AUXILIARY OUTGOING TRUNKS AND TOLL SWITCHING TRUNKS
TESTS USING MASTER TEST FRAME
NO. 5 CROSSBAR OFFICES

1. GENERAL

1.01 This section covers a method of testing auxiliary outgoing trunks SD-25867-01, SD-27611-01, and toll switching trunks SD-26178-01 using the trunk test circuit SD-25918-01. Miscellaneous tests are also included in this section.

1.02 This section is reissued for the reasons listed below. Revision arrows are used to emphasize the more significant changes. This reissue does not affect Equipment Test List.

(a) To add Busy Line Verification (BLV) features to tests A through E, I and J.

(b) To make minor changes as required.

This reissue does not affect Equipment Test Lists.

1.03 The tests covered are:

1.04 Tests I and J require actions at both the toll switchboard and MTF.

1.05 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.

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

1.07 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.

1.08 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.

1.09 ***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.

1.10 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, ITDO, ITNP, OGT, etc.

2. APPARATUS

Tests A Through E, I, J

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

2.02 Trunk test circuit, SD-25918-01.

Tests E and G

2.03 322A (make-busy) plugs as required.

Test G

2.04 67C test set or equivalent, equipped with one KS-6278 connecting clip (for checking the presence of battery or ground).

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

2.06 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).

3. PREPARATION

STEP	ACTION	VERIFICATION
	Note: Refer to paragraphs 1.04 through 1.10.	
	Tests A Through E, I, J	
1	At MTF— Restore all keys.	
2	Momentarily operate RL key.	All lamps extinguished.
3	Select trunk to be tested.	
4	Operate FS, TS, TLK, KY keys.	
5	Select route advance as required.	
6	Select completing marker.	
7a	If ETS provided— Operate PCS, PTS keys.	
8b	◗If Busy Line Verification (BLV) is provided and trunk under test is SD-26178-01— Operate VFO key.◖	

4. METHOD

STEP	ACTION	VERIFICATION
	A. Trunk Seizure and Release	
9	Select A_ through C_ or A_ through F_ digits as required to select route of trunk under test.	
10c	If trunk is arranged for outgoing CX supervision— At MTF— Operate E-M key.	
11	Select OGT class of test.	
12	Select TOL subclass of test.	TOL lamp lighted.
13	Operate TTL key.	
14	Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamp lighted. If trunk is arranged for outgoing CX supervision— E lamp lighted.

STEP	ACTION	VERIFICATION
15	Operate ANS key.	OGT-CS lamp lighted. Steady high tone heard.
16	Restore ANS key.	OGT-CS lamp extinguished. TAS lamp remains lighted.
17	Restore TLK key.	If ETS provided— FT lamp extinguished. TAS lamp extinguished. E lamp extinguished if lighted.
18	Momentarily operate RL key.	All lamps extinguished except TOL.
19	Restore all keys and switches not required in next test.	TOL lamp extinguished.

B. Call to Test Line in Distant Office—Trunks Not Associated With Recording Completing Trunks

9	Select A_ through K_ digits as required to reach test line in distant office.	
10c	If test line is reached via 10X code and NNX or NO/1X code is to be deleted— Operate DL3 or DL6 key as required.	
11	Select MISC class of test.	
12	Select TOL subclass of test.	TOL lamp lighted.
13	Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamp lighted. Signals received on the first test will indicate signals that may be expected on successive tests to same office. A series of clicks is given by synchronizing types of test line circuits to indicate that cycle of tests has been completed.
14	Restore TLK key.	If ETS provided— FT lamp extinguished. TAS lamp extinguished.
15	Momentarily operate RL key.	All lamps extinguished except TOL.
16	Restore all keys and switches not required in next test.	TOL lamp extinguished.

STEP	ACTION	VERIFICATION
C.	**Call To Operator in Distant Office—Auxiliary Trunks Associated With Recording Completing Trunks**	
9	Select A_ through C_, or A_ through F_ digits as required to reach operator in distant office.	
10	Select MISC class of test.	
11	Select TOL subclass of test.	TOL lamp lighted.
12	Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamp lighted. Called operator answers.
13	Request called operator to disconnect.	
14	Restore TLK key.	If ETS provided— FT lamp extinguished. TAS lamp extinguished.
15	Momentarily operate RL key.	All lamps extinguished except TOL.
16	Restore all keys and switches not required in next test.	TOL lamp extinguished.
D.	**Overflow**	
9	Select A_ through C_ or A_ through F_ digits as required to select route of trunk under test.	
10	Select OGT class of test.	
11	Select TOL subclass of test.	TOL lamp lighted.
12	Operate TTL, ROT keys.	
13	Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamp lighted. OGT-CS lamp flashes at overflow rate. Overflow tone returned, when provided.
14	Momentarily operate RL key.	All lamps extinguished except TOL.
15	Restore all keys and switches not required for next test.	TOL lamp extinguished.

