

NO. 4A, 6A, AND 9A ANNOUNCEMENT SYSTEM SUBCENTER DISTRIBUTING AND ALARM CIRCUITS

TESTS

1. GENERAL

1.01 This section describes a method of testing the distributing and alarm circuits in the subcenter of the 4A, 6A, and 9A announcement systems.

1.02 The tests covered are:

A. Sensitrol Relay Release Alarm: This test checks that a minor alarm sounds and the associated alarm is indicated when either one of the sensitrol relays fails to restore. It also checks that a major alarm sounds and the associated alarm is indicated when both of the sensitrol relays fail to restore.

B. Amplifier Voice Failure Alarm: This test checks that a minor alarm sounds and the associated alarm is indicated when one amplifier fails and the announcements continue over the other amplifier. It also checks that the major alarm sounds when both amplifiers fail.

C. Trunk Trouble Alarm: This test checks that the minor alarm sounds and the associated line lamp lights when one pair of trunk leads to the central office is open, crossed, or grounded. It also checks that the major alarm sounds and both line lamps light when both pairs of trunk leads to the central office are open, crossed, or grounded.

D. Cut-Through Signal from the Central Office: This test checks that a minor alarm sounds and the associated alarm is indicated when the signal to cut through fails on either trunk pair from the central office.

E. Distributing Relay Alarm for 4A or 6A Announcement System: This test checks that a minor alarm sounds and the associated alarm is indicated when a CTA or CTB relay

fails either to operate or to release. It also checks that a major alarm sounds and the associated alarm is indicated when both the CTA and CTB relays fail either to operate or to release.

F. Distributing Relay Alarm for 9A Announcement System: This test checks the same type of CTA and CTB relay alarms for the 9A announcement system as described in Test E for the 4A or 6A announcement system.

G. Grounded Ring Trunk Alarm for 9A Announcement System: This test checks that a minor alarm sounds and the associated alarm is indicated when a grounded ring condition develops in a 9A announcement trunk.

1.03 In performing tests requiring the operation of relays, the relays should be operated manually unless otherwise specified.

1.04 All tests covered in this section should be made during periods of light traffic.

1.05 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 3 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.

2. APPARATUS

2.01 The apparatus required for each test is listed in Table A. The details of each item are covered in the paragraph indicated by the number in parentheses.

TABLE A

APPARATUS	TESTS					
	A	B	C	D	E	F
Monitoring Receiver (2.02)	1	1	2	1	1	1
310 Plug	-	1	1	-	-	-
Stop Watch (2.03)	1	1	-	1	1	1
Test Cord (2.04)	-	-	-	1	-	-
Tool (2.05)	-	-	-	-	1	1

2.02 716D receiver attached to an R2CF cord (2W4A cord) and a 310 plug (for use in monitoring on test announcements).

2.03 KS-3008 stop watch or equivalent.

2.04 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one KS-6278 tool, and one 509A tool (for use in establishing test connections to relay windings).

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

3. METHOD

STEP	ACTION	VERIFICATION
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A. Sensitrol Relay Release Alarm

In Panel or No. 1 Crossbar Offices

1	Check that MN AR and MJ AR keys or AUD RLS key (whichever is provided) is operated.	
2	Insulate 1B of Z1 relay associated with V sensitrol relay.	
3	Insert plug of monitoring receiver into MON jack and start timing.	Within a maximum of 6 minutes, minor alarm sounded and L1 lamp lighted.
4	Check that announcement is heard in monitoring receiver.	
5	Disconnect monitoring receiver from MON jack.	
6	Restore MN AR or AUD RLS key (whichever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.
7	Remove insulation from 1B of Z1 relay associated with V sensitrol relay.	
8	Momentarily operate TBL RLS key.	L1 lamp extinguished.
9	Operate MN AR or AUD RLS key (whichever is provided).	MN GD or GD lamp (whichever is provided) extinguished.
10	Insulate 1B of Z1 relay associated with V1 sensitrol relay.	

