated pad control circuit— P1 relay momentarily operated. |
| 6c | If trunk under test is arranged for dial pulsing and has appearance at No. 3C or 3CL toll switchboard— At trunk circuit— Momentarily operate CT relay. | At associated pad control circuit— P1 relay momentarily operated. |

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| STEP | ACTION | VERIFICATION |
|------|---|---|
| 7d | If trunk under test has appearance at No. 1 toll switchboard— Observe that P relay of associated pad control circuit is nonoperated. | |
| 8d | At trunk circuit— Momentarily operate TM relay. | At associated pad control circuit— P relay momentarily operated. |
| 9e | If trunk under test is arranged for dial pulsing and has appearance at No. 1 toll switchboard— At trunk circuit— Momentarily operate SL2 relay. | At associated pad control circuit— P1 relay momentarily operated. |
| 10f | If trunk under test is arranged for multifrequency pulsing and has appearance at No. 1 toll switchboard— At trunk circuit— Momentarily operate SL relay. | At associated pad control circuit— P relay momentarily operated. |
| 11g | If trunk under test is a one-way trunk with an appearance at a No. 3C or 3CL toll switchboard and is associated with auxiliary trunk SD-25502-01 arranged for pad control— At trunk circuit— Block operated TM relay. | At associated pad control circuit— P1 relay operated. |
| 12g | At auxiliary trunk circuit— Momentarily operate S2 relay. | At associated pad control circuit— P1 relay released, then operated. |
| 13g | At trunk circuit— Remove blocking tool from TM relay. | |
| 14h | If trunk under test is a 2-way trunk with an appearance at a No. 3C or 3CL toll switchboard and is associated with auxiliary trunk SD-25502-01— At trunk circuit— Block operated TM relay. | At associated pad control circuit— P1 relay operated. |
| 15h | At auxiliary trunk circuit— Momentarily operate SIA relay. | At associated pad control circuit— P1 relay released, then operated. |
| 16h | At trunk circuit— Remove blocking tool from TM relay. | |
| 17i | If trunk under test has an appearance at a No. 1 toll switchboard and is associated with auxiliary trunk SD-25502-01— At trunk circuit— Block operated SL2 relay. | At associated pad control circuit— P relay operated. |

| STEP | ACTION | VERIFICATION |
|----------------------------------|---|--|
| 18i | At auxiliary trunk circuit— Momentarily operate SIA relay. | At associated pad control circuit— P relay released, then operated. |
| 19i | At trunk circuit— Remove blocking tool from SL2 relay. | |
| 20j | If no other tests are to be made— At MTF— Remove make-busy plug from OGT-MB jack. | |
| 21a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |
| F. Timed Release Features | | |
| 2b | If trunk under test is 2-way dial pulsing trunk with appearance at No. 3C or 3CL toll switchboard— At relay rack frame— Observe MB relay. | MB relay operated. |
| 3b | Block operated TM relay. | SG relay operated. |
| 4b | Insulate 1B of B relay. | |
| 5b | Remove blocking tool from TM relay. | In about 1 second— MB and SG relays released. |
| 6b | Remove insulator from B relay. | |
| 7c | If trunk under test is 2-way multifrequency pulsing trunk with appearance at No. 3C or 3CL toll switchboard— At relay rack frame— Observe MB relay. | MB relay operated. |
| 8c | Block operated TM relay. | SG relay operated. |
| 9c | Insulate 4T of B relay. | |
| 10c | Remove blocking tool from TM relay. | In about 1 second— MB and SG relays released. |
| 11c | Remove insulator from B relay. | |
| 12d | If trunk under test is 2-way trunk with appearance at No. 1 toll switchboard or outgoing trunk with appearance at No. 3C or 3CL toll switchboard— Block operated TM relay. | If trunk under test is 2-way trunk— SG relay operated. |

