

REMOTE LINE CIRCUIT SD-27858-01
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 remote line circuit SD-27858-01 for off-net access control. Tests are provided for both switched connection and direct-wired connection modes of operation with attendant access trunks SD-27851-01 and SD-27857-01 when used with a 608A switchboard or attendant console, respectively, in offices arranged for centrex.

register is available and (2) after releasing destination (on-net station busy or does not answer).

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1.02 This section is reissued for the following reasons.

- (a) To revise Test A and D to provide for attendant verification of on-net station
- (b) To make minor changes as required.

C. Release Source (Switched Connection to SD-27851-01 or SD-27857-01 or Direct-Wired Connection to SD-27851-01): This test checks that the attendant can release an incoming call when the calling party fails to go on-hook.

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This reissue does not affect Equipment Test Lists.

1.03 The tests covered are:

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A. Extension of Call On-Net (Switched Connection to SD-27851-01 or SD-27857-01 or Direct-Wired Connection to SD-27851-01): The following features are checked: (1) Seizure of attendant trunk. (2) Continuity and polarity on tip and ring leads. (3) Attendant answer. (4) Extension of call to on-net station. (5) Station answer. (6) Automatic trunk release.

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B. Attendant Release After Start-Out (Switched Connection to SD-27851-01 or SD-27857-01 or Direct-Wired Connection to SD-27851-01): This test checks that the attendant can cancel a start-out signal and initiate a new start-out signal as follows: (1) when no originating

D. Extension of Call On-Net (Direct-Wired Connection to SD-27857-01): The following features are checked: (1) Seizure of attendant trunk. (2) Continuity and polarity on tip and ring leads. (3) Attendant answer. (4) Extension of call to on-net station. (5) Station answer. (6) Automatic trunk release.

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E. Attendant Release After Start-Out (Direct-Wired Connection to SD-27857-01): This test checks that the attendant can cancel a start-out signal and initiate a new start-out signal as follows: (1) when no originating register is available and (2) after releasing destination (on-net station busy or does not answer).

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F. Release Source (Direct-Wired Connection to SD-27857-01): This test checks that the attendant can release an incoming call when the calling party fails to go on-hook.

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G. Call to Distant Attendant Facilities: This test checks that a test call will be completed to an assistant when the

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remote line circuit is switched or direct-wired to attendant access trunk SD-27851-01 or SD-27857-01.	10
H. Remote Make-Busy: This test checks that the remote attendant trunk SD-27838-01 in the distant office may be made busy to incoming service when the associated remote line circuit SD-27838-01 is made busy or is under test.	11
I. Permanent Signal: This test checks that a permanent signal alarm is originated in 6 or 12 minutes should a carrier failure result in an attendant answer and release.	12
J. Nite-Busy (Direct-Wired Connection to SD-27857-01): This test checks that the remote line circuit repeats an off-hook condition to the distant office when service positions are on nite-busy.	12
1.04 When the remote line circuit is direct-wired to attendant access trunk SD-27857-01 for console operation in Phase I centrex offices, test calls must be completed to an assistant at the service console. The service console is therefore considered the test console.	
1.05 Test G requires assistance at the attendant facilities.	
1.06 Test H requires verification at the distant office.	
1.07 The statement between the asterisks (*____*) after action or verification statements is added to clarify the function being simulated in the test procedures of Part 4.	
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 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.

2. APPARATUS

All Tests Except H, I

- 2.01** Trunk test circuit SD-25918-01.
- 2.02** Master test control circuit SD-25800-01.
- 2.03** Patching cords, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord) (for patching T1 and T2 jacks on remote line circuit to T1 and T2 jacks on miscellaneous circuit).

Tests D, E, F

- 2.04** 1B15 test console or equivalent, equipped with D-75B cord with a KS-16409, L19 connector unit and head telephone set.

Tests D Through H, J

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

Tests H, I

- 2.06** 258C, D, or E dummy plug.

Tests I, J

2.07 Testing cords, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, and one 624B (terminal connector) tool (for connecting ground to relay winding terminals).

