

ATTENDANT INCOMING TRUNK—SD-26379-01
TESTS USING MASTER TEST FRAME
TRUNK TEST CIRCUIT SD-25918-01
NO. 5 CROSSBAR OFFICES
ARRANGED FOR PHASE III CENTREX
CENTRALIZED ATTENDANT OPERATION

1. GENERAL

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1.01 This section describes the tests required for testing the attendant incoming trunk circuit (reverse battery or E-M lead supervision) SD-27379-01, using the master test frame (MTF) trunk test circuit SD-25918-01, in No. 5 crossbar offices arranged for Phase III centrex and centralized attendant main-satellite release link operation.

Attendant transfer start-in. (7) Destination answer. (8) Attendant release position—linkage releases. **5**

1.02 This issue affects the Equipment Test Lists.

C. Destination Recall: This test checks the ability of the trunk to recognize a destination recall of the attendant when the call has been placed on HOLD by the attendant. **6**

1.03 The tests covered are:

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A. Trunk Seizure, Start-In, Transfer Completion, and Release-Transfer Call: The following features are checked for an incoming call to be transferred by the attendant: (1) Trunk seizure. (2) Continuity and polarity on tip and ring leads. (3) A relay operation. (4) Completion to test console. (5) Attendant answer. (6) Attendant transfer start-in. (7) Destination answer. (8) Attendant release position—linkage releases. **4**

D. Automatic Link Release: This test checks that on a transferred call by the attendant, the position may be released during ringing to the destination and then the position will be released automatically when the destination answers. **8**

B. Trunk Seizure, Start-In, Transfer Completion, and Release—LDN Call: The following features are checked for an incoming LDN call: (1) Trunk seizure. (2) Continuity and polarity on tip and ring leads. (3) A relay operation. (4) Completion to test console. (5) Attendant answer. (6)

E. No Transfer Register Available: This test checks that the attendant may cancel a transfer start-in request when all transfer registers are busy, and then may reinitiate a new start-in request. **9**

F. Abandoned Calls: This test checks that the trunk will recognize abandoned calls and automatically release linkage. **11**

G. Overflow: This test checks that overflow tone is returned when a trouble condition is encountered. **13**

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H. All Attendant Trunks Busy:
 This test checks that busy tone is returned when all attendant trunks are found busy. 13

I. WK Timing Tests: This test provides a means for checking the WK timer on start-in and release destination operations. (All other timers in the trunk are checked by the trunk test circuit in Tests A, B, and C.) 14

1.04 Traffic registers associated with PC and PB leads will operate when Tests A through F, and I are performed. Local operating instructions should be followed for recording and reporting traffic register operations.

1.05 Tests C through F are performed in an incoming transfer mode of operation. Test B (LDN mode) should be performed once prior to performing any of the fore-mentioned tests.

1.06 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.

1.07 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.

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

1.09 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.

1.10 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, ITD0, ITNP, OGT, etc.

2. APPARATUS

All Tests

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

2.02 Trunk test circuit, SD-25918-01.

2.03 Patching cords, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord). One cord required when trunk is arranged for reverse battery supervision to patch from T jack on trunk to ITT jack on relay rack frame. Two cords required when trunk is arranged for E-M lead supervision to patch T1, T2 jacks of trunk to TOL 1, TOL 2 jacks, respectively, on relay rack frame.

Tests A, B, C, D, E, F, I

2.04 Test console and connecting cord as required.

2.05 Operator head telephone set or equivalent.

Test I

2.06 Timing test set—J24753A, SD-25707-01.

2.07 Patching cord, P3K cord, 6 feet long, equipped with two 310 plugs (3P15A cord) to connect power to the timing test set.

2.08 Patching cord, P3K cord, 6 feet long, equipped with two 310 plugs (3P15A cord) to connect between timing test set and trunk test circuit.

3. PREPARATION

Note: Refer to paragraphs 1.05, 1.07, 1.08.

