

# INCOMING INTERCEPT ONI-3 LOOP SIGNALING TRUNK CIRCUIT SD-97573-01 TESTS USING PORTABLE TEST SET J94747A

## NO. 1 TRUNK CONCENTRATOR

### 1. GENERAL

PAGE

1.01 This section describes a method of testing operator number identification loop signaling trunk circuit SD-97573-01 (ONI-3) using trunk test set J94747A. The ONI-3 trunk circuit interfaces the intercept trunks from the remote central office to the vertical selection controls of the trunk concentrator (TC).

**C. Concentrator Time-Out After Seizure:** This test checks that when the concentrator fails to switch a call within the preset time period, the incoming trunk will go off-hook to the central office and reorder tone will be returned to the customer. . . . .

6

1.02 This section is reissued to include operation of the TONE key in Test D, Step 25d for trunks which employ high-low supervision. This reissue does not affect the Equipment Test List.

**D. OGT Time-Out:** This test checks that when the OGT has timed out waiting for a wink signal from the automatic intercept center (AIC) or No. 5 ACD, the OGT will return a signal to the incoming trunk causing the incoming trunk to release the connection through the concentrator and return reorder tone to the customer. . . . .

6

1.03 The tests covered are:

PAGE

**A. Operational Test:** This test checks that the trunk can be seized forward to the Automatic Intercept System (AIS), No. 5 automatic call distributor (No. 5 ACD), or No. 23-desk, and a signal is returned from the AIS, No. 5 ACD, or No. 23-desk, that a talking path is established, and release of the trunk is normal. When the trunk is equipped for optional spinoff to a collocated announcement machine or spinoff to an operator position, these features are also tested. . . . .

3

**E. OGT Time-Out After Wink—AIC or No. 5 ACD On-Hook:** This test checks that when the OGT times out following a valid wink signal from the AIC or No. 5 ACD, the OGT will send a signal to the incoming trunk causing it to release the connection through the concentrator, to start a permanent signal timer, and to block reseizure of the concentrator. . . . .

8

**B. Trunk Time-Out After Seizure:** This test checks that when the ten second timer in the trunk functions before an outgoing trunk (OGT) has been connected, the incoming trunk will go off-hook to the central office and reorder tone will be returned to the customer. . . . .

5

**F. False Ground on ST Lead While Trunk is Idle:** This test checks that when a false ground is detected on the ST lead, a trouble lamp will light and the trunk is locked out of service. . . . .

9

1.04 **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

### NOTICE

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

**SECTION 201-850-514**

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.

**2. APPARATUS**

**All Tests**

**2.01** TC portable trunk test set J94747A (SD-97576-01).

**2.02** Head telephone set, 52M or equivalent.

**2.03** Five patching cords, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord), except for Test A which requires four 3P7A cords.

**Test F**

**2.04** Blocking tool. Use and apply as covered in Section 069-020-801.

**3. PREPARATION**

**3.01** Before performing each test, position the TTS switch on the test set to the 03LT position.

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
-------------	---------------	---------------------

**All Tests**

- |   |   |  |
|---|---|--|
| 1 | Select ONI-3 trunk to be tested.  |  |
| 2 | At distant office associated with trunk selected in Step 1—<br>Arrange to have trunk made busy. |  |
| 3 | At TC test set—<br>Restore all keys to normal.  |  |
| 4 | At incoming trunk frame—<br>Using 3P7A cord, connect -48V jack to -48V jack on TC test set.     |  |

**Caution:** To avoid possible grounding of battery supply lead, connect cord to test set first and, when disconnecting, remove cord from test set last.

**Caution:** Take extreme precaution at the incoming trunk frame to insure the -48V and +130V cord plugs from the test set are plugged into the -48V and +130V supply jacks respectively and not accidentally crossed.

- |   |   |  |
|---|---|--|
| 5 | Using 3P7A cord, connect +130V jack to +130V jack on TC test set. |  |
| 6 | Using 3P7A cord, connect TST jack to 2W TST jack on TC test set.  |  |
| 7 | Using 3P7A cord, connect TRK jack to TRK jack on TC test set.     |  |

STEP	ACTION	VERIFICATION
8	At TC test set— Operate -48V key.	-48V lamp lighted.
9	Operate +130V key.	+130V lamp lighted.
10	At incoming trunk frame— Operate BCO key.	BCO lamp lighted.

**Tests A Through D and F**

- 11 Plug head telephone set into A—B jacks.