2.08 KS-3008 stopwatch or equivalent.

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

3. PREPARATION**STEP****ACTION****VERIFICATION**

Note: Refer to 1.04, 1.07, 1.09, and 1.10.

All Tests Except H, I

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|---|--|-------------------------|
| 1 | At MTF—
Restore all keys and switches. | |
| 2 | Momentarily operate RL key. | All lamps extinguished. |
| 3 | When remote line circuit to be tested is idle—
At relay rack frame—
Patch T1, T2 jacks on remote line circuit to be tested to T1, T2 jacks, respectively, on relay rack frame miscellaneous circuit. | |

Tests A Through F

- 4a If remote line circuit is direct-wired—
At MTF—
Operate TLK, OEM, LLS, ANS, ONAL keys.

Tests A, B, C, G

- 5b If remote line circuit is arranged for switched connection—
Select dial tone marker.
- 6b Select class of service and rate treatment (if required) having access to CCSA test attendant access trunk.
- 7b Select line location of remote line circuit to be tested.
- 8b Operate OEM, KY, TLK, KCS, ANS, LLS keys.
- 9b Select MISC class of test.

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STEP	ACTION	VERIFICATION
Tests D, E, F		
10c	If test call is to be completed to a test console— When trunk to be used is idle— Insert 322A (make-busy) plugs into AT-MB, AT-TST jacks associated with trunk to be used. <i>Note:</i> CB lamp at MTF must be extinguished prior to performing Step 14.	CB lamp lighted.
11c	Patch test console to CNTX TST CONN T jack.	
12	At test console— Plug head telephone set into operator telephone jack.	
13	Momentarily operate RLS key.	RLS lamp lighted.
14	Operate BUZ key to ON.	

4. METHOD

STEP	ACTION	VERIFICATION
A. Extension of Call On-Net (Switched Connection to SD-27851-01 or SD-27857-01 or Direct-Wired Connection to SD-27851-01)		
10	Momentarily operate ST key. *Trunk seizure from remote line circuit.*	OGT-CS lamp remains extinguished. Ringing tone heard. CTX lamp lighted.
11	Operate CANS key. *Attendant answer.*	CTX lamp extinguished. OGT-CS lamp lighted. Ringing tone silenced. High tone heard.
12	Operate STI key. *Attendant start-out signal.*	High-tone silenced. OGT-CS lamp momentarily extinguished. *Start-out flash.*
13	Operate ONT key. *Originating register attached.*	RDY lamp lighted.
14	Restore STI key. *Attendant operation of END key at end of pulsing.*	RDY lamp extinguished. High tone heard. CTX lamp flashes at 30 ipm. *Awaiting station answer.*

STEP	ACTION	VERIFICATION
15d	If attendant verification of on-net station is <i>not</i> provided— Restore ONT key. *Station answer.*	CTX, OGT-CS lamps extinguished. High tone silenced. *Attendant released from connection.*
16e	19 If attendant verification of on-net station is provided— Restore ONT key. *Station answer.*	CTX, OGT-CS lamps remain lighted. High tone still heard.
17e	Restore CANS key. *Attendant releases connection.*	CTX, OGT-CS lamps extinguished. High tone silenced. *Attendant released from connection.*
18	Momentarily operate RL key.	All lamps extinguished.
19	Restore all keys and switches not required in next test.	
20	Remove all patching cords.	
B. Attendant Release after Start-Out (Switched Connection to SD-27851-01 or SD-27857-01 or Direct-Wired Connection to SD-27851-01)		
10	Momentarily operate ST key. *Trunk seizure from remote line circuit.*	OGT-CS lamp remains extinguished. Ringing tone heard. CTX lamp lighted.
11	Operate CANS key. *Attendant answer.*	CTX lamp extinguished. OGT-CS lamp lighted. Ringing tone silenced. High tone heard.
12	Operate STI key. *Attendant start-out signal.*	High tone silenced. OGT-CS lamp momentarily extinguished. *Start-out flash.*
13	Restore STI key. *Attendant operation of END key—no originating register available.*	
14	Momentarily operate RB key. *20-Hz ringing on tip and ring leads from attendant.*	OGT-CS lamp momentarily extinguished. *Flash to cancel start-out request.* High tone heard.
15	Operate STI key. *Attendant start-out signal.*	OGT-CS lamp momentarily extinguished. *Start-out flash.* High tone silenced.
16	Operate ONT key. *Originating register attached.*	RDY lamp lighted.

