

**AIS LINE CIRCUITS SD-27750-01 AND SD-27751-01
AND MF OUTGOING SENDER SD-27761-01
TESTS USING OUTGOING TRUNK TEST FRAME SD-25177-01
NO. 1 CROSSBAR OFFICES**

1. GENERAL

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1.01 This section describes the method of testing automatic intercept service line circuits in No. 1 crossbar offices with line link pulsing, using the outgoing trunk test frame SD-25177-01. An operational test of multifrequency outpulsing senders is included.

function properly on a call to a plugged-up number.

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1.02 This section is reissued for the following reasons:

- (a) To revise Tests A, B, and C to include the operation of RI, PUI, SUP, and LCHR keys as required.
- (b) To revise Test F to include voltmeter tests of E and M leads.
- (c) To revise Test G to delete CST key operations.

D. Transmission Test—Facility Side of Line Circuit: This test provides means for making transmission tests of the line circuits at the transmission facility side of the line circuits.

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E. Transmission Test—Office Side of Line Circuit: This test provides means for making transmission tests of the line circuits at the office side of the line circuits.

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F. Voltmeter Test: This test provides for making voltmeter tests of the line circuit transmission facilities. Tests of E and M leads are included.

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This reissue does not affect the Equipment Test List.

1.03 The tests and features covered are:

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A. Blank Number: This test checks that the sender and line circuit function properly on a call to a blank number.

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B. Changed Number: This test checks that the sender and line circuit function properly on a call to a changed number.

2

C. Plugged-Up Number: This test checks that the sender and line circuit

G. Marginal Relay Tests: This test provides means for making marginal tests of the MB relays in line circuits arranged for loop supervision.

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1.04 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 3 or 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.

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2. APPARATUS

2.03 3P12B test cords, as required.

All Tests

2.01 Outgoing trunk test frame, SD-25177-01.

2.02 322A plugs, as required.

Tests D and E

2.04 23A transmission measuring set (TMS).

3. PREPARATION

STEP	ACTION	VERIFICATION
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Tests A, B, and C

1	Restore all lever-type keys to normal.	
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2a	If the first sender is to be tested— Make all MF outpulsing senders busy, except the first, by inserting a plug into the SMB jack.	
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3	Patch TMB jack to MB jack of first line circuit to be tested.	
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4	Operate MB key.	RMB lamp extinguished.
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Note: If RMB lamp lights, the line circuit is busy.

4. METHOD

STEP	ACTION	VERIFICATION
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- A. Blank Number**
- B. Changed Number**
- C. Plugged-up Number**

5	Set up any blank, changed, or plugged-up number on the TH_, H_, T_, U_ keys.	
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6	Operate the TRK-COMP and DM keys.	
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7b	◆ If line under test is blank or changed number— Operate RI key.	
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8c	If line under test is plugged up number— Operate PUI key.◆	
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9	Operate LT-ST key.	Test circuit proceeds to seize first line circuit. RMB lamp of first line circuit lighted. When line circuit is cut through to AIC— HG lamp lighted.
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STEP	ACTION	VERIFICATION
10d	If RMB lamp of other than first line circuit lights— Another marker has seized the first line circuit. Operate LT-DIS key and repeat Step 9.	
11	◆Operate MV and VM-TLK keys.	Announcement heard depends on whether number called is blank, changed, or plugged up. If called number is plugged up— SS_ lamp lighted.
12c	If line under test is plugged up number— Operate SUP key until RT lamp is lighted.	RT lamp lighted.◆
13	Restore MV and VM-TLK keys.	
14	Operate LT-DIS key.	All lamps extinguished.
15e	If next MF sender is to be tested— Remove plugs at SMB jacks of the MF senders, and insert them into SMB jacks of all but the next sender to be tested.	
16e	Repeat Steps 7, 9, 10, and 11 until all MF senders have been tested.	
17	Remove patch at MB jack of first line circuit.	
18	Place patch at MB jack of next line circuit to be tested.	
19	Repeat Steps 9, 11, 13, 17, and 18 until all line circuits have been tested.	
20	Remove patch cord between TMB jack and MB jack, restore all keys, and restore to normal any made-busy MF outpulsing senders.	
21	◆Momentarily operate LCHR key.◆	

D. Transmission Test—Facility Side of Line Circuit

1	Insert plug into MB jack of line circuit.	RMB lamp extinguished.
2	Patch ITC jack of line circuit to MEAS jack of 23A TMS.	
3	Patch DIAL jack of the 23A TMS to T1 or T2 jack.	
4	At 23A TMS— Operate DIAL key.	

