

OUTGOING INFORMATION, OUTGOING REPAIR SERVICE,
OUTGOING OFFICIAL PBX, COMMON OVERFLOW, TONE,
AND ASSOCIATED AUXILIARY TRUNKS FROM TRUNK LINK FRAME
TESTS USING TRUNK TEST CIRCUIT SD-25918-01
NO. 5 CROSSBAR OFFICES

1. GENERAL

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1.01 This section describes a method of testing SD-25720-01, SD-25902-01, SD-25925-01, SD-25926-01, SD-25936-01, SD-26095-01, SD-26096-01, SD-26108-01, SD-26131-01, SD-26132-01, SD-26133-01, SD-26144-01, and SD-27731-01, using trunk test circuit and the master test frame.

signal (high) tone. (2) Ability of trunk to transmit local overload announcement (if trunk is so arranged). (3) Operation of CT relay. (4) Tip and ring reversal when trunk is associated with tie lines using SF signaling.

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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 affects Equipment Test Lists.

C. **Trunk Busy:** The following features are checked: (1) Seizure by the MTF when trunk is made busy. (2) Busy condition to service call when trunk is made busy.

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- (a) To revise tests H and I to include calling data transmitter (CDT) features.
- (b) To add paragraphs 1.14 and 1.15.
- (c) To remove LAMA-C from exclusion in test M.

COIN AND NONCOIN TONE TRUNKS

1.03 The tests covered are:

D. **Seizure:** The following features are checked: (1) Seizure of tone trunk. (2) Ability of trunk to provide line-busy tone with click. (3) Supervision. (4) Coin return when originating end disconnects. (5) ~~Ability of trunk to provide call progress tone (CPT) when associated with data service.~~ (6) ~~Tip and ring reversal when trunk is associated with ONAL service.~~ (7) ~~Timed release of trunk when associated with ONAL service.~~

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COMMON OVERFLOW TRUNKS

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A. **Seizure—Overflow Tone:** The following features are checked: (1) Seizure of common overflow trunk. (2) Ability of trunk to transmit overflow (low) tone. (3) Supervision.

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B. **Permanent Signal Tone and Local Overload Announcement:** The following features are checked: (1) Ability of trunk to transmit permanent

E. **All Paths Busy (Overflow) Tone:** The following features are checked: (1) Ability of trunk to provide line-busy tone without click. (2) Ability of trunk to provide CPT when associated with data service. (3) Tip and ring reversal when trunk is associated with ONAL service.

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F. No-Such-Number Tone: The following features are checked: (1) Ability of trunk to provide no-such-number tone. (2) Ability of trunk to provide CPT when associated with data service. (3) Tip and ring reversal when trunk is associated with ONAL service.	13
G. Trunk Busy: The following features are checked: (1) Seizure by the MTF when trunk is made busy. (2) Busy condition to service call when trunk is made busy.	14

OUTGOING TRUNKS TO INFORMATION, REPAIR SERVICE, OR OFFICIAL PBX AND ASSOCIATED AUXILIARY TRUNKS (NOT ARRANGED FOR INCOMING CX OR SX SUPERVISION)

H. Operation: The following features are checked: (1) Seizure of trunk. (2) Transmission. (3) Coin return when originating end disconnects. (4) Tandem completion. (5) Supervision. (6) Trunk terminating in an ACD office, either to a position or test access circuit.	15
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I. Trunk Busy: The following features are checked: (1) Seizure by the MTF when trunk is made busy. (2) Busy condition to service call when trunk is made busy. (3) Busy condition to service call when trunk to repair service is held busy by repair service desk. (4) Busy condition to service call when trunk is arranged for park-on operation.	19
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J. Trunk Transfer: The following features are checked: (1) Ability of trunk to transfer or to be made busy when transfer key at repair service desk is operated. (2) Ability of trunk, when busy and transfer keys are operated, not to transfer until call is completed.	21
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OUTGOING TRUNKS TO INFORMATION (ARRANGED FOR INCOMING CX OR SX SUPERVISION)

K. Operation: The following features are checked: (1) Seizure of trunk. (2) Supervision. (3) Transmission. (4) Pad control. (5) Trunk terminating in	
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an ACD office, either to a position or test access circuit.	22
L. Trunk Busy: The following features are checked: (1) Seizure by the MTF when trunk is made busy. (2) Busy condition to service call when trunk is made busy. (3) Busy condition to service call when trunk is held busy by switchboard.	25

ALL TRUNKS

M. False-Busy and False-Idle Conditions (ETS Not Provided): This test checks for continuity and crosses on the F, BT, and FT leads.	26
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1.04 Tests G, H, and I require an assistant at the repair service desk, switchboard, or official PBX. Test J requires an assistant at the repair service desk and another at the switchboard. Tests K and L require an assistant at the switchboard.