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STEP	ACTION	VERIFICATION
17	Restore STI key. *Attendant keying into originating register and operation of END key.*	RDY lamp extinguished. High tone heard. CTX lamp flashes at 30 ipm. *Awaiting called station answer.*
18	Momentarily operate RD key. *Attendant operation of RLS DEST key.*	OGT-CS lamp momentarily extinguished. *Release destination flash.*
19	Restore ONT key.	CTX lamp lighted.
20	Operate STI key. *Attendant start-out signal.*	CTX lamp extinguished. High tone silenced. OGT-CS lamp momentarily extinguished. *Start-out flash.*
21	Restore STI, CANS keys. *Attendant release of call.*	OGT-CS lamp extinguished. *Attendant released from connection.*
22	Momentarily operate RL key.	All lamps extinguished.

All Tests

- 23 Restore all keys and switches not required in next test.
- 24 Remove all patching cords.

C. Release Source (Switched Connection to SD-27851-01 or SD-27857-01 or Direct-Wired Connection to SD-27851-01)

- 10 Momentarily operate ST key.
Trunk seizure from remote line circuit.
OGT-CS lamp remains extinguished.
Ringing tone heard.
CTX lamp lighted.
- 11 Operate CANS key.
Attendant answer.
CTX lamp extinguished.
OGT-CS lamp lighted.
Ringing tone silenced.
High tone heard.
- 12 Restore CANS key.
Attendant release of source.
OGT-CS lamp extinguished.
High tone silenced.
Attendant released from connection.
- 13 Momentarily operate RL key.
All lamps extinguished.
- 14 Restore all keys and switches not required in next test.
- 15 Remove all patching cords.

STEP	ACTION	VERIFICATION
D. Extension of Call On-Net (Direct-Wired Connection to SD-27857-01)		
15	At MTF— Momentarily operate ST key. *Trunk seizure from remote line circuit.*	OGT-CS lamp remains extinguished. Ringing tone heard. At test console— SRC, DEST lamps flash at 60 ipm. Audible signal sounds.
16	Momentarily operate Talk key associated with flashing SRC, DEST lamps. *Attendant answer.*	SRC, Talk lamps lighted. DEST, RLS lamps extinguished. Talking path established between MTF and console. Audible signal silenced. At MTF— OGT-CS lamp lighted. Ringing tone silenced.
17	At test console— Momentarily operate STO key. *Attendant start-out signal.*	At MTF— OGT-CS lamp momentarily extinguished. *Start-out flash.* Talking path removed between MTF and console.
18	Operate ONT key. *Originating register attached.*	At test console— RDY lamp lighted.
19	Momentarily operate END key. *Attendant operation of END key at end of pulsing.*	RDY lamp extinguished.
20d	◆If attendant verification of on-net station is not provided—◆ Momentarily operate RLS key. *Attendant release from connection.*	Talk lamp extinguished. RLS lamp lighted. DEST lamp flashes at 30 ipm. *Awaiting station answer.*
21	At MTF— Restore ONT key. *Station answer.*	OGT-CS lamp extinguished. At test console— DEST, SRC lamps extinguished. *Console released from connection.*
22e	◆If attendant verification of on-net station is provided— At MTF— Restore ONT key. *Station answer.*	OGT-CS lamp remains lighted. At test console— DEST lamp lighted. Talking path established between MTF and console.
23e	At test console— Momentarily operate RLS key. *Attendant releases from connection.*	TLK, SRC, DEST lamps extinguished. At MTF— OGT-CS lamp extinguished. *Console released from connection.*◆

