

TRAFFIC REGISTERS
ASSOCIATED WITH SELECTORS
OPERATION TESTS
STEP-BY-STEP SYSTEMS

1. GENERAL

1.01 This section describes a method of testing the traffic register circuits associated with selector equipment.

1.02 This section has been reissued principally to add a last trunk busy register test, to include a method of testing peg count registers associated with selectors with digit absorbing features, to include a test of peg count registers for double registration due to shaft bounce, and to bring it generally up to date. This reissue covers a general revision and, therefore, arrows used to indicate changes have been omitted.

1.03 The tests covered are:

(A) Peg Count Registers Associated with Local and Toll Selectors: This test checks that a peg count register will operate when an associated selector releases from the first level.

(B) Last Trunk Busy Registers Associated with Local Selector: This test checks that a last trunk busy register will operate when a selector seizes the last trunk of a selector trunk subgroup.

1.04 Operating differences between No. 5 or No. 12 type registers and No. 14 type registers are as follows:

No. 5 or No. 12 Type - Number wheel is turned when register is operated.

No. 14 Type - Number wheel is turned when register is released.

1.05 These tests require the services of two men, one at the traffic register rack, and one at the selector frame. The standard switchman talking line is used to communicate with each other during the test.

1.06 These tests when conducted on a routine basis should be made during a period of light traffic and Test (A) should be made on days other than peg count days.

1.07 Local instructions should be followed with reference to recording the register operations caused by performing these tests.

1.08 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 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 steps should be omitted.

1.09 The term working level as used in Part 4, Method, means any level except levels on which a selector is arranged to block, or to absorb repeatedly, or levels on which the selector will hunt to the eleventh rotary position.

1.10 While conducting these tests on switches directly connected to trunks, the trunks should be made busy in the approved manner. They should be restored to service when the tests have been completed, except those on which failures have been encountered.

2. APPARATUS

2.01 Operator Telephone Set to be connected to switchman talking line at traffic register rack.

2.02 Two No. 1011G Dial Hand Test Sets each equipped with cord assembly consisting of a W2CL Cord, one No. 471A Jack and one No. 240A Plug (2W39A Cord or equivalent). One to be connected to switchman talking line at selector frame in Test (B).

2.03 Testing Cord - No. 893 Cord, six feet long, equipped with two No. 360A Tools (1W13B Cord) and two KS-6278 Connecting Clips; to be used in Test (B) for connecting ground to F relay.

SECTION 226-700-501

3. PREPARATION

ALL TESTS

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
1	By means of switchman talking line, establish a talking circuit between selector frame under test and traffic register rack.	

Test A

- | | | |
|---|--|--|
| 2 | At traffic register rack, operate key provided for supplying battery or battery and ground to register under test (P Key). | |
|---|--|--|

Test B

- | | | |
|---|--|--|
| 2 | At traffic register rack, record reading of last trunk busy register to be tested. | |
|---|--|--|

4. METHOD

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
<u>(A) Peg Count Registers Associated with Local and Toll Selectors</u>		
3	Insert No. 240A plug of hand test set, with switch in MON position, into a normal selector in selector shelf group associated with peg count register under test, and monitor.	If there is indication that selector has been seized by another call, disconnect hand test set, otherwise proceed with test.
<p><u>Note:</u> An occasional test may be made for double registration of peg count registers due to shaft bounce, especially those associated with digit absorbing selectors, by causing selector to step to 0 level. When this test is made, all selectors associated with peg count register under test should be tested.</p>		
4a	If testing selectors arranged to absorb initial digit on level under test, operate switch of hand test set to TALK position and dial absorbed digit.	Selector will step to level dialed and release. (Some selectors arranged for digit absorbing may not step vertically on absorbed digit.) At register rack, note that associated peg count register does not advance.
5b	If testing selectors arranged to operate peg count register on cut through, dial selector to any working level except one containing trunks to switchboard position and allow selector to cut through on first idle trunk.	At traffic register rack, observe associated peg count register advances one digit.
6b	Operate switch on hand test set to MON position.	Selector releases.

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
7c	If testing selectors arranged to operate peg count register on release, dial selector to lowest working level not containing trunks to switchboard position.	Selector steps to level dialed and cuts through on first idle trunk.
8c	Operate switch of hand test set to MON position.	Selector releases. At traffic register rack, observe associated peg count register advances one digit.
9d	If no further tests are to be made, disconnect hand test set from selector.	
10	Repeat Test (A) for all selector shelf groups associated with peg count register under test.	
11	At traffic register rack, restore key provided for supplying battery or battery and ground to register under test (P Key).	
<u>(B) Last Trunk Busy Registers Associated with Local Selectors</u>		
3	Insert No. 240A plug of hand test set with switch in MON position into test jack of normal selector having direct access to trunk associated with register under test.	If there is indication that selector has been seized by another call, disconnect hand test set, otherwise proceed with test.
4a	If testing selectors arranged to absorb initial digit on level under test, operate switch of hand test set to TALK position and dial absorbed digit.	Selector will step to level dialed and release. (Some selectors arranged for digit absorbing may not step vertically on absorbed digit.)
5	Dial selector to level associated with register under test and by opening and closing the off-normal springs step selector across level to an idle trunk just preceding trunk associated with register under test.	At register rack, observe associated last trunk busy register does not advance.
<p><u>Note:</u> On certain types of digit absorbing selectors it will be necessary to hold the F relay operated electrically while the selector is being stepped from one trunk to the next to prevent the selector from releasing. Connect ground to the locking circuit of the F relay at the most convenient location, using a No. 893 cord.</p>		
6	Step selector to trunk associated with register under test, by opening and closing off-normal springs.	At register rack, observe associated last trunk busy register advances one step.
7d	If no further tests are to be made, disconnect hand test set from selector.	
8	Repeat Test (B) for all selector shelves in which the trunk associated with the register under test appears.	
9	At traffic register rack, record reading of last trunk busy register tested and forward according to local instructions.	