STEP	ACTION	VERIFICATION
E. Trunk Busy		
9	Insert make-busy plug into OGT-MB jack of trunk to be tested.	
10	Select A_ through C_ or A_ through F_ digits as required to select route of trunk under test.	
11	Select OGT class of test.	
12	Select TOL subclass of test.	TOL lamp lighted.
13	Operate TTL key.	
14c	If there are other idle trunks of same group on same trunk link frame— Restore TS key.	
15c	Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamp lighted.
16c	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
17c	Operate TS key.	
18	Momentarily operate ST key.	TB lamp lighted.
19	Momentarily operate RL key.	All lamps extinguished except TOL. If ETS provided— FT lamp remains lighted.
20	Restore all keys and switches not required in next test.	TOL lamp extinguished.
21	Remove make-busy plug from OGT-MB jack of trunk to be tested.	If ETS provided— FT lamp extinguished.
F. Deleted		
G. False-Busy and False-Idle Conditions		
1a	If trunk under test is 2-way— At distant office— Make busy trunk under test.	
2	At trunk relay rack frame— Connect power to 1A fault locator, operate W-T switch to W position, HR-LRT switch to HR position.	Whistle heard.

STEP	ACTION	VERIFICATION
3	Connect WT jack of fault locator to terminal (FT lead) of terminal strip on unit as follows: 227-type terminal strip, use test cord equipped with 419A tool, terminal A10. D-type terminal strip, use test cord equipped with 624B tool, terminal 45.	Whistle not heard.
4b	If circuit under test is equipped with MB relay— Block operated MB relay.	If trunk under test is the only idle trunk or the only trunk using the same route on same trunk link frame— Whistle heard.
5c	If circuit under test is not equipped with MB relay— Block operated S1 relay.	If trunk under test is the only idle trunk or the only trunk using the same route on same trunk link frame— Whistle heard.
6	At jack, lamp, and key circuit— Insert make-busy plugs into OGT-MB jacks of all other circuits using same route on same trunk link frame.	At relay rack frame— Whistle heard when last trunk made busy.
7	Momentarily remove blocking tool inserted in Step 4b or 5c.	Whistle not heard while blocking tool was removed.
8	At jack, lamp, and key circuit— Remove plugs from OGT-MB jacks.	Whistle not heard if any trunks idle.
9	At trunk relay rack frame— Connect HRG terminal to (F lead) terminal strip on unit as follows: 227-type terminal strip, terminal A9. D-type terminal strip, terminal 55. ***Note:*** When testing SD-26084-01 terminal will be 34.	
10	Disconnect WT jack of fault locator and connect to terminal (BT lead) as follows: 227-type terminal strip, terminal A11. D-type terminal strip, terminal 15.	Whistle heard.
11	Remove blocking tool from MB or S1 relay.	Whistle not heard.
12	Remove test connections from terminal strip.	
13a	If trunk under test is 2-way— At distant office— Restore trunk to service.	

STEP	ACTION	VERIFICATION
H. Timed Release Feature—Auxiliary Outgoing Trunks		
1	At relay rack frame— Observe TM, BY relays.	TM relay nonoperated. BY relay nonoperated.
2	Momentarily operate BY relay manually.	BY relay released in approximately 1 second.
I. Busy Indications From Toll Switchboard—Auxiliary Outgoing Trunks		
9	At toll switchboard— When switchboard trunk associated with trunk to be tested is idle— Insert front cord into trunk jack.	
10	At MTF— Select A_ through K_ digits as required to reach terminating test line in distant office.	
11	Select MISC class of test.	
12	Select TOL subclass of test.	TOL lamp lighted.
13c	If there are other trunks of same group on same trunk link frame— Restore TS key.	
14c	Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamp lighted.
15c	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
16c	Momentarily operate ST key.	TB lamp lighted.
17	Momentarily operate RL key.	All lamps extinguished except TOL. If ETS provided— FT lamp remains lighted.
18	Restore all keys and switches not required in next test.	TOL lamp extinguished.
19	At toll switchboard— Remove cord from trunk jack.	If ETS provided— FT lamp extinguished.
J. Busy Indications to Toll Switchboard—Testing at Toll Switchboard—Auxiliary Outgoing Trunks		
9	Select A_ through K_ digits as required to reach terminating test line in distant office.	

STEP	ACTION	VERIFICATION
10	Select MISC class of test.	
11	Select TOL subclass of test.	TOL lamp lighted.
12	Momentarily operate ST key.	If ETS provided— FT lamp lighted. TAS lamp lighted.
13	At toll switchboard— Make busy tests at switchboard jack associated with trunk being tested.	Trunk tests busy.
14	At MTF— Momentarily operate RL key.	All lamps extinguished except TOL.
15	Restore all keys and switches not required in next test.	TOL lamp extinguished.