NO-SUCH-NUMBER TONE SIGNAL CIRCUIT SD-25791-01

TESTS

NO. 5 CROSSBAR OFFICES

1. GENERAL

1.01 This section describes a method of testing the no-such-number tone supply circuit SD-25791-01, in No. 5 crossbar offices. The tests include tone volume and pitch adjustment, alarm, and transfer procedures.

1.02 This section is reissued to revise Test A and B and make minor corrections as required. Revision arrows are used to emphasize the more significant changes.

The Equipment Test Lists are not affected.

1.03 The tests covered are:

1.04 All keys and lamps referred to in this section are located on the no-such-number tone signal unit unless otherwise specified.

1.05 ***Lettered Steps:*** A letter a, b, c, etc, added to a step number in Parts 3 and 4 of this section indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

1.06 ▶Test A requires a 3C noise measuring set (NMS) J94003C and a 21A frequency measuring set (FMS) J94021A or equivalent. The NMS should be equipped with C-message weighting network. Use of the NMS is covered in Section 103-611-100 and the FMS in Section 103-221-100.◀

2. APPARATUS

All Tests

2.01 ▶67C test set or equivalent, equipped with◀ one KS-6278 connecting clip.

2.02 Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, one 419A (test connector) tool (for use in connecting ground or battery to springs of nonwire spring relays).

2.03 KS-3008 stopwatch or equivalent.

2.04 Blocking and insulating tools as required. Use tools and apply as covered in Section 069-010-801.

▶Test A

2.05 Testing cord, 2W17A, 6 feet long, equipped with one 310 plug, one 360B tool, one 360C tool, and two 624B tools.

2.06 3C NMS J94003C and 21A FMS J94921A or equivalent.◀

3. PREPARATION

STEP	ACTION	VERIFICATION
	Caution: During the time the TST key is operated, the automatic transfer feature is rendered inoperative and no alarm, other than the lighting of the white lamp associated with the tone generator circuit is provided if the tone generator circuit fails.	
All Tests		
1a	If tone generator circuit 1 is not under load— At no-such-number signal tone circuit— Operate TST key.	If option T is provided (C relay-U6078)— No. 1 white lamp lighted. When electron tube filaments of tone generator circuit 1 are heated— No. 1 white lamp extinguished. If option V is provided (C relay-U6029)— No. 1 white lamp momentarily extinguished every 6 seconds until the electron tube filaments of tone generator circuit 1 are heated.
2a	When No. 1 white lamp is extinguished— Operate TR key to position 1.	
3a	Restore TST key. ***Note:*** Allow 1 minute for electron tube filaments of tone generator circuit 2 to cool before proceeding with test.	

4. METHOD

A. Tone Volume, Pitch, and Manual Transfer

4	Operate TST key.	White lamp associated with tone generator circuit under test lighted. When electron tube filaments of tone generator circuit are heated— White lamp extinguished after approximately 60 seconds. If option V is provided— White lamp associated with tone generator circuit under test lighted and momentarily extinguished every 6 seconds until the electron tube filaments of the tone generator circuit are heated.
5	When white lamp associated with tone generator circuit under test is extinguished—	

STEP	ACTION	VERIFICATION
	▶Block B relay nonoperated and ST relay operated.	
6	Connect FMS to terminal 17/19 and terminal 15/14 of terminal strip on unit.	400Hz is read on FMS. ***Note:*** Adjust PO potentiometer until 400Hz is read on FMS.
7	Disconnect FMS.	
8	Connect NMS to terminal 17/19 and terminal 15/14 of terminal strip on unit.	NMS reads 80 dbrm. ***Note:*** Refer to SD-25791-01 Note 201 for strapping requirements.
9	Disconnect NMS.	
10	Remove blocking tools from B and ST relays.◀	
11	Operate TR key to position 2.	
12	Repeat Steps 5 through 10 for tone generator circuit 1.	
13b	If tone generator circuit 1 is to be used for normal operation— Operate TR key to 1.	
14	Restore TST key.	

B. Alarm and Automatic Transfer

T Option Provided (C Relay-U6078)

4	Connect 1T of J relay to ground.	
5	▶Block A relay nonoperated in◀ tone generator circuit 1.	E relay released. C relay not operated. No. 1 and 2 white lamps lighted. Minor alarm sounds. When filaments of AM and OS electron tubes of tone generator circuit 2 are heated— No. 2 white lamp extinguished after approximately 60 seconds. TR lamp lighted.
6	Check for presence of tone at 3T, 1B of J relay.	No-such-number tone heard.
7	Operate TST key.	Alarm silenced.
8	Remove ▶blocking tool from A relay.◀	

STEP	ACTION	VERIFICATION
9	Restore TST key.	
10	Momentarily operate AR key.	TR, NO. 1 white lamp extinguished.
11	Check for presence of tone at 3T, 1B of J relay.	No-such-number tone heard.
12	Operate TST key.	No. 2 white lamp lighted. When filaments of AM, OS electron tubes of tone generator circuit 2 are heated— No. 2 white lamp extinguished after approximately 60 seconds.
13	Operate TR key to position 2.	
14	Restore TST key. ***Note:*** Allow 1 minute for electron tube filaments of tone generator circuit 1 to cool before proceeding with test.	
15	Repeat Steps 5 through 11 for tone generator circuit 2.	Tone transfer is to tone generator circuit 1. Lamp verifications reversed.
16	Remove ground from 1T of J relay.	
17b	If tone generator circuit 1 is to be used for normal operation— Operate TST key.	
18b	When No. 1 white lamp extinguished— Operate TR key to position 1.	
19	Restore TST key.	

V Option Provided (C Relay-U6029)

20	Connect 1T of J relay to ground.	
21	◆Block A relay nonoperated in◆ tone generator circuit 1.	E relay released. C relay not operated. No. 1 and 2 white lamps lighted and momentarily extinguished every 6 seconds. Minor alarm sounds and momentarily interrupted every 6 seconds. When filaments of AM, OS electron tubes of tone generator circuit 1 are heated— No. 2 white lamp extinguished after approximately 60 seconds. TR lamp lighted within 6 seconds after TR lamp lighted—

STEP	ACTION	VERIFICATION
		No. 1 white lamp extinguished. Alarm silenced.
22	Check for presence of tone at 3T, 1B of J relay.	No-such-number tone heard.
23	Remove ♦blocking tool from A relay.♦	
24	Momentarily operate AR key.	TR lamp extinguished.
25	Check for presence of tone at 3T, 1B of J relay.	No-such-number tone heard.
26	Operate TST key.	No. 2 white lamp lighted and momentarily extinguished every 6 seconds while electron tube filaments of tone generator circuit 2 are heating.
27	When No. 2 white lamp is extinguished— Operate TR key to position 2.	
28	Restore TST key. ***Note:*** Allow 1 minute for electron tube filaments of tone generator circuit 1 to cool before proceeding with test.	
29	Repeat Steps 21 through 25 for tone generator circuit 2.	Tone transfer is to tone generator circuit 1. Lamp verifications are reversed.
30	Remove ground from 1T of J relay.	
31b	If tone generator circuit 1 is to be used for normal operation— Operate TST key.	No. 1 white lamp lighted and momentarily extinguished every 6 seconds while electron tube filaments of tone generator circuit 1 are heating.
32b	When No. 1 white lamp extinguished— Operate TR key to position 1.	
33	Restore TST key.	