STEP	ACTION	VERIFICATION
11	Insert plug of monitoring receiver into MON jack and start timing.	Within a maximum of 6 minutes, minor alarm sounded and L2 lamp lighted.
12	Check that announcement is heard in monitoring receiver.	
13	Disconnect monitoring receiver from MON jack.	
14	Restore MN AR or AUD RLS key (whichever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.
15	Remove insulation from 1B of Z1 relay associated with V1 sensitrol relay.	
16	Momentarily operate TBL RLS key.	L2 lamp extinguished.
17	Operate MN AR or AUD RLS key (whichever is provided).	MN GD or GD lamp (whichever is provided) extinguished.
18	Insulate 1B of Z1 relays associated with V, V1 sensitrol relays.	
19	Insert plug of monitoring receiver into MON jack and start timing.	Within a maximum of 6 minutes, minor and major alarms sounded and L1, L2 lamps lighted.
20	Check that announcement is heard in monitoring receiver.	
21	Disconnect monitoring receiver from MON jack.	
22a	If AUD RLS key is provided — Restore key.	Minor and major alarms silenced. GD lamp lighted.
23b	If MN AR key is provided — Restore key.	Minor alarm silenced. MN GD lamp lighted.
24b	If MJ AR key is provided — Restore key.	Major alarm silenced. MJ GD lamp lighted.
25	Remove insulation from 1B of Z1 relays associated with V, V1 sensitrol relays.	
26	Momentarily operate TBL RLS key.	L1, L2 lamps extinguished.
27a	If AUD RLS key is provided — Operate key.	GD lamp extinguished.

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STEP	ACTION	VERIFICATION
28b	If MN AR key is provided — Operate key.	MN GD lamp extinguished.
29b	If MJ AR key is provided — Operate key.	MJ GD lamp extinguished.
In Manual, Step-by-Step, or No. 5 Crossbar Offices		
30	Check that MN AR and MJ AR keys or AUD RLS key (whichever is provided) is operated.	
31	Insulate 3T of T2 relay associated with V sensitrol relay.	
32	Insert plug of monitoring receiver into MON jack and start timing.	Within a maximum of 6 minutes, minor alarm sounded and L1 lamp lighted.
33	Check that announcement is heard in moni- toring receiver.	
34	Disconnect monitoring receiver from MON jack.	
35	Restore MN AR or AUD RLS key (which- ever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.
36	Remove insulation from 3T of T2 relay asso- ciated with V sensitrol relay.	
37	Momentarily operate TBL RLS key.	L1 lamp extinguished.
38	Operate MN AR or AUD RLS key (which- ever is provided).	MN GD or GD lamp (whichever is provided) extinguished.
39	Insulate 3T of T2 relay associated with V1 sensitrol relay.	
40	Insert plug of monitoring receiver into MON jack and start timing.	Within a maximum of 6 minutes, minor alarm sounded and L2 lamp lighted.
41	Check that announcement is heard in moni- toring receiver.	
42	Disconnect monitoring receiver from MON jack.	
43	Restore MN AR or AUD RLS key (which- ever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.

STEP	ACTION	VERIFICATION
44	Remove insulation from 3T of T2 relay associated with V1 sensitrol relay.	
45	Momentarily operate TBL RLS key.	L2 lamp extinguished.
46	Operate MN AR or AUD RLS key (whichever is provided).	MN GD or GD lamp (whichever is provided) extinguished.
47	Insulate 3T of T2 relays associated with V, V1 sensitrol relays.	
48	Insert plug of monitoring receiver into MON jack and start timing.	Within a maximum of 6 minutes, minor and major alarms sounded and L1, L2 lamps lighted.
49	Check that announcement is heard in monitoring receiver.	
50	Disconnect monitoring receiver from MON jack.	
51a	If AUD RLS key is provided — Restore key.	Minor and major alarms silenced. GD lamp lighted.
52b	If MN AR key is provided — Restore key.	Minor alarm silenced. MN GD lamp lighted.
53b	If MJ AR key is provided — Restore key.	Major alarm silenced. MJ GD lamp lighted.
54	Remove insulation from 3T of T2 relays associated with V, V1 sensitrol relays.	
55	Momentarily operate TBL RLS key.	L1, L2 lamps extinguished.
56a	If AUD RLS key is provided — Operate key.	GD lamp extinguished.
57b	If MN AR key is provided — Operate key.	MN GD lamp extinguished.
58b	If MJ AR key is provided — Operate key.	MJ GD lamp extinguished.

B. Amplifier Voice Failure Alarm

- 1 Check that MN AR and MJ AR keys or AUD RLS key (whichever is provided) is operated.
- 2 Insert 310 plug into AMP OUT 1 jack.