1.05 Tests J and M should be made during periods of light traffic.

1.06 If there is a service call for repair service during the time that Test J is being made, the assistant at the desk or switchboard to which the trunks are transferred should record the information and forward it in accordance with local instructions.

1.07 Tests of the line link frame appearances of official PBX, information, and repair service trunks are included in Section 218-283-501.

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 a test conditions at the MTF and its assoc:

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 distributors and scanners 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, DT, ORIG, ITDO, ITNP, OGT, INC, OR, SDR, IR, MISC, IAO, MLV, LT, IMS, PTT, TVT, ATNT, and IMT.

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.♦

2. APPARATUS

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

2.02 MTF circuits as follows:

- (a) Master test control circuit, SD-25800-01
- (b) Trunk test circuit, SD-25918-01
- (c) Telephone, key, and lamp circuit, SD-25744-01
- (d) Voltmeter test circuit, SD-25792-01
- (e) Miscellaneous circuit, SD-25574-01
- (f) Jack, lamp, and key circuit, SD-25762-01.

2.03 67C test set, equipped with one KS-6278 connecting clip (for use in checking presence or absence of battery or ground).

2.04 Oscillator J94730B (SD-95616-01), part of 1A fault locator test set J94730A.

2.05 Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, and one 419A (test connector) tool or one 624B tool as required (for making test connections to terminal strip terminals).

2.06 Testing cord, P3F cord, 4 feet long, equipped with a 309 and 310 plug (3P12A cord).

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

TABLE A

APPARATUS	TESTS												
	A	B	C	D	E	F	G	H	I	J	K	L	M
Master Test Frame (2.02)	1	1	1	1	1	1	1	1	1	1	1	1	
KS-3008 Stopwatch or equivalent				1									
Test Set (2.03)									1		1		
1A Fault Locator (2.04)													1
Cord (2.05)				1					1				1
Cord (2.06)		1											
Head Telephone Set	1	1		1	1	1		1	1	1	1	1	
322A (make-busy) Plug			✓	✓			✓		✓		✓	✓	✓
Tools (2.07)				✓									✓

✓ As required.

3. PREPARATION

STEP	ACTION	VERIFICATION
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Test A Through L

Note: Refer to paragraphs 1.09 through 1.15.

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|----|---|-------------------------|
| 1 | At MTF—
Restore all keys and switches. | |
| 2 | Momentarily operate RL key. | All lamps extinguished. |
| 3 | Select marker. | |
| 4 | Select MISC class of test. | |
| 5 | Select OR originating class of call and LT translator indication. | |
| 6 | Select trunk. | |
| 7a | If trunk is allotted—
Operate GPA/GPB key as required. | |
| 8b | If ETS provided—
Operate PCS, PTS keys. | |

Tests A, B, D, E, F, H Through L

- | | | |
|---|--|--|
| 9 | Insert plug of head telephone set into TEL jack of voltmeter test panel. | |
|---|--|--|

STEP	ACTION	VERIFICATION
Tests A, B, D, E, F, H, J, K		
10	Operate FS, TS keys.	
Tests C, G, I, L		
11c	If trunk is equipped with MB switch— At relay rack frame— Set MB switch to MB.	
12d	If trunk is <i>not</i> equipped with MB switch— At MTF— Insert make-busy plug into OGT-MB jack associated with trunk under test.	
13	At MTF— Operate NTFS, NTTS keys.	
Tests H and I		
14e	If trunk is to be tested for CDT— Operate CDTT key.	
15e	When trunk is assigned to CDT dual controllers, select controller— Operate CDC 0/1 key.	
16e	When a trouble record is to be taken from the CDT translator access (TA) circuit— Operate TREC key.	
17e	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.♦	

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STEP	ACTION	VERIFICATION
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4. METHOD

STEP	ACTION	VERIFICATION
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COMMON OVERFLOW TRUNKS

A. Seizure—Overflow Tone

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|-----|--|---|
| 11 | Select A, B, C digits for office code of trunk group that is not allotted and has no alternate route. | |
| 12c | If trunk is <i>not</i> associated with tie lines using SF signaling—
Select class of service and rate treatment, as required, other than coin and not associated with tie lines using SF signaling. | |
| 13c | Select route advance 2. | |
| 14d | If trunk is associated with tie lines using SF signaling—
Select class of service and rate treatment, as required, associated with tie lines. | |
| 15d | Select route advance 1. | |
| 16 | Operate TTL, TLK keys. | |
| 17 | Momentarily operate ST key. | If ETS provided—
FT lamp lighted.
AS lamp lighted.
120- or 60-ipm overflow tone heard.
If trunk is associated with tie lines using SF signaling—
PK lamp lighted. |
| 18 | Dial 0. | AS lamp remains lighted. |
| 19 | Restore TLK key. | If ETS provided—
FT lamp extinguished.
AS lamp extinguished.
Overflow tone silenced.
If trunk is associated with tie lines using SF signaling—
PK lamp extinguished. |
| 20 | Momentarily operate RL key. | All lamps extinguished. |
| 21 | Restore all keys and switches not required in next test. | |