STEP	ACTION	VERIFICATION
All Tests		
1	At MTF— Restore all keys and switches.	
2	Momentarily operate RL key.	All lamps extinguished.
3a	If reverse battery supervision— At relay rack frame— Check that A relay on trunk under test is not operated, then patch T jack of trunk to ITT jack of relay rack frame.	At satellite office— CAL MB_ lamp associated with dedicated trunk lighted. *Dedicated trunk in satellite office remotely made busy.*
4b	At MTF— If E-M lead supervision— At relay rack frame— Check that E relay of trunk under test is not operated, then patch T1, T2 jacks of trunk to TOL 1, TOL 2 jacks, respectively, on relay rack frame.	At satellite office— CAL MB_ lamp associated with dedicated trunk lighted. *Dedicated trunk in satellite office remotely made busy.*
5	At MTF— Select ITNP class of test.	
All Tests Except G, H		
6	Operate CNTX, CATN, AIT, TLK, LS, PBXH, NTLS keys.	
7a	If reverse battery supervision— Operate SLP key.	
8b	If E-M lead supervision— Operate OEM key.	
	Note: The test attendant trunk (on the line link frame) is assigned in the same tens block as the dedicated attendant trunks and must be selected in accordance with Steps 9, 10c and 11d, as required.	
9	Select line in tens block (test attendant trunks).	
10c	If trunk (test attendant trunk) is in allotted group— Operate NGT, NG(A-H) keys for all but selected number group frame.	
11d	If tens block selection is required— Set TBT_, TBU_ switches as required to select tens block within the trunk group for access to trunk (test attendant trunk).	

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STEP	ACTION	VERIFICATION
12	Select ringing combination 10.	
13	Patch test console to CNTX TST CONN T jack.	
14	At test console— Plug head telephone set into operator telephone jack.	
15	Operate TST key for 3/4 seconds.	TST lamp lighted.
16	Momentarily operate RLS key.	TST lamp extinguished. RLS lamp lighted.

4. METHOD

A. Trunk Seizure, Start-In, Transfer Completion, and Release-Transfer Call

STEP	ACTION	VERIFICATION
17	At MTF— Select digit A0.	
18	Momentarily operate ST key.	Ringing tone heard. If E-M lead supervision— OGT-CS lamp momentarily lighted. At test console— DEST lamp lighted. SRC lamp flashes at 120 ipm. RLS lamp extinguished. Audible signal heard. *Call set up to test console.*
19	At MTF— Restore LS key.	
20	Momentarily operate TALK key associated with flashing SRC lamp. *Attendant answer.*	TALK lamp lighted. SRC lamp lighted steadily. Audible signal silenced. At MTF— OGT-CS lamp lighted. Ringing tone silenced. Talking path established between MTF and test console.
21	At test console— Momentarily operate RLS DEST key.	DEST lamp extinguished. At MTF— OGT-CS lamp momentarily extinguished. Talking path removed between MTF and test

STEP	ACTION	VERIFICATION
		console. *RD wink to satellite OGT.*
22	At test console— Momentarily operate STI key. *Start-in request.*	At MTF— OGT-CS lamp momentarily extinguished. *STI wink to satellite.*
23	At test console— Momentarily operate END key.	DEST lamp flashes at 30 ipm. *Awaiting destination answer.*
24	At MTF— Momentarily operate CDL key. *Destination answer.*	If reverse battery supervision— OGT-CS lamp momentarily extinguished. At test console— DEST lamp lighted steadily.
25	Momentarily operate RLS key. *Attendant releases position.*	SRC, TALK, DEST lamps extinguished. RLS lamp lighted. At MTF— OGT-CS lamp extinguished. *Linkage to attendant released.*
26	Momentarily operate RL key.	All lamps extinguished.
27	Restore all keys and switches not required in next test.	
28e	If no further tests are to be performed— Remove patching cord from CNTX TST CONN T jack.	At test console— RLS lamp extinguished.
29e	At relay rack frame— Remove patching cords from trunk under test and relay rack frame.	
B. Trunk Seizure, Start-In, Transfer Completion, and Release-LDN Call		
17	At MTF— Select digit A8.	
18	Momentarily operate ST key.	Ringing tone heard. If E-M lead supervision— OGT-CS lamp momentarily lighted. At test console— SRC lamp flashes at 60 ipm. RLS lamp extinguished. Audible signal heard. *Call set up to test console.*
19	At MTF— Restore LS key.	

