OUTGOING INTERCEPTING TRUNKS AND VACANT CODE TRUNKS OPERATION TEST USING TEST SET SD-31858-01 (J34701A) 355A COMMUNITY DIAL OFFICES

1. GENERAL

1.01 This section describes a method of testing outgoing intercepting trunks, from an intercepted connector or local selector level multiple, which are arranged to route calls to an operator for regular intercepting or trouble intercepting, or to an announcement machine. It also describes a method of testing vacant code trunks used on selector multiple.

1.02 This section is reissued to include tests of intercept trunks arranged for E and M lead signaling such as SD-32309-01, and to bring the section generally up to date. Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 The tests covered are:

A. Operation Test of Trunks From Connector Multiple: This test checks the signaling, supervision, and continuity of trunks from intercepted connector multiple to an operator for regular intercepting or trouble intercepting, or to announcement machine.

B. Operation Test of Trunks From Selector Multiple: This test checks the signaling, supervision, and continuity of trunks from intercepted selector levels to an operator for regular intercepting or trouble intercepting, or to announcement machine.

C. Operation Test of Vacant Code Trunks: This test checks the continuity and polarity of the vacant code trunks used on selector levels.

1.04 Action and verification is required at the operator position. For trunks with E and M lead signaling, arranged for more than one class of intercept, Tests A and B check that the test call is received on regular intercept or trouble intercept, or announcement machine, which in turn checks that the pulse generator signals properly.

1.05 If making Test A, obtain from traffic records a list of vacant connector multiple numbers, assigned to intercepting trunks. Select one number for each trunk. The selection should include the various types of connector multiples installed: regular, terminal per station, or terminal per line.

1.06 When testing selectors arranged to absorb either the initial digit, or the first and second digit before trunk hunting, dial the necessary digits before proceeding with the tests.

1.07 In Test A, if the trunks are used for trouble intercept, it will be necessary to insert the T1 plug into the T1 trunk jack before testing for trouble intercept.

1.08 If Test A or B is made from a first selector associated with a line finder circuit in which the AB lead is normally extended through contacts of the VON spring assembly to the RLS lead, make the line finder busy by operating the MB (make busy) key.

1.09 Where a test call is answered in less than 4 seconds, the audible ringing tone may not be heard.

1.10 To rotary step selectors other than SD-32183-01, rapidly open and close the off-normal springs by means of the KS-6320 orange stick applied to the tip of the off-normal finger. Observe that selector rotates to the next idle terminal and cuts through without chattering.

Note 1: On the SD-32183-01 selector, after the switch has been dialed and the first idle trunk has been seized, it will be necessary

to block the VON springs nonoperated (normal position). To step the selector to the next idle terminal, rapidly open and close the rotary interrupter springs by means of an orange stick. When the level has been tested, remove the blocking tool from the off-normal lever to close the release path.

Note 2: On the following typical digit absorbing selectors, it will be necessary to block relays as indicated while the selector is being stepped, to prevent the selector from releasing. Consult drawings on any circuit not covered.

SELECTOR	BLOCK RELAY	OPERATE
SD-30976-01	F Nonopr	VON Spg
SD-31022-01	F Opr	VON Spg
SD-31784-01	F Opr	VON Spg
SD-31933-01	D Opr	VON Spg
SD-32077-01	F Opr	VON Spg

1.11 ***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.

1.12 Local instructions should be followed for recording and reporting any register operations caused by performing these tests.

2. APPARATUS

All Tests

2.01 Test set, J34701A (SD-31858-01).

2.02 Head telephone set (associated with test set).

2.03 Patching cord, P3H cord, 10 feet long, equipped with a No. 310 plug and a No. 240A plug (No. 3P2A cord).

2.04 Patching cord, P2J cord, 9 feet long (No. 2P9A cord), equipped with two No. 310 plugs (for use where battery supply jack is provided).

2.05 Testing cord, W2M cord, 9 feet long (No. 2W12A cord), equipped with a No. 310 plug and two No. 59 cord tips (for use where battery supply jack is not provided).

Tests A and B

2.06 No. 310 plug (T1 plug) with tip and ring short-circuited (for use when testing trouble intercept only).

Test C

2.07 KS-6320 orange stick.

2.08 Toothpicks as required, for blocking VON spring assembly on SD-32183-01 selectors.

2.09 Blocking tools, as required. Use tools and apply, as covered in Section 069-020-801.

3. PREPARATION

STEP	ACTION	VERIFICATION
All Tests		
1a	If battery supply jack is available — Connect test set BAT G jack to 48-volt battery supply frame jack using P2J cord. *Note:* To avoid possible grounding of battery supply lead, connect cord to test set first and, when disconnecting, remove cord from test set last.	
2b	If battery supply jack is not available — Insert No. 310 plug of W2M cord into test set BAT G jack.	

STEP	ACTION	VERIFICATION
3b	Connect red (sleeve) conductor of cord to frame ground, white (tip) conductor to equipment side of convenient 48-volt battery fuse (not to exceed 3 amperes).	
4	Connect head telephone set to test set TEL jack, then operate test set TRS key.	
5	Connect No. 310 plug of P3H cord to test set T jack.	

