

SUPERVISOR'S CIRCUIT

TELETYPEWRITER SWITCHBOARDS 3A AND 3C

1. GENERAL

1.01 This section describes the method of making operation tests on the supervisor's circuit associated with 3A and 3C TWX switchboards.

1.02 This section replaces the corresponding procedures for the 3A TWX switchboard covered in BSP A281.285.

1.03 The supervisor's circuit provided may be one of two types. The first type (used on 3A switchboards only, per SD-70046-01) uses an operator's teletypewriter which is removed from its regular position circuit and connected to the supervisor's circuit as illustrated on Fig. 1 in this section. The second and more recent type (per SD-70128-01) uses a separate teletypewriter mounted on the supervisor's desk as illustrated in Fig. 2 in this section.

1.04 With both types the supervisor's teletypewriter is used to terminate the loop side of a subscriber-line circuit so as to provide a trunk between the supervisor's position or desk and the switchboard. In this manner calls can be completed to and from the supervisor's position or desk and connections established at the switchboard to any desired line or trunk circuit.

1.05 In addition to the teletypewriter trunk, the circuit of SD-70128-01 has a feature which permits connection of the supervisor's teletypewriter receiving element to any operator's position circuit for monitoring purposes.

1.06 The tests herein are as follows:

- (A) Operation Tests - Supervisor's Circuit (Fig. 1)
- (B) Operation Tests - Supervisor's Circuit (Fig. 2)
- (C) Operation Test - Position Monitoring Circuit (Fig. 2)
- (D) Distortion Tolerance Test of Supervisor's Teletypewriter

1.07 Tests (A), (B), and (C) can be made entirely at the switchboard by one man. However, since the supervisor's desk is not located adjacent to the switchboard proper, tests (B), and (C) may be facilitated by the use of two men.

1.08 Test (D) should be coordinated with the test procedures at the test or service board. It will require two men, one at the supervisor's position and the other at the test or service board. It will be desirable to establish telephone communication between the switchboard and the test or service board for this test.

2. APPARATUS

Tests (A), (B), and (C)

2.01 No apparatus will be required for these tests.

Test (D)

2.02 Testing trunk circuit as follows:

- (a) When a telegraph test board is provided - SD-70149-01
- (b) When No. 1 telegraph service board is provided - SD-70171-01
- (c) When Nos. 2 or 9B telegraph service board is provided - SD-70579-01

3. METHOD

(A) Operation Tests of Supervisor's Circuit (Fig. 1)

3.01 At the Supervisor's POS: Connect the plug associated with the position teletypewriter to the receptacle associated with the supervisor's circuit.

Call Test to POS A

3.02 At the Supervisor's POS: <sup>TURN MACH. ON</sup> Operate the SPLIT key to the CALL position. The teletypewriter should run closed.

3.03 At POS A: <sup>TURN MACH. ON</sup> The ANS lamp associated with the SUPV jack should light. Operate the typing key associated with an idle cord circuit to the HOME position. Insert the ANS cord into the SUPV jack. The ANS lamp should go out. The position teletypewriter should run closed.