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STEP	ACTION	VERIFICATION
24	At MTF— Momentarily operate RL key.	All lamps extinguished.
25	Restore all keys and switches not required in next test.	
26	Remove all make-busy plugs.	
27	Remove patching cord from CNTX TST CONN T jack.	
E. Attendant Release After Start-Out (Direct-Wired Connection to SD-27857-01)		
15	At MTF— Momentarily operate ST key. *Trunk seizure from remote line circuit.*	OGT-CS lamp remains extinguished. Ringing tone heard. At test console— SRC, DEST lamps flash at 60 ipm. Audible signal sounds.
16	Momentarily operate Talk Key associated with flashing SRC, DEST lamps. *Attendant answer.*	SRC, Talk lamps lighted. DEST, RLS lamps extinguished. Audible signal silenced. Talking path established between MTF and console. At MTF— OGT-CS lamp lighted. Ringing tone silenced.
17	At test console— Momentarily operate STO key. *Attendant start-out signal.*	At MTF— OGT-CS lamp momentarily extinguished. *Start-out flash.* Talking path removed between MTF and console.
18	At test console— Momentarily operate END key. *Attendant operation of END key—no originating register available.*	At MTF— OGT-CS lamp momentarily extinguished. *Cancel start-out request.* Talking path established between MTF and console.
19	At test console— Momentarily operate STO key. *Attendant start-out signal.*	At MTF— OGT-CS lamp momentarily extinguished. *Start-out flash.* Talking path removed between MTF and console.
20	At MTF— Operate ONT key. *Originating register attached.*	At test console— RDY lamp lighted.

STEP	ACTION	VERIFICATION
21	Momentarily operate END key. *Attendant operation of END key at end of pulsing.*	RDY lamp extinguished.
22	Momentarily operate RLS key. *Attendant release from connection.*	DEST lamp flashes at 30 ipm. Talk lamp extinguished. RLS lamp lighted. *Awaiting station answer.*
23	Momentarily operate Talk key associated with flashing DEST lamp. *Attendant reentry to connection.*	DEST, RLS lamps extinguished. Talk lamp lighted.
24	Momentarily operate RLS DEST key. *Attendant release of destination.*	At MTF— OGT-CS lamp momentarily extinguished. *Release destination flash.*
25	At test console— Momentarily operate RLS key. *Attendant release from connection.*	DEST lamp <i>not</i> lighted. RLS lamp lighted. Talk lamp extinguished. *Check that destination is released.*
26	At MTF— Restore ONT key.	
27	At test console— Momentarily operate Talk key associated with lighted SRC lamp. *Attendant reentry to connection.*	Talk lamp lighted. RLS lamp extinguished. Talking path established between MTF and console.
28	Momentarily operate STO key. *Attendant start-out signal.*	At MTF— OGT-CS lamp momentarily extinguished. *Start-out flash.* Talking path removed between MTF and console.
29	At test console— Momentarily operate END key. *Attendant operation of END key.*	At MTF— OGT-CS lamp momentarily extinguished. *Cancel start-out request.* Talking path established between MTF and console.
30	At test console— Momentarily operate RLS SRC key. *Attendant release of source.*	SRC lamp extinguished. At MTF— OGT-CS lamp extinguished. Talking path removed between MTF and console. *Source and console released from connection.*
31	Momentarily operate RL key.	All lamps extinguished.

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STEP	ACTION	VERIFICATION
32	Restore all keys and switches not required in next test.	
33	Remove all make-busy plugs.	
34	Remove patching cord from CNTX TST CONN T jack.	
F. Release Source (Direct-Wired Connection to SD-27857-01)		
15	At MTF— Momentarily operate ST key. *Trunk seizure from remote line circuit.*	OGT-CS lamp remains extinguished. Ringing tone heard. At test console— SRC, DEST lamps flash at 60 ipm. Audible signal sounds.
16	Momentarily operate Talk key associated with flashing SRC, DEST lamps. *Attendant answer.*	SRC, Talk lamps lighted. DEST, RLS lamps extinguished. Audible signal silenced. Talking path removed between MTF and console. At MTF— OGT-CS lamp lighted. Ringing tone silenced.
17	At test console— Momentarily operate RLS SRC key. *Attendant release of source.*	SRC, Talk lamps extinguished. Talking path removed between MTF and console— At MTF— OGT-CS lamp extinguished. *Source and console released from connection.*
18	Momentarily operate RL key.	All lamps extinguished.
19	Restore all keys and switches not required in next test.	
20	Remove all make-busy plugs.	
21	Remove patching cord from CNTX TST CONN T jack.	

