

911 EMERGENCY SERVICE TRUNK

OPERATION TESTS

USING TRUNK SET SD-90469-01, SD-90469-02 (J94710A), OR SD-31858-01 (J34701A)

STEP-BY-STEP SYSTEMS

1. GENERAL

1.01 This section describes a method of testing the operating and alarm features of the 911 emergency service trunk, SD-35004-01.

1.02 This section is reissued to:

- Add reference to the steady low tone in Step 26
- Designate Steps 39 through 48 as lettered steps.

Revision arrows have been used to indicate significant changes. The Equipment Test List is not affected.

1.03 Local instructions should be followed with reference to recording or reporting traffic register operations caused when making this test.

1.04 These tests will require an assistant at the emergency service bureau while testing the rering feature.

1.05 **Lettered Steps:** A letter a, b, c, etc, added to a step number in Part 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.

2. APPARATUS

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

2.02 Head telephone set associated with test set.

2.03 Patching cord, 3P15B cord, consisting of one P3K cord, 12 feet long, equipped with two 310 plugs (used when battery and ground jack is used to provide battery and ground to test set).

2.04 Testing cord, 2W12A cord, consisting of one W2M cord, 9 feet long, equipped with one 310 plug and two 59 and two 108 cord tips (used when battery and ground block or spare fuse [not to exceed 5 amperes] and frame ground is used to provide battery and ground to test set).

2.05 Patching cord, 3P2A cord, consisting of one P3H cord, 10 feet long, equipped with one 310 plug and one 240A plug (used to connect trunk to test set).

2.06 Telephone set, 2500D3 or equivalent, equipped with a D3BN3 cord.

2.07 Testing cord, 2W6A, consisting of one W2C cord, 10 feet long, equipped with one 310 plug and two 59 cord tips.

2.08 Friction tape, 3/4 inch, RM 591127 or equivalent.

NOTICE

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

3. PREPARATION

STEP	ACTION	VERIFICATION
1	Connect battery and ground to test set. <i>Note 1:</i> If 2W12A cord is used, connect white (tip) conductor to battery and red (sleeve) conductor to ground. <i>Note 2:</i> Connect cord to test set first and disconnect cord from test set last to avoid possible grounding of the battery supply.	
2	Connect head telephone set to TEL jacks of test set.	
3	Connect 310 plug of 3P2A cord to T jack of test set.	
4	Operate TRS key.	

4. METHOD

5a	If testing trunks associated with local noncoin selectors and K option is provided— At trunk to be tested— Insert 240A plug of 3P2A cord into A jack.	At test set— BSY lamp not lighted. <i>Note:</i> If BSY lamp lights, remove 240A plug and proceed to next trunk.
6b	If testing trunks associated with local noncoin selectors and J option is provided— At test set— Operate SL key.	
7b	At trunk to be tested— Insert 240A plug of 3P2A cord into bottom half of A1 jack so that plug elements 1, 2, 3, and 4 make contact with jack springs 6, 5, 4, and 3, respectively.	At test set— Monitor connection to determine if circuit is busy. <i>Note:</i> If conversation, tone, or other busy indication is received, remove plug and proceed to next trunk.
8c	If testing trunks associated with coin selectors— At trunk to be tested— Insert 240A plug of 3P2A cord into top half of A1 jack so that plug elements 1, 2, 3, and 4 make contact with jack springs 1, 2, 3, and 4, respectively.	At test set— BSY lamp not lighted. <i>Note:</i> If BSY lamp lights, remove plug and proceed to next trunk.
9d	If CC and CR lamps are 2Y-type— At test set— Operate CN key.	

STEP	ACTION	VERIFICATION
10e	<p>If testing trunks associated with incoming selectors— At trunk to be tested— Insert 240A plug of 3P2A cord into A jack.</p>	<p>At test set— BSY lamp not lighted.</p> <p><i>Note:</i> If BSY lamp lights, remove plug and proceed to next trunk.</p>
11	Operate LP key.	
12	<p>At trunk circuit— Connect telephone set to the B1 jack.</p> <p><i>Note:</i> Connect tip (green) lead of telephone set to tip (white) lead of 2W6A testing cord and the ring (red) lead of telephone set to the ring (blue) lead of 2W6A testing cord using the 59 cord tips provided on testing cord. Tape connections and insert 310 plug into B1 jack. Tape the end of spare lead from telephone set.</p>	
No Digits Absorbed		
13f	<p>If testing from bottom half of A1 jacks— Operate DL-ST key.</p>	<p>Emergency service bureau signaled. Ringing induction heard until emergency service bureau answers.</p> <p><i>Note:</i> All actions and verifications performed by emergency service bureau can be simulated by using the telephone set plugged into the B1 jack in Step 12 except when testing the rering feature.</p>
14g	<p>If testing from other than the bottom half of A1 jack— Momentarily operate DL-ST key.</p>	<p>SL lamp lighted. Emergency service bureau signaled. Ringing induction heard until emergency service bureau answers.</p>
One Digit Absorbed		
15f	<p>If testing from bottom half of A1 jack— Operate DL-ST key.</p>	
16f	Dial digit 1.	<p>Emergency service bureau signaled. Ringing induction heard until emergency service bureau answers.</p>
17g	<p>If testing from other than the bottom half of the A1 jack— Momentarily operate DL-ST key.</p>	
18g	Dial digit 1.	<p>SL lamp lighted. Emergency service bureau signaled.</p>