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| STEP | ACTION | VERIFICATION |
|--|--|--|
| 13d | Operate MB relay. | MB relay locks operated. |
| 14d | Remove blocking tool from TM relay. | In about 1 second— MB and SG relays released. |
| 15e | If trunk under test is associated with auxiliary trunk SD-26111-01 to provide customer access— At auxiliary trunk SD-26111-01— Block operated CH relay; <i>start timing.</i> | In 13 to 32 seconds— D relay operated. |
| 16f | If trunk under test is associated with auxiliary trunk SD-25502-01 to provide customer access— At auxiliary trunk SD-25502-01— Insulate 8B or MA relay. | |
| 17f | Block operated CH relay; <i>start timing.</i> | In 13 to 32 seconds— K relay operated. |
| 18 | Remove blocking tools and insulators. | |
| 19a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |
| G. Busy Indications to Toll Switchboard—Testing at Relay Rack Frame | | |
| 2b | If trunk under test is outgoing trunk with appearance at No. 3C or 3CL toll switchboard— At relay rack frame— Block operated MB relay. | B relay released. |
| 3b | Block operated TM relay. | |
| 4b | Test for presence of battery on contacts as follows: Dial pulse trunks—4B of B relay Multifrequency pulse trunks—6T of B relay. | Battery present. |
| 5b | Remove blocking tool from TM relay. | |
| 6b | Insulate 2T of F relay. | |
| 7b | Block operated F relay. | |
| 8b | Repeat Step 4b. | |
| 9c | If trunk under test is 2-way trunk with appearance at No. 3C or 3CL toll switchboard— At relay rack frame— Block operated TM relay. | |

| STEP | ACTION | VERIFICATION |
|------|---|-------------------|
| 10c | Insulate 4B of B relay. | B relay released. |
| 11c | Test for presence of battery on 7T of B relay. | Battery present. |
| 12d | If trunk under test is 2-way trunk with appearance at No. 1 toll switchboard— At relay rack frame— Block operated MB relay. | B relay released. |
| 13d | Block operated TM relay. | |
| 14d | Test for presence of battery on 4T of B relay. | Battery present. |
| 15 | Remove all blocking tools and insulators. | |
| 16a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |

H. Busy Indications to Toll Switchboards—Testing at Toll Switchboard

| | | |
|----|--|---|
| 10 | Select MISC class of test. | |
| 11 | Select TOL subclass of test. | TOL lamp lighted. |
| 12 | Select A- through L- digits as required to gain access to trunk under test. | |
| 13 | Select route advance as required for access to selected trunk. | |
| 14 | Momentarily operate ST key. | TAS, E lamps lighted. If ETS provided— FT lamp lighted. |
| 15 | At toll switchboard— Insert plug of head telephone set into position jacks. | |
| 16 | Operate TALK key of idle front cord. | |
| 17 | Make sleeve-busy test. | Trunk tests busy. |
| 18 | Restore TALK key and remove plug of head telephone set from position jacks. | |
| 19 | At MTF— Restore TLK key. | If ETS provided— FT lamp extinguished. E, TAS lamps extinguished. |

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| STEP | ACTION | VERIFICATION |
|---|--|--|
| 20 | Momentarily operate RL key. | All lamps extinguished except TOL. |
| 21a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |
| 22 | Restore all keys and switches not required in next test. | TOL lamp extinguished. |
| I. Charge and Noncharge Supervision—Auxiliary Trunk Circuit to Provide Customer Access | | |
| 14 | Select OGT class of test. | |
| 15 | Select TOL subclass of test. | |
| 16 | Select A- through F- digits as required for access to trunk under test. | |
| 17 | Select route advance as required for access to selected route. | |
| 18 | Momentarily operate ST key. | <p>If CDTT key is operated— S1 lamp lighted.</p> <p>If ETS provided— FT, S1 lamps lighted.</p> <p>If LAMA-C provided— S1 lamp lighted.</p> <p>AS, E lamps lighted.</p> <p>If toll diversion is required for any dial PBX having access to this circuit— PK lamp lighted.</p> <p>If class of service used in test is AMA and ETS, CDT, or LAMA-C <i>not</i> provided— IE, RN, T2/5, U2/5 lamps lighted identifying trunk.</p> |
| 19 | Operate ANS key; <i>start timing</i> . | <p>If CDTT key is operated— CS lamp lighted.</p> <p>If ETS or LAMA-C provided— CS lamp lighted.</p> <p>OGT-CS lamp lighted.</p> <p>Steady high tone heard.</p> <p>If class of service used in test is AMA and ETS, CDT, or LAMA-C <i>not</i> provided— In 2 to 5 seconds— AE lamp lighted.</p> <p>If class of service used in test is message timing and ETS, CDT, or LAMA-C <i>not</i> provided— RP, PK lamps lighted.</p> |