**4. METHOD**

STEP	ACTION	VERIFICATION
<b>A. Operational Test</b>		
12a	If trunk is not equipped with trouble or blank number spinoff options— At TC test set— Select a class of intercept and operate the proper key as follows: Regular intercept—R key— Trouble intercept—T key— Blank number intercept—BN key.	
13a	Operate FT key.	FT lamp lighted.
14a	Momentarily operate TSZ key.	TSZ lamp lighted. OHI/OP, WNK/ANS lamps flash then lighted. At incoming trunk frame— ON_ CT_ lamps lighted.
15a	At TC test set— Operate TALK key.	TALK lamp lighted. Talking path established.
16a	Momentarily operate RL key.	OHI/OP, WNK/ANS, TSZ lamps extinguished. At incoming trunk frame— ON_ CT_ lamps extinguished.
17a	At TC test set— Restore R, T, or BN key and repeat Steps 12a through 16a until all three classes of intercept have been selected.	
18b	If trunk is equipped with trouble spinoff option— At TC test set— Operate T key.	
19b	Operate FT key.	FT lamp lighted.

SECTION 201-850-514

STEP	ACTION	VERIFICATION
20b	Momentarily operate TSZ key.	TSZ lamp lighted. After operator answers— OHI/OP lamp lighted. At incoming trunk frame— ON_ lamp lighted.
21b	At TC test set— Operate TALK key.	TALK lamp lighted. Talking path established to operator.
22b	Momentarily operate RL key.	TSZ lamp extinguished. At incoming trunk frame— ON_ lamp extinguished. At TC test set— After operator disconnects— OHI/OP lamp extinguished.
23c	If trunk is equipped with blank number spinoff option (AIC arrangement only)— At TC test set— Operate BN key.	
24c	Operate FT key.	FT lamp lighted.
25c	Momentarily operate TSZ key.	TSZ lamp lighted. At incoming trunk frame— ON_ lamp lighted. At TC test set— Within approximately 40 seconds— OHI/OP lamp lighted.
26c	Operate TALK key and listen to two cycles of the recorded announcement.	TALK lamp lighted. Within approximately 40 seconds— Recorded announcement heard. After two cycles of the recorded announcement— At incoming trunk frame— CT_ lamp lighted. At TC test set— WNK/ANS lamp flashes. When operator answers— WNK/ANS lamp lighted.
27c	Momentarily operate RL key.	TSZ, OHI/OP, WNK/ANS lamps extinguished. At incoming trunk frame— ON_, CT_ lamps extinguished.
28	At TC test set— Restore all keys to normal.	All lamps extinguished.
29d	If no other tests are to be performed on this trunk— At TC test set—	

STEP	ACTION	VERIFICATION
	Remove all patching cords between test set and incoming trunk frame.	
30d	At distant office— Arrange to have trunk restored to service.	
<b>B. Trunk Time-Out After Seizure</b>		
12	At incoming trunk frame— Using 3P7A cord, connect TT jack to TT jack on test set.	
13	At TC test set— Operate the R key.	
14	Operate TT key.	TT lamp lighted.
15	Momentarily operate TSZ key.	TSZ lamp lighted. At incoming trunk frame— ON_ lamp lighted. After approximately 10 seconds— TBL_ lamp lighted. At TC test set— OHI/OP lamp lighted.
16	Operate TALK key.	TALK lamp lighted. 120 ipm tone heard in receiver.
17	Momentarily operate RL key.	TSZ lamp extinguished. At incoming trunk frame— ON_ lamp extinguished.
18	At incoming trunk frame— Manually restore TTO relay in trunk to normal.	TBL lamp extinguished. At TC test set— OHI/OP lamp extinguished.
19	Momentarily operate SIG-B key twice.	
20	Restore TT key and then all other keys to normal.	All lamps extinguished.
21a	If no other tests are to be performed on this trunk— At TC test set— Remove all patching cords between test set and incoming trunk frame.	
22a	At distant office— Arrange to have trunk restored to service.	

STEP	ACTION	VERIFICATION
<b>C. Concentrator Time-Out After Seizure</b>		
12	At incoming trunk frame— Using 3P7A cord, connect the TT jack to TT jack on test set.	
13	At TC test set— Operate the R key.	
14	Operate TT key.	TT lamp lighted.
15	Momentarily operate TSZ key.	TSZ lamp lighted. At incoming trunk frame— ON_ lamp lighted.
16	At TC test set— Within 10 seconds after performing previous step— Operate TO key.	OHI/OP, TO lamps lighted.
17	Operate TALK key.	TALK lamp lighted. 120 ipm tone heard in receiver.
18	Momentarily operate RL key.	TSZ lamp extinguished. At incoming trunk frame— ON_ lamp extinguished.
19	At TC test set— Restore all keys to normal.	All lamps extinguished.
20a	If no other tests are to be performed on this trunk— At TC test set— Remove all patching cords between test set and incoming trunk frame.	
21a	At distant office— Arrange to have trunk restored to service.	
<b>D. OGT Time-Out</b>		
12	At incoming trunk frame— Using 3P7A cord, connect TT jack to TT jack on test set.	
13a	If trunk is not equipped with ROTO and TTR relays— At TC test set— Operate R key.	
14a	Operate TT key.	TT lamp lighted.

