

CENTRAL OFFICE TRUNKS
OPERATION TESTS
600C PBX

1. GENERAL:

1.1 This section covers tests of the trunk relays and busy signals, polarity, jacks for cut-outs, the 1000-1000 ohm line relay (manual offices), and lamp jack frame for crosses.

2. APPARATUS:

2.1 Test Receiver (No. 528 or equivalent) equipped with cords and clips, No. 760 Cord and Test Plug (minimum size).

3. METHOD:

3.1 **Trunk Relay and Busy Signal Operation Test:** Obtain a ring on the trunk from the central office. If the board is connected to a manual office, request the operator who answers to ring on the trunk. If connected to a dial system central office, dial zero, and when the operator answers request a ring on the trunk, or if a reverting ring circuit is available, dial the assigned number. The trunk lamp or lamps should light and the busy signals should operate, indicating that the line relay operates properly. Insert an idle front plug into a jack of the trunk. The trunk lamp or lamps should go out, but the busy signals should remain operated. This indicates that the cut-off relay operates properly, releasing the line relay. Disconnect the cord from the jack. The busy signals should release.

3.2 Connect a front cord, with the night and through dial key operated, in turn to the other jacks of the trunk under test. The busy signals should operate.

3.3 **Trunk Polarity Test:** Operate a night and through dial key and insert the associated front plug into a jack of the trunk under test. Connect one clip of the test receiver to ground and touch the other clip alternately to the tip and ring of the associated back plug. A louder click should be obtained on the ring of the back plug than on the tip. Disconnect the test receiver and restore cord circuit to normal.

Note: If, in accordance with local instructions, a reversed trunk polarity is called for, a louder click will be obtained on the tip than the ring of the plug.

3.4 **Trunk Jack Cut-out Test:** Connect the test receiver to the tip and ring terminals of the test plug. Insert the test plug into a jack of the trunk under test 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 the test plug and receiver.

3.5 **Test to See That Tip Winding of 1000-1000 Ohm Line Relay is Short-circuited:** If the trunk is connected to a manual office, make the following test after making the polarity test given in 3.3. Operate the night and through dial key of an idle cord circuit and connect the sleeve to the tip of the back plug, using the No. 760 cord. Insert the front plug into the trunk under test and note that the back cord lamp lights. If the lamp does not light, it indicates that the trunk is equipped with a 1000-1000 ohm line relay at the central office and that the tip winding has not been short-circuited, as required. Restore the equipment to normal.

3.6 **Lamp Jack Frame Test for Crosses:** Operate the talk and dial key of an idle cord circuit and touch the tip of the associated front plug to the metal frame of the trunk lamp cap. No click should be heard. Restore the talk and dial key.

Note: Great care should be exercised by the maintenance man in placing calls over trunks in dial system message rate areas to see that non-registering code numbers are used.

4. REPORTS:

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