NO. 3A ANNOUNCEMENT SYSTEM
CONTROL CIRCUIT — SUBCENTER
TESTS

1. GENERAL

1.01 This section describes a method of testing the control circuit at the subcenter of the No.3A announcement system.

1.02 All tests shall be made during periods of light traffic.

2. APPARATUS

2.01 One No. 528 receiver and an R2DM Cord equipped with a No. 110 plug (2W4A).

2.02 No. 508A tools (relay blocking tools).

2.03 Toothpicks, hardwood, flat at one end and pointed at the other.

3. METHOD

Alarm Features

3.01 Block the P1 relay unoperated. Block operated the ST relay of the distributing circuit. This should cause the operation of the minor alarm.

3.02 Release the AUD-RLS key. This should silence the alarm. Reoperate this key. This will cause the minor alarm to come in again.

3.03 Remove the blocking tool from the P1 relay. It should operate.

3.04 Operate the TBL RLS key. This should silence the minor alarm. Release the key. The alarm should not reoperate.

3.05 Remove the blocking tool from the ST relay.

3.06 Repeat 3.01 to 3.05 except block the P2 relay in place of the P1 relay.

3.07 Manually operate the L1 and L2 relays. These relays will lock operated. This should cause the operation of the major alarm.

3.08 Operate the TBL RLS key. This should silence the alarm.

3.09 Block the S relay operated and with the Z1 relay normal momentarily manually operate the TS relay. This should cause the operation of the minor alarm.

3.10 Remove the blocking tool from the S relay and operate the TBL RLS key. This should silence the alarm. Release the key.

3.11 Repeat 3.09 and 3.10 except block the S1 relay operated instead of the S relay.

Check of Amplifier Output

3.12 Connect the monitoring receiver to the MON jack. Operate the AMP1 key at the subcenter. Note the maximum deflection of the pointer on the VI meter during the announcement. The reading should be between -6 and 0 VU. If the maximum swing is not between these limits it may be due to an improper setting of the potentiometer at the associated amplifier.

3.13 Restore the AMP1 key and operate the AMP2 key. Make the observation indicated in 3.12. If the maximum swing for both amplifiers is not within limits, a check should be made at the announcement bureau of the output of the working channel.

3.14 To obtain the reading at the central bureau, operate the PWR key associated with the working channel at the central bureau and observe the maximum deflection of the pointer on the VI meter on one or two definite words of the announcement as the announcement is repeated. The word or words chosen should be such that the pointer swings between -3 and +3 VU on the meter scale. The reading on the VI meter at the subcenter should be 3 VU less on the same word of the announcement than the reading made at the central bureau.

3.15 Restore the AMP2 key and operate the LOAD key. The reading should be the same as indicated in 3.12. Restore the LOAD key to normal. Remove the monitoring receiver from the MON jack.

Test of Sensitrol Relay and Associated Timing Circuit

3.16 Mark the setting of the indicator of the potentiometer on amplifier A1. Connect the monitoring receiver to the MON jack. Operate the AMP1 key.

3.17 With the AMP1 key held operated turn the indicator of the potentiometer in a counter-clockwise direction until the maximum swing of the meter pointer is just below -15 VU during one complete announcement.

3.18 After setting the potentiometer, release the AMP1 key. After a maximum time of six minutes the sensitrol relay should release and should not reoperate.

3.19 After 6 minutes the minor alarm should operate.

3.20 Restore the potentiometer to its original setting. The sensitrol relay should operate. Momentarily operate the TBL RLS key to silence the alarm. After not more than six minutes the sensitrol relay should restore to normal and then reoperate.

3.21 If the sensitrol relay fails to release, the minor alarm should operate.

3.22 Repeat 3.16 to 3.21 except operate the AMP2 key to check the operation of the sensitrol relay associated with the other channel. Remove the monitoring receiver from the MON jack.

4. REPORTS

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