

OUTGOING INTERCEPTING TRUNKS AND VACANT CODE TRUNKS  
OPERATION TEST  
USING TEST SET SD-31859-01 (J34722B)  
355A COMMUNITY DIAL OFFICES

1. GENERAL

1.01 This section describes a method of testing outgoing intercepting trunks, from intercepted connector multiple or local selector level multiple, 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 change the title to indicate the type of intercept trunks tested, 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, the 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 an 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 an 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, 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 multiple 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 digits before trunk hunting, dial the necessary digits before proceeding with the tests.

1.07 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 When 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 the selector rotates to the next idle terminal and cuts through without chattering.

*Note 1:* On the SD-32183-01 selector, after this 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 a 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.

**3. PREPARATION**

**All Tests**

STEP	ACTION	VERIFICATION
1a	If battery supply jack is available — Connect test set BAT G jack to 48-volt battery supply frame jack using P2J cord.  <i>Note:</i> 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.	

**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 J34722B (SD-31859-01).
- 2.02** No. 1011G dial hand test set (handset), connected to a W2CL cord, equipped with one No. 471A jack and one No. 240A plug (No. 2W39A cord) (for use 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 jacks are 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** Blocking tools, as required. Use tools and apply as covered in Section 069-020-801.

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 handset to test set T J jack, with handset switch in MON position, cord switch in ON position.	
5	Connect No. 310 plug of P3H cord to test set T jack.	

#### 4. METHOD

STEP	ACTION	VERIFICATION
<b>A. Operation Test of Trunks From Connector Multiple</b>		
6	Connect free end of P3H cord to test jack of idle selector having access through local selector train to all connectors.	
7	Operate handset switch to TALK position.	C lamp lighted.
8c	If call is to regular intercept — Dial a connector multiple number which will ring on ring side of intercept trunk to be tested.	Audible ringing tone heard.
9c	At switchboard — Call answered.	At test set — Audible ringing tone silenced. REV BAT lamp does not light. Transmission satisfactory. Where separate answering jacks or circuits for "regular" and "trouble" intercept are provided — Call received on "regular" intercept.
10c	At switchboard — Operate flashing key momentarily.	At test set — Trunks arranged to flash on local calls — REV BAT lamp lights while key is operated. Trunks not arranged to flash on local calls — REV BAT lamp does not light.
11	Perform Steps 12d to 15d, inclusive, only on trunks other than E and M lead trunks.	
12d	If terminal-per-line connector multiple is being used for test — At switchboard — Disconnect on receipt of disconnect signal.	
13d	At test set — Operate handset switch to MON position momentarily.	Equipment releases.

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<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
14d	Dial connector multiple number with proper suffix to ring on tip side of line.	
15d	At switchboard — Call answered.	At test set — REV BAT lamp does not light. Transmission satisfactory.
16e	If circuit is arranged to lock out when a working line is called (one station of which is connected to intercept) — At switchboard — Disconnect on receipt of disconnect signal.	
17	At test set — Operate handset switch to MON position momentarily.	Equipment releases.
18	Dial same connector multiple number, with proper suffix to reach a working station.	
19	Listen on line for three or four ringing intervals; should a subscriber answer advise that a test is being made, then disconnect.	
20	At switchboard — Disconnect when disconnect signal is received.	
21	At test set — Operate handset switch to MON position momentarily.	Equipment releases.
22f	If call is to machine intercept — Dial a connector multiple number which will ring on tip side of intercept trunk to be tested.	Audible ringing tone heard. Cut-through to announcement machine made. Audible ringing tone silenced. Announcement starts at beginning, volume and quality good.
23f	Operate handset switch to MON position momentarily.	Equipment releases.
24g	If circuit is arranged for trouble intercept — Insert T1 plug into trunk T1 jack. Dial connector multiple number to ring on either tip or ring side of intercept trunk.	Audible ringing tone heard.
25g	At switchboard — Call answered.	At test set — Audible ringing tone silenced. REV BAT lamp not lighted. At switchboard — Where separate answering jacks or circuits for "regular" and "trouble" intercepting are provided — Call received on "trouble" intercepting.

STEP	ACTION	VERIFICATION
26g	At switchboard — Disconnect when disconnect signal is received.	
27g	Remove No. 240A plug from selector test jack.	Selector releases.
28g	Remove T1 plug from trunk T1 jack.	
<b>B. Operation Test of Trunks From Selector Multiple</b>		
6	Connect free end of P3H cord to test jack of idle selector having access to intercepted level to be tested.	
7	Operate handset switch to TALK position.	C lamp lighted.
8c	If call is to regular intercept — Dial proper level to reach trunk arranged to ring on ring side.	Audible ringing tone heard.
9c	At switchboard — Call answered.	At test set — Audible ringing tone silenced. REV BAT lamp not lighted. Transmission satisfactory. At switchboard — Where separate answering jacks or circuits for "regular" and "trouble" intercept are provided — Call received on "regular" intercept.
10c	At switchboard — Operate flashing key momentarily.	Circuit arranged for flashing on local calls — REV BAT lamp lights while flashing key is operated. Circuit not arranged for flashing on local calls — REV BAT lamp does not light.
11c	At switchboard — Disconnect on receipt of disconnect signal.	
12c	At test set — Operate handset switch to MON position momentarily.	Selector releases.
13d	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 made. Audible ringing tone silenced. Announcement starts at beginning, volume and quality good.
14d	Operate handset switch to MON position momentarily.	Selector releases.

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<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
15e	If trunk under test is arranged for trouble intercept — Insert T1 plug into trunk T1 jack, dial proper level to reach intercepting trunks to be tested.	Audible ringing tone heard.
16e	At switchboard — Call answered.	At test set — Audible ringing tone silenced. REV BAT N lamp not lighted. At switchboard — Where separate answering jacks or circuits for “regular” and “trouble” intercept are provided — Call received on “trouble” intercept.
17e	At switchboard — Disconnect upon receipt of disconnect signal.	
18e	Remove No. 240A plug from selector test jack.	Selector releases.
19e	Remove T1 plug from trunk T1 jack.	

**C. Operation Test of Vacant Code Trunks**

6	Connect free end of P3H cord to test jack of idle selector having access to vacant code trunk to be tested.	
7	Operate handset switch to TALK position.	C lamp lighted.
8	Dial proper level to reach vacant code trunk to be tested.	REV BAT lamp not lighted. No-such-number tone heard.
9c	If desired to test other trunks on same level — Open momentarily selector off-normal springs to step selector to successive bank terminals (see 1.10).	No-such-number tone heard each time.
10	Remove No. 240A plug from selector test jack.	Selector releases.