

**REVERTING CALL SELECTORS**  
**OPERATION TESTS**  
**USING TEST SET SD-90416-01 (J94704A) AND TEST LINE SD-32198-01**  
**STEP-BY-STEP SYSTEMS**

1. GENERAL

- 1.01 This section describes a method of testing reverting call selectors using the SD-90416-01 (J94704A) test set and the SD-32198-01 connector test line circuit, in step-by-step offices arranged for operation with extended range subscriber lines.
- 1.02 This section is reissued to incorporate material from the addendum in its proper location. In this process marginal arrows have been omitted.
- 1.03 At least one reverting call switch should be tested with the emergency reverting call interrupter transfer key operated, in order to check both the regular and emergency interrupter circuits.
- 1.04 Reference should be made to office records to determine the ringing codes applicable to the office under test and the number of rings that should occur on tip or ring for each code assigned.
- 1.05 All keys, lamps, and jacks referred to are located in the test set circuit unless otherwise specified.
- 1.06 The letters a, b, c, etc., are added to a step to indicate that the steps cover an action which may or may not be required, depending on local conditions. The conditions upon 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. When a condition does not apply, the associated step should be omitted.

1.07 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.

2. APPARATUS

- 2.01 Test set - J94704A (SD-90416-01).
- 2.02 Patching cords - Four P3E cords, 6 feet long, equipped with two No. 310 plugs (3P6D cord) (for connecting BAT G, GEN, TL, and C jacks of test set to test line and power supply).
- 2.03 Testing cord - W2M cord, 9 feet long, equipped with a No. 310 plug (2W12A cord) (for connecting battery and ground to test set when frame battery supply jack is not provided).
- 2.04 Patching cord - P3H (or P3C) cord, 10 feet long, equipped with a No. 310 plug and a No. 240A plug (3P2A cord) (for connecting selector test jack to test set).

3. PREPARATION

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
1	Connect BAT G jack to 48-volt battery and ground supply  <u>Note:</u> Connect cord to test set first and, when disconnecting, remove from test set last.	
2a	If testing 10-party selectors using ac-dc ringing - Connect GEN, TL, and C jacks to GEN, TL, and C jacks of test line, respectively	
3b	If testing 8-party semiselective selectors using superimposed ringing - Connect GEN, TL, and C jacks to GEN, TL2 and C1 jacks of test line, respectively	

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4. METHOD

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>																					
<u>All Selectors</u>																							
4	Connect T jack to test jack of selector under test	BSY lamp does not light <u>Note:</u> If BSY lamp lights delay the test until the BSY lamp is extinguished or proceed to test another selector.																					
5	Operate the LK and ID keys	BSY lamp lighted																					
6	Dial reverting call code 11	Selector steps to terminal dialed																					
7	Operate and hold RING key	R- lamp lighted to indicate type of ringing for code dialed																					
8	Restore and reoperate ID key during a ringing interval	R- lamp extinguished while key is restored and lighted when key is restored																					
9	Operate and release TP key during a silent interval	Switch releases BSY lamp extinguished R- lamp extinguished																					
10	Release RING key	BSY lamp lighted																					
11	Dial reverting call code 22	Selector steps to terminal dialed																					
12	Operate and hold RING key	T- lamp lighted																					
13	Restore and reoperate ID key during a ringing interval	T- lamp extinguished while ID key is restored T- lamp lighted when key is reoperated																					
14	Operate and release TP key during a ringing interval	Selector releases when TP key is released BSY lamp extinguished T- lamp extinguished																					
15	Release RING key	BSY lamp lighted																					
16	Repeat steps 5 through 10 using each of the following codes:	Proper lamp lighted for code dialed																					
	<table border="0"> <tr> <td><u>8 Party</u></td> <td><u>10 Party</u></td> <td></td> </tr> <tr> <td></td> <td>Calling</td> <td>Reverting</td> </tr> <tr> <td></td> <td>and Called</td> <td>Ring Codes</td> </tr> <tr> <td>43</td> <td>63</td> <td>74</td> </tr> <tr> <td>67</td> <td>98</td> <td>78</td> </tr> <tr> <td>81</td> <td></td> <td>85</td> </tr> <tr> <td></td> <td></td> <td>89</td> </tr> </table>	<u>8 Party</u>	<u>10 Party</u>			Calling	Reverting		and Called	Ring Codes	43	63	74	67	98	78	81		85			89	
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Additional Tests for Selectors Having Two Trip Relays

17	Operate ID key	
18	Dial a code that will give a ring on the tip side	Selector steps to terminal dialed
19	Operate and hold RING key	R+ lamp lighted
20	Restore and reoperate ID key during a ringing interval	R+ lamp extinguished while ID key is restored and lighted when key is reoperated
21	Operate and release TP key during a ringing interval	Selector releases when TP key is released BSY lamp extinguished R+ lamp extinguished
22	Release RING key	BSY lamp lighted

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
<u>Test of Nonworking Code</u>		
23	Dial a code to step the selector to a nonworking terminal ( )	BSY lamp lighted Selector steps to terminal dialed
24	Operate and hold the RING key	Selector releases
25	Release the RING key	BSY lamp extinguished
26c	If no further tests are to be performed on this switch - Remove plug from selector test jack	
<u>Adjusting Method</u>		
27a	If testing 10-party selectors - Connect cords as in step 2a and operate ID key	
28b	If testing 8-party semiselective selectors using superimposed ringing - Connect cords as in step 3b and operate ID key	
29	Connect T jack to test jack of selector under test	
30	Operate and restore T key	Provides the trip and pretrip adjust values of resistance to the trip relays in order to check the mechanical adjustment
	<u>Note:</u> To avoid release of the switch, the reverting call selector relay which establishes ringing condition should be blocked-operated after the initial operation. The trip relay may be released after each operation, by carefully opening the make-first springs with an orange stick preparatory to applying the readjust values.	
31	Proceed as in steps 5 through 15	Lamp lights steadily or flashes to indicate ringing received
32c	If no further tests are to be performed - Remove plug from selector test jack Restore keys and disconnect remaining cords	BSY lamp extinguished