

ATTENDANT TRUNK CIRCUIT SD-27838-01
FOR REMOTE ATTENDANT
TESTS USING TRUNK TEST CIRCUIT SD-25918-01
NO. 5 CROSSBAR OFFICES

1. GENERAL

PAGE

1.01 This section is reissued to add Electronic Translation System (ETS) features. This reissue does not affect Equipment Test Lists.

ability of the trunk to send a seizure signal to a distant console, switchboard, or remote PBX.

8

1.02 The tests covered are:

PAGE

A. Extension of Call On-Net: The following features are checked: (1) Seizure of 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. (7) Attendant disconnect.

3

B. Disconnect Features After Attendant Answer: This test checks that linkage to the trunk is released after the attendant answers when either the source disconnects before the attendant or the attendant disconnects before the source.

5

C. Attendant Release After Startout: This test checks that the attendant may, on a single seizure of this trunk, cancel a startout request and initiate a new startout signal as follows: (1) When no originating registers are available, (2) when the attendant wishes to release the originating register (partial dial), and (3) when the attendant wishes to release destination (on-net station busy or does not answer).

6

D. Call to Distant Attendant Facilities: This test checks the

E. Trunk-Busy: This test checks that the trunk may be made busy from the 17E testboard or from the master test frame (MTF) jack, lamp, and key circuit. It also checks the following: (1) The trunk may be seized for testing. (2) The trunk will be busy to service calls. (3) After release of lockout or made-busy condition, the trunk may be seized on a service call.

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F. Remote Make-Busy: This test checks that the trunk may be made busy from a remote location.

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G. Cross-Office Lockout: This test checks that the trunk will recognize a simplex lockout signal from the 17E testboard and will be made busy to service calls.

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H. False-Idle and False-Busy Condition: This test checks for continuity and crosses on the F, FT, and BT leads.

11

1.03 Test D requires assistance at the distant attendant facilities.

1.04 Tests E, G, and H require action and verification at the 17E testboard (when provided).

NOTICE

Not for use or disclosure outside the Bell System except under written agreement

SECTION 218-277-503

1.05 Test H requires all trunks of the same route on the same trunk link frame as the trunk under test be made busy.

1.06 The statement between the asterisks (* *) after ACTION and VERIFICATION statements is added to clarify the function being simulated or the action being taken in the test procedures.

1.07 **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.

1.08 The manner of selecting some circuits and test conditions at the MTF and its associated circuits varies depending on the apparatus options furnished with these circuits. Therefore, where variable means of selection are provided, precise instructions for the selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.

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

1.10 ♦When the office is arranged for 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 section for the office arrangement.

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

1.11 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 scanning to be repeated on the FT lamp at

the MTF trunk test circuit. As long as the TST bit is set in the trunk register, scanning will continue to be repeated on the lamp, 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.

1.12 On Issue 76D of SD-25800-01, a group of 18 “class of test” lamps was replaced by a single “start test” lamp designated STT. Since the designation given to the lamp is not specific, the lamp will not be called out in the section, as well as the 18 discontinued lamps, such as DT, ORIG, ITDO, ITNP, OGT, etc.♦

2. APPARATUS

All Tests Except H

2.01 Trunk test circuit SD-25918-01.

2.02 Master test control circuit SD-25800-01.

Tests E, G, H

2.03 17E testboard, when provided.

Test E, H

2.04 322A (make-busy) plugs as required.

Test H

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

2.06 Testing cord, ♦W1AK♦ cord, 6 feet long, equipped with one 296 (banana-type) plug, 360B tool, and 624B tool.

2.07 Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, and one 624B tool (for connecting high resistance ground [HRG] to terminal strip terminals).

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

3. PREPARATION

STEP	ACTION	VERIFICATION
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All Tests Except H

Note: Refer to 1.03 through 1.12.

