

LOCAL SELECTORS
OPERATION TESTS
701A, 701B, 711A, AND 711B PBX

1. GENERAL

1.01 This section describes a method of testing the operating features of regular local and two-digit rotary hunting selectors in 701A, 701B, 711A, and 711B PBX.

1.02 This section has been reissued to convert it to letter size and for the following reasons:

- (a) To revise the title of the section to include the 701B and 711B PBX.
- (b) To add information regarding the voltage applied to the equipment and to the test equipment.
- (c) To bring the list of apparatus up to date.
- (d) To include methods for testing digit absorbing selectors.

Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 The tests covered are:

- A. *Local Regular Selectors*
- B. *Two-Digit Rotary Hunting Selectors*

1.04 A different level should be used each time the tests are made so that eventually every selector will be tested on each level.

1.05 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 installations 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.

1.06 *Lettered Steps:* A letter a, b, c, etc, added to a step number in Parts 3 and 4 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.

2. APPARATUS

Tests A and B

2.01 Test set J54701B (SD-66073-01) or J94704 (SD-90416-01).

2.02 Head telephone set or 1011G dial hand test set equipped with a 2W39A cord assembly consisting of W2CL cord, No. 471A jack, and No. 240A plug.

2.03 Testing cord, W2M cord, 9 feet long, equipped with one No. 310 plug and two No. 59 cord tips (No. 2W12A cord) used to connect battery and ground to the test set.

2.04 Patching cord, P3H cord, 10 feet long, equipped with one No. 310 plug and one No. 240A plug (No. 3P2C cord) used to connect switch under test and test set.

2.05 Testing cord, a black cord, 1 foot 8 inches long, equipped with one clip per AT6928 and one KS-6780 connecting clip with one No. 108 cord tip (No. W1U cord) used to ground motor start lead of ringing machine when manual ringing machine start key is not provided.

Test B

2.06 1011G dial hand test set equipped with a 2W39A cord assembly consisting of W2CL cord, No. 471A jack, and No. 240A plug (for connecting to a selector in addition to the one being tested). If dial hand test set is provided in 2.02 an additional hand test set will not be required.

2.07 No. 375A tools, as required.

3. PREPARATION

STEP	ACTION	VERIFICATION
Tests A and B		
1	Connect test battery to test set.	
2	Connect headset to TEL jack or dial hand test set to HS jack of test set.	
3a	If using dial hand test set with test set SD-66073-01 — Operate TRS key on test set. Operate dial hand test set switch to TALK.	
4b	If using dial hand test set with test set SD-90416-01 — Operate HS key on test set. Operate dial hand test set switch to TALK.	
5	Connect P3H cord to T jack of test set.	
6	Operate manual start key of ringing machine or ground motor start lead.	

4. METHOD

STEP	ACTION	VERIFICATION
A. Local Regular Selectors		
7	Connect P3H cord to test jack of selector under test.	BSY lamp on test set not lighted.
8c	If using test set SD-90416-01 — Operate PBX key.	
9	Operate LP key.	BSY lamp lights. PBX dial tone heard.
10d	If testing selector arranged to absorb initial digit — Dial initial digit.	Switch steps to level dialed and releases.
11e	If testing selector arranged to absorb a specific digit repeatedly — Dial digit to be absorbed at least twice.	Switch steps to level dialed and releases properly after each series of pulses.
12	Dial number of level used for test.	Switch steps smoothly to the proper level and rotates to an idle terminal. If testing on level which is connected to a central office trunk or a tie trunk which appears before an operator or attendant — Attendant or operator answers trunk signal.

STEP	ACTION	VERIFICATION
13f	If operator or attendant answers trunk signal — Advise operator or attendant that trunk is being tested and request her to disconnect.	
14	Restore LP key.	Switch releases. BSY lamp extinguished.
15	Operate LK key.	BSY lamp lights. PBX dial tone heard.
16	Repeat Steps 10 through 13.	
17	Restore LK key.	Switch releases. BSY lamp extinguished.
18	Repeat Steps 7 through 17 for each switch to be tested.	
19	Restore all keys. Remove all test equipment.	

B. Two-Digit Rotary Hunting Selectors

7	Connect P3H cord to test jack of selector under test.	BSY lamp on test set not lighted.
8c	If using test set SD-90416-01 — Operate PBX key.	
9	Operate LP key.	BSY lamp lights. PBX dial tone heard.
10	Dial level under test.	Switch steps smoothly to proper level.
11	Dial digit 0.	Switch rotates to 10th terminal. If 10th terminal on level is vacant or busy — Busy tone heard. If testing on level which is connected to a central office trunk or a tie trunk which appears before an operator or attendant — Operator or attendant answers trunk signal.
12d	If operator or attendant answers trunk signal — Advise operator or attendant that trunk is being tested and request her to disconnect.	
13	Restore LP key.	Switch releases. BSY lamp extinguished.

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STEP	ACTION	VERIFICATION
14	Operate LK key.	BSY lamp lights. PBX dial tone heard.
15	Repeat Steps 10 through 13.	
16	Restore LK key.	Switch releases. BSY lamp extinguished.
17	Select a central office trunk or tie trunk group of more than one trunk.	
18	Connect dial hand test set to an idle switch other than switch under test.	
19	Operate dial hand test set switch to TALK.	
20	Dial necessary two digits for first central office or tie trunk of the group.	Switch steps smoothly to proper level and rotates to terminal of first idle central office trunk or tie trunk of group. If testing trunk group which appears before an operator or attendant — Operator or attendant answers.
21d	If operator or attendant answers trunk signal — Advise operator or attendant that trunk is being tested. Request plug be left in trunk jack until steady disconnect signal is received and then to disconnect.	
22	Partially remove the 240A plug of dial hand test set and insert No. 375A tool between springs 1 and 2 of switch test jack.	
23	Disconnect dial hand test set from switch test jack.	Switch does not release.
24	Operate LK key.	
25	Dial necessary two digits of trunk made busy in preceding steps.	Switch steps to proper level and passes over busy trunk, stopping on the next idle trunk.
26	Restore LK key.	Switch under test releases.
27	Remove No. 375A tool from test jack of other switch used in test.	Switch releases when operator or attendant disconnects.
28	Connect dial hand test set to an indle switch other than switch under test.	
29	Operate dial hand test set switch to TALK.	

STEP	ACTION	VERIFICATION
30	Dial necessary two digits for last trunk of the group.	Switch steps smoothly to proper level and rotates to terminal of last central office trunk or tie trunk of group. If testing trunk group which appears before an operator or attendant — Operator or attendant answers.
31d	If operator or attendant answers trunk signal — Advise operator or attendant that trunk is being tested. Request plug be left in trunk jack until steady disconnect signal is received.	
32	Partially remove the 240A plug of dial hand test set and insert No. 375A tool between springs 1 and 2 of switch test jack.	
33	Disconnect dial hand test set from switch test jack.	Switch does not release.
34	Operate LK key.	
35	Dial necessary two digits of last trunk in group.	Switch steps to proper level and stops on last contact of the group. Busy tone heard.
36	Restore LK key.	Switch under test releases.
37	Remove No. 375A tool from test jack of other switch used in test.	Switch releases when operator or attendant disconnects.
38	Restore all keys. Remove all test equipment.	
39	Repeat Steps 7 through 38 for each switch to be tested.	