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STEP	ACTION	VERIFICATION
5	At OGTT frame— Set up class digit and 3-digit transmission test code on numerical keys.	
6	Operate the required A OPR_ keys. <i>Note:</i> TO and GO keys must be normal.	
7	Operate RS1 and MF1, TLK1 or MF2, TLK2 keys.	KP lamp flashes during pulsing; lighted steadily after pulsing.
8	At 23A TMS— Set DIAL-MEAS-SLV key to MEAS.	Meter indicates transmission loss at facility side of line circuit.
9	Record transmission loss on appropriate form.	
10	At OGTT frame— Restore all keys.	
11	Operate DISC 1 or DISC 2 key.	All lamps extinguished.
12	Remove patch cord from ITC jack.	
13	Remove plug from line circuit MB jack.	

E. Transmission Test—Office Side of Line Circuit

1	Insert plug into MB jack of line circuit.	RMB lamp extinguished.
2	Patch ITC jack of line circuit to T1 or T2 jack.	
3	Set up class digit and 3-digit transmission test code on numerical keys.	
4	Operate the required A OPR_ keys. <i>Note:</i> TO and GO keys must be normal.	
5	Operate RS1 and MF1, TLK1 or MF2, TLK2 keys.	KP lamp flashes during pulsing; lighted steadily after pulsing.
6	Operate DR key.	
7	Patch TT jack of the line circuit to MEAS jack at the 23A TMS.	
8	At 23A TMS— Set DIAL-MEAS-SLV key to MEAS.	Meter indicates transmission loss at office side of line circuit.
9	Record transmission loss on appropriate form.	

STEP	ACTION	VERIFICATION
10	At OGTT frame— Restore all keys.	
11	Operate DISC 1 or DISC 2 key.	All lamps extinguished.
12	Remove patch cord from ITC jack.	
13	Remove plug from line circuit MB jack.	
F. Voltmeter Test		
1	Insert a make-busy plug into MB jack of line circuit under test.	RMB lamp extinguished.
2	Patch ITC jack of line circuit under test to T1 jack.	
3	Operate VM and FEMF keys.	Voltmeter indicates 48 volts on ring side.
4	Restore FEMF key and operate REV key.	Voltmeter indicates ground on tip side.
5	Restore VM and REV keys.	
6a	◆If line circuit with E and M signaling is under test— Patch T2 jack to (E&M) DROP jack.	
7a	Operate VM2 and FEMF keys.	Voltmeter indicates ground on ring side.
8a	Restore FEMF and operate REV keys.	Voltmeter indicates 700Ω battery on tip side.
9a	Restore VM2 and REV keys.	
10a	Move plug of patching cord from (E&M) DROP jack to (E&M) LINE jack.	
11a	Repeat Steps 7a and 8a.	Voltmeter indicates condition of line side.
12a	Restore VM2 and REV keys.◆	
13	Remove patching plugs from jacks.	
14	Remove plug from MB jack of line circuit.	
G. Marginal Relay Tests—Line Circuits Arranged for Loop Supervision		
1	Insert a make-busy plug into MB jack of line circuit under test.	RMB lamp extinguished.
2	Patch ITC jack of line circuit to T1 or T2 jack.	

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STEP	ACTION	VERIFICATION
3	Remove make-busy plug from MB jack of line circuit.	
4	Operate MBT key.	RMB lamp lighted.
5	Restore MBT key and remove patch cord from ITC jack.	