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STEP	ACTION	VERIFICATION
20	Momentarily operate TALK key associated with flashing SRC lamp. *Attendant answer.*	TALK lamp lighted. SRC lamp lighted steadily. Audible signal silenced. At MTF— OGT-CS lamp lighted. Ringing tone silenced. Talking path established between MTF and test console.
21	At test console— Momentarily operate STI key. *Start-in request.*	At MTF— OGT-CS lamp momentarily extinguished. Talking path removed. *STI wink to satellite.*
22	At test console— Momentarily operate END key.	DEST lamp flashes at 30 ipm. *Awaiting destination answer.*
23	At MTF— Momentarily operate CDL key. *Destination answer.*	If reverse battery supervision— OGT-CS lamp momentarily extinguished. At test console— DEST lamp lighted steadily.
24	Momentarily operate RLS key. *Attendant releases position.*	SRC, TALK, DEST lamps extinguished. At MTF— OGT-CS lamp extinguished. *Linkage to attendant released.*
25	Momentarily operate RL key.	All lamps extinguished.
26	Restore all keys and switches not required in next test.	
27e	If no further tests are to be performed— Remove patching cord from CNTX TST CONN T jack.	At test console— RLS lamp extinguished.
28e	At relay rack frame— Remove patching cords from trunk under test and relay rack frame.	
C. Destination Recall		
17	At MTF— Select digit A0.	
18	Momentarily operate ST key.	Ringing tone heard. If E-M lead supervision— OGT-CS lamp momentarily lighted. At test console— DEST lamp lighted. SRC lamp flashes at 120 ipm.

STEP	ACTION	VERIFICATION
		<p>RLS lamp extinguished. Audible signal heard. *Call set up to test console.*</p>
19	At MTF— Restore LS key.	
20	Momentarily operate TALK key associated with flashing SRC lamp. *Attendant answer.*	<p>TALK lamp lighted. SRC lamp lighted steadily. Audible signal silenced. At MTF— OGT-CS lamp lighted. Ringing tone silenced. Talking path established between MTF and test console.</p>
21	At test console— Momentarily operate RLS DEST key.	<p>DEST lamp extinguished. At MTF— OGT-CS lamp momentarily extinguished. Talking path removed between MTF and test console. *RD wink to satellite OGT.*</p>
22	At test console— Momentarily operate STI key. *Start-in request.*	<p>At MTF— OGT-CS lamp momentarily extinguished. *STI wink to satellite.*</p>
23	At test console— Momentarily operate END key.	<p>DEST lamp flashes at 30 ipm. *Awaiting destination answer.*</p>
24	At MTF— Momentarily operate CDL key. *Destination answer.*	<p>If reverse battery supervision— OGT-CS lamp momentarily extinguished. At test console— DEST lamp lighted steadily.</p>
25	Momentarily operate HOLD key. *Attendant holds call at console.*	<p>TALK lamp flashes at 30 ipm.</p>
26	At MTF— Momentarily operate CDL key. *Destination flashes.*	<p>If reverse battery supervision— OGT-CS lamp momentarily extinguished. At test console— DEST lamp flashes at 120 ipm. Audible signal heard. *Attendant recall signal.*</p>
27	Momentarily operate TALK key. *Attendant answers recall.*	<p>TALK, DEST lamps lighted steadily. Audible signal silenced.</p>
28	Momentarily operate RLS key. *Attendant releases position.*	<p>SRC, DEST, TALK lamps extinguished. RLS lamp lighted. At MTF—</p>

