8A AND 9A ANNOUNCEMENT SYSTEMS

TESTS

1. GENERAL

1.01 This section describes a method of testing central office equipment associated with the 8A and 9A Announcement Systems. ◗These tests cover the following drawings: SD-95865-01 alarm circuit, SD-95862-01 and SD-95864-01 announcement trunk circuit, and SD-95261-01 and SD-95262-01 coupling circuit.◖

1.02 This section is reissued for the following reasons:

(a) To revise Tests A and B to provide separate procedures for single channel and double channel systems

(b) To add to Tests A and B a check of the remote release of alarms feature

(c) To add Table A

(d) To revise title of Test D.

This reissue affects the Equipment Test List.

1.03 The following tests are covered.

PAGE

A. ◗***CT Pulse Failure:*** This test checks the cut-through pulses controlling cut-through, charging, and cutoff functions between the distributing circuit and the trunks, and that alarms are activated if the pulses should fail to be received. The remote release of minor alarms feature is also checked on a dual channel system. 2

B. ***Voice Failure:*** This test checks that if a voice failure is detected, a major alarm is sounded and busy tone applied to the trunks on a single channel system; or machine transfer and minor alarm is sounded on initial voice failure; and busy tone is applied to the trunks and a major alarm is sounded on subsequent voice failure. The remote release of minor alarm feature is also checked on the dual channel system.◖ 4

C. ***Grounded Ring (9A Only):*** This test checks that an alarm is activated in the event of a grounded ring lead from an announcement trunk. 6

D. ◗***Call-through:*** This test simulates a call to an announcement trunk.◖ 6

E. ***Voice Level:*** This test determines whether or not the announcement is within the required limits. 7

1.04 ***Caution: Announcement trunks must be made busy at the proper location for test.***

1.05 ***Lettered Steps:*** A letter a, b, c, etc, added to a step number in Part 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 in the test. Where a condition does not apply, all steps designated by a letter should be omitted.

1.06 Local instructions should be followed for recording and reporting any register operations caused by performing these tests.

2. APPARATUS

Tests A, B, and E

2.01 KS-3008 stopwatch.

2.02 52-type head telephone set.

Test C

2.03 Test receiver, 716C receiver, attached to a W2AB cord, equipped with two 360A tools (2W21A cord), a 411A (test pick) tool, and a KS-6278 connecting clip (for use in checking for presence and absence of ground).

Test D

2.04 Dial hand set 1011G equipped with W2DB cord.

2.05 Blocking and insulating tools as required. Use tools and apply as covered in Section 069-020-801.

3. PREPARATION

STEP	ACTION	VERIFICATION
Tests A, B, and E		
1	At coupling unit— Connect 52-type head telephone set to MR1 and MR2 jacks.	
2	Operate LOCAL CONTROL (LC) key to channel selected for test.	LC lamp lighted.
3	Operate LC-RC key to LC.	LC- lamp lighted.
4	Operate ANN- key.	Announce cycle will run continuously. ANN- lamp lighted. ***Note:*** ANN- lamp extinguished momentarily at the end of each announce cycle.

4. METHOD

STEP	ACTION	VERIFICATION
A. CT Pulse Failure		
▶Single Channel		
5	At alarm circuit— Insulate 7 make contact of AL relay; ***start timing.***	Within 0 to 265 seconds— AL lamp lighted. Major alarm sounded. ***Note:*** Exact timing (Table A) depends on A switch setting.
6	Monitor with 52-type head telephone set.	Busy tone heard.
7	Pull out AUD RLS key.	Major alarm silenced. AL lamp remains lighted. GD lamp lighted.
8	Push in AUD RLS key.	Major alarm sounded. GD lamp extinguished.

STEP	ACTION	VERIFICATION

♦TABLE A♦

TIMING SWITCH SETTINGS

SWITCH POSITION	TIMING (SECONDS)
1	0 — 40
2	41 — 85
3	86 — 130
4	131 — 175
5	176 — 220
6	221 — 265
7	Used only at Subcenter

9	Remove insulator from 7 make contact of AL relay.	
10	Momentarily operate RESET key.	Major alarm silenced. AL lamp extinguished.
11	Monitor with 52-type head telephone set.	Recorded announcement heard.
12a	If no further tests are to be performed— At coupling unit— Restore LOCAL CONTROL(LC), LC-RC, and ANN- keys.	LC and LC- lamps extinguished.
13a	Remove head telephone set from MR1 and MR2 jacks.	

Dual Channel

5	At alarm circuit— Insulate 7 make contact of AL relay; ***start timing.***	Within 0 to 265 seconds— AL lamp lighted. Minor alarm sounded. MN lamp lighted. ***Note:*** Exact timing (Table A) depends on A switch setting. Machines transfer. AL lamp extinguished.