4. METHOD

STEP	ACTION	VERIFICATION
	A. Operation Test of Trunks From Connector Multiple	
6	Insert No. 240A plug into test jack of idle selector having access through local selector train to all connectors.	
7	Operate LP key.	
8	Operate, restore DL ST key.	SL lamp lights, remains lighted.
9c	If call is to regular intercept — Dial connector multiple number which will ring on ring side of intercept trunk to be tested.	Audible ringing tone heard.
10c	At switchboard — Call is answered.	At test set — Audible ringing tone silenced. REV lamp does not light. Transmission satisfactory. At switchboard — Where separate answering jacks or circuits for "regular" and "trouble" intercepting are provided — Call is received on "regular" intercept.
11c	At switchboard — Operate, restore flashing key.	At test set — Trunks arranged to flash on local calls — REV lamp lights while flashing key is operated. Trunks not arranged to flash on local calls — REV lamp does not light.
12	Perform Steps 13d to 16d, inclusive, on trunks other than E and M lead trunks.	
13d	If terminal-per-line connector multiple is being used for test — At switchboard — Disconnect on receipt of disconnect signal.	
14d	Operate FL key momentarily.	Equipment releases.

STEP	ACTION	VERIFICATION
15d	Dial connector multiple number with proper suffix to ring on tip side of line.	
16d	At switchboard — Call is answered.	REV lamp does not light. Transmission satisfactory.
17e	If circuit is arranged to lock out when working line is called (one station of which is connected to intercept) — At switchboard — Disconnect on receipt of disconnect signal.	
18e	Operate FL key momentarily.	Equipment releases.
19e	Dial same connector multiple number with proper suffix to reach working station.	
20e	Listen on line for three or four ringing intervals. Should subscriber answer, advise that test is being made, then disconnect.	
21e	At switchboard — Disconnect when disconnect signal is received.	
22e	Operate FL key momentarily.	Equipment releases.
23f	If call is to machine intercept — Dial connector multiple number which will ring on tip side of intercept trunk to be tested.	Audible ringing tone heard. Cut-through to announcement machine is made. Audible ringing tone silenced. Announcement starts at beginning, volume, quality good.
24f	Operate FL key momentarily.	Equipment releases.
25g	If circuit is arranged for trouble intercept — Insert T1 plug into trunk T1 jack.	
26g	Dial connector multiple number to ring on either tip or ring side of intercept trunk.	Audible ringing tone heard.
27g	At switchboard — Call is answered.	At test set — Audible ringing tone silenced. REV lamp not lighted. At switchboard — Where separate answering jacks or circuits for "regular" and "trouble" intercepting are provided — Call is received on "trouble" intercept.
28g	At switchboard — Disconnect when disconnect signal is received.	
29g	Operate FL key momentarily.	Equipment releases. SL lamp extinguished.

STEP	ACTION	VERIFICATION
30	Remove No. 240A plug from connector test jack.	
31	Restore LP key.	
32g	If circuit is arranged for trouble intercept — Remove T1 plug from T1 jack.	
	B. Operation Test of Trunks From Selector Multiple	
6	Insert No. 240A plug into test jack of idle selector having access to intercepted level to be tested.	
7	Operate LP key.	
8	Operate, restore DL ST key.	SL lamp lights, remains lighted.
9c	If call is to regular intercept — Dial proper level to reach trunk arranged to ring on ring side.	Audible ringing tone heard, unless call is answered.
10c	At switchboard — Call is answered.	REV lamp not lighted. Audible ringing tone silenced. Transmission satisfactory. At switchboard — Where separate answering jacks or circuits for "regular" and "trouble" intercept are provided — Call is received on "regular" intercept.
11c	At switchboard — Operate, restore flashing key.	Circuit arranged for flashing on local calls — REV lamp lights, while flashing key is operated. Circuit not arranged for flashing on local calls — REV lamp does not light.
12c	At switchboard — Disconnect on receipt of disconnect signal.	
13c	Operate FL key momentarily.	Selector releases.
14d	If trunk is arranged for machine intercept — Dial code which will ring on tip side of trunk under test.	Audible ringing tone heard. Cut-through to announcement machine is made. Audible ringing tone silenced. Announcement starts at beginning, volume, quality good.
15d	Operate FL key momentarily.	Selector releases.
16e	If trunk under test is arranged for trouble intercept — Insert T1 plug into trunk T1 jack.	Audible ringing tone heard.

STEP	ACTION	VERIFICATION
17e	Dial proper level to reach intercepting trunk to be tested.	
18e	At switchboard — Call is answered.	Audible ringing tone silenced. REV lamp not lighted. At switchboard — Where separate answering jacks or circuits for "regular" and "trouble" intercept are provided — Call is received on "trouble" intercept.
19e	At switchboard — Disconnect upon receipt of disconnect signal.	
20	Operate FL key momentarily.	Selector releases. SL lamp extinguished.
21	Remove No. 240A plug from selector test jack.	
22	Restore LP key.	
23e	If trunk under test is arranged for trouble intercept — Remove T1 plug from T1 jack.	

C. Operation Test of Vacant Code Trunks

6	Insert No. 240A plug into test jack of idle selector having access to vacant code trunk to be tested.	
7	Operate LP key.	
8	Operate, restore DL ST key.	SL lamp lights, remains lighted.
9	Dial proper level to reach vacant code trunk to be tested.	REV lamp not lighted. No-such-number tone heard.
10c	If it is desired to test other trunks on same level — Step selector to successive bank terminals (see 1.10). *Note:* It may be necessary to block a relay on certain selectors to facilitate stepping the switch (see note 2, 1.10).	No-such-number tone heard each time.
11	Remove No. 240A plug from selector test jack.	Selector releases. SL lamp extinguished.
12	Restore LP key.	