STEP	ACTION	VERIFICATION
		Ringing induction heard until emergency service bureau answers.
Two Digits Absorbed		
19f	If testing from bottom half of A1 jack— Operate DL-ST key.	
20f	Dial digit 1 twice.	Emergency service bureau signaled. Ringing induction heard until emergency service bureau answers.
21g	If testing from other than the bottom half of the A1 jack— Momentarily operate DL-ST key.	
22g	Dial digit 1 twice.	SL lamp lighted. Emergency service bureau signaled. Ringing induction heard until emergency service bureau answers.
23	Emergency service bureau answers. <i>Note:</i> When testing rering feature, advise attendant at bureau that this is a test call.	Talking path cut through. If testing trunks associated with coin selectors— Test set REV lamp lighted steadily; CR lamp lighted momentarily.
24d	If CC and CR lamps are 2Y-type— Restore CN key.	
Alarm Features		
25	Request emergency service bureau to reseize this trunk after receiving disconnect signal.	
26	Remove 240A plug of 3P2A cord from A or A1 jack.	Emergency service bureau receives busy tone or steady low tone and disconnects.
27	Emergency service bureau seizes idle trunk.	Emergency service bureau hears busy tone. AL lamp flashes at 120 ipm.
28	At test set— Operate SL, TRS, DL-ST keys.	
29	At trunk under test— Insert 240A plug of 3P2A cord into A jack.	Busy tone removed from emergency service bureau. AL lamp extinguished. Talking path established to emergency service bureau.
30	Request emergency service bureau to disconnect.	

STEP	ACTION	VERIFICATION
31	Remove 240A plug of 3P2A cord from A jack.	Trunk restores to idle condition.
32	At test set— Restore SL, TRS, DL-ST keys.	
33	When trunk under test is idle— Request emergency service bureau to seize trunk.	AL lamp flashes at 120 ipm. After 5 to 6 minutes— Minor alarm sounds.
34	At trunk under test— Momentarily operate ACO key.	Minor alarm silenced. AL lamp lighted steadily.
35	Request emergency service bureau to release trunk.	AL lamp extinguished. Trunk restores to idle condition.
36	Remove telephone set from B1 jack.	

Rering Feature Provided

37	Repeat Steps 4 through 11 and 13f through 24d.	
38	Request emergency service bureau to operate switch hook to generate a rering wink. <i>Note:</i> Rering wink must be 450 to 550 ms long.	
39h	If superimposed ringing is not provided— At test set— Operate RR key.	R lamp follows two ringing cycles.
40h	After second cycle— Restore RR key.	
41h	Operate CN key.	Two additional ringing cycles heard in head set. CC, CR lamps may flash.
42h	Restore CN key.	
43i	If superimposed ringing is provided— At test set— Operate RR key.	R lamp follows two ringing cycles.
44i	After second cycle— Restore RR key.	
45i	Operate CN key.	Two additional ringing cycles heard in head set. CC, CR lamps may flash.

STEP	ACTION	VERIFICATION
46i	After second ringing cycle is heard in head set— Restore CN key.	
47i	Operate RR key.	R lamp follows two additional ringing cycles.
48i	Restore RR key.	
49	Operate and hold FL key.	Emergency service bureau hears busy tone and receives lamp supervision if provided. If trunk is not arranged to be held by bureau— Trunk restores to normal.
50e	If testing trunks associated with incoming selectors— Remove 240A plug from A jack.	
51	Release FL key.	If service bureau is holding trunk— Verify that busy tone and lamp supervision (if provided) were received.
52	Request emergency service bureau to disconnect.	If testing from other than the bottom half of the A1 jack— After approximately 15 seconds— SL lamp extinguished. If testing from bottom half of A1 jack— After approximately 15 seconds— B relay released.
53	Restore all keys and remove all cords at test set.	