STEP	ACTION	VERIFICATION
22	Remove head telephone set from TEL jack.	
B. Permanent Signal Tone and Local Overload Announcement		
11c	If trunk is <i>not</i> associated with tie lines using SF signaling— Select class of service and rate treatment, as required, other than coin and not associated with tie lines using SF signaling.	
12c	Select route advance 1.	
13d	If trunk is associated with tie lines using SF signaling— Select class of service and rate treatment, as required, associated with tie lines.	
14d	Select route advance 0.	
15	Operate PS, TLK keys.	If ETS provided— FT lamp lighted. AS lamp lighted. High tone heard. If OTC key is not provided— PS lamp lighted. If OTC key is provided— OTC lamp lighted. If trunk is associated with tie lines using SF signaling— PK lamp lighted.
16e	If verification of 600 ms open feature of permanent signal trunk is being tested— (Note below). Operate CRV key.	
	Note: Means are provided in the permanent signal holding trunk to prevent improperly operated customer key equipment from causing permanent signals. One method causes a T and R short, preventing line current from flowing (M.D.). The other method causes a 600 ms, minimum open of the line (standard). In either case above, the hold relay of improperly operated customer key equipment that may have caused a permanent signal, will release.	
17	Momentarily operate ST key.	If 600 ms open feature is being tested— PK lamp flashes once, then remains lighted.

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STEP	ACTION	VERIFICATION
18e	If verification of 600 ms open feature of permanent signal trunk is being tested— Restore CRV key.	PK lamp extinguished.
19f	If OTC key is provided— Momentarily operate OTC key.	OT-PS lamp momentarily lighted.
20	Patch T jack of overflow trunk to T1 jack of voltmeter test circuit.	High tone silenced.
21	Operate VMT1, G keys.	Voltmeter deflection steady.
22	Operate T1 REV key.	Voltmeter deflection not materially changed.
23	Restore T1 REV, TLK keys.	AS lamp remains lighted.
24	Restore VMT1, G keys.	If trunk is associated with tie lines using SF signaling— PK lamp extinguished.
25	Remove patching cord from T, T1 jacks.	If ETS provided— FT lamp extinguished. AS lamp extinguished.
26	Momentarily operate RL key.	All lamps extinguished.
27g	If trunk is arranged for local overload announcement— Restore PS key.	
28g	Operate TLK key.	
29g	Operate OAN key to ON.	OAN lamp lighted. If remote office control of announcement feature is provided— At remote office— Alarm sounds.
30g	At MTF— Momentarily operate ST key.	If ETS provided— FT lamp lighted. AS lamp lighted. Local overload announcement heard.
		Note: After one complete announcement, AS lamp extinguished and announcement discontinued. If ETS provided, FT lamp extinguished.
31g	Momentarily operate RL key.	All lamps extinguished except OAN.
32g	Restore OAN key.	OAN lamp extinguished. If remote office control of announcement feature

STEP	ACTION	VERIFICATION
		is provided— At remote office— Alarm silenced.
33	At MTF— Restore all keys and switches not required in next test.	
34	Remove hand telephone set from TEL jack.	
C. Trunk Busy		
14	Select A, B, C digits for office code of trunk group that is not allotted and has no alternate route.	
15e	If trunk is not associated with tie lines using SF signaling— Select class of service and rate treatment, as required, other than coin and not associated with tie lines using SF signaling.	
16e	Select route advance 2.	
17e	Operate TTL key.	
18f	If trunk is associated with tie lines using SF signaling— Select class of service and rate treatment, as required, associated with tie lines.	
19f	Select route advance 0.	
20f	Operate PS key.	
21	Operate TLK key.	
22	Momentarily operate ST key.	If ETS provided— FT lamp lighted. AS lamp lighted. If trunk is associated with tie lines using SF signaling— PK lamp lighted.
23	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
24	Operate FS, TS keys.	
25	Momentarily operate ST key.	TB lamp lighted.

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STEP	ACTION	VERIFICATION
26	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
27c	If trunk is equipped with MB switch— At relay rack frame— Restore MB switch to N.	If ETS provided— FT lamp extinguished.
28d	If trunk is <i>not</i> equipped with MB switch— At MTF— Remove make-busy plug from OGT-MB jack.	If ETS provided— FT lamp extinguished.
29	At MTF— Restore all keys and switches not required in next test.	

