

LINE FINDERS  
RAPID OPERATION TESTS  
USING TEST SET SD-31725-01 (J34721A)  
STEP-BY-STEP SYSTEMS

1. GENERAL

1.01 This section describes a method of making a rapid operation test of 50-, 100-, and 200-point line finders using the portable test set SD-31725-01 (J34721A). The test is the same for coin, noncoin, and message rate groups. This section also covers line finder tests in step-by-step offices. It also covers tests in community dial offices where the line finders are of the newer type, with the test jack located on the switch.

1.02 This section is reissued to cover an additional method of connecting the test circuit to line finders that have test jacks located on the switch 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 This test checks the ability of the line finders to find the test line under normal operating conditions without margins, and also checks the continuity and polarity of the circuit through the line finder and over the trunk to a first selector or to a coin trunk circuit. The test is intended as a means for checking these fundamental features at frequent intervals, and where desired to supplement the complete operation test.

1.04 The test may be made from the test and make-busy jacks when provided, for each group of 50-, 100-, or 200-point lines or from the test jack, when mounted on the switch. In the case of 50- and 100-point line finders, the T, R, and S leads of bank terminal 10 are permanently wired to jack A

on the line finder frame, and in the case of 200-point line finders, the bank terminals 10 and 110 are permanently wired to jacks B and A, respectively, on the line finder frame.

1.05 Lettered Steps: The letters a, b, c, etc., are added to a step number to indicate that the steps cover an action which may or may not be required, depending upon local conditions. The conditions under which a lettered step or series of steps should be made are given in the action column, and all steps governed by the same condition are designated by the same letter. Where a condition does not apply, the associated step should be omitted.

1.06 These tests should be made preferably during periods of light traffic.

2. APPARATUS

2.01 Rapid operation line finder test set, J34721A (SD-31725-01).

2.02 Patching cords - three P3E cords, 6 feet long, equipped with two No. 310 plugs on each cord (3P7A cord) to be used where the test line and test and MB jacks are provided on the finder frame.

Note: Only two cords are needed where the test jack is provided on the switch.

2.03 Patching cord - P3AA cord, 10 feet long, equipped with a No. 310 plug and a No. 240A plug (3P30A cord). The No. 240A plug is modified by removing the red lead from terminal 3 and transferring the black lead from terminal 1 to terminal 3. Used where the test jack is provided on the switch.

3. PREPARATION

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
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All Tests

- |   |   |  |
|---|---|--|
| 1 | Connect one plug of P3E cord to test set BAT jack   |  |
| 2 | Using P3E cord, connect test set jack A to test line jack A in the particular group to be tested (for 200-point line finders connect to the B jack on alternate testing cycles) |  |

**SECTION 226-200-506**

4. METHOD

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
3	When ready to begin testing - Connect the other plug of battery supply cord to 48V jack on line finder frame	
4a	If the test jack is not located on the switch - With switch normal - Patch test set LF jack to line finder test and make-busy jack using P3E cord	Switch operates smoothly and cuts in on test line Test set buzzer operates momentarily Line finder releases
5b	If test jack is located on switch - With switch normal - Patch test set LF jack to line finder test jack using P3AA cord	Switch operates smoothly and cuts in on test line Test set buzzer operates momentarily Line finder releases
6	Disconnect from line finder test jack	
7	Remove plug from 48V battery supply jack as soon as testing is completed (also between testing periods) This removes ground from commutator segment and prevents possible dial tone delay where test jack is located on switch	