LOCAL AND INCOMING SELECTORS
OPERATION TEST
USING TEST SET SD-90210-01 (J34704A) OR SD-90416-01 (J94704A)
STEP-BY-STEP SYSTEMS

1. GENERAL

1.01 This section describes a method of testing the operating features of local selectors in No. 350 offices and No. 360 community dial offices, using test set SD-90210-01 (J34704A) or SD-90416-01 (J94704A).

1.02 This section is reissued to include insulating information when testing SD-32183-01 selectors, to add information regarding the voltage applied to the equipment and to the test facilities covered in the section, and to bring the section generally up to date. Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 This test checks the pulsing, digit absorbing and "blocking" features, when provided; cut in, holding, releasing and cut-through functions of selectors.

1.04 A different level should be used each time the tests are performed, so that eventually every selector will have been tested on each working level, except levels with trunks to switchboard positions. When testing selectors arranged to absorb digits repeatedly, or to "block" on the level under test, another level on which the selector is not so arranged, should be used for making tests for passing busy trunks and for faulty adjustment of the cut-through relay. A test to the level on which digits are absorbed once, twice or repeatedly should be included in order to make a complete test of selectors. On alternate test cycles the first trunk should be made busy on the level under test. On the other test cycles the first trunk should be left idle to test that the selector does not overstep during rotary hunting.

Note: The term "blocking" is applied to switches that do not cut in when the level dialed is reached and return "no-such number tone," or, if arranged to cut in, will rotate to the eleventh rotary position and return "paths busy" tone.

1.05 When testing an incoming selector, the trunk should be made busy in the approved manner during the tests.

1.06 The test equipment specified in this section is designed to apply proper marginal tests (simulated critical circuit conditions) when the circuit under test and the test equipment have an applied voltage of 48.5 to 50. In those offices where power plants are normally operated at more than 50 volts, the battery voltage should be reduced and maintained within the required limits while the tests are being made.

1.07 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 3 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.

1.08 Local instructions should be followed for recording and reporting any register operations caused by performing these tests.

2. APPARATUS

2.01 Test Set J34704A (SD-90210-01) or J94704A (SD-90416-01).

2.02 P3H Cord, 10 feet long, equipped with a No. 310 Plug and a No. 240A Plug (3P2A Cord).

2.03 P3K Cord, 6 feet long, equipped with No. 310 Plugs (3P15A Cord).

2.04 W2M Cord, 9 feet long, equipped with one No. 310 Plug and two No. 59 Cord Tips (2W12A Cord) and two No. 108 Cord Tips.

2.05 Head telephone set.

2.06 Toothpicks as required for insulating auxiliary test jack springs when testing SD-32183-01 selectors.

3. METHOD

STEP	ACTION	VERIFICATION
1a	If battery supply jack is available — Connect BAT G jack to 48V supply jack on frame using P3K cord. *Note:* To avoid possible grounding of battery supply lead, connect to test set first and, when disconnecting, remove from test set last.	
2b	If battery supply jack is not available — Connect No. 310 plug of W2M cord into BAT G jack.	
3b	Connect red (sleeve) conductor to frame ground, white (tip) conductor to equipment side of convenient fuse (not over 3 amperes). *Note:* When disconnecting, remove cord from test set last.	
4	Connect No. 310 plug of P3H cord to T jack of test set.	
5c	If test set SD-90210-01 is used — Operate SD key and leave in operated position during tests.	
6d	If testing SD-32183-01 selectors — Place a toothpick between auxiliary test jack springs 5 and 6.	
7e	If test cycle is one where the first trunk is to be made busy — Insert No. 240 plug into test jack of an idle selector in the same shelf as one being tested.	BSY lamp not lighted. *Note 1:* If BSY lamp lights move test plug to another selector.

STEP	ACTION	VERIFICATION
8e	If selector tests idle remove test plug and quickly invert and reinsert into test jack so that the tip and ring make contact with the ring and tip of the test jack.	
9e	Operate LP key.	
10e	Dial level under test.	Selector steps to level dialed rotates to first trunk and cuts through.
11e	Insert a make-busy tool between the sleeve and ground springs of the test jack.	
12e	Remove test plug from test jack and restore LP key.	Selector holds in operated position from make-busy tool.
13	Insert No. 240A plug of P3H cord into test jack of selector under test.	BSY lamp not lighted. *Not 1:* If BSY lamp lights wait for BSY lamp to be extinguished or move plug to another selector. *Note 2:* After test plug is inserted in SD-32183-01 selectors check that toothpick prevents closure of auxiliary test jack springs 5 and 6.
14	Operate LP key.	BSY lamp lights.
15f	If selector is arranged to absorb the first series of pulses on certain levels — Dial the level so arranged.	Selector steps to level dialed and restores properly.
16g	If selector is arranged to absorb the first two series of pulses on certain levels — Dial the levels so arranged in their proper sequence.	Selector steps to each level dialed and restores properly after each series of pulses.
17h	If selector is arranged to absorb on certain levels repeatedly — Dial a level so arranged at least twice.	Selector steps to level dialed and restores properly after both series of pulses.
18i	If selector is arranged to block on certain levels. Dial the level so arranged.	Selector steps to level dialed, "blocks" and returns tone.
19i	Restore LP key momentarily.	Selector restores properly.

STEP	ACTION	VERIFICATION
20j	If selector is arranged to absorb the first digit and "block" on the second digit on certain levels — Dial the level arranged to absorb.	Selector steps to the level and restores properly.
21j	Dial the level arranged to "block".	Selector steps to the level dialed, "blocks" and returns tone.
22j	Restore LP key momentarily.	Selector restores properly.
23	Dial the level under test.	Selector steps smoothly to proper level and rotates to an idle terminal. REV lamp does not light. *Note:* In offices where vacant level trunks are made busy, the selector should rotate to the 11th rotary position when a vacant level is dialed and return paths busy tone.
24	Release LP key.	Selector restores properly. BSY lamp extinguished.
25	Operate LK key and repeat Steps 15f through 23 as required substituting LK key for LP key.	
26	Release LK key.	Selector restores properly. BSY lamp extinguished.
27	When tests are completed remove 240A plug from test jack.	
28	If testing SD-32183-01 selectors — Remove toothpick from test jack auxiliary springs.	
29	Repeat Steps 6d and 13 through 28 as required on other selectors to be tested.	
30e	If test cycle is one where first trunk is made busy substitute another selector previously tested for the one holding the first trunk busy and repeat Steps 13 through 28 as required.	
31	Remove all test connections and restore all keys to normal.	
32e	If test cycle is one where first trunk is made busy — Remove make-busy tool.	