COIN AND NONCOIN TONE TRUNKS

D. Seizure

- 11 Select A, B, C digits of office code.
- 12 Select class of service and rate treatment as required.
- 13 Operate BB, TLK keys.
- 14c If trunk is arranged for coin operation—
Operate CN key.
- 15d If there are no idle intraoffice trunks on the same trunk link frame, the same trunk switch, and the same trunk select tens as selected tone trunk—
At MTF—
Insert make-busy plug into M-C-MB jack of selected marker.
- 16d Select route advance as required.
- 17d At marker—
Block nonoperated PBY relay.
- 18e If there is not an idle intraoffice trunk on the same trunk link frame, the same trunk switch, and the same trunk tens as the selected tone trunk and nonwire-spring-relay type markers are provided—
At marker—
Connect 8T to 9T of LB relay.

STEP	ACTION	VERIFICATION
19f	<p>If there is not an idle intraoffice trunk on the same trunk link frame, the same trunk switch, and the same trunk select tens as the selected tone trunk and wire-spring-relay type markers are provided— At marker— Connect 10M to 10F of LB relay.</p>	
20	<p>At MTF— Momentarily operate ST key.</p>	<p>If ETS provided— FT lamp lighted. AS lamp lighted. PK lamp not lighted. If trunk is associated with ONAL service— PK lamp lighted. If CP or SA relay is provided in tone trunk— 60-ipm tone with click heard. If CP or SA relay is not provided in tone trunk— 60-ipm tone heard. If trunk is associated with data service— 60-ipm CPT heard.</p>
21	Dial 0.	AS lamp remains lighted.
22	Restore TLK key.	<p>If ETS provided— FT lamp extinguished. AS lamp extinguished. Tone silenced. If trunk is associated with ONAL service— PK lamp extinguished. If trunk is arranged for coin operation— CR lamp momentarily lighted. CND lamp lighted.</p>
23c	<p>If trunk is arranged for coin operation— Restore CN key.</p>	CND lamp extinguished.
24	Momentarily operate RL key.	All lamps extinguished.
25g	<p>If trunk is associated with ONAL service arranged for timed release— Operate TLK key.</p>	
26g	Momentarily operate ST key; start timing.	<p>If ETS provided— FT lamp lighted. AS, PK lamps lighted. In 6 or 12 minutes, depending on arrangement of interrupter— AS, PK lamps extinguished. If ETS provided— FT lamp extinguished.</p>

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STEP	ACTION	VERIFICATION
27g	Momentarily operate RL key.	All lamps extinguished.
28d	If there are no intraoffice trunks on same trunk link frame as selected tone trunk— At marker— Remove blocking tool from PBY relay.	
29d	Remove test connections on LB relay placed in Step 18e or 19f.	
30d	At MTF— Remove make-busy plug from M-C-MB jack, if placed in Step 15d.	
31	Restore all keys and switches not required in next test.	
32	Remove head telephone set from TEL jack.	
E. All Paths Busy (Overflow) Tone		
11	Select A, B, C digits for office code of trunk group that is not allotted and has no alternate route.	
12	Select class of service and rate treatment as required.	
13	Select route advance 1.	
14	Operate TTL, TLK keys.	
15c	If trunk is arranged for coin operation— Operate CN key.	
16	Momentarily operate ST key.	If ETS provided— FT lamp lighted. AS lamp lighted. 120- or 60-ipm overflow tone heard. If trunk is associated with ONAL service— PK lamp lighted. If trunk is associated with data service— 120-ipm CPT heard.
17	Restore TLK key.	If ETS provided— FT lamp extinguished. Tone silenced. AS lamp extinguished. If trunk is associated with ONAL service— PK lamp extinguished. If trunk is arranged for coin operation—

STEP	ACTION	VERIFICATION
		CR lamp momentarily lighted. CND lamp lighted.
18c	If trunk is arranged for coin operation— Restore CN key.	CND lamp extinguished.
19	Momentarily operate RL key.	All lamps extinguished.
20	Restore all keys and switches not required in next test.	
21	Remove head telephone set from TEL jack.	
F. No-Such-Number Tone		
11	Select class of service and rate treatment as required.	
12	Select route advance 0.	
13	Operate PD, TLK keys.	
14c	If trunk is arranged for coin operation— Operate CN key.	
15	Momentarily operate ST key.	If ETS provided— FT lamp lighted. AS lamp lighted. No-such-number tone heard. If trunk is associated with ONAL service— PK lamp lighted. If trunk is associated with data service— 40-ipm CPT heard.
16	Restore TLK key.	If ETS provided— FT lamp extinguished. AS lamp extinguished. If trunk is associated with ONAL service— PK lamp extinguished. If trunk is arranged for coin operation— CR lamp momentarily lighted. CND lamp lighted.
17c	If trunk is arranged for coin operation— Restore CN key.	CND lamp extinguished.
18	Momentarily operate RL key.	All lamps extinguished.
19	Restore all keys and switches not required in next test.	
20	Remove head telephone set from TEL jack.	