STEP	ACTION	VERIFICATION
15a	Momentarily operate TSZ key.	TSZ lamp lighted. At incoming trunk frame— ON_ lamp lighted.
16a	Within 10 seconds after performing previous step— Momentarily operate SIG-B key.	SIG, WNK/ANS lamps momentarily lighted. At incoming trunk frame— CT_ lamp lighted.
17a	At TC test set— Momentarily operate SIG-B key.	SIG lamp momentarily lighted. OHI/OP lamp lighted.
18a	Operate TALK key.	TALK lamp lighted. 120 ipm tone heard in receiver.
19b	If trunk is equipped with ROTO and TTR relays— At TC test set— Operate T key.	
20b	Operate TT key.	TT lamp lighted.
21b	Momentarily operate TSZ key.	TSZ lamp lighted. At incoming trunk frame— ON_ lamp lighted.
22b	At TC test set— Within 10 seconds after performing previous step— Momentarily operate SIG-B key.	SIG lamp momentarily lighted. At incoming trunk frame— CT_ lamp lighted.
23b	At TC test set— Momentarily operate SIG-B key.	SIG lamp momentarily lighted. OHI/OP lamp lighted.
24c	◆If testing other than high-low supervision trunks— Operate TALK key.	TALK lamp lighted. 120 ipm tone heard in receiver. After approximately 10 seconds— 120 ipm tone ceases. OHI/OP lamp extinguished.
25d	If testing high-low supervision trunks— Operate TONE key.	MFT lamp lighted. 120 ipm tone heard in receiver. After approximately 10 seconds— 120 ipm tone ceases. OHI/OP lamp extinguished.◆
26	Operate RL key.	TSZ lamp extinguished. At incoming trunk frame— ON_, CT_ lamps extinguished.
27	Restore all keys to normal.	All lamps extinguished.

SECTION 201-850-514

STEP	ACTION	VERIFICATION
28e	If no other tests are to be performed on this trunk— At TC test set— Remove all patching cords between test set and incoming trunk frame.	
29e	At distant office— Arrange to have trunk restored to service.	
<b>E. OGT Time-Out After Wink—AIC or No. 5 ACD On-Hook</b>		
11	At incoming trunk frame— Using 3P7A cord, connect TT jack to TT jack on test set.	
12	At TC test set— Operate R key.	
13	Operate TT key.	TT lamp lighted.
14	Momentarily operate TSZ key.	TSZ lamp lighted. At incoming trunk frame— ON_ lamp lighted.
15	At TC test set— Within 10 seconds after performing previous step— Momentarily operate SIG-B key.	SIG lamp momentarily lighted. At incoming trunk frame— CT_ lamp lighted.
16	At TC test set— Momentarily operate SIG-G key.	SIG, WNK/ANS lamps momentarily lighted.
17	Momentarily operate SIG-B key.	SIG lamp momentarily lighted. At incoming trunk frame— PS_ lamp lighted.
18	At TC test set— Momentarily operate RL key.	TSZ lamp extinguished. At incoming trunk frame— ON_ CT_ PS_ lamps extinguished.
19	At TC test set— Restore all keys to normal.	All lamps extinguished.
20a	If no other tests are to be performed on this trunk— At TC test set— Remove all patching cords between test set and incoming trunk frame.	
21a	At distant office— Arrange to have trunk restored to service.	

STEP	ACTION	VERIFICATION
<b>F. False Ground on ST Lead While Trunk is Idle</b>		
12	At TC test set— Operate TTS switch to OFF position.	
13	At incoming trunk frame— Using 3P7A cord, connect TT jack to TT jack on test set.	
14	Block TTO relay nonoperated.	
15	At TC test set— Operate TT key.	TT lamp lighted.
16	Momentarily operate XST key.	XST lamp momentarily lighted. At incoming trunk frame— TBL_ lamp lighted.
17	At TC test set— Operate TTS switch to 03LT position.	
18	Operate R key.	
19	Momentarily operate TSZ key.	TSZ, OHI/OP lamps lighted. At incoming trunk frame— ON_ lamp lighted.
20	At TC test set— Operate TALK key.	TALK lamp lighted. 120 ipm tone heard in receiver.
21	Momentarily operate RL key.	TSZ lamp extinguished. At incoming trunk frame— ON_ lamp extinguished.
22	Manually restore XST relay in trunk to normal.	TBL_ lamp extinguished. At TC test set— OHI/OP lamp extinguished.
23	Restore all keys to normal.	All lamps extinguished.
24	Remove blocking tool from TTO relay.	
25a	If no other tests are to be performed on this trunk— At TC test set— Remove all patching cords between test set and incoming trunk frame.	
26a	At distant office— Arrange to have trunk returned to service.	