

TWO AND FOUR-PARTY REVERTING CALL SELECTORS OPERATION TESTS USING DIAL HAND TEST SET AND TEST CIRCUIT SD-31478-01 OR SD-31479-01 STEP-BY-STEP SYSTEMS

1. GENERAL

1.01 This section describes a method of testing the operating features of two and four-party reverting call selectors in offices arranged for semi-selective and full selective service. It also indicates the key operation required in order to apply the adjust values of resistance to the trip relays in full selective offices equipped with test circuits arranged for making a-c. adjustments. Test (A) is based upon the use of test circuit SD-31479-01 and test (B) on the use of SD-31478-01 and previous test circuits for semi-selective and full selective reverting call switches respectively. The tests covered are as follows:

(A) Two and Four-Party Reverting Call Selectors - Semi-Selective Type Offices.

(B) Two and Four-Party Reverting Call Selectors - Full Selective Type Offices.

(C) Two-Party Message Rate Station Restrictive Feature Test - Semi-Selective and Full Selective Type Offices.

1.02 This section has been reissued to include a test of the feature which, when provided, prevents a two-party message rate station from completing a reverting call, to indicate the key operation required in order to apply the adjust values of resistance to trip relays in full selective offices, and to cover modifications of the tests described in Issue 1.

1.03 Tests (A) and (B) are made from the test jack of the selector under test. Test (C) is made from the test jack of a service code selector immediately preceding the reverting call selectors.

1.04 Any reverting call selector on which a failure is encountered should be made busy until the trouble is cleared.

2. APPARATUS

All Tests

2.01 One Dial Hand Test Set D-81763 or equivalent.

2.02 No. 375-A Make-Busy Tools as required.

Tests (A) and (B)

2.03 One P3C Cord equipped with a No. 110 and a No. 240-A Plug.

Test (C)

2.04 One No. 528 Receiver (or equivalent) equipped with cords, clip and test pick.

3. METHOD

(A) Two and Four-Party Reverting Call Selectors - Semi-Selective Type Offices

3.01 The test codes used in this test and the corresponding ringing codes are listed in the following table.

| Test Code | Number of Rings | |
|-----------|-----------------|-----|
| | Ring | Tip |
| *1 | 1 | 1 |
| 3 | 2 | 1 |
| 4 | 1 | 2 |
| 6 | 2 | 2 |
| *7 | 1 | - |
| *8 | - | 1 |
| 9 | 2 | - |
| 0 | - | 2 |

* These are the only codes used in two-party offices.

One of the first four and one of the last four test codes should be employed on each switch but using different codes on successive switches until all have been employed. The regular and emergency interrupter circuits should be used on sufficient tests to include the first four codes (1, 3, 4 and 6) on each interrupter, repeat tests being made in accordance with 3.09 to 3.12 if there are not sufficient reverting call switches to meet this requirement.

3.02 Connect the dial hand test set to the DL jack of the reverting call selector test circuit.

3.03 With all keys of the test circuit normal, insert the No. 110 plug of the P3C cord into the TST jack of the test circuit. Note that the switch to be tested is normal and insert the No. 240-A plug into the test jack of the switch. If the selector is busy the SL lamp will light, in which case the No. 240-A plug may either be removed in order to proceed with other tests or left in the test jack and the test delayed until the SL lamp is extinguished.

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- 3.04 Operate the C button of the hand test set. The SL lamp should light.
- 3.05 Dial code 7, 8, 9 or 0 (see 3.01).
- 3.06 Release the C button of the hand test set. The proper test circuit bell should ring in accordance with the code dialed. Note that the first ring is a full period or code ring in order to check the pick-up feature.
- 3.07 Operate the PRE TRIP key at the start of a ringing interval and restore it to the normal position before the end of the ringing interval. The bell should ring again.
- 3.08 Operate the TRIP key at the start of a silent interval and restore it before the expiration of this interval. The switch should not release while the TRIP key is held operated but it should release promptly and the SL lamp should be extinguished when the key is restored.
- 3.09 Operate the C button of the hand test set. The SL lamp should light.
- 3.10 Dial code 1, 3, 4 or 6 (see 3.01).
- 3.11 Release the C button of the hand test set. The test circuit bells should ring in accordance with the code dialed.

