

PRIVATE LINE CONFERENCE CIRCUITS  
WITH OR WITHOUT AMPLIFIERS  
COMMON SYSTEMS

1. GENERAL

1.01 This section covers methods of testing operating features of the private line conference circuits, SD-96391-01 with amplifiers and SD-96392-01 without amplifiers. *KA*

1.02 The tests are as follows:

- (A) Conference Connection
- (B) Ringing the Controller Station When Two Way Service is Provided
- (C) Line Trouble Alarm
- (D) Amplifier Tube Failure Alarm

1.03 Before making tests obtain permission from the official in charge of operating the circuit. Also, determine the number of subordinate stations on the circuit and that they are attended.

1.04 Test (A) is made by originating calls from the controller's telephone set, by or under supervision of the controller station attendant. Tests (B), (C) and (D) are made by the maintenance force at the equipment.

2. APPARATUS

- 2.01 D-81760 (or equivalent) dial hand test set (Test (B) only).
- 2.02 No. 310 plug (Test (C) only).
- 2.03 Two No. 893 cords each 3 feet long, equipped with two No. 360A tools (1W13A cord) and two KS-6278 tools. Insulate the jaws of the KS-6278 tools with No. 108 cord tips. (Tests (C) and (D) only).

3. METHOD

(A) Conference Connection

When Two-Way Service is Provided

- 3.01 Remove the handset at the controller station and raise the right-hand plunger (exclusion key) momentarily. Check that all subordinate stations answer.
- 3.02 Request half of the subordinate stations to disconnect immediately and await a rering. Replace the handset for about two seconds at the controller station

after which again operate the exclusion key momentarily. Check that those stations which remained on the line did not hear ringing current.

3.03 Repeat 3.02 but in this case request those stations which did not disconnect in 3.02 to disconnect and the other half of the stations to remain on the connection.

3.04 Request all subordinate stations to disconnect for the completion of the test. Replace the handset at the controller station.

When One-Way Service is Provided

3.05 Remove the handset at the controller station and operate the exclusion key. Check that all subordinate stations answer.

3.06 Request half of the subordinate stations to disconnect immediately and await a rering. Restore the exclusion key and reoperate it again in approximately two seconds. Check that those stations which remained on the line did not hear ringing current.

3.07 Repeat 3.06 but in this case request those stations which did not disconnect in 3.06 to disconnect and the other half of the stations to remain on the connection.

3.08 Request all subordinate stations to disconnect for the completion of the test. Replace the handset at the controller station.

(B) Ringing the Controller Station When Two Way Service is Provided

Circuits With Amplifiers

3.09 With the C button of the dial hand test set operated, connect the dial hand test set to terminals 9 and 10 of top terminal strip A on the line unit. If talking is heard, discontinue the test on this connection until the line is free.

3.10 Release the C button and observe that the controller station answers. Request the controller station to disconnect. Disconnect the dial hand test set from terminals 9 and 10.

3.11 Repeat 3.09 and 3.10 from the tip and ring line terminals on the line

## 3.11 (Continued)

terminal strip for all equipped lines. These line terminals are 11 and 12 and 13 and 14 on top terminal strip A, 9 and 10, 11 and 12 and 13 and 14 on top terminal strip B, 9 and 10, 11 and 12, 13 and 14, and 15 and 16 on top terminal strip C on the line unit. The above is based on 10 lines equipped. If 20 lines are equipped, make the test from the same terminals connected to equipped lines on the second line unit terminal strip.

Circuit Without Amplifiers

3.12 Make the test as outlined in 3.09 to 3.11 inclusive, except the tip and ring line terminals to which the dial hand test set shall be connected are terminals 5 and 6 of top terminal strip A on the conference and alarm unit, 3 and 4, 5 and 6, and 7 and 8 on each of top terminal strips A, B and C, on the line unit.

(C) Line Trouble AlarmCircuits Without Amplifiers

3.13 Block the CTC relay non-operated when this relay is provided. Use a No. 893 cord and strap terminals 5 and 6 of top terminal strip A on the conference and alarm unit. Observe that the red LINE lamp on the conference and alarm unit lights in approximately 1/2 to 1 minute after the connection is made. Check that the local audible alarm and the central office audible and visual alarms function.

3.14 Operate the DISC ALM (disconnect alarm) key and observe that the associated red GUARD lamp lights. Check that the central office audible alarm is silenced.

3.15 Use another No. 893 cord and strap terminals 3 and 4 of top terminal strip A on the line unit. Disconnect the No. 893 cord from terminals 5 and 6 on the conference and alarm unit. Observe that the local audible alarm continues to ring.