G. Call to Distant Attendant Facilities.

- 10d If remote line circuit is direct-wired to attendant access trunk for 608A switchboard or console—
Operate TLK, OEM, LLS keys.

STEP	ACTION	VERIFICATION
11b	If remote line circuit is arranged for switched connection— Operate LS key.	
12	Momentarily operate ST key.	OGT-CS lamp remains extinguished. Ringing tone heard. If remote line circuit is arranged for switched connection— SLV lamp momentarily lighted. At distant attendant facilities— Assistant answers call. At MTF— Ringing tone silenced. OGT-CS lamp lighted. Talking path established between MTF and distant attendant facilities.
13	Request assistant at distant attendant facilities to release call.	Talking path removed between MTF and distant attendant facilities. OGT-CS lamp extinguished.
14	Momentarily operate RL key.	All lamps extinguished.
15	Remove all patching cords.	
16	Restore all keys and switches not required in next test.	

H. Remote Make-Busy Feature

1	When remote line circuit under test is idle— At relay rack frame— Insert dummy plug into T2 jack of remote line circuit under test.	In distant office— At MTF— CCSA-MB lamp associated with remote attendant trunk and remote line circuit under test lighted.
2	In local office— At relay rack frame— Remove dummy plug.	In distant office— At MTF— CCSA-MB lamp extinguished.
3	When remote line circuit under test is idle— In local office— At MTF— Insert make-busy plug into MB jack associated with remote line circuit under test.	In distant office— At MTF— CCSA-MB lamp associated with remote attendant trunk and remote line circuit under test lighted.
4	In local office— At MTF— Remove make-busy plug from MB jack.	In distant office— At MTF— CCSA-MB lamp extinguished.

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STEP	ACTION	VERIFICATION
I. Permanent Signal		
1	When remote line circuit under test is idle— At relay rack frame— Insert dummy plug into T2 jack of remote line circuit under test.	
2	Block operated ORA relay.	
3	If remote line circuit is arranged for switched connection— Connect ground to terminal 1U of TRK relay.	
4	Connect ground to terminal U of E relay; <i>start timing.</i>	In 6 or 12 minutes (depending upon option provided in interrupter circuit)— Minor alarm sounds. At MTF— Permanent signal lamp associated with remote line circuit under test lighted. At relay rack frame of miscellaneous circuit— Permanent signal lamp lighted.
5	At relay rack frame— Remove ground connections from TRK, E relays.	Minor alarm silenced. At MTF— Permanent signal lamp extinguished. At relay rack frame of miscellaneous circuit— Permanent signal lamp extinguished.
6	At relay rack frame— Remove blocking tool from ORA relay.	
7	Remove dummy plug from T2 jack.	
J. Nite-Busy (Direct Wired Connection to SD-27857-01)		
4	At MTF jack, lamp, and key circuit— Insert 322A (make-busy) plug into AT-MB jack associated with attendant access trunk SD-27857-01 direct-wired to remote line circuit under test.	
5	At attendant access trunk made busy in Step 4— Connect ground to terminal 56 on terminal strip C.	NB relay operated.
6	At MTF— Operate OEM key.	OGT-CS lamp lighted. *Verifies battery on M lead.*
7	At attendant access trunk— Remove ground place in Step 5.	NB relay released. At MTF— OGT-CS lamp extinguished.

STEP	ACTION	VERIFICATION
8	At MTF jack, lamp, and key circuit— Remove make-busy plug from AT-MB jack.	
9	At relay rack— Remove patching cords from T1, T2 jacks.	
10	At MTF— Restore OEM key.	