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STEP	ACTION	VERIFICATION
3	Insert plug of monitoring receiver into MON jack and start timing.	Within 6 to 12 minutes, minor alarm sounded and L1 lamp lighted.
4	Check that announcement is heard in monitoring receiver.	
5	Restore MN AR or AUD RLS key (whichever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.
6	Remove plug from AMP OUT 1 jack.	
7	Momentarily operate TBL RLS key.	L1 lamp extinguished.
8	Operate MN AR or AUD RLS key (whichever is provided).	MN GD or GD lamp (whichever is provided) extinguished.
9	Insert 310 plug into AMP OUT 2 jack and start timing.	Within 6 to 12 minutes, minor alarm sounded and L2 lamp lighted.
10	Check that announcement is heard in monitoring receiver.	
11	Restore MN AR or AUD RLS key (whichever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.
12	Remove plug from AMP OUT 2 jack.	
13	Momentarily operate TBL RLS key.	L2 lamp extinguished.
14	Operate MN AR or AUD RLS key (whichever is provided).	MN GD or GD lamp (whichever is provided) extinguished.
15	Block nonoperated S, S1 relays and start timing.	Within 4 to 10 minutes, minor and major alarms sounded and L1, L2 lamps lighted.
16a	If AUD RLS key is provided — Restore key.	Minor and major alarms silenced. GD lamp lighted.
17b	If MN AR key is provided — Restore key.	Minor alarm silenced. MN GD lamp lighted.
18b	If MJ AR key is provided — Restore key.	Major alarm silenced. MJ GD lamp lighted.
19	Remove blocking tools from S, S1 relays.	
20	Momentarily operate TBL RLS key.	L1, L2 lamps extinguished.
21a	If AUD RLS key is provided — Operate key.	GD lamp extinguished.

STEP	ACTION	VERIFICATION
22b	If MN AR key is provided — Operate key.	MN GD lamp extinguished.
23b	If MJ AR key is provided — Operate key.	MJ GD lamp extinguished
24	Disconnect monitoring receiver from MON jack.	
C. Trunk Trouble Alarm		
1	Check that MN AR and MJ AR keys or AUD RLS key (whichever is provided) is operated.	
2	Insert 310 plug into LINE 1 jack.	
3	Insert plug of monitoring receiver into MON jack.	Minor alarm sounded. L1 lamp lighted.
4	Check that announcement is heard in moni- toring receiver.	
5	Restore MN AR or AUD RLS key (which- ever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.
6	Remove plug from LINE 1 jack.	
7	Momentarily operate TBL RLS key.	L1 lamp extinguished.
8	Operate MN AR or AUD RLS key (which- ever is provided).	MN GD or AUD RLS lamp (whichever is provided) extinguished.
9	Insert 310 plug into LINE 2 jack.	Minor alarm sounded. L2 lamp lighted.
10	Check that announcement is heard in moni- toring receiver.	
11	Restore MN AR or AUD RLS key (which- ever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.
12	Remove plug from LINE 2 jack.	
13	Momentarily operate TBL RLS key.	L2 lamp extinguished.
14	Operate MN AR or AUD RLS key (which- ever is provided).	MN GD or GD lamp (whichever is provided) extinguished.
15	Block nonoperated A1, A2 relays.	Minor and major alarms sounded. L1, L2 lamps lighted.

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STEP	ACTION	VERIFICATION
16c	If 9A announcement system is being served — Insert plug of second monitoring receiver into jack on 9A announcement system incoming trunk circuit, check that busy tone is heard, then disconnect monitoring receiver.	
17	Remove blocking tools from A1, A2 relays.	
18	Check that announcement is heard in monitoring receiver.	
19	Disconnect monitoring receiver from MON jack.	
20a	If AUD RLS key is provided — Restore key.	Minor and major alarms silenced. GD lamp lighted.
21b	If MN AR key is provided — Restore key.	Minor alarm silenced. MN GD lamp lighted.
22b	If MJ AR key is provided — Restore key.	Major alarm silenced. MJ GD lamp lighted.
23	Momentarily operate TBL RLS key.	L1, L2 lamps extinguished.
24a	If AUD RLS key is provided — Operate key.	GD lamp extinguished.
25b	If MN AR key is provided — Operate key.	MN GD lamp extinguished.
26b	If MJ AR key is provided — Operate key.	MJ GD lamp extinguished.

D. Cut-Through Signal from the Central Office

1	Check that MN AR or AUD RLS key (whichever is provided) is operated.	
2	Connect ground to 5TF winding of PA relay.	
3	Insert plug of monitoring receiver into MON jack.	Minor alarm sounded. PA lamp lighted.
4	Restore MN AR or AUD RLS key (whichever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.
5	Check that announcement is heard in monitoring receiver.	