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STEP	ACTION	VERIFICATION
		OGT-CS lamp extinguished. *Linkage to attendant released.*
29	Momentarily operate RL key.	All lamps extinguished.
30	Restore all keys and switches not required in next test.	
31e	If no further tests are to be performed— Remove patching cord from CNTX TST CONN T jack.	At test console— RLS lamp extinguished.
32e	At relay rack frame— Remove patching cords from trunk under test and relay rack frame.	
D. Automatic Link Release		
17	At MTF— Select digit A0.	
18	Momentarily operate ST key.	Ringing tone heard. If E-M lead supervision— OGT-CS lamp momentarily lighted. At test console— DEST lamp lighted. SRC lamp flashes at 120 ipm. RLS lamp extinguished. Audible signal heard. *Call set up to test console.*
19	At MTF— Restore LS key.	
20	Momentarily operate TALK key associated with flashing SRC lamp. *Attendant answer.*	TALK lamp lighted. SRC lamp lighted steadily. Audible signal silenced. At MTF— OGT-CS lamp lighted. Ringing tone silenced. Talking path established between MTF and test console.
21	At test console— Momentarily operate RLS DEST key.	DEST lamp extinguished. At MTF— OGT-CS lamp momentarily extinguished. Talking path removed between MTF and test console. *RD wink to satellite OGT.*

STEP	ACTION	VERIFICATION
22	At test console— Momentarily operate STI key. *Start-in request.*	At MTF— OGT-CS lamp momentarily extinguished. *STI wink to satellite.*
23	At test console— Momentarily operate END key.	DEST lamp flashes at 30 ipm. *Awaiting destination answer.*
24	Momentarily operate RLS key. *Attendant conditions trunk to release linkage when destination answers call.*	RLS lamp lighted. TALK lamp extinguished. DEST lamp continues to flash at 30 ipm.
25	At MTF— Momentarily operate CDL key. *Destination answer.*	If E and M lead supervision— OGT-CS lamp extinguished. If reverse battery supervision— OGT-CS lamp winks, then extinguished. At test console— SRC, DEST lamps extinguished. *Linkage released automatically upon destination answer.*
26	At MTF— Momentarily operate RL key.	All lamps extinguished.
27	Restore all keys and switches not required in next test.	
28e	If no further tests are to be performed— Remove patching cord from CNTX TST CONN T jack.	At test console— RLS lamp extinguished.
29e	At relay rack frame— Remove patching cords from trunk under test and relay rack frame.	
E. No Transfer Register Available		
17	At MTF— Select digit A0.	
18	Momentarily operate ST key.	Ringing tone heard. If E-M lead supervision— OGT-CS lamp momentarily lighted. At test console— DEST lamp lighted. SRC lamp flashes at 120 ipm. RLS lamp extinguished. Audible signal heard. *Call set up to test console.*
19	At MTF— Restore LS key.	

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STEP	ACTION	VERIFICATION
20	Momentarily operate TALK key associated with flashing SRC lamp. *Attendant answer.*	TALK lamp lighted. SRC lamp lighted steadily. Audible signal silenced. At MTF— OGT-CS lamp lighted. Ringing tone silenced. Talking path established between MTF and test console.
21	At test console— Momentarily operate RLS DEST key.	DEST lamp extinguished. At MTF— OGT-CS lamp momentarily extinguished. Talking path removed between MTF and test console. *RD wink to satellite OGT.*
22	At test console— Momentarily operate STI key. *Start-in request.*	At MTF— OGT-CS lamp momentarily extinguished. *STI wink to satellite.*
23	At test console— Momentarily operate END key.	DEST lamp flashes at 30 ipm.
24	At test console— Momentarily operate RLS DEST key. *Attendant did not receive dial tone, therefore releases and will attempt another start-in.*	DEST lamp extinguished. At MTF— OGT-CS lamp momentarily extinguished. *RD wink to satellite.*
25	At test console— Momentarily operate STI key. *Start-in request.*	At MTF— OGT-CS lamp momentarily extinguished. *STI wink to satellite.*
26	At test console— Momentarily operate END key.	DEST lamp flashes at 30 ipm. *Awaiting destination answer.*
27	At MTF— Momentarily operate CDL key. *Destination answer.*	If reverse battery supervision— OGT-CS lamp momentarily extinguished. At test console— DEST lamp lighted steadily.
28	Momentarily operate RLS key. *Attendant releases position.*	SRC, TALK, DEST lamps extinguished. RLS lamp lighted. At MTF— OGT-CS lamp extinguished. *Linkage to attendant released.*
29	Momentarily operate RL key.	All lamps extinguished.
30	Restore all keys and switches not required in next test.	