| STEP | ACTION | VERIFICATION |
|------|--|---|
| | | DR lamp does not light. If class of service used in test is flat rate data— PK lamp lighted. |
| 20 | Restore ANS key. | If CDTT key is operated— CS lamp extinguished. If ETS or LAMA-C provided— CS lamp extinguished. |
| 21 | Restore TLK key. | E, AS lamps extinguished. If class of service used in test is AMA and ETS, CDT, or LAMA-C <i>not</i> provided— DE lamp lighted. If ETS provided— FT, S1 lamps extinguished. If LAMA-C provided— S1 lamp extinguished. If CDTT key is operated— S1 lamp is extinguished. |
| 22 | Momentarily operate RL key. | All lamps extinguished. |
| 23e | If auxiliary trunk under test is other than SD-25741-01— Operate TLK key. | |
| 24 | Momentarily operate ST key. | If CDTT key is operated— S1 lamp lighted. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. AS, E lamps lighted. If class of service used in test is AMA and ETS, CDT, or LAMA-C <i>not</i> provided— IE, RN, T2/5, U2/5 lamps lighted identifying trunk. |
| 25 | Operate ANS key for 1-1/2 to 2 seconds maximum. | If ETS or LAMA-C provided or CDTT key is operated— CS lamp lighted while ANS key is operated. If ETS, CDT, or LAMA-C <i>not</i> provided— AE lamp not lighted on AMA class of service. While ANS key operated— OGT-CS lamp lighted. High tone heard. |
| 26 | Restore TLK key. | Within 2 seconds— AS lamp extinguished. If ETS provided— |

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| STEP | ACTION | VERIFICATION |
|---|--|--|
| | | FT, S1 lamps extinguished. If LAMA-C provided— S1 lamp extinguished. If CDTT key is operated— S1 lamp extinguished. |
| 27 | Momentarily operate RL key. | All lamps extinguished except TOL. |
| 28a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |
| 29 | Restore all keys and switches not required in next test. | TOL lamp extinguished. |
| J. Cancel Disconnect Entry—Auxiliary Trunk Circuit Arranged for AMA Operation (ETS, CDT, or LAMA-C not Provided) | | |
| 10 | Select OGT class of test. | |
| 11 | Select TOL subclass of test. | |
| 12 | Select A-, B-, C- digits. | |
| 13 | Operate TTL key. | |
| 14 | Momentarily operate ST key. | AS, E, IE lamps lighted. |
| 15 | Operate ANS key. | OGT-CS, AE lamps lighted. Steady high tone heard. |
| 16 | At relay rack frame— Insulate contact of S2 relay of auxiliary trunk circuit as follows: Wire-spring-relay type—7B Nonwire-spring-relay type—2B | |
| 17 | At MTF— Restore TLK, ANS keys simultaneously; start timing. | At relay rack frame— In 2 to 5 seconds— MA relay released. At MTF— OGT-CS, AS lamps extinguished. DE lamp does not light. |
| 18 | Momentarily operate RL key. | All lamps extinguished except TOL. |
| 19 | At relay rack frame— Remove insulator from S2 relay. | |

