JACKS
49, 92, 141, 275, 284, 285, 295, 365 AND SIMILAR TYPES
CUTOUT TEST USING TEST SET J94720A

1. GENERAL

1.01 This section describes the method of making a cutout test on Nos. 49, 92, 141, 275, 284, 285, 295, 365 or similar type jacks, using test set J94720A. (SD-95056-01)

1.02 While making tests on jacks, note any jack mountings that are loose, cracked or broken and any jacks that are loose in the mounting.

1.03 Before using a No. 113 type or No. 123 type jack gauge check to see that it is within its proper requirements by inserting the gauge into the No. 106A or No. 111A plug gauge respectively, and turning it to the position where the needle of the plug gauge is farthest to the right. No portion of the needle should then be to the right of the green line. If during tests, defective jacks are indicated, check the jack gauge often enough to ensure that it is within its requirements.

1.04 When testing jacks other than the cut-off type, this test does not interfere with talking or signaling and accordingly can be made on busy as well as idle circuits. Circuits using cut-off type jacks should not be tested while the circuit is busy.

1.05 The proper functioning of the test set depends upon an impedance bridged across the tip and ring of the jack being tested. Jacks connected to as little as 8 to 10 feet of cable can be tested satisfactorily.

2. APPARATUS

2.01 Test set J94720A.

2.02 One of the following:

(a) No. 528 Receiver attached to an R2CF Cord equipped with a No. 310 (or No. 110) Plug (2W4A Cord).

(b) No. 528 Receiver attached to an R2CU Cord equipped with a No. 309 (or No. 109) Plug (2W29A Cord).

2.03 H Cabinet Screwdriver.

No. 49 Jacks

2.04 P3E Cord equipped with a No. 123B (or No. 123A) gauge and a No. 310 (or No. 110) plug with a No. 121A cord weight attached to the cord about 2 inches from the gauge (3P8A Cord).

2.05 No. 111A Gauge.

No. 92 Jacks

2.06 P3D cord equipped with a No. 113B (or No. 113A) gauge and a No. 309 (or No. 109) plug with a No. 121A cord weight attached to the cord about 2 inches from the gauge (3P4A Cord).

2.07 No. 106A gauge.

No. 141,275,284,285,295 or 365 Jacks

2.08 P3E cord equipped with a No. 123B (or No. 123A) gauge and a No. 310 (or No. 110) plug (3P8B Cord).

2.09 No. 111A Gauge.

3. PREPARATION

3.01 Insert the plug of the receiver cord into the proper REC jack and operate the FIL key.

3.02 Insert the plug of the cord, equipped with the jack gauge, into the proper L jack and adjust the potentiometer until a satisfactory tone is heard in the receiver.

Note: If a satisfactory tone is not heard, strap binding posts A and B. When a satisfactory tone can no longer be obtained with this arrangement, remove the straps and replace the battery in the test set.

3.03 Insert the proper jack gauge into one of the jacks to be tested. If tone is heard, the potentiometer knob should be turned in a counter-clockwise direction until the tone just disappears.

Note: If non-working as well as working circuits are to be tested, the jack gauge should be inserted into a non-working jack to obtain the proper degree of sensitivity.

3.04 Remove the gauge from the jack. Tone should be heard in the receiver.

3.05 If tone is not heard, operate the GR key and repeat 3.02, 3.03 and 3.04.

4. METHOD

4.01 Insert the jack gauge into the jack to be tested. The tone should not be heard in the receiver.

4.02 When testing Nos. 49, 92 or similar type jacks, listen in the receiver during the following operations: With the gauge in its normal position in the jack, that is, with no pressure other than that exerted by the cord and cord weight applied to the gauge, slowly rotate the gauge one revolution so as to cause the jack springs to make contact at all possible points of the tip and ring of the gauge. No attempt should be made to exert any vertical or horizontal pressure as the proper pressure is exerted by the cord weight. A cutout will be indicated if tone is heard in the receiver.

4.03 When testing No. 141 and 275 type jacks, be sure that the circuit is not busy. When testing Nos. 141, 275, 284, 285, 295, 365 or similar type jacks, listen in the receiver during the following operations: Push the jack gauge to the right and to the left with just sufficient pressure to take up the play in the sleeve. Slowly rotate the gauge one revolution so as to cause the jack springs to make contact at all possible points of the tip and ring of the gauge. While rotating the gauge, no attempt should be made to exert any vertical or horizontal pressure. A cutout will be indicated if tone is heard in the receiver during the above operations.

4.04 If tone is heard in the test receiver during these operations, it indicates that one of the springs of the jack under test is not making continuous contact with the gauge. With the gauge held so that the tone is heard, operate the TO and RO keys in turn. The open circuit is at the jack spring associated with the key which, when depressed, causes the removal of tone.

4.05 While holding the jack gauge firmly in the jack, tap the jack strip lightly with the handle of an H Cabinet Screwdriver. If tone is heard in the receiver, it indicates trouble in the jack.

4.06 When the test has been completed on all jacks to be tested, restore all keys to normal and remove the cords used during the test.

5. REPORTS

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