Typing Test

3.04 At POS A: Type on the keyboard and the supervisor's teletypewriter should respond.

3.05 At the Supervisor's POS: Type on the keyboard and the POS A teletypewriter should respond.

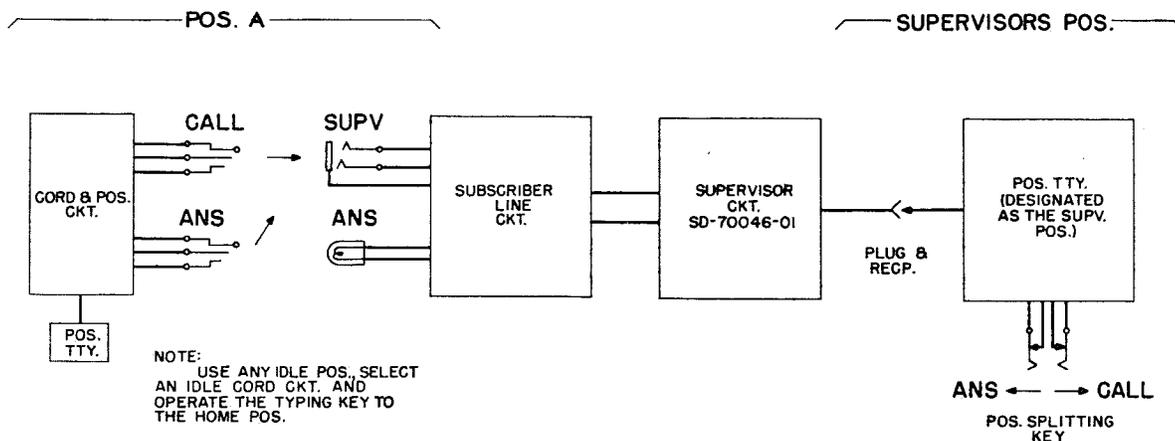


Fig. 1 - Use of Operator's Position Teletypewriter

Recall Test

- 3.06 At POS A: Restore the typing key to normal.
- 3.07 At the Supervisor's POS: Restore the SPLIT key to normal for approximately 1 second and then reoperate to the CALL position.
- 3.08 At POS A: The answering cord lamp should flash. Operate the typing key to the HOME position and the lamp should go out.

Disconnect Test

- 3.09 At the Supervisor's POS: Restore the SPLIT key to normal. *TURN MACHINE OFF.*
- 3.10 At POS A: The ANS cord lamp should light steadily. Remove the plug from the SUPV jack and the lamp should go out

Call to Supervisor's Position

- 3.11 At POS A: Insert the CALL plug into the SUPV jack. The CALL cord lamp should light. Operate the RING key for approximately two seconds.
- 3.12 At the Supervisor's POS: The station set bell should respond to the 2-second ring. Operate the SPLIT key to the ANS position. The teletypewriter should run closed.
- 3.13 At POS A: The CALL cord lamp should go out. The teletypewriter should run closed.

Restoring Equipment to Service

- 3.14 At POS A: Remove the plug from the SUPV jack and restore all key and position equipment to normal.

- 3.15 At the Supervisor's POS: Operate the SPLIT key to normal and restore all keys and position equipment to normal.

(B) Operation Tests Supervisor's Circuit (Fig. 2)

- 3.16 At the Supervisor's Desk: Operate the teletypewriter power switch to the ON position and check to see that the TTY TRK and MON keys are in their normal (rear) position. The teletypewriter should run closed and should not respond to typing from its keyboard.

Call to POS A

- 3.17 At the Supervisor's Desk: Operate the TTY TRK key to the CALL position.
- 3.18 At POS A: The ANS lamp associated with the SUPV jack should light. Operate the typing key associated with an idle cord circuit to the HOME position. Insert the ANS plug into the SUPV jack. The ANS lamp should go out. The position teletypewriter should run closed.

Typing Tests

- 3.19 At POS A: Type on the keyboard and the supervisor's teletypewriter should respond.
- 3.20 At the Supervisor's Desk: Type on the keyboard and the POS A teletypewriter should respond.

Recall Test

- 3.21 At POS A: Restore the typing key to the normal position.
- 3.22 At the Supervisor's Desk: Restore the TTY TRK key to the NORMAL position for approximately 1 second, then reoperate to the CALL position.