STEP	ACTION	VERIFICATION
6b	If alarm circuit is equipped for remote release of alarms— Momentarily manually operate AR relay.	Minor alarm silenced.
7	No CT pulse after transfer.	AL lamp lighted. MJ lamp lighted. Major alarm sounded.
8	Monitor with 52-type head telephone set.	Busy tone heard.
9	Remove insulator from 7 make contact of AL relay.	
10	Momentarily operate RESET key.	Major alarm silenced. All lamps extinguished.
11	Monitor with 52-type head telephone set.	Recorded announcement heard.
12a	If no further tests are to be performed— At coupling unit— Restore LOCAL CONTROL(LC), LC-RC, and ANN- keys.	LC and LC- lamps extinguished. ANN- lamp extinguished.
13a	Remove head telephone set from MR1 and MR2 jacks.◀	

B. Voice Failure

▶Single Channel

5	At alarm circuit— Block operated OS relay.	OS lamp lighted.
6	Block operated ST relay.	
7	Monitor with 52-type head telephone set.	No recorded announcement heard. In approximately 55 seconds— Major alarm sounded. AL lamp lighted. Busy tone heard.
8	Pull out AUD RLS key.	Major alarm silenced. AL lamp remains lighted. GD lamp lighted.
9	Push in AUD RLS key.	Major alarm sounded. GD lamp extinguished.
10	Remove blocking tool from OS relay.	OS lamp extinguished.
11	Remove blocking tool from ST relay.	

STEP	ACTION	VERIFICATION
12	Momentarily operate RESET key.	Major alarm silenced. AL lamp extinguished.
13	Monitor with 52-type head telephone set.	Recorded announcement heard.
14a	If no further tests are to be performed— At coupling unit— Restore LOCAL CONTROL(LC), LC-RC, and ANN- keys.	LC and LC- lamps extinguished. ANN- lamp extinguished.
15a	Remove head telephone set from MR1 and MR2 jacks.	
Dual Channel		
5	At alarm circuit— Block operated ST relay.	
6	At coupling circuit— Block nonoperated MU1 or MU2 relay, whichever is found operated.	
7	Monitor with 52-type head telephone set.	No recorded announcement heard. At alarm circuit— MN lamp lighted. Minor alarm sounded. Machines transfer.
8a	If alarm circuit is equipped for remote release of alarms— Momentarily manually operate AR relay.	Minor alarm silenced. MN lamp remains lighted.
9	At coupling circuit— Block nonoperated remaining operated MU1 or MU2 relay.	In approximately 55 seconds— Major alarm sounded. MJ lamp lighted.
10	Monitor with 52-type head telephone set.	Busy tone heard.
11	Remove blocking tools from MU1 and MU2 relays.	
12	At alarm circuit— Remove blocking tool from ST relay.	
13	Momentarily operate RESET key.	Major alarm silenced. MN and MJ lamps extinguished.
14	Monitor with 52-type head telephone set.	Recorded announcement heard.
15b	If no further tests are to be performed— At coupling unit—	LC and LC- lamps extinguished. ANN- lamp extinguished.

STEP	ACTION	VERIFICATION
	Restore LOCAL CONTROL (LC), LC-RC, and ANN- keys.	
16b	Remove head telephone set from MR1 and MR2 jacks.◀	

C. Grounded Ring (9A Only)

1a	If apparatus Fig. 7, 8, 9, and 10 and H wiring is provided at the alarm circuit and the announcement trunk provides ground ring detection— At announcement trunk— Apply ground to RING-GRD lead with a 716C test receiver (RING GRD terminal is obtained from SD-CAD figure).	At alarm circuit— Minor alarm heard. TA- lamp lighted. At announcement trunk— TA- lamp lighted.
2a	Remove ground from RING GRD terminal.	
3a	Momentarily operate TA RESET key.	TA- lamp extinguished.
4a	Momentarily release TA AUD RLS key.	At alarm circuit— Minor alarm silenced. TA- lamp extinguished.
5a	Repeat Steps 1a through 5a on remaining trunks.	

D. ▶Call-through◀

1	At HMDF— Connect dial hand set 1011G to T and R leads of announcement trunk.	
2a	If the trunk is an 9A announcement trunk— Operate MON-TALK key to TALK.	Recorded announcement is heard. ***Note:*** Immediate or delay cut-through will be experienced. Ringing tone may be heard prior to announcement.
3b	If the trunk is an 8A announcement trunk— Operate MON-TALK key to TALK.	
4b	Apply ground to S lead with 716C test receiver.	Recorded announcement is heard. ***Note:*** See Note Step 2.
5b	Remove ground from S lead.	
6	Remove dial hand set 1011G from T and R leads.	

STEP	ACTION	VERIFICATION
E. Voice Level		
5	Using KS-3008 stopwatch, verify 12-second time interval.	Volume indicating meter will not exceed −5VU over a period of 12 seconds.