

LINE FINDER-DISTRICT SENDER SELECTORS

HUNTING TEST

PANEL OFFICES

1. GENERAL:

- 1.1 This section outlines a method of performing a hunting test of the line finder-district sender selectors, using an auxiliary make-busy circuit (ES-20089-01).
- 1.2 This test is made by making a group of senders busy and setting up the hunting condition in five district selectors so that the five associated sender selectors rotate simultaneously.
- 1.3 Approximately one-half of the senders of the group are made busy by means of No. 184 plugs and the auxiliary make-busy circuit. Special No. 110 plugs with tips and rings short-circuited, are inserted into the make-busy jacks of the remaining senders of the group. The No. 184 plugs and the auxiliary make-busy circuit, impose the usual make-busy condition on the test leads of the senders, while the special No. 110 plugs produce a condition on the test leads which is similar to that of senders returning to normal.
- 1.4 As all senders in a group are made busy when making this test, it should be performed during a period of very light traffic.
- 1.5 Two men are required for making this test, one stationed at the sender selector frame and the other at the line finder frame.

2. APPARATUS:

- 2.1 Eleven No. 110 Plugs. (Tip and ring of each plug should be short-circuited).
Note: These plugs should have some distinguishing characteristic such as different colored shells, to avoid substitution for No. 184 make-busy plugs in regular service.
- 2.2 One No. 891 Cord equipped with a No. 110 Plug at one end and No. 360 Tools (socket type cord tips) at the other end.
- 2.3 One No. 365 Tool (suspender clip).
Note: This tool should be connected to the No. 360-B Tool on the ring conductor of the No. 891 Cord.
- 2.4 Six No. 728 Cords equipped with No. 110 Plugs on both ends.
- 2.5 Six No. 184 Make-busy Plugs.

2.6 Two Operator's Telephone Sets.

2.7 One No. 528 (or equivalent) Receiver with Cords and Test Picks.

3. PREPARATION FOR TEST:

- 3.1 Determine whether or not the senders are idle by grounding one lead of the head set and connecting the other lead to the sleeve of the make-busy jack of each sender of the group under test. If a sender is idle, it will be indicated by a click in the receiver; and if busy, no click will be heard.
- 3.2 When a sender is found idle, immediately make busy in the approved manner.
- 3.3 If a sender is found busy, do not insert a short-circuited plug into its associated make-busy jack until it becomes idle. This precaution is necessary, for the insertion of a short-circuited plug into the make-busy jack of a busy sender may cause interference with a service call.
Note: If there are less than twelve senders in the group, insert short-circuited plugs into the make-busy jacks of all senders in excess of six.
- 3.4 Repeat the above operations (paragraphs 3.1 to 3.3) until approximately one-half of the senders in the group under test have been made busy.
- 3.5 Insert No. 184 plugs into the make-busy jacks of the remaining senders of the group under test, until all but six senders have been made busy.
- 3.6 Connect the make-busy jacks of the remaining six senders to the six jacks of the auxiliary make-busy circuit, by means of No. 728 cords.
- 3.7 Establish a talking connection between the man at the line finder frame and the man located at the sender selector frame, by means of the inter-frame talking line.

4. METHOD:

- 4.1 Insert a No. 184 plug into the remote control jack associated with the auxiliary make-busy circuit at the sender selector frame. This operation makes the remaining six senders busy.

- 4.2 Request the man at the line finder frame to set up the sender hunting condition in five adjacent district selector circuits as follows:
- 4.3 The man at the line finder frame should note that the line finders to be tested are idle, and should set up the hunting condition by connecting the ring conductor of the No. 891 cord to ground and inserting the plug of this cord into the test jack of each of the five district selector circuits in turn. He should remove the plug from each of the test jacks as soon as the associated line finder brush rod starts upward.
- 4.4 On line finders which are not arranged to restore automatically from tell-tale, he should trip any brush on one of the brush rods at tell-tale. If the line finder remains at tell-tale, it indicates that the holding circuit of the F relay functions satisfactorily. Should the selector return to normal, it indicates that the holding circuit of the F relay is open.
- 4.5 He should reset the brush and repeat the operation covered in paragraph 4.4 on the other line finders which are under test, at tell-tale.
- 4.6 Allow the sender selectors to rotate for a sufficient length of time to note carefully the operation of the selectors. Check particularly for excessive sparking at the contacts, excessive side lash in the rotor mecha-

nism and for smooth and regular operation of each selector.

Caution: The man stationed at the sender selector frame should take prompt action if any other sender selectors start rotating (in addition to the five under test). This is an indication that a subscriber is attempting to make a call in the sender group which has been made busy. If this condition occurs, immediately remove the No. 184 plug from the remote control jack, at the sender selector frame. This will free the six senders which are connected to the auxiliary circuit. When the sender selectors stop rotating, reinsert the plug into the remote control jack and continue the test.

- 4.7 If trouble is encountered, which is not corrected immediately, remove the district selector from service until the trouble can be cleared.
 - 4.8 After completing the test on the rotating sender selectors, remove the No. 184 plug from the remote control jack. Observe that the sender selectors stop rotating and that the line finder brush rods return to normal.
5. **REPORTS:**
- 5.1 The required record of this routine should be entered on the proper form.