

EXTENSION LINES RELAY, JACK AND LAMP CIRCUIT TESTS 600C PBX

1. GENERAL:

1.1 This section covers tests of line lamp, line relay (if provided), sleeve circuit, jacks for cut-outs and break contacts, and lamp jack frame for crosses.

2. APPARATUS:

2.1 Test Receiver (No. 528 or equivalent) equipped with cords and clips, No. 760 Cord, Test Plug (minimum size) and No. 2-W Lamp in a No. 38-B Lamp Socket.

3. METHOD:

3.1 **Test of Line Lamp:** Connect the test receiver across the extension line terminals at the distributing frame. The line lamp or lamps should light with proper brilliancy. Insert an idle back plug into a jack of the extension line. The line lamp or lamps should go out and the front cord lamp should light. Restore the circuit to normal.

3.2 **Test of Line Relay:** If the line is equipped with a line relay, connect the test lamp across the terminals of the extension line. The line lamp or lamps should light with proper brilliancy, indicating that the line relay operates properly. Insert an idle back plug into a jack of the extension line. The line lamp or lamps should be extinguished, indicating that the line relay releases. When a more critical test of the line relay is required, a current flow check should be made.

3.3 **Test of Sleeve Circuit:** To test that the sleeve ground contacts are open, make a busy test on the sleeve of a jack of the extension line circuit under test. No click should be heard.

3.4 Insert an idle back plug into a jack of the extension line. The supervisory lamps should light. Repeat the test at all

multiple jack appearances. This tests the tip make contacts of the sleeve ground.

3.5 With an idle back cord in a jack of the extension line, make a busy test at all multiple jack appearances. A click should be heard. This tests the continuity of the sleeve circuit. Disconnect idle cord from the jack.

3.6 **Test of Extension Line Jacks for Cut-outs:** Connect one clip of the test receiver to the sleeve of an idle back plug and connect the other clip to the ring terminal of the test plug. Connect the tip terminal of the test plug to the tip of an idle plug. Short-circuit the extension line under test, insert the test plug into a jack of the extension line and manipulate the plug to determine whether the jack cuts out. This should be done by grasping the plug at the cord end and while applying a sideward pressure (that is away from the centre of rotation), move the plug through a complete circle. Repeat the test at each multiple jack appearance. Disconnect testing apparatus from the extension line.

3.7 **Test of Break Contacts of Extension Line Jacks:** Short-circuit the tip and ring terminals of the test plug and insert it into a jack of the extension line under test. Connect one clip of the test receiver to the short-circuited terminals of the test plug and touch the other clip to the tip and then to the ring of an idle plug. No clicks should be heard. Repeat the test at each multiple jack appearance. Disconnect the test plug and receiver.

3.8 **Test of Lamp Jack Frame for Crosses:** With the talk and dial key of an idle cord circuit operated, touch the tip of the associated back plug to the metal frame of the lamp cap. No click should be heard in the attendant's receiver. Restore talk and dial key.

4. REPORTS:

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