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STEP	ACTION	VERIFICATION
G. Trunk Busy		
14	Select A, B, C digits for office code of trunk group that is not allotted and has no alternate route.	
15	Select class of service and rate treatment as required.	
16	Select route advance 1.	
17	Operate TTL, TLK keys.	
18e	If trunk is arranged for coin operation— Operate CN key.	
19	Momentarily operate ST key.	If ETS provided— FT lamp lighted. AS lamp lighted. If trunk is associated with ONAL service— PK lamp lighted.
20	Restore TLK key.	AS lamp extinguished. If trunk is arranged for coin operation— CR lamp momentarily lighted. CND lamp lighted.
21e	If trunk is arranged for coin operation— Restore CN key.	CND lamp extinguished.
22	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
23	Operate FS, TS keys.	
24	Operate TLK key.	
25	Momentarily operate ST key.	TB lamp lighted.
26	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
27c	If trunk is equipped with MB switch— At relay rack frame— Restore MB switch to N.	If ETS provided— FT lamp extinguished.
28d	If trunk is <i>not</i> equipped with MB switch— At MTF— Remove make-busy plug from OGT-MB jack.	If ETS provided— FT lamp extinguished.

STEP	ACTION	VERIFICATION
29	At MTF— Restore all keys and switches not required in next test.	
OUTGOING TRUNKS TO INFORMATION, REPAIR SERVICE, OR OFFICIAL PBX AND ASSOCIATED AUXILIARY TRUNKS (NOT ARRANGED FOR INCOMING CX OR SX SUPERVISION)		
H. Operation		
18c	If 11X-type codes are <i>not</i> provided— Select A, B, C digits as required for route containing selected trunk.	
19d	If 11X-type codes are provided— Select prefix digits 11 and digit A for route containing selected trunk.	
20	Select class of service and rate treatment as required other than coin.	
21	Select route advance 0.	
22	Operate KY, TLK keys.	
23f	If trunk terminates in other than announcement system— Momentarily operate ST key.	<p>◆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. Ringing tone heard. When assistant answers— Ringing tone silenced. If ETS or LAMA-C provided— CS lamp lighted. ◆If CDTT key is operated— CS lamp lighted.◆</p> <p>Note 1: Ringing tone not heard if assistant answers immediately.</p> <p>Note 2: In ACD offices, ringing tone may or may not be heard.</p>
24f	Dial 0.	AS lamp remains lighted.
25f	Restore TLK key.	<p>◆If CDTT key is operated— S1, CS lamps extinguished.◆ If ETS provided—</p>

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STEP	ACTION	VERIFICATION
		CS, FT, S1 lamps extinguished. If LAMA-C provided— CS, S1 lamps extinguished. AS lamp extinguished.
26f	Momentarily operate RL key.	All lamps extinguished.
27g	If trunk terminates in an ACD and test of operators ability to transfer to service position is desired— Momentarily operate ST key.	Ringling tone may or may not be heard. When ACD operator answers— Ringling tone silenced.
28g	Ask operator to transfer call to a service position for test.	At ACD— Service assistant answers and remains connected.
29g	Inform service assistant that this is a test call and disconnect— Momentarily operate RL key.	All lamps extinguished.
30h	If trunk terminates in 6A announcement system— Momentarily operate ST key.	If ETS provided— FT lamp lighted. AS lamp lighted. Ringling tone heard. When announcement connects— Ringling tone silenced. Announcement starts at beginning and is clear and distinct. <i>Note:</i> If trunk is immediately connected to the announcement machine, it may be necessary to repeat the test to obtain a ringling tone.
31h	Restore TLK key.	If ETS provided— FT lamp extinguished. AS lamp extinguished.
32h	Momentarily operate RL key.	All lamps extinguished.
33h	If trunk terminates in 7A, or 13A announcement system— Momentarily operate ST key.	If ETS provided— FT lamp lighted. AS lamp lighted. Announcement starts, is clear and distinct. <i>Note:</i> Announcement may be in progress at operation of ST key if another trunk has started announcement machine. If audible ring until cut through is provided— Ringling tone heard. When announcement connects— Ringling tone silenced. Announcement starts at

