

TRAFFIC REGISTERS
OPERATION TESTS
355A COMMUNITY DIAL OFFICES

1. GENERAL

- 1.01 This section describes a method of testing the traffic register circuits.
- 1.02 The tests covered are:
- (A) Peg Count Register
 - (B) All Trunks Busy Register
 - (C) Last Trunk Busy Register
- 1.03 In offices where the registers are relay rack mounted, the services of an assistant will be required, at the relay rack, to insure the accuracy of the test results.
- 1.04 These tests when conducted as a routine should be made on days other than peg count days and preferably during a period of light traffic.
- 1.05 Local instructions should be followed with reference to recording any register operations.

2. APPARATUS

Tests (A) and (B)

- 2.01 No. 1011G Hand Test Set connected to a W2CL Cord equipped with a No. 471A Jack and a No. 240A Plug (2W39A) (or equivalent).
- 2.02 One No. 716E Receiver connected to a W2AB Cord equipped with two No. 360A Tools (2W21A), a No. 365 Tool and a No. 411A Tool.

Test (B)

- 2.03 One W2W Cord equipped with a No. 310 Plug and two No. 360 Tools (2W17A) and one No. 365 Tool connected to the white (tip) conductor.

Tests (B) and (C)

- 2.04 No. 477A (or No. 375A) Tools (Make Busy) as required.

3. PREPARATION

Test (A)

- 3.01 In offices where the peg count registers are relay rack mounted operate the BC key.

4. METHOD

(A) Peg Count Register

Selectors Arranged for Peg Count Operation on Selector Cut Through

- 4.01 If the registers are shelf mounted operate the PC switch, of the shelf being tested, to the ON position.
- 4.02 Insert the No. 240A plug of the hand test set into the test jacks of an idle selector on the shelf to be tested, and operate the switch of the hand test set to the TALK position.
- 4.03 Dial a digit that will direct the selector to a working level, other than that on which the operator office trunks appear, and verify that the associated peg count register advances one digit when the selector stops on a trunk on the level dialed.

Note: If the selectors are arranged to absorb the first digit it will be necessary to dial an extra digit.

- 4.04 Remove the No. 240A plug from the test jacks of the selector and restore the PC key to the OFF position.
- 4.05 Proceed as in 4.01 to 4.04 until all selector peg count registers have been tested.
- 4.06 In offices where the registers are relay rack mounted restore the BC key if no further tests are to be performed.

Switches Arranged for Peg Count Operation upon Release of the Switch

- 4.07 If the registers are shelf mounted operate the PC switch, of the shelf being tested, to the ON position.
- 4.08 Manually raise the shaft of an idle switch, on the shelf being tested, far enough to allow the vertical off-normal springs to close, verify that the associated peg count register advances one digit and then allow the switch to restore to normal.
- 4.09 Restore the PC switch to the OFF position.
- 4.10 Proceed as in 4.07 to 4.09 until all peg count registers have been tested.

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4.11 In offices equipped with relay rack mounted registers, restore the BC key, if no further tests are to be performed.

Rotary Line Switches

4.12 Where provided, operate the PC2 switch to the ON position.

4.13 Apply 48 volt battery through the test receiver to terminal 21 of arc 2 of a rotary line switch associated with the register under test, verify that the associated peg count register advances one digit and then remove the battery from terminal 21.

4.14 Where provided, restore the PC2 key to the OFF position.

4.15 Proceed as in 4.12 to 4.14 until all rotary line switch peg count registers have been tested.

4.16 In offices equipped with relay rack mounted registers, restore the BC key, if no further tests are to be performed.

(B) All Trunks Busy Register

100-Point Line Finders

4.17 Note the reading of the all trunks busy register to be tested.

4.18 Operate the MB keys of all but one of the idle line finders. Momentarily operate the MB key of the last idle line finder and verify that the associated register advances one digit. Immediately restore all MB keys.

Caution: Care shall be exercised in the performance of this test to prevent interference with regular calls.

4.19 Proceed as in 4.17 and 4.18 until all line finder all trunks busy registers have been tested.

200-Point Line Finders

4.20 Note the reading of the all trunks busy register to be tested.

4.21 Operate the control circuit BY key associated with group A. Momentarily operate the BY key associated with group B and verify that the associated register advances one digit. Immediately restore the BY key of group A.

Note: On alternate test periods reverse the sequence of operating the BY keys.

4.22 Proceed as in 4.20 and 4.21 until all line finder all trunks busy registers have been tested.

22-Point Trunk Finders

4.23 Note the reading of the all trunks busy register to be tested.

4.24 Apply ground through the test receiver to 3B contact of the D relay of the last trunk finder in the group under test. Verify that the associated all trunks busy register advances one digit and remove the ground from 3B contact of the D relay.

4.25 Proceed as in 4.23 and 4.24 until all trunk finder all trunks busy registers have been tested.

100 and 200-Point Trunk Finders

4.26 Note the reading of the all trunks busy register to be tested.

4.27 Connect the No. 365 tool of the W2W cord to ground and insert the No. 310 plug into the test jack of a trunk finder, as indicated below, just far enough for the tip of the plug to touch the ring spring of the test jack. Each idle trunk finder should in turn step to the last rotary step and release.

Size of Finder Group	Finder Used for Test
4	2
6	2
8	7
10	2
16	12
20	12
30	22

4.28 After the last idle trunk finder has released (indicated by the lighting of the red S lamp and the sounding of the audible alarm), remove the No. 310 plug from the test jack and verify that the associated all trunks busy register has advanced one digit.

4.29 Momentarily depress the AR key associated with the group under test, to extinguish the S lamp and retire the audible alarm.

4.30 Proceed as in 4.26 to 4.29 until all trunk finder all trunks busy registers have been tested.

Selector-Repeaters

4.31 Note the reading of the all trunks busy register to be tested.

4.32 Block non-operated the J relay of an idle selector-repeater associated with the register under test.

4.33 Insert the No. 240A plug of the hand test set into the test jacks of the selector-repeater and operate the switch of the hand test set to the TALK position. Note that dial tone is heard.

4.34 Dial the digit 5 and note that busy tone is heard in the receiver of the hand test set. Verify that the associated all trunks busy register advances one digit.

4.35 Remove the blocking tool from the J relay and the No. 240A plug, of the hand test set, from the test jacks of the selector-repeater.

4.36 Proceed as in 4.31 to 4.35 until all selector-repeater all trunks busy registers have been tested.

Trunks

4.37 Note the reading of the all trunks busy register to be tested.

4.38 Make busy, in the approved manner, all but one of the idle trunks associated with the register to be tested. Momentarily make the last idle trunk busy and verify that the associated register advances one digit. Immediately remove the busies from all the trunks involved in the test.

Note: When testing trunks associated with rotary out trunk switches, note that the rotary out trunk switches do not continuously hunt when the last trunk is made busy.

Caution: Care shall be exercised in the performance of this test to prevent interference with regular calls.

4.39 Proceed as in 4.37 and 4.38 until all of the all trunks busy registers have been tested.

(C) Last Trunk Busy Register

4.40 Note the reading of the last trunk busy register.

4.41 Insert a No. 477A tool between test jack springs 3 and 4 of the switch connected to the trunk that is associated with the last trunk busy register and verify that the associated register advances one digit.

4.42 Remove the No. 477A tool.

4.43 Proceed as in 4.40 to 4.42 until all last trunk busy registers have been tested.

5. REPORTS

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

5.02 Where required, the record of register operations caused by performing these tests should be forwarded according to local instructions.