| STEP | ACTION | VERIFICATION |
|--|--|--|
| 20a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |
| 21 | Restore all keys and switches. | TOL lamp extinguished. |
| K. Trunk Make-Busy and Splitting Feature—Remote Testing From Telegraph Testboard Provided | | |
| 1a | If trunk under test is 2-way— Have trunk removed from service at distant office. | |
| 2 | At remote toll testboard— Using test line control circuit, dial digits required to select trunk under test. | |
| 3 | Dial order digit 2. | At intertoll trunk circuit— MB relay operated. At auxiliary test trunk circuit— B_ lamp associated with trunk under test lighted. |
| 4 | Dial order digit 3. | At auxiliary trunk circuit— SP relay operated. |
| 5 | Dial order digit 0. | SP relay released. |
| 6 | Dial order digit 2. | At intertoll trunk circuit— MB relay released. At auxiliary test trunk circuit— B_ lamp extinguished. |
| 7a | If trunk under test is 2-way and no other tests are to be made— Have trunk restored to service at distant office. | |
| L. Glare Detection Feature | | |
| E Relay Operates in Less Than 40 MS After Marker Seizure | | |
| 14 | Select route advance 0. | |
| 15 | Operate ANS, GLMN keys. | |
| 16 | Momentarily operate ST key. | TB, GL lamps lighted. |
| 17 | Restore ANS, GLMN keys. | GL lamp extinguished. |

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| STEP | ACTION | VERIFICATION |
|--|---|---|
| 18 | Momentarily operate RL key. | All lamps extinguished. |
| E Relay Operates in 40 to 100 MS After Marker Seizure | | |
| 19 | Operate GLMN key. | |
| 20 | Momentarily operate ST key. | If CDTT key is operated— S1 lamp lighted. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. AS lamp lighted. Overflow tone heard. |
| 21 | Restore TLK key. | If CDTT key is operated— S1 lamp extinguished. If ETS provided— FT,S1 lamps extinguished. If LAMA-C provided— S1 lamp extinguished. AS lamp extinguished. GL lamp lighted. |
| 22 | Momentarily operate RL key. | All lamps extinguished. |
| 23 | Operate TLK key. | |
| 24e | If TOL subclass of test is selected, and IC- keys are provided in SD-25800-01— Operate TOL-RB key. | |
| 25b | If tandem usage of trunk glare feature is being tested— Select subclass of test (TAN or TOL) corresponding to trunk class assigned to trunk under test. | TAN or TOL lamp lighted. |
| 26 | Momentarily operate ST key. | GL lamp lighted. |
| 27 | Momentarily operate RL key. | All lamps extinguished except TAN or TOL. |
| 28 | Restore subclass of test. | TAN or TOL lamp extinguished. |
| 29 | Restore GLMN key. | |
| E Relay Operates After Marker Glare Timer Operates | | |
| 30 | Operate GLMX key. | |

| STEP | ACTION | VERIFICATION |
|------|---|--|
| 31 | Momentarily operate ST key. | If CDTT key is operated— S1 lamp lighted. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. AS, CPO lamps lighted. |
| 32 | Momentarily operate RL key. | All lamps extinguished. |
| 33e | If TOL subclass of test is selected and IC- keys are provided in SD-25800-01— Operate TOL_ RB key. | |
| 34b | If tandem usage of trunk glare feature is being tested— Select subclass of test (TAN or TOL) corresponding to trunk class assigned to trunk under test. | TAN or TOL lamp lighted. |
| 35 | Momentarily operate ST key. | If ETS provided— FT lamp lighted AS, OGT-CS lamps lighted. |
| 36 | Momentarily operate RL key. | All lamps extinguished except TAN or TOL. |
| 37 | Restore all keys and switches not required in next test. | TAN or TOL lamp extinguished. |
| 38 | Have trunk under test restored to service at distant office. | |