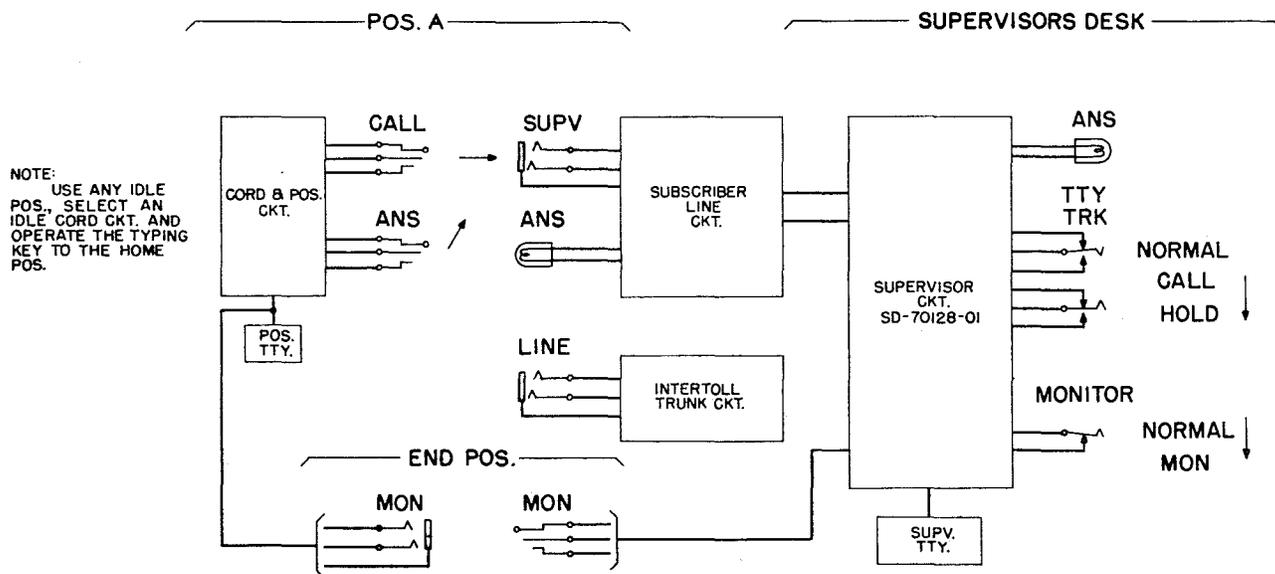


Fig. 2 - Use of Supervisor's Teletypewriter

3.23 At POS A: The ANS cord lamp should flash. Operate the typing key to the HOME position and the lamp should go out.

#### Disconnect Test

3.24 At the Supervisor's Desk: Restore the TTY TRK key to the NORMAL position.

3.25 At POS A: The ANS cord lamp should light steadily. Remove the plug from the SUPV jack. The lamp should go out.

#### Call to Supervisor's Desk

3.26 At POS A: Insert the plug of the CALL plug into the SUPV jack. The CALL cord lamp should light. Operate the RING key for approximately two seconds.

3.27 At the Supervisor's Desk: The ANS lamp should light steadily and the audible alarm (when provided) should operate. Operate the TTY TRK key to the CALL position. The ANS lamp should go out and the alarm should be restored.

3.28 At POS A: The CALL cord lamp should go out.

3.29 At the Supervisor's Desk: Operate the TTY TRK key to the HOLD position. The teletypewriter should run open.

3.30 At POS A: The CALL cord lamp should not light. The teletypewriter should run closed and respond to typing from its keyboard.

3.31 At the Supervisor's Desk: Restore the TTY TRK key to the NORMAL (the rear) position.

3.32 At POS A: The CALL cord lamp should light. Remove the plug from the SUPV jack. The lamp should go out.

#### (C) Operation Tests - Position Monitoring Circuit (Fig. 2)

3.33 At POS A: Insert the plug of the CALL cord into the jack of an idle intertoll trunk circuit. Operate the typing key to the HOME position. The teletypewriter should respond to typing from its keyboard.

3.34 At the END POS: Insert the plug of the supervisor's-circuit monitoring cord into the monitoring jack associated with the operator position circuit in POS A.

3.35 At the Supervisor's Desk: Operate the monitor key to the MON position. The teletypewriter should run closed and should not respond to typing from its keyboard.

3.36 At POS A: Type on the keyboard and the supervisor's teletypewriter should respond. Remove the CALL cord from the idle intertoll trunk circuit and restore all position equipment to normal.

3.37 At the END POS: Remove the plug from the POS A monitoring jack.

3.38 At the Supervisor's Desk: The teletypewriter should run open. Operate

the monitor key to the normal position and the teletypewriter should run closed. Restore all position equipment to normal.

(D) Distortion Tolerance Test of Supervisor's Teletypewriter

3.39 Sending and Receiving Distortion Tolerance Tests should be made on the teletypewriter associated with the supervisor's position as outlined in BSP E25.512 using the local test requirements therein. The procedures outlined in this section cover the method of connecting the teletypewriter to the test or service board as necessary for making these tolerance tests.

3.40 At the END POS: Insert the TST plug of the testing trunk circuit into the SUPV jack associated with the supervisor's position or desk.

3.41 At the Supervisor's Teletypewriter: Operate the SPLIT key to the ANS position if circuit SD-70046-01 is provided. Operate the TTY TRK key to the CALL position if circuit SD-70128-01 is provided. The teletypewriter should run closed.

Sending Distortion Tests

3.42 Send test signals from the keyboard and arrange with the attendant at the test or service board to measure the per cent distortion in the test signals received over the testing trunk circuit.

Receiving Tolerance Test

3.43 Arrange with the attendant at the test or service board to send biased and distorted test signals with the desired per cent distortion over the testing trunk circuit. Make orientation readings on the supervisor's teletypewriter as required.

3.44 At the Supervisor's Teletypewriter: Restore the SPLIT key or the TTY TRK key to normal. Restore all position equipment to normal.

3.45 At the END POS: Remove the TST cord from the SUPV jack and arrange with the test or service board to restore all equipment to normal.

4. REPORTS

4.01 Enter the required record of these tests on the proper form.

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