SEQUENTIALLY CONTROLLED AUTOMATIC TRANSMITTER START SYSTEM (SCATS)
CONNECT 28 TTY FROM TRANSMITTER START CIRCUIT
DESCRIPTION, OPERATION, AND TEST PROCEDURE

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1. GENERAL

1.01 This section gives a description, the operating principles, and test procedure for the Connect 28 TTY from Transmitter Start Circuit per EA-12149 as used with a 14 transmitter-distributor control circuit per EA-10963-SD.

2. DESCRIPTION

2.01 The circuit was designed for use at an outlying station on a SCATS system.

2.02 The purpose of the circuit is to put into the "print" condition a 28 TTY when an associated 14 transmitter-distributor has been activated by a Transmitter Start Code (TSC).

2.03 The equipment consists of an SEM relay. A TP-152345 SOP for the 28 TTY, and a resistor for use with the TS1 relay of EA-10963-SD.

3. THEORY OF OPERATION

3.01 When a valid TSC operates a set of contacts on the 28 TTY, a short is placed across the AA-BB leads of EA-10963-SD, operating the TS1 relay which locks if tape is available in the TD.

3.02 With TS1 relay operated, the PR lead connected to the winding of the RY relay of EA-12149, will operate the RY relay.

3.03 The contacts of RY relay will close the solenoid associated with the TP-152345 SOP and place the 28 TTY in the "print" condition.

3.04 When TS2 relay of EA-10963-SD releases, and the 14 TD starts, the 28 TTY will copy all transmission from the 14 TD until the sixth pin of the TD goes open due to a "no-tape" condition. TS1 relay will then release, power is moved from the solenoid, and the 28 TTY will return to the "nonprint" condition.

4. TESTS

4.01 To test the control circuit operation, coordination is required with the Serving Test Center (STC) due to the automatic features of the equipment.

4.02 The station tester should first obtain a release of equipment if tests are to be made during service hours, then have the STC terminate the station in a dummy or test circuit.

4.03 At the station under test, with the equipment in operating condition, place a test tape in the TD gate. For test purposes, any test sentence such as "The quick brown fox" will suffice.

4.04 Request the STC to transmit a valid TSC. This can be done manually from a keyboard. The TSC for any station should be FIGS H LTRS FIGS * S LTRS. The character designated (*) will be the individual code of the station under test.

4.05 Receipt of the TSC should cause the 28 TTY to go into the "print" condition and to start copying transmission as the TD starts to operate.

4.06 Assuming the test sentence is on a torn tape, complete passage of the tape through the TD gate will operate the sixth pin. This should deactivate the TD, at the same time causing the 28 TTY to return to the "nonprint" condition.

4.07 To test the "nonprint" condition, have the STC transmit random characters. No typing or functional operation should occur.

4.08 With tape available, have the STC transmit an invalid TSC. There should be no operation of either the TD or the 28 TTY.

4.09 Test of the "nonprint" condition of the 28 TTY is the same as covered in 4.06.

5. CONNECTING CIRCUITS

5.01 For connecting circuits use drawing EA-10963-SD "14 Transmitter-Distributor Control Circuit".

6. REFERENCES

6.01 The following are EA drawings related to this section.

EA-10669-CD — Sequentially Controlled Automatic Transmitter Start System (SCATS)

EA-10720-CD — Timing and Control Circuit

EA-12149 — Connect 28 TTY from Transmitter Start Circuit

Note: For information on basic teletypewriter apparatus, refer to standard instructions covering the particular apparatus.