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|-----|---|-------------------------|
| 1 | At MTF—
Restore all keys and switches. | All lamps extinguished. |
| 2 | Momentarily operate RL key. | |
| 3 | Select completing marker. | |
| 4 | Select OR class of call with associated translator indication. | |
| 5 | Select trunk to be tested. | |
| 6 | Operate GPA/GPB key for required group when selected trunk is in an allotted trunk group. | |
| 7 | Select class of service and rate treatment as required to route call to trunk under test. | |
| 8 | Select route advance 0. | |
| 9 | Select digit A0. | |
| 10 | Operate TLK, KY, ONAL, LRR, E-M keys. | |
| 11a | If ETS provided—
Operate PCS, PTS keys. | |

Tests A, B, C, D, F, G

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|----|----------------------|--|
| 12 | Operate FS, TS keys. | |
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Tests A, B, C, E, F, G

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|----|---------------------------|--|
| 13 | Select OGT class of test. | |
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A. Extension of Call On-Net

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|----|---|--|
| 14 | Momentarily operate ST key.
Trunk seizure. | If ETS provided—
FT lamp lighted.
AS, PK, E lamps lighted.
If trunk is associated with a remote PBX—
Ringing tone heard. |
| 15 | Operate ANS key.
Attendant answer. | PK lamp extinguished.
High tone heard. |

SECTION 218-277-503

STEP	ACTION	VERIFICATION
		If trunk is associated with a remote PBX— Ringing tone silenced.
16	Restore TLK key.	High tone silenced.
17	Operate STO key.	
18	Momentarily operate RR key. *Attendant startout flash on E lead.*	
19	Operate HP key. *Preparation for detection of +130 volts on tip lead.*	R- lamp lighted. *Detection of +130 volts on tip lead.*
20	Restore HP key. *Removal of +130 volts in trunk and application of ground-start signal.*	R- lamp extinguished. OCT-CS lamp lighted.
21	Operate TLK key.	
22	Operate LLR key.	
23	Operate ORV key. *Originating register attached.*	OGT-CS, E lamps extinguished. LLS lamp lighted.
24	Restore STO key.	
25	Momentarily operate ONT key. *Ground-start removal check and simulation of pulsing.*	GL lamp lighted.
26	Restore LLR, ORV keys. *Originating register release.*	GL, LLS lamps extinguished.
27	Operate ORV key. *On-net trunk attached.*	LLS lamp lighted.
28	Momentarily operate RR key. *Check of relay contacts in OR relay hold path.*	LLS lamp remains lighted. GL lamp remains extinguished.
29b	If attendant verification of on-net station is <i>not</i> provided— Operate LLR key. *On-net station answer.*	◆If ETS provided— FT lamp extinguished.◆ E lamp lighted. AS, LLS lamps extinguished. *Trunk release.*
30b	Restore ANS key.	E lamp extinguished.
31c	If attendant verification of on-net station is provided—	E lamp lighted. AS, LLS lamps remain lighted.

STEP	ACTION	VERIFICATION
	Operate LLR key. *On-net station answer.*	
32c	Restore ANS key. *Attendant releases connection.*	◆If ETS provided— FT lamp extinguished.◆ E, AS, LLS lamps extinguished. *Trunk release.*
33	Momentarily operate RL key.	All lamps extinguished.
34	Restore all keys and switches not required in next test.	
B. Disconnect Features After Attendant Answer		
14	Momentarily operate ST key. *Trunk seizure.*	◆If ETS provided— FT lamp lighted.◆ PK, AS, E lamps lighted. If trunk is associated with a remote PBX— Ringing tone heard.
15	Operate ANS key. *Attendant answer.*	PK lamp extinguished. High tone heard. If trunk is associated with a remote PBX— Ringing tone silenced.
16	Restore TLK, ONAL keys. *Source disconnect.*	◆If ETS provided— FT lamp extinguished.◆ E, AS lamps extinguished. High tone silenced.
17	Momentarily operate RL key.	All lamps extinguished.
18	Restore ANS key.	
19	Operate TLK, ONAL keys.	
20	Momentarily operate ST key. *Trunk seizure.*	◆If ETS provided— FT lamp lighted.◆ PK, AS, E lamps lighted. If trunk is associated with a remote PBX— Ringing tone heard.
21	Operate ANS key. *Attendant answer.*	PK lamp extinguished. High tone heard. If trunk is associated with a remote PBX— Ringing tone silenced.
22	Restore ANS key. *Attendant disconnect.*	◆If ETS provided— FT lamp extinguished.◆ E, AS lamps extinguished. High tone silenced.