STEP	ACTION	VERIFICATION
31e	If no further tests are to be performed— Remove patching cord from CNTX TST CONN T jack.	At test console— RLS lamp extinguished.
32e	At relay rack frame— Remove patching cords from trunk under test and relay rack frame.	
F. Abandoned Calls		
17	At MTF— Select digit A0.	
18	Momentarily operate ST key.	Ringing tone heard. If E-M lead supervision— OGT-CS lamp momentarily lighted. At test console— DEST lamp lighted. SRC lamp flashes at 120 ipm. RLS lamp extinguished. Audible signal heard. *Call set up to test console.*
19	At MTF— Restore LS key.	
20	Momentarily operate TALK key associated with flashing SRC lamp. *Attendant answer.*	TALK lamp lighted. SRC lamp lighted steadily. Audible signal silenced. At MTF— OGT-CS lamp lighted. Ringing tone silenced. Talking path established between MTF and test console.
21	Restore TLK key. *Calling party disconnects.*	OGT-CS lamp extinguished. In approximately 2-3 seconds— At test console— SRC, DEST lamps extinguished. *Linkage released.*
22	Momentarily operate RLS key. *Attendant releases position.*	TALK lamp extinguished. RLS lamp lighted. *Position released.*
23	At MTF— Momentarily operate RL key.	All lamps extinguished.
24	Operate TLK, LS keys.	
25	Repeat Steps 18 through 20.	

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STEP	ACTION	VERIFICATION
26	At test console— Momentarily operate RLS DEST key.	DEST lamp extinguished. At MTF— OGT-CS lamp momentarily extinguished. Talking path removed between MTF and test console. *RD wink to satellite OGT.*
27	At test console— Momentarily operate STI key. *Start-in request.*	At MTF— OGT-CS lamp momentarily extinguished. *STI wink to satellite.*
28	Restore TLK key. *Calling party disconnects.*	OGT-CS lamp extinguished. In approximately 2-3 seconds— At test console— SRC lamp extinguished. *Linkage released.*
29	Momentarily operate RLS key. *Attendant releases position.*	TALK lamp extinguished. RLS lamp lighted. *Position released.*
30	At MTF— Momentarily operate RL key.	All lamps extinguished.
31	Operate TLK, LS keys.	
32	Repeat Steps 18 through 20.	
33	At test console— Momentarily operate RLS DEST key.	DEST lamp extinguished. At MTF— OGT-CS lamp momentarily extinguished. Talking path removed between MTF and test console. *RD wink to satellite OGT.*
34	At test console— Momentarily operate STI key. *Start-in request.*	At MTF— OGT-CS lamp momentarily extinguished. *STI wink to satellite.*
35	At test console— Momentarily operate END key.	DEST lamp flashes at 30 ipm. *Awaiting destination answer.*
36	At MTF— Momentarily operate CDL key. *Destination answer.*	If reverse battery supervision— OGT-CS lamp momentarily extinguished. At test console— DEST lamp lighted steadily.
37	At MTF— Restore TLK key. *Destination goes on-hook.*	OGT-CS lamp extinguished. In approximately 2-3 seconds— At test console— SRC, DEST lamps extinguished. *Linkage released.*

STEP	ACTION	VERIFICATION
38	Momentarily operate RLS key. *Attendant releases position.*	TALK lamp extinguished. RLS lamp lighted. *Position released.*
39	At MTF— Momentarily operate RL key.	All lamps extinguished.
40	Restore all keys and switches not required in next test.	
41e	If no further tests are to be performed.— Remove patching cord from CNTX TST CONN T jack.	At test console— RLS lamp extinguished.
42e	At relay rack frame— Remove patching cords from trunk under test and relay rack frame.	