3.16 In a similar manner make tests from the following terminals, observing that the local audible alarm continues to ring.

<u>At Top Line Terminal Strip</u>	<u>Strap</u>	<u>Remove Strap</u>	<u>At Top Line Terminal Strip</u>
A	5 to 6	3 to 4	A
A	7 to 8	5 to 6	A
B	3 to 4	7 to 8	A
B	5 to 6	3 to 4	B
B	7 to 8	5 to 6	B
C	3 to 4	7 to 8	B
C	5 to 6	3 to 4	C
C	7 to 8	5 to 6	C

3.17 When the last terminals specified in 3.16 have been tested, disconnect the cord from these terminals and observe that the local audible alarm is silenced and that the red LINE lamp is extinguished. Restore the DISC ALM key and observe that the GUARD lamp is extinguished. Remove the blocking tool from the CTC relay if the relay was blocked.

Circuits with Amplifiers When Two-Way Service is Provided

3.18 Insert a No. 310 plug into the TEST-R-IN jack. Use a No. 893 cord and strap terminals 9 and 10 on top terminal strip A on the line unit. Observe that the red LINE lamp on the control test and alarm unit lights in approximately 1/2 to 1 minute after the connection is made. Check that the local audible alarm and the central office audible and visual alarms function.

3.19 Operate the DISC ALM key and observe that the associated GUARD lamp lights. Check that the central office audible alarm is silenced.

3.20 Use another No. 893 cord and strap terminals 11 and 12 of top terminal strip A on the line unit. Disconnect the No. 893 Cord from terminals 9 and 10. Observe that the local audible alarm continues to ring.

3.21 In a similar manner make tests from the following terminals, observing that the local audible alarm continues to ring.

<u>At Top Line Terminal Strip</u>	<u>Strap</u>	<u>Remove Strap</u>	<u>At Top Line Terminal Strip</u>
A	13 to 14	11 to 12	A
B	9 to 10	13 to 14	A
B	11 to 12	9 to 10	B
B	13 to 14	11 to 12	B
C	9 to 10	13 to 14	B
C	11 to 12	9 to 10	C
C	13 to 14	11 to 12	C
C	15 to 16	13 to 14	C

The above is based on 10 lines equipped. If 20 lines are equipped strap the same terminals outlined above on the second line unit terminal strips.

3.22 When the last terminals specified in 3.21 have been tested, disconnect the cord from these terminals and observe that the local audible alarm is silenced and that the red LINE lamp is extinguished. Restore the DISC ALM key and observe that the GUARD lamp is extinguished. Remove the plug from the TEST-R-IN jack.

Circuits With Amplifiers When One-Way Service is Provided

- 3.23 Use a No. 893 cord and strap terminals 1 and 2 on terminal strip A on the amplifier panel. Observe that the red LINE lamp on the control test and alarm unit lights in approximately 1/2 to 1 minute after the connection is made. Check that the local audible alarm and the central office audible and visual alarms function.
- 3.24 Operate the DISC ALM key and observe that the associated GUARD lamp lights. Check that the central office audible alarm is silenced.
- 3.25 Disconnect the cord from terminals 1 and 2 of the terminal strip and observe that the local audible alarm is silenced and that the red LINE lamp is extinguished.
- 3.26 Use the No. 893 cord and strap terminals 15 and 16 on terminal strip B on the amplifier panel. Observe that the local audible alarm sounds in approximately 1/2 to 1 minute after the connection is made.
- 3.27 Disconnect the cord from terminals 15 and 16 of the terminal strip and observe that the local audible alarm is silenced.

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3.28 Use a No. 893 cord and strap terminals 9 and 10 on top terminal strip A on the line unit. Observe that the local audible alarm sounds in approximately 1/2 to 1 minute after the connection is made.

3.29 Make the test outlined in 3.20 and 3.21.

3.30 When the last terminals specified in 3.21 have been tested, disconnect the cord from these terminals and observe that the local audible alarm is silenced. Restore the DISC ALM key and observe that the GUARD lamp is extinguished.

(D) Amplifier Tube Failure Alarm

3.31 Short circuit the PT relay with a No. 893 cord momentarily, being careful not to touch the armature or contact spring terminal with the clip of the cord, which would result in blowing a fuse. Check that the local audible alarm rings and that the red AMP lamp lights, while the relay is shorted. Disconnect the No. 893 cord and observe that the alarm is silenced and that the AMP lamp is extinguished.

3.32 Repeat 3.31 at the PR relay.

4. REPORTS

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