

**INCOMING TRUNK CIRCUITS SD-31703-01
OPERATION TESTS USING TEST SETS SD-31858-01 (J34701A),
SD-90469-01 OR SD-90469-02 (J94710A)
STEP-BY-STEP SYSTEMS**

1. GENERAL

1.01 This section describes a method of testing loop dialing incoming trunk circuits SD-31703-01 using trunk test sets SD-31858-01, SD-90469-01 or SD-90469-02 in No. 1 and 350A step-by-step and No. 355A community dial offices.

1.02 The tests covered are:

A. Operation: The following features are checked. (1) Seizure. (2) Pulse repeating. (3) Machine ringing control. (4) Supervision and recall. (5) Rering with called party receiver off hook. (6) Release.

B. Toll Identification Tone: This test insures the operation of the toll identification tone when a call reaches an intercept operator. It also verifies the function of the tone removal key when operated by the intercept operator.

1.03 Test A requires action and verification at a nearby telephone.

1.04 Test B requires action and verification by an intercept operator.

1.05 For Tests A and B, arrangements should be made to have the trunks to be tested made busy at the originating office.

1.06 The amount of compensating resistance to be inserted in the dialing circuit to simulate the trunk loop resistance must be determined locally for each group of trunks. There are two ways of determining this: (1) From the trunk record card. (2) Check the value of T1-3 and R1-3 resistances, which are not strapped out, in the trunk circuit. The sum of these resistances and the compensating resistance should total approximately 1900 to 2000 ohms.

Note: The value of the compensating resistance keys is designated on the various test sets with the exception of the LP key on the J94710A test set which equals 1200 ohms.

1.07 Coin control features of these trunk circuits should be tested as prescribed in Section 226-310-503.

2. APPARATUS

All Tests

2.01 Trunk test set, J94710A (SD-90469-01 or SD-90469-02) or trunk test set J34701A (SD-31858-01).

2.02 Patching cord, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord) for connecting BAT-G jack of test set to 48V battery and ground supply jack on equipment frame.

2.03 Testing cord, W2M cord, 9 feet long, equipped with one 310 plug and two 59 cord tips (2W12B cord) *for use when battery supply jack is not available.* When used, connect as follows: insert 310 plug into BAT-G jack of test set, connect white conductor to equipment side of a spare 48V battery fuse and the red conductor to ground. In no case should the fuse exceed 5 amperes.

2.04 Patching cord, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord) for use in connecting GEN jack of test set to \pm or GEN jack on equipment frame.

2.05 Testing cord, W2C cord, 10 feet long, equipped with one 310 plug and two 59 cord tips (2W6A cord) *for use when generator*

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supply jack is not available. When used, connect as follows: insert 310 plug into GEN jack of test set, connect one conductor to equipment side of spare \pm or generator fuse and the other conductor to ground. In no case should the fuse selected exceed 5 amperes.

2.06 Patching cord, P3H cord, 10 feet long, equipped with 310 plug and 240A plug (3P2A cord), for use in connecting trunk test jack to T jack of test set.

2.07 Head telephone set.

3. PREPARATION

| STEP | ACTION | VERIFICATION |
|------------------|---|--------------|
| All Tests | | |
| 1 | Have trunks to be tested made busy at originating office. | |
| 2 | Connect BAT-G jack of test set to 48V battery and ground. | |
| 3 | Connect GEN jack to generator supply. | |
| 4 | Connect head telephone set to TEL jack. | |
| 5 | Operate compensating resistance keys to simulate trunk loop resistance. (See 1.06.) | |

4. METHOD

| STEP | ACTION | VERIFICATION |
|---------------------|---|--|
| A. Operation | | |
| 6 | Connect T jack of test set to trunk test jack using P3H cord. | BSY lamp does not light. <i>Note:</i> If trunk is busy, BSY lamp lights. If this happens, disconnect from trunk. |
| 7 | Operate DL ST key momentarily. | SL lamp lights. |
| 8 | Dial number of nearby telephone. | REV lamp lights. |
| 9 | Operate RING key momentarily. | Machine ringing heard in receiver of head telephone set. At called telephone — Bell rings. |
| 10 | At called telephone — Remove receiver from switchhook. | At test set — REV lamp extinguished. |
| 11 | At called telephone — Operate and release switchhook slowly several times. | At test set — REV lamp flashes. |
| 12 | At test set — Operate RING key momentarily. | At called telephone — While holding receiver away from ear, note that generator is heard but is not accompanied by any loud bangs in ear. |

| STEP | ACTION | VERIFICATION |
|------------------------------------|---|--|
| 13 | At called telephone — Place receiver on switchhook. | At test set — REV lamp lights. |
| 14 | At test set — Operate FL key momentarily. | REV lamp extinguished. SL lamp extinguished. |
| 15 | Remove 240A plug from trunk test jack. | |
| 16 | If no further tests are to be made, have busy removed at originating office, remove all test connections. | |
| B. Toll Identification Tone | | |
| 6 | Connect T jack of test set to trunk test jack using P3H cord. | BSY lamp does not light. <i>Note:</i> If trunk is busy, BSY lamp lights. If this happens, disconnect from trunk. |
| 7 | Operate DL ST key. | SL lamp lights. |
| 8 | Dial intercepted telephone number. | REV lamp lights. |
| 9 | Operate RING key momentarily. | Machine ringing signal heard in receiver of head telephone set. When intercept operator answers — REV lamp extinguished. Operator received toll identification tone. |
| 10 | Operate FL key momentarily. | SL lamp extinguished. |
| 11 | Remove 240A plug from trunk test jack. | |
| 12 | Have busy removed at originating office, remove all test connections. | |