SECTION 218-277-503

STEP	ACTION	VERIFICATION
23	Momentarily operate RL key.	All lamps extinguished.
24	Restore all key and switches not required in next test.	
C. Attendant Release After Startout		
14	Momentarily operate ST key. *Trunk seizure.*	◆If ETS provided— FT lamp lighted.◆ PK, AS, E lamps lighted. If trunk is associated with a remote PBX— Ringing tone heard.
15	Operate ANS key. *Attendant answer.*	PK lamp extinguished. High tone heard. If trunk is associated with a remote PBX— Ringing tone silenced.
16	Restore TLK key.	
17	Operate STO key.	
18	Momentarily operate RR key. *Attendant startout flash on E lead.*	
19	Operate HP key. *Preparation for detection of +130 volts on tip lead.*	R- lamp lighted. *Detection of +130 volts on tip lead.*
20	Restore HP key. *Removal of +130 volts in trunk and application of ground-start signal.*	R- lamp extinguished. OGT-CS lamp lighted.
21	Momentarily operate RR key. *Attendant finds no originating register available and operates END key.*	OGT-CS lamp extinguished. E lamp momentarily extinguished. *Cancellation of startout flash.*
22	Momentarily operate RR key. *Attendant startout signal.*	
23	Operate HP key. *Detection of +130 volts on tip lead.*	R- lamp lighted.
24	Restore HP key. *Removal of +130 volts in trunk and removal of ground-start signal.*	R- lamp extinguished. OGT-CS lamp lighted.
25	Operate LLR key.	
26	Operate ORV key. *Originating register attached.*	OGT-CS, E lamps extinguished. LLS lamp lighted.

STEP	ACTION	VERIFICATION
27	Restore STO key.	
28	Momentarily operate ONT key. *Attendant partial dial followed by operation of END key.*	LLS lamp extinguished. *Originating register released.*
29	Restore LLR, ORV keys.	E lamp lighted.
30	Momentarily operate RR key. *Attendant startout flash on E lead.*	
31	Operate HP key. *Preparation for detection of +130 volts on tip lead.*	R- lamp lighted. *Detection of +130 volts on tip lead.*
32	Restore HP key. *Removal of +130 volts in trunk and application of ground-start signal.*	R- lamp extinguished. OGT-CS lamp lighted.
33	Operate LLR key.	
34	Operate ORV key. *Originating register attached.*	OGT-CS, E lamps extinguished. LLS lamp lighted.
35	Restore STO key.	
36	Momentarily operate ONT key. *Check for removal of ground-start and simulate pulsing.*	GL lamp lighted.
37	Restore LLR, ORV keys. *Originating register released.*	GL, LLS lamps extinguished.
38	Operate ORV key. *On-net trunk attached.*	LLS lamp lighted.
39	Operate STO key.	
40	Momentarily operate RR key. *Attendant release of destination when line busy or no answer.*	E lamp lighted. LLS lamp momentarily extinguished.
41	Restore ORV key.	
42	Momentarily operate RR key. *Attendant startout flash on E lead.*	
43	Operate HP key. *Preparation for detection of +130 volts on tip lead.*	R- lamp lighted. *Detection of +130 volts on tip lead.*