STEP	ACTION	VERIFICATION
6	Remove ground from PA relay.	
7	Operate TBL RLS key and hold operated for approximately 12 seconds.	PA lamp extinguished.
8	Operate MN AR or AUD RLS key (whichever is provided).	MN GD or GD lamp (whichever is provided) extinguished.
9	Connect ground to 4BR winding of PA relay.	Minor alarm sounded. PA lamp lighted.
10	Restore MN AR or AUD RLS key (whichever is provided).	Minor alarm silenced. MN GD or GD lamp (whichever is provided) lighted.
11	Check that announcement is heard in monitoring receiver.	
12	Disconnect monitoring receiver from MON jack.	
13	Remove ground from PA relay.	
14	Operate TBL RLS key and hold operated for 12 seconds.	PA lamp extinguished.
15	Operate MN AR or AUD RLS key (whichever is provided).	MN GD or GD lamp (whichever is provided) extinguished.

E. Distributing Relay Alarm for 4A or 6A Announcement System

Failure of CTA- or CTB- Relays to Operate

- | | | |
|----|---|-------------------|
| 1a | If AUD RLS key is provided —
Check that key is operated. | |
| 2b | If MN AR, MJ AR keys are provided —
Check that keys are operated. | |
| 3a | If AUD RLS key is provided —
Check that DTR key is restored. | |
| 4b | If MN AR, MJ AR keys are provided —
Momentarily operate COA-COB key to COB position. | AOL lamp lighted. |
| 5 | Block nonoperated any CTA relay. | |
| 6 | Momentarily operate TBL RLS key. | |

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STEP	ACTION	VERIFICATION
7	Insert plug of monitoring receiver into MON jack.	Minor alarm sounded. AOA lamp lighted. DA lamp lighted. If MN AR, MJ AR keys are provided, BOL lamp lighted. AOL lamp extinguished.
8	Disconnect monitoring receiver from MON jack.	
9a	If AUD RLS key is provided — Restore key.	Minor alarm silenced. GD lamp lighted.
10b	If MN AR, MJ AR keys are provided — Restore MN AR key.	Minor alarm silenced. MN GD lamp lighted.
11	Remove blocking tool from CTA relay.	
12	Momentarily operate TBL RLS key.	AOA lamp extinguished. DA lamp extinguished.
13a	If AUD RLS key is provided — Operate key.	GD lamp extinguished.
14b	If MN AR, MJ AR keys are provided — Operate MN AR key.	MN GD lamp extinguished.
15a	If AUD RLS key is provided — Operate DTR key.	
16	Block nonoperated any CTB relay.	
17	Momentarily operate TBL RLS key.	
18	Insert plug of monitoring receiver into MON jack.	Minor alarm sounded. BOA, DA lamps lighted. If MN AR, MJ AR keys are provided, OAL lamp lighted. BOL lamp extinguished.
19	Disconnect monitoring receiver from MON jack.	
20a	If AUD RLS key is provided — Restore key.	Minor alarm silenced. GD lamp lighted.
21b	If MN AR, MJ AR keys are provided — Restore MN AR key.	Minor alarm silenced. MN GD lamp lighted.
22	Remove blocking tool from CTB relay.	
23	Momentarily operate TBL RLS key.	BOA, DA lamps extinguished.

STEP	ACTION	VERIFICATION
24a	If AUD RLS key is provided — Operate key.	GD lamp extinguished.
25b	If MN AR, MJ AR keys are provided — Operate MN AR key.	MN GD lamp extinguished.
26b	Block nonoperated CTA, CTB relays.	
27b	Momentarily operate TBL RLS key.	
28b	Insert plug of monitoring receiver into MON jack.	At end of first announcement, minor alarm sounded. At end of second announcement, major alarm sounded and minor alarm silenced. AOA, BOA, DA lamps lighted.
29b	Disconnect monitoring receiver from MON jack.	
30b	Restore MJ AR key.	Major alarm silenced. MJ GD lamp lighted.
31b	Remove blocking tools from CTA, CTB relays.	
32b	Momentarily operate TBL RLS key.	AOA, BOA, DA lamps extinguished.
33b	Operate MJ AR key.	MJ GD lamp extinguished.
Failure of CTA- or CTB- Relays to Release		
34a	If AUD RLS key is provided — Check that key is operated.	
35b	If MN AR, MJ AR keys are provided — Check that keys are operated.	
36a	If AUD RLS key is provided — Restore DTR key.	
37b	If MN AR, MJ AR keys are provided — Momentarily operate COA-COB key to COB position.	AOL lamp lighted. BOL lamp extinguished.
38	Insulate 2T of any CTA relay.	
39	Insert plug of monitoring receiver into MON jack.	Minor alarm sounded. DA lamp lighted. If MN AR, MJ AR keys are provided, BOL lamp lighted. AOL lamp extinguished.