STEP	ACTION	VERIFICATION
		beginning and is clear and distinct.
34i	Restore TLK key.	If ETS provided— FT lamp extinguished. AS lamp extinguished.
35i	Momentarily operate RL key.	All lamps extinguished.
36j	If trunk is arranged for coin return after disconnect— At MTF— Restore class of service and select coin class of service and rate treatment as required.	
37j	Operate CN, TLK keys.	
38j	Momentarily operate ST key.	If ETS provided— FT, S1 lamps lighted. AS lamp lighted. At terminating appearance of trunk— Call answered. If ETS provided— CS lamp lighted.
39j	Disconnect from call.	If ETS provided— CS lamp extinguished.
40j	At MTF— Restore TLK key.	If ETS provided— FT, S1 lamps extinguished. AS lamp extinguished. CR lamp momentarily lighted. CND lamp lighted.
41j	Restore CN key.	CND lamp extinguished.
42j	Momentarily operate RL key.	All lamps extinguished.
43j	Restore coin class of service and select class of service and rate treatment, as required, other than coin.	
44k	If trunk is arranged for tandem operation— Restore class of service and rate treatment.	
45k	Select TAN subclass of test.	
46k	Operate TLK key.	
47k	Momentarily operate ST key.	♦If CDTT key is operated— S1 lamp lighted.♦ If ETS provided—

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STEP	ACTION	VERIFICATION
		FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. AS lamp lighted. At terminating appearance of trunk— Call answered. If ETS or LAMA-C provided— CS lamp lighted. ♦If CDTT key is operated— CS lamp lighted.♦
48k	Disconnect from call.	If ETS or LAMA-C provided— CS lamp extinguished. ♦If CDTT key is operated— CS lamp extinguished.♦
49k	At MTF— 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.
50k	Momentarily operate RL key.	All lamps extinguished.
51k	Restore TAN subclass of test.	
52k	Select class of service and rate treatment, as required, other than coin.	
53l	If trunk terminates in ACD office to a test access circuit and SF signaling is provided— Operate ACDC key.	
54m	If trunk terminates in ACD office to a test access circuit— Operate TTC16 key.	
55m	Momentarily operate ST key.	If ETS provided— FT, S1 lamps lighted. AS lamp lighted. When test access circuit is seized— Interrupted dial tone heard.
56m	Restore ACDC, TTC16 keys as required.	
57m	Restore TLK key.	If ETS provided— FT, S1 lamps extinguished. AS lamp extinguished. Interrupted dial tone silenced.

STEP	ACTION	VERIFICATION
58m	Momentarily operate RL key.	All lamps extinguished.
59	Restore all keys and switches not required in next test.	
60	Remove head telephone set from TEL jack.	
I. Trunk Busy		
18f	If 11X-type codes are <i>not</i> provided— Select digits required for route containing selected trunk.	
19b	If 11X-type codes are provided— Select prefix digits 11 and digit A for route containing selected trunk.	
20	Select class of service and rate treatment, as required, other than coin.	
21	Select route advance 0.	
22	Operate KY, TLK keys.	
23	Momentarily operate ST key.	<p>◆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. At terminating appearance of trunk— Call answered. If ETS or LAMA-C provided— CS lamp lighted. ◆If CDTT key is operated— CS lamp lighted.◆</p>
24	Disconnect from call.	<p>If ETS or LAMA-C provided— CS lamp extinguished. ◆If CDTT key is operated— CS lamp extinguished.◆</p>
25	At MTF— Momentarily operate RL key.	<p>All lamps extinguished. If ETS provided— FT lamp remains lighted.</p>
26	Operate FS, TS keys.	
27	Momentarily operate ST key.	TB lamp lighted.

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STEP	ACTION	VERIFICATION
28	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
29h	If a repair service trunk, arranged to appear busy with associated trunk key at repair service desk operated, is under test— Restore MB switch to N or remove make-busy plug from OGT-MB jack.	If ETS provided— FT lamp extinguished.
30h	Momentarily operate ST key.	If ETS provided— FT, S1 lamps lighted. AS lamp lighted. At repair service desk— Call answered. If ETS provided— CS lamp lighted.
31h	At MTF— Momentarily operate RL key.	All lamps extinguished.
	Note 1: At repair service desk, disregard disconnect signal for approximately 15 seconds.	
	Note 2: At MTF, proceed to next step within 15 seconds.	
32h	Momentarily operate ST key.	TB lamp lighted.
33h	Momentarily operate RL key.	All lamps extinguished.
34i	If dedicated repair service trunk is arranged for park-on operation— Restore MB switch to N or remove make-busy plug from OGT-MB jack.	If ETS provided— FT lamp extinguished.
35i	At relay rack frame— Ground terminal 68 of unit terminal strip.	E relay operated. Ground present on terminal 46 of unit terminal strip. Ground not present on terminal 45 of unit terminal strip.
36i	Remove ground connection.	E relay released. Ground not present on terminal 46 of unit terminal strip. Ground present on terminal 45 of unit terminal strip.
37	At MTF— Restore all keys and switches not required in next test.	

