

"TOUCH-TONE"[®] CALLING TRUNK FINDERS SD-31953-01
OPERATION TESTS
USING TEST SET
STEP-BY-STEP OFFICES WITHOUT COMMON CONTROL

1. GENERAL

1.01 This section describes a method of making operation tests of trunk finder SD-31953-01 using any of the following test sets:

J34702A

J34704A

J34715A

J34718A

J94704A

J94710A

ES-30417-01.

1.02 This section is reissued to add Test B to provide timed release of idle finders.

1.03 The tests covered are:

A. Finder Operation and Release: This test checks the ability of the trunk finder to find a particular trunk, represented by the associated test line, under normal operating conditions without marginal tests. A check of smooth operation and release is made. The test is intended as a rapid means of checking the above features at frequent intervals.

B. Finder Timed Release and Alarm: This test checks timed release of idle finders should a trouble condition prevent operation of the OB relay. This test also checks operation and release of call-blocked alarm.♦

1.04 Office records should be consulted to determine a trunk from the subgroup of ten trunks

for which the trunk finder to be tested is first choice.

1.05 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.

2. APPARATUS

All Tests

2.01 Any one of the following test sets:

(a) Line finder and trunk finder J34702A (SD-31258-01)

(b) Line finder, selector, and connector J34704A (SD-90210-01)

(c) Line finder and trunk finder J34715A (SD-31456-01)

(d) Line finder and trunk finder J34718A (SD-31524-10 or SD-31246-01)

(e) Line finder, selector, and connector with test line control J94704A (SD-90416-01)

(f) Subscriber recording completing trunk, outgoing repeater, and miscellaneous outgoing trunks J94710A (SD-90469-01 or SD-90469-02)

(g) Line finder and trunk finder (ES-30417-01).

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- 2.02** Patching cord, P3K cord 12 feet long, equipped with two 310 plugs (3P15B cord).◀
- 2.03** Patching cord, P3E cord, 10 feet long, equipped with two 310 plugs (3P6F cord).
- 2.04** Patching cord, P3H cord, 10 feet long, equipped with a 310 plug and a 240B plug (3P33A cord).

Test B

- 2.05** KS-3008 stopwatch or equivalent.
- 2.06** One 322-type plug (for alarm release jack at jack, key, and lamp circuit).
- 2.07** One blocking tool. Use tool and apply, as covered in Section 069-020-801.◀

3. PREPARATION

STEP	ACTION	VERIFICATION
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Tests A and B

- 1 At trunk finder frame—
Connect test set BAT G or BAT jack to 48V battery supply jack on frame, using P2J cord.
- Note:* To avoid possible grounding of battery supply lead, connect cord to test set first and when disconnecting, remove from test set last.
- 2a If using test set J94710A—
Patch 310 plug of P3H cord into test set T jack of test set circuit, 240B plug into test line A jack of trunk finder.
- 3b If using test set other than J94710A—
Patch 310 plug of P3H cord into test set A jack, 240B plug into test line A jack.
- 4 Connect 310 plug of P3E cord into test set LF jack.
- 5c If a converter trunk is connected in multiple with the trunk finder test line on bank terminal 10—
Make busy, in approved manner, the line finder associated with that converter trunk.

4. METHOD

STEP	ACTION	VERIFICATION
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A. Finder Operation and Release

- 6a If using test set J94710A—
Insert other 310 plug of P3E cord into test and make-busy jack of idle trunk finder.
- Trunk finder operated smoothly, seized test line terminals, then released.

STEP	ACTION	VERIFICATION
7b	If using test set other than J94710A— Insert other 310 plug of P3E cord into test and make-busy jack of idle trunk finder.	
8d	If using test set J347702A or J34715A— Operate test set RP key.	Trunk finder operated smoothly, seized test line terminals, then released.
9e	If using test set J34718A, J34704A, or ES-30417-01— Operate test set LP key.	Trunk finder operated smoothly, seized test line terminals, then released.
10f	If using test set J94704A— Operate test set LK key.	Trunk finder operated smoothly, seized test line terminals, then released.
11	When trunk finder releases— Remove 310 plug from test and make-busy jack of trunk finder.	
12	At conclusion of tests— Restore all keys, remove all patching connections.	
13c	If line finder was made busy in Step 5c— Restore line finder to service.	