SECTION 218-277-503

STEP	ACTION	VERIFICATION
44	Restore HP key. *Removal of +130 volts in trunk and application of ground-start signal.*	R- lamp extinguished. OGT-CS lamp lighted.
45	Momentarily operate RR key. *Attendant operation of END key.*	OGT-CS lamp extinguished. E lamp momentarily extinguished. *Cancellation of startout flash.*
46	Restore ANS key. *Attendant release of source.*	◆If ETS provided— FT lamp extinguished.◆ AS, E lamps extinguished.
47	Momentarily operate RL key.	All lamps extinguished.
48	Restore all keys and switches not required in next test.	
D. Call to Distant Attendant Facilities		
13	Select MISC class of test.	
14	Momentarily operate ST key. *Trunk seizure.*	◆If ETS provided— FT lamp lighted.◆ PK, AS lamps lighted. Ringing tone heard. At distant attendant facilities— Assistant answers call. At MTF— PK lamp extinguished. Ringing tone silenced. Talking path established between MTF and distant attendant facilities.
15	Request assistant at distant attendant facilities to release call and disconnect.	Talking path removed between MTF and distant attendant facilities. AS lamp extinguished. ◆If ETS provided— FT lamp extinguished.◆
16	Momentarily operate RL key.	All lamps extinguished.
17	Restore all keys and switches not required in next test.	
E. Trunk-Busy		
14b	If 17E testboard is provided— At 17E testboard— Apply lockout condition to trunk to be tested.	LO lamp associated with trunk under test lighted.
15c	If 17E testboard is not provided— At MTF—	

STEP	ACTION	VERIFICATION
	Insert make-busy plug into MB- jack associated with trunk to be tested.	
16	At MTF— Operate NTFS, NTTS keys.	
17	Momentarily operate ST key.	◆If ETS provided— FT lamp lighted.◆ AS, PK, E lamps lighted. If trunk is associated with a PBX— Ringing tone heard.
18	Operate ANS key.	PK lamp extinguished. High tone heard. If trunk is associated with a remote PBX— Ringing tone silenced.
19	Restore ANS key.	E, AS lamps extinguished. High tone silenced.
20	Momentarily operate RL key.	All lamps extinguished. ◆If ETS provided— FT lamp remains lighted.◆
21	Restore NTFS, NTTS keys.	
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.◆
25b	If 17E testboard is provided— At 17E testboard— Remove lockout condition from trunk under test.	◆If ETS provided— FT lamp extinguished.◆ LO lamp extinguished.
26c	If 17E testboard is not provided— At MTF— Remove make-busy plug from MB- jack.	◆If ETS provided— FT lamp extinguished.◆
27	At MTF— Momentarily operate ST key.	◆If ETS provided— FT lamp lighted.◆ AS, PK, E lamps lighted. If trunk is associated with a remote PBX— Ringing tone heard.
28	Operate ANS key.	PK lamp extinguished. High tone heard.

SECTION 218-277-503

STEP	ACTION	VERIFICATION
		If trunk is associated with a remote PBX— Ringing tone silenced.
29	Restore ANS key.	◆If ETS provided— FT lamp extinguished.◆ E, AS lamps extinguished. High tone silenced.
30	Momentarily operate RL key.	All lamps extinguished.
31	Restore all keys and switches not required in next test.	

F. Remote Make-Busy

14	Momentarily operate ST key.	◆If ETS provided— FT lamp lighted.◆ PK, AS, E lamps lighted. If trunk is associated with a remote PBX— Ringing tone heard.
15	Operate MTTA key.	MTT lamp lighted.
16	Momentarily operate RL key.	All lamps extinguished except MTT. If trunk is associated with a remote PBX— Ringing tone silenced.
17	Restore all keys and switches except MTTA key.	
18	Operate LLS key.	
19	Momentarily operate ST key.	
20	Operate ANS key.	If 17E testboard is provided— At 17E testboard— LO lamp lighted. If 17E testboard is not provided— At MTF— CCSA-MB lamp lighted.
21	Restore MTTA key.	
22	Restore ANS key.	If 17E testboard is provided— At 17E testboard— LO lamp extinguished. If 17E testboard is not provided— At MTF— CCSA-MB lamp extinguished.
23	Restore LLS key.	