STEP	ACTION	VERIFICATION
38	Restore MB switch to N or remove make-busy plug from OGT-MB jack as required.	If ETS provided— FT lamp extinguished.
39	Remove head telephone set from TEL jack.	
J. Trunk Transfer		
11	At repair service desk— Restore TRNS key if operated.	
12c	If 11X-type codes are <i>not</i> provided— At MTF— Select A, B, C digits as required for route containing selected trunk.	
13d	If 11X-type codes are provided— At MTF— Select prefix digits 11 and digit A for route containing selected trunk.	
14	Select class of service and rate treatment, as required, other than coin.	
15	Select route advance 0.	
16	Operate KY, TLK keys.	
17	Momentarily operate ST key.	If ETS provided— FT lamp lighted. AS lamp lighted. At repair service desk— Call answered, trunk number verified.
18	Operate TRNS key.	Assistant still connected to trunk.
19	At MTF— Restore TLK key.	If ETS provided— FT lamp extinguished. AS lamp extinguished.
20	Momentarily operate RL key.	All lamps extinguished.
21	Operate TLK key.	
22	Momentarily operate ST key.	If ETS provided— FT lamp lighted. AS lamp lighted. At switchboard— Call answered, trunk number verified.
23	At MTF— Restore TLK key.	If ETS provided— FT lamp extinguished. AS lamp extinguished.

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STEP	ACTION	VERIFICATION
	Note 1: At switchboard, disregard disconnect signal for approximately 30 seconds.	
	Note 2: At MTF, perform Steps 24 through 27 within 30 seconds.	
24	Momentarily operate RL key.	All lamps extinguished.
25	At repair service desk— Restore TRNS key.	
26	At MTF— Momentarily operate ST key.	TB lamp lighted.
27	Momentarily operate RL key.	All lamps extinguished.
28e	If trunk is arranged to be made busy when transfer key at repair service desk is operated— At repair service desk— Operate TRNS key.	If selected trunk is arranged to make busy associated official lines to repair service desk— At trunk make-busy circuit on relay rack frame— Associated LB relay operated. If ETS provided— At MTF— FT lamp lighted.
29e	At MTF— Momentarily operate ST key.	TB lamp lighted.
30e	Momentarily operate RL key.	All lamps extinguished.
31	Restore all keys and switches not required in next test.	
32e	If trunk is arranged to be made busy when transfer key at repair service desk is operated— At repair service desk— Restore TRNS key to position prior to test.	At trunk make-busy circuit on relay rack frame— Associated LB relay released. If ETS provided— At MTF— FT lamp extinguished.
33	At MTF— Remove head telephone set from TEL jack.	

OUTGOING TRUNKS TO INFORMATION (ARRANGED FOR INCOMING CX OR SX SUPERVISION)

K. Operation

- 11c If 11X-type codes are *not* provided—
Select A, B, C digits as required for route containing selected trunk.

STEP	ACTION	VERIFICATION
12d	If 11X-type codes are provided— Select prefix digits 11 and digit A for route containing selected trunk.	
13	Select TOL subclass of test.	
14	Select route advance 0.	
15	Operate KY, TLK keys.	
16e	If trunk terminates at switchboard or desk— Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamp lighted. Ringing tone heard. When call is answered— Ringing tone silenced. OGT-CS lamp lighted. Note 1: Ringing tone is not heard if assistant answers immediately. Note 2: In ACD offices, ringing tone may or may not be heard.
17e	At switchboard or desk— Disconnect from call.	At MTF— OGT-CS lamp flashes.
18e	Restore TLK key.	If ETS provided— FT lamp extinguished. TAS, OGT-CS lamps extinguished.
19e	Momentarily operate RL key.	All lamps extinguished.
19f	If trunk terminates in ACD office to a test access circuit and SF signaling is provided— Operate ACDC key.	
21g	If trunk terminates in ACD office to a test access circuit— Operate TTC16 key.	
22g	Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamps lighted. When test access circuit is seized— OGT-CS lamp lighted. Interrupted dial tone heard.
23g	Restore ACDC, TTC16 keys as required.	
24g	Key digit 2.	Interrupted dial tone silenced. 1000 Hz tone heard.