B. Finder Timed Release and Alarm

*Caution: This test should be performed
only in periods of light traffic.*

6	Block nonoperated OB relay.	
7a	If using test set J94710A— Insert other 310 plug of P3E cord into test and make-busy jack of idle trunk finder.	In No. 1 or 350A offices— All trunk finders not already busy become busy. TA relay operated. After each period of approximately 6 seconds— CI relay momentarily operated. All finders not serving a call released, then become busy again. After 18 to 48 seconds— At trunk finder frame— AL relay operated. S lamp lighted. Major alarm sounds. Timer and trunk finders continued to recycle at approximately 6-second intervals. In 355 offices— All trunk finders not already busy become busy. TA relay operated. After each period of approximately 8 seconds— CI relay momentarily operated.

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STEP	ACTION	VERIFICATION
		<p>◆ All finders not serving a call released, then become busy again. After 16 seconds— At trunk finder frame— AL relay operated. S lamp lighted. Major alarm sounds. Timer and trunk finders continue to recycle at 8-second intervals.</p>
8b	<p>If using test set other than J94710A— Insert other 310 plug of P3E cord into test and make-busy of idle trunk finder.</p>	
9d	<p>If using test set J34702A or J34715A— Operate test set RP key.</p>	<p>In No. 1 or 350A offices— All trunk finders not already busy become busy. TA relay operated. After each period of approximately 6 seconds— CI relay momentarily operated. All finders not serving a call released, then become busy again. After 18 to 48 seconds— At trunk finder frame— AL relay operated. S lamp lighted. Major alarm sounds. Timer and trunk finders continued to recycle at approximately 6-second intervals. In 355 offices— All trunk finders not already busy become busy. TA relay operated. After each period of approximately 8 seconds— CI relay momentarily operated. All finders not serving a call released, then become busy again. After 16 seconds— At trunk finder frame— AL relay operated. S lamp lighted. Major alarm sounds. Timer and trunk finders continued to recycle at 8-second intervals.</p>
10e	<p>If using test set J34718A, J34704A, or ES-30417-01— Operate test set LP key.</p>	<p>In No. 1 or 350A offices— All trunk finders not already busy become busy. TA relay operated. After each period of approximately 6 seconds— CI relay momentarily operated. all finders not serving a call released, then◆</p>

STEP	ACTION	VERIFICATION
11f	If using test set J94704A— Operate test set LK key.	<p> become busy again. After 18 to 48 seconds— At trunk finder frame— AL relay operated. S lamp lighted. Major alarm sounds. Timer and trunk finders continued to recycle at approximately 6-second intervals. In 355 offices— All trunk finders not already busy become busy. TA relay operated. After each period of approximately 8 seconds— CI relay momentarily operated. All finders not serving a call released, then become busy again. After 16 seconds— At trunk finder frame— AL relay operated. S lamp lighted. Major alarm sounds. Timer and trunk finders continued to recycle at 8-second intervals. In No. 1 or 350A offices— All trunk finders not already busy become busy. TA relay operated. After each period of approximately 6 seconds— CI relay momentarily operated. All finders not serving a call released, then become busy again. After 18 to 48 seconds— At trunk finder frame— AL relay operated. S lamp lighted. Major alarm sounds. Timer and trunk finders continued to recycle at approximately 6-second intervals. In 355 offices— All trunk finders not already busy become busy. TA relay operated. After each period of approximately 8 seconds— CI relay momentarily operated. All finders not serving a call released, then become busy again. After 16 seconds— At trunk finder frame— AL relay operated. S lamp lighted. Major alarm sounds. </p>

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STEP	ACTION	VERIFICATION
		◆Timer and trunk finders continued to recycle at 8-second intervals.
12	Remove blocking tool from OB relay.	All finders released.
13	At trunk finder frame— Momentarily operate AR key.	AL relay released. S lamp extinguished. Major alarm silenced.
14	Repeat Steps 7a through 12.	
15	At jack, key, and lamp circuit— Momentarily insert 322 plug into AR jack.	At trunk finder frame— AL relay released. S lamp extinguished. Major alarm silenced.
16	At conclusion of tests— Remove 310 plug from test and make-busy jack of trunk finder.	
17	Restore all keys, remove all patching connections.	
18c	If line finder was made busy in Step 5c— Restore line finder to service.◆	