

TOLL SWITCHING TRUNKS  
USING MF TRUNK TEST SET SD-55922-01

NO. 1 TOLL SWITCHBOARD

1. GENERAL

- 1.01 This section describes a method of testing toll switching trunks arranged for MF key pulsing with the sender in the distant office or located in the same building with the switchboard. This test is made from the relay rack using MF trunk test set SD-55922-01. It also provides an operation test of associated links when they are located in the same office with the toll switchboard.
- 1.02 This section is reissued to remove previous Test B, establish three separate tests, B, C and D, for the link circuit and change the title. As this is a general revision the use of arrows has been omitted.
- 1.03 The tests covered are:
- (A) Trunk Test from Relay Rack: This test checks the seizure, ringing, tripping and supervision of the toll switching trunk.
  - (B) Link Trunk Finder Test to Pick a Particular Trunk: This test checks the ability of the link trunk finders, when located in the same building with the switchboard, to pick a particular trunk and attach a sender.
  - (C) Link Trunk Finder Start Lead Test: This test checks the start lead and over-all operation of the link trunk finder.
  - (D) Selectors (206 Type) Associated with Links: This test checks the operation and release of the 206-type selectors.
- 1.04 Before proceeding with tests determine the following from office records:
- (a) Position at which trunks to be tested appear.
  - (b) Trunk test line number to be called.
- 1.05 One of the following test line circuits at distant offices will be used, depending on the type of office to which the trunk connects:
- (a) Connector multiple test line (step-by-step).
  - (b) Final multiple test line (panel).
  - (c) Incoming trunk test line (No. 1 and No. 5 crossbar).
- 1.06 Tests (A) and (B) require an assistant at the switchboard.
- 1.07 Lettered Steps: The letters a and b, etc., are added to a step number to indicate the steps covering an action which may or may not be required, depending on local conditions. The conditions under which a lettered step or series of steps should be made are given in the action column. All steps governed by the same condition are designated by the same letter. Where a condition does not apply, the associated steps should be omitted.

2. APPARATUS

Tests (A) and (B)

- 2.01 MF Key Pulsing Trunk Test Circuit SD-55922-01.
- 2.02 Portable Control Set J64714B (SD-55922-01).
- 2.03 M-15-B Cord, equipped with 2 H. B. Jones Plugs per KS-8585, L25.
- 2.04 Operator Telephone Set.
- Test (B)
- 2.05 No. 258C Plug.

3. PREPARATION

## PREPARATION FOR TESTS A AND B

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
1	Patch portable control set to TRK TST jack at the relay rack using M-15-B cord.	
2	Connect operator telephone set to A and B jacks of control set.	
3	Operate TST key of control set momentarily.	If SV lamp lights it indicates that test line cord is connected to a trunk at one of the switchboard appearances. Cord should be removed from trunk jack before proceeding with test.
4a	If position selector is provided operate momentarily the OPR key to SEL position the required number of times to reach switchboard position desired.  <u>Note:</u> To talk to a switchboard position from relay rack without use of portable control set, plug telephone set in relay rack multiple jack appearance and momentarily operate SEL OPR key, mounted on relay rack, the required number of times to reach switchboard position desired.	
5	Operate OPR key to HLD position.	Answering lamp at switchboard lights; assistant answers.
6	Instruct assistant to connect test line cord into jack of desired trunk.	

4. METHOD

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
<u>(A) Trunk Test from Relay Rack</u>		
7	Operate TST key and monitor.	SV lamp lights when sender is ready to receive pulses.
	<u>Note:</u> If trunk is busy it will be necessary to momentarily restore the TST key when the trunk becomes idle.	
8	Momentarily operate KP key.	
9b	If trunk being tested has controlled ringing - Key test line number, operate ST key and then operate RNG key.	<p>Ring tone is heard.</p> <p>Ring tone should trip within two ringing cycles, removing the ringing tone.</p> <p>SV lamp is extinguished and test tone is heard.</p> <p>SV lamp flashes.</p> <p>The rate of flashing and hearing ringing tone will depend on the particular test line circuit.</p>
	<u>Note:</u> If necessary to talk to switchboard while holding trunk under test, operate TALK key to OPR position.	

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
10c	If trunk being tested has automatic ringing - Key test line number and operate ST key.	Same as 9b.
11	Restore TST key.	Trunk relays release and SV lamp extinguished.
12	Operate TST key.	SV lamp lights.
13	Momentarily operate KP key twice.	SV lamp flashes, 120 times per minute.
14	Restore TST key.	Trunk relays release and SV lamp extinguished.
<p>Note: If Test (A) has been completed on all trunks and Test (B) is not to be made, then complete steps 12 to 15, inclusive, of Test (B).</p>		
<p><u>(B) Link Trunk Finder Test to Pick a Particular Trunk</u></p>		
7	Operate TST key and monitor.	If idle, first choice link trunk finder steps to proper level and cuts in to trunk terminals.  SV lamp lights.
<p>Note: If trunk is busy it will be necessary to momentarily restore the TST key when the trunk becomes idle.</p>		
8	Restore TST key.	Link trunk finder releases and SV lamp extinguished.
9	Insert 258C plug in MB jack of first choice link finder.	
10	Operate TST key.	If idle, second choice link trunk finder steps to proper level and cuts in to trunk terminals.  SV lamp lights.
11	Restore TST key.	Link trunk finder releases and SV lamp extinguished.
<p>Note: Continue inserting 258C plugs in successive M. B. jacks and repeating steps 10 and 11 to test the required number of link trunk finders.</p>		
12	Flash RC OPR key.	Switchboard cord supervisory lamp flashes or if answering cord has been removed the answering lamp lights; assistant answers.
13	Request assistant to disconnect test line cord.	
14	Operate TST key.	SV lamp should not light, indicating test line has been disconnected.
15	Restore all keys to normal and remove patching cord and operator telephone set.	

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
<u>(C) Link Trunk Finder Start Lead Test</u>		
1	Operate TST key on link group frame.	Each idle trunk finder, in succession beginning with the first, should step to trunk 10 of the first subgroup (terminal 10) and release. This cycle repeats and after 14 to 48 seconds the white G lamp on the link frame and associated aisle pilot lights and the audible alarm operates.
2	Release TST key on link group frame.	Aisle pilot and G lamps are extinguished and the audible alarm is retired.

(D) Selectors (206 Type) Associated with Links

1	Manually operate SR relay in link trunk circuit.	Selector operates steadily and with uniform speed.
2	Release SR relay.	Selector returns to normal.