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STEP	ACTION	VERIFICATION
25g	Restore TLK key.	If ETS provided— FT lamp extinguished. TAS, OGT-CS lamps extinguished. 1000 Hz tone silenced.
26g	Momentarily operate RL key.	All lamps extinguished.
27h	If trunk is equipped with MB switch— At relay rack frame— Set MB switch to MB.	If ETS provided— FT lamp lighted. If PAD IN control is provided— Battery present on unit terminal strip as follows: Terminal 33 on D-type terminal strip. Terminal 1 on other than D-type terminal strip. If PAD OUT control is provided— Ground present on unit terminal strip as follows: Terminal 33 on D-type terminal strip. Terminal 1 on other than D-type terminal strip.
28h	Restore MB switch to N.	If ETS provided— FT lamp extinguished.
29i	If trunk is <i>not</i> equipped with MB switch— At MTF— Insert make-busy plug into OGT-MB jack.	If ETS provided— FT lamp lighted. At relay rack frame— If PAD IN control is provided— Battery present on unit terminal strip as follows: Terminal 33 on D-type terminal strip. Terminal 1 on other than D-type terminal strip. If PAD OUT control is provided— Ground present on unit terminal strip as follows: Terminal 33 on D-type terminal strip. Terminal 1 on other than D-type terminal strip.
30i	At MTF— Remove make-busy plug from OGT-MB jack.	If ETS provided— FT lamp extinguished.
31	Restore all keys and switches not required in next test.	
32	Remove head telephone set from TEL jack.	

STEP	ACTION	VERIFICATION
L. Trunk Busy		
14e	If 11X-type codes are <i>not</i> provided— Select A, B, C digits as required for route containing selected trunk.	
15f	If 11X-type codes are provided— Select prefix digits 11 and digit A for route containing selected trunk.	
16	Select TOL subclass of test.	
17	Select route advance 0.	
18	Operate KY, TLK keys.	
19	Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamp lighted. At switchboard or desk— Call answered.
20	Disconnect from call.	
21	At MTF— Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
22	Operate FS, TS keys.	
23	Momentarily operate ST key.	TB lamp lighted.
24	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
25	Operate NTFS, NTTS keys.	
26g	If trunk is arranged to remain busy when originating end disconnects first— Momentarily operate ST key.	TAS lamp lighted. At switchboard— Call answered.
27g	At MTF— Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
	Note 1: At switchboard, disregard disconnect signal for approximately 15 seconds.	
	Note 2: At MTF, proceed to next step within 15 seconds.	
28g	Momentarily operate ST key.	TB lamp lighted.

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STEP	ACTION	VERIFICATION
29g	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
30c	If trunk is equipped with MB switch— At relay rack frame— Restore MB switch to N.	If ETS provided— FT lamp extinguished.
31d	If trunk is <i>not</i> equipped with MB switch— At MTF— Remove make-busy plug from OGT-MB jack.	If ETS provided— FT lamp extinguished.
32	At MTF— Restore all keys and switches not required in next test.	
33	Remove head telephone set from TEL jack.	

ALL TRUNKS

M. False-Busy and False-Idle Conditions (ETS Not Provided)

1	At relay rack frame— Connect power to 1A fault locator; operate W-T switch to W and HR-LRT switch to HR.	Whistle heard.
2	Connect WT jack of 1A fault locator to terminal of terminal strip on unit as follows: Trunk not equipped with D-type terminal strip— Terminal 10 on unit terminal strip or on terminal strip A as provided. Trunk equipped with D-type terminal strip— Terminal 45 on unit terminal strip or on terminal strip A as provided.	Whistle not heard.
3a	If trunk is equipped with MB switch— Set MB switch to MB.	
4a	Set MB switch to MB on all other trunks using same route on same trunk link frame.	Whistle heard.
5a	When selected trunk is idle— Momentarily restore MB switch to N.	Whistle silenced while MB switch is restored.
6b	If trunk is <i>not</i> equipped with MB switch— At MTF— Insert make-busy plug in OGT-MB jack.	

STEP	ACTION	VERIFICATION
7b	Insert make-busy plugs into all other OGT-MB jacks of all trunks using same route on same trunk link frame.	Whistle heard.
8b	When selected trunk is idle— Momentarily remove make-busy plug.	Whistle silenced while make-busy plug is removed.
9	At relay rack frame— When selected trunk is idle— Block operated relay as follows: BY relay on outgoing trunk for information service, arranged for incoming CX or SX supervision. CO relay on coin tone trunk. S1 relay on all other trunks.	
10	Restore MB switch to N or remove make-busy plugs from OGT-MB jack for selected trunk.	Whistle still heard.
11	Connect HRG (high resistance ground) terminal to terminal of terminal strip on unit as follows: Noncoin trunk connected to auxiliary trunk that provides coin return after customer disconnects— Terminal 9 on auxiliary trunk terminal strip. All other trunks not equipped with D-type terminal strips— Terminal 9 on unit terminal strip or on terminal strip A. Trunk equipped with D-type terminal strip— Terminal 55 on unit terminal strip or on terminal strip A.	
12	Disconnect connection to terminal 10 and connect to terminal 11 or disconnect connection to terminal 45 and connect to terminal 15 as provided.	Whistle heard.
13	Remove blocking tool from relay blocked operated.	Whistle silenced.
14	Remove test connections from terminal strip.	
15	Remove power from 1A fault locator.	