Note: When using test codes 3 or 4 the initial ring of the one-ring code may be shorter than normal but a full code ring should be obtained on any two-ring codes.

- 3.12 Momentarily operate the TRIP key. The switch should release and the SL lamp should be extinguished.
- 3.13 Operate the C button of the hand test set and note that the SL lamp lights. Dial a non-working code. Release the C button. The switch should release and the SL lamp should be extinguished.
- 3.14 Remove the No. 240-A plug from the test jack of the selector unless other tests are to be conducted on this switch.

(B) Two and Four-Party Reverting Call Selectors - Full Selective Type Offices

Testing Method

- 3.15 When making these tests on a routine basis, 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 the emergency interrupter circuits.
- 3.16 Connect the dial hand test set to the DL jack of the reverting call selector test circuit.

- 3.17 With all keys of the test circuit normal, insert the No. 110 plug of the P3C cord into the TST jack of the test circuit. Note that the switch to be tested is normal and insert the No. 240-A plug into the test jack of the switch. If the selector is busy the SL lamp will light, in which case the No. 240-A plug may either be removed in order to proceed with other tests or left in the test jack and the test delayed until the SL lamp is extinguished.
- 3.18 Operate the C button of the hand test set. The SL lamp should light.
- 3.19 Dial code 1.
- 3.20 Release the C button of the hand test set. The T- and R- bells should ring.
- 3.21 Operate the PRE TRIP key at the start of a ringing interval and restore it to the normal position before the end of the ringing interval. The bells should ring again.
- 3.22 Operate the TRIP key at the start of a ringing interval and restore it before the expiration of this interval. The switch should not release while the TRIP key is held operated but it should release promptly and the SL lamp should be extinguished when the key is restored.
- 3.23 Operate the C button of the hand test set. The SL lamp should light.
- 3.24 Dial code 7 if equipped. (Otherwise dial code 1.)
- 3.25 Release the C button of the hand test set. The R- bell should ring (R- and T- bells in case of code 1).
- 3.26 Momentarily operate the TRIP key during a silent interval. The switch should release promptly and the SL lamp should be extinguished.
- 3.27 In two-party offices proceed as in 3.36 and 3.37. In four-party offices proceed as in 3.28 to 3.37.
- 3.28 Operate the C button of the hand test set. The SL lamp should light.
- 3.29 Dial code 4.
- 3.30 Release the C button of the hand test set. The T+ and R- bells should ring.
- 3.31 Momentarily operate the TRIP key during a T+ ringing interval. The switch should release promptly and the SL lamp should be extinguished.
- 3.32 Operate the C button of the hand test set. The SL lamp should light.
- 3.33 Dial code 9 if equipped. (Otherwise dial code 6.)

3.34 Release the C button of the hand test set. The R+ bell should ring (R+ and T+ bells in case of code 6).

3.35 Momentarily operate the TRIP key during a silent interval. The switch should release promptly and the SL lamp should be extinguished.

3.36 Operate the C button of the hand test set and note that the SL lamp lights. Dial a non-working code. Release the C button. The switch should release and the SL lamp should be extinguished.

Note: This test is intended for two-party offices and for four-party offices having non-working codes available.

3.37 Remove the No. 240-A plug from the test jack of the selector unless other tests are to be conducted on this switch.

Adjusting Method

3.38 To apply the trip and pre-trip adjust values of resistance to the trip relays in full selective offices, in order to check the mechanical adjustment of these relays, proceed as outlined in 3.16 to 3.22 except in this case operating the READJ key at the start of the test.

(C) Two-Party Message Rate Station Restrictive Feature Test - Semi-Selective and Full Selective Type Offices

3.39 Connect the dial hand test set to the test jack of a normal service code selector immediately preceding the reverting call selectors.

3.40 Operate the C button of the hand test set and dial the level leading to the reverting call selectors. Then dial the last digit of a reverting call code.

3.41 Release the C button and remove the plug of the hand test set from the test jack. The switch should not release.

3.42 Repeat the tests outlined in 3.39 to 3.41, until all of the reverting call selectors have been dialed.

3.43 Immediately apply 48-volt battery through the test receiver to the "C" lead wiper cord terminal at the test jack of each of the service code selectors which were dialed. These switches should release.

4. REPORTS

4.01 The required record of these tests should be entered on the proper form.