G. Overflow

6	Operate TLK, LS, KY keys.	
7a	If reverse battery supervision— Operate SLP key.	
8b	If E-M lead supervision— Operate OEM key.	
9	Select A_ through G_ digits as required for directory number assigned to permanent overflow test number.	
10	Momentarily operate ST key.	Overflow tone heard.
11	Restore LS, TLK keys.	Overflow tone silenced.
12	Momentarily operate RL key.	All lamps extinguished.
13	Restore all keys and switches not required in next test.	
14c	If no further tests are to be performed— At relay rack frame— Remove all patching cords from trunk under test and relay rack frame.	

H. All Attendant Trunks Busy

6	Operate BB, TLK, LS keys.	
7a	If reverse battery supervision— Operate SLP key.	

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STEP	ACTION	VERIFICATION
8b	If E-M lead supervision— Operate OEM key.	
9	Select A, B, C digits as required for directing digits.	
10	Momentarily operate ST key.	Busy tone heard.
11	Restore LS, TLK keys.	Busy tone silenced.
12	Momentarily operate RL key.	All lamps extinguished.
13	Restore all keys and switches not required in next test.	
14c	If no further tests are to be performed— At relay rack frame— Remove all patching cords from trunk under test and relay rack frame.	
I. WK Timing Tests		
17	At timing test set— Turn on power and calibrate for half-scale readings as covered in Section "TEST SET FOR TIMING TESTS, J24753A."	
18	Set REC switch to GRD start, 48V or OC stop position.	
19	Set MIL SEC switch to 0-500 position.	
20	Set MCF key to NORM position.	
21	Operate SEND key to MK position.	
22	At MTF— Connect P3K cord from TST1 jack on timing test set to TIMT jack at MTF.	
23	Select digit A0.	
24	Momentarily operate ST key.	Ringing tone heard. If E-M lead supervision— OGT-CS lamp momentarily lighted. At test console— DEST lamp lighted. SRC lamp flashes at 120 ipm. RLS lamp extinguished. Audible signal heard. *Call set up to test console.*

STEP	ACTION	VERIFICATION
25	At MTF— Restore LS key.	
26	Momentarily operate TALK key associated with flashing SRC lamp. *Attendant answer.*	TALK lamp lighted. SRC lamp lighted steadily. Audible signal silenced. At MTF— OGT-CS lamp lighted. Ringing tone silenced. Talking path established between MTF and test console.
27a	If reverse battery supervision— Operate TIMT1 key.	OGT-CS lamp extinguished.
28b	If E-M lead supervision— Operate TIMT2 key.	OGT-CS lamp extinguished.
29	At timing test set— Hold TST key to OPR position.	
30	At test console— Momentarily operate RLS DEST key.	DEST lamp extinguished. At timing test set— Meter reading should be between 460-580 milliseconds. *Tests WK timer on release destination wink signal.*
31	Release TST key.	Meter should read 0.
32	Hold TST key to OPR position.	
33	At test console— Momentarily operate STI key. *Start-in request.*	At timing test set— Meter reading should be between 460-580 milliseconds. *Tests WK timer on start-in wink signal.*
34	Release TST key.	Meter should read 0.
35	At MTF— Restore TLK key. *Source disconnects.*	At test console— SRC lamp extinguished.
36	Momentarily operate RLS key. *Position release.*	TALK lamp extinguished. RLS lamp lighted.
37	At MTF— Momentarily operate RL key.	All lamps extinguished.
38	Remove cords from timing test set and MTF.	

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STEP	ACTION	VERIFICATION
39	Restore all keys and switches not required in next test.	
40e	If no further tests are to be performed— Remove patching cord from CNTX TST CONN T jack.	At test console— RLS lamp extinguished.
41e	At relay rack frame— Remove patching cords from trunk under test and relay rack frame.	