

SELECTORS, CONNECTORS AND SELECTOR-CONNECTORS
CUT-IN AND RELEASE TESTS
700C AND 710C PBX
(DIAL EQUIPMENT)

1. GENERAL:

1.1 This section describes a method of making a rapid test of the cut-in and release features of selectors, connectors and selector-connectors and a check for dial tone on first selectors and selector-connectors. The tests are divided as follows:

- (a) **Selectors.**
- (b) **Wiper Cord Test on Selectors.**
- (c) **Connectors.**
- (d) **Selector-Connectors.**

This section has been reissued to include the 710C PBX in the title and convert it to letter size.

1.2 The major operating features of this routine are also covered by Sections: 541-003-520 Connector Operation Test, 541-003-657 Selector Rotary Test, and 541-003-660 Varying Test. When these sections are scheduled, Section 541-003-656 may be omitted.

1.3 A different level should be used each time, so that all switches will eventually be tested for cut-in on all levels, except that incoming selectors and incoming selector-connectors should not be tested on the zero level.

1.4 Any switch on which a failure is encountered, should be made busy until the trouble is cleared.

2. APPARATUS:

- 2.1 Dial Hand Test Set equipped with a No. 2-CB Dial and a No. 240-A Plug.
- 2.2 No. 377-A Dialing Tool.
- 2.3 No. 375-A Make-busy Tools, as required.

3. METHOD:

(a) **Selectors:**

3.1 **Dial Tone Test.** Connect the dial hand test set to the test jack of an idle selector and operate the C button. Note that dial tone is heard in the receiver.

Note: When testing incoming selectors and incoming selector-connectors, the sleeve and ground springs of the dial hand test set should be short-circuited. On incoming selector-connectors, invert the plug and connect it to the four lower springs of the test jack.

3.2 **Cut-In Test.** Holding the C button operated, operate the R button. Dial the number of the level to be used and immediately dial the digit one as rapidly as possible. Observe that the selector steps to the level dialed and rotates to the first idle trunk. Should the dialing of the digit one cause an extra vertical step or a vertical kick of the shaft, it usually indicates that the C relay is too slow to release.

3.3 **Release Test.** Release the C and R buttons (on incoming selector-connectors, remove the plug from the test jack) and observe that the selector releases properly.

(b) **Wiper Cord Test on Selectors:**

3.4 While performing test (a), proceed as outlined in paragraphs 3.1 and 3.2, and then release the R button, holding the C button operated. Then move the wiper cords slightly and note that there are no clicks or scratching noises in the receiver.

3.5 Release the C button and observe that the selector releases properly.

(c) **Connectors:**

3.6 Connect the dial hand test set to the test jack of an idle connector and operate the C button.

Note: When testing incoming selector-connectors, the sleeve and ground springs of the dial hand test set should be short-circuited. On incoming selector-connectors, invert the plug and connect it to the four lower springs of the test jack.

3.7 Operate the R button. Dial the number of the level to be used and immediately dial the digit one as rapidly as possible. Release the C and R buttons as soon as digit one has been dialed, thus avoiding ringing the extension. Observe that the connector steps to the first contact on the level dialed and immediately releases. Should the dialing of the digit one cause an extra vertical step, it usually indicates that the C relay is too slow to release.

(d) **Selector-Connectors:**

3.8 Test the selector levels of selector-connectors as outlined under test (a).

3.9 Test the connector levels of selector-connectors as outlined under test (c).

4. REPORTS:

4.1 The required record of this routine should be entered on the proper form.