STEP	ACTION	VERIFICATION
24	Momentarily operate RL key.	All lamps extinguished.
G. Cross-Office Lockout		
14	Momentarily operate ST key.	◆If ETS provided— FT lamp lighted.◆ AS, PK, E lamps extinguished. If trunk is associated with a remote PBX— Ringing tone heard.
15	Operate ANS key.	PK lamp extinguished. High tone heard. If trunk is associated with a remote PBX— Ringing tone silenced.
16	At 17E testboard— Apply cross-office lockout condition to trunk under test.	LO lamp associated with trunk under test lighted.
17	At MTF— Restore ANS key.	AS, E lamps remain extinguished. At 17E testboard— LO lamp remains lighted.
18	At MTF— Momentarily operate RL key.	◆If ETS provided— FT lamp remains lighted.◆ All lamps extinguished. At 17E testboard— LO lamp remains lighted.
19	At MTF— Momentarily operate ST key.	TB lamp lighted.
20	Momentarily operate RL key.	All lamps extinguished. At 17E testboard— LO lamp remains lighted.
21	Remove lockout condition from trunk under test.	LO lamp extinguished. ◆If ETS provided— FT lamp extinguished.◆
22	Restore all keys and switches not required in next test.	
H. False-Idle and False-Busy Conditions		
1a	If 17E testboard is provided— At 17E testboard— Apply lockout condition to trunk to be tested.	LO lamp associated with trunk under test lighted.
2b	If 17E testboard is not provided— At MTF—	

SECTION 218-277-503

STEP	ACTION	VERIFICATION
	Insert make-busy plug into MB- jack associated with trunk to be tested.	
3	At relay rack frame— Connect power to 1A fault locator; operate W-T switch to W and HR-LRT switch to LRT.	Whistle heard.
4	Connect WT jack of 1A fault locator to terminal 45 of terminal strip A on trunk under test.	If any trunk using the same route on the same trunk link frame as trunk under test is idle— Whistle silenced.
5a	If 17E testboard is provided— At 17E testboard— Apply lockout condition for all remaining trunks that use same route on same trunk link frame as trunk under test.	LO lamp associated with each trunk locked out is lighted. At relay rack frame— When last trunk is locked out— Whistle heard.
6b	If 17E testboard is not provided— At MTF— Insert make-busy plugs into MB- jacks associated with all remaining trunks that use same route on same trunk link frame as trunk under test.	At relay rack frame— When last trunk is made busy— Whistle heard.
7	Momentarily release B relay on trunk under test.	Whistle silenced while B relay released.
8	Connect ground to U of ON relay.	Whistle still heard.
9a	If 17E testboard is provided— Momentarily release B relay on trunk under test.	Whistle still heard while B relay released.
10	Remove ground from U of ON relay.	
11	Connect HRG to terminal 55 of terminal strip A.	
12	Remove test connection from terminal 45 of terminal strip A and connect to terminal 15.	Whistle still heard.
13a	If 17E testboard is provided— At 17E testboard— Remove lockout conditions for all incoming trunks that use same route on same trunk link frame as trunk under test.	LO lamp extinguished.
14b	If 17E testboard is not provided— At MTF— Remove all make-busy plugs from MB- jacks	

STEP	ACTION	VERIFICATION
	except for MB- jack associated with trunk under test.	
15	At relay rack frame— Momentarily release B relay on trunk under test.	Whistle silenced while B relay released.
16	Connect ground to U of ON relay.	Whistle still heard.
17a	If 17E testboard is provided— Momentarily release B relay on trunk under test.	Whistle still heard while B relay released.
18	Remove ground from U of ON relay.	
19	Remove test connections from terminals 15 and 55 of terminal strip A.	Whistle still heard.
20	Remove power from 1A fault locator.	Whistle silenced.
21a	If 17E testboard is provided— At 17E testboard— Remove lockout condition.	LO lamp extinguished.
22b	If 17E testboard is not provided— At MTF— Remove make-busy plug from MB- jack associated with trunk to be tested.	