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STEP	ACTION	VERIFICATION
40	Insulate 2T of any CTB relay.	Major alarm sounded. Minor alarm silenced.
41	Disconnect monitoring receiver from MON jack.	
42a	If AUD RLS key is provided — Restore key.	Major alarm silenced. GD lamp lighted.
43b	If MN AR, MJ AR keys are provided — Restore MJ AR key.	Major alarm silenced. MJ GD lamp lighted.
44	Remove insulation from CTA, CTB relays.	
45	Momentarily operate TBL RLS key.	DA lamp extinguished.
46a	If AUD RLS key is provided — Operate key.	GD lamp extinguished.
47b	If MN AR, MJ AR keys are provided — Operate MJ AR key.	MJ GD lamp extinguished.
48a	If AUD RLS key is provided — Operate DTR key.	
49b	If MN AR, MJ AR keys are provided — Momentarily operate COA-COB key to COB position.	BOL lamp lighted. AOL lamp extinguished.
50	Insulate 2T of any CTB relay.	
51	Insert plug of monitoring receiver into MON jack.	Minor alarm sounded. DA lamp lighted. If MN AR, MJ AR keys are provided, AOL lamp lighted. BOL lamp extinguished.
52	Insulate 2T of any CTA relay.	Major alarm sounded. Minor alarm silenced.
53	Disconnect monitoring receiver from MON jack.	
54a	If AUD RLS key is provided — Restore key.	Major alarm silenced. GD lamp lighted.
55b	If MN AR, MJ AR keys are provided — Restore MJ AR key.	Major alarm silenced. MJ GD lamp lighted.
56	Remove insulation from CTA, CTB relays.	

STEP	ACTION	VERIFICATION
57	Momentarily operate TBL RLS key.	DA lamp extinguished.
58a	If AUD RLS key is provided — Operate key.	GD lamp extinguished.
59b	If MN AR, MJ AR keys are provided — Operate MJ AR key.	MJ GD lamp extinguished.

F. Distributing Relay Alarm for 9A Announcement System

Failure of CTA- or CTB- Relays to Operate

1	Check that MN AR, MJ AR keys are operated.	
2	Momentarily operate COA-COB key to COB position.	AOL lamp lighted.
3	Block nonoperated any CTA relay.	
4	Insert plug of monitoring receiver into MON jack and start timing.	One minute after start of first complete announcement, minor alarm sounded, CT, BOL lamps lighted, AOL lamp extinguished.
5	Disconnect monitoring receiver from MON jack.	
6	Restore MN AR key.	Minor alarm silenced. MN GD lamp lighted.
7	Remove blocking tool from CTA relay.	
8	Momentarily operate TBL RLS key.	CT lamp extinguished.
9	Operate MN AR key.	MN GD lamp extinguished.
10	Block nonoperated any CTB relay.	
11	Insert plug of monitoring receiver into MON jack and start timing.	One minute after start of first complete announcement, minor alarm sounded, CT, AOL lamps lighted, BOL lamp extinguished.
12	Disconnect monitoring receiver from MON jack.	
13	Restore MN AR key.	Minor alarm silenced. MN GD lamp lighted.
14	Remove blocking tool from CTB relay.	
15	Momentarily operate TBL RLS key.	CT lamp extinguished.

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STEP	ACTION	VERIFICATION
16	Operate MN AR key.	MN GD lamp extinguished.
17	Block nonoperated any CTA relay and CTB relay.	
18	Insert plug of monitor receiver into MON jack and start timing.	One minute after start of first complete announcement, minor alarm sounds. Within 4 minutes after minor alarm sounds, major alarm sounds silencing minor alarm. CT lamp lighted.
19	Restore MJ AR key.	Major alarm silenced. MJ GD lamp lighted.
20	Remove blocking tools from CTA, CTB relays.	
21	Momentarily operate TBL RLS key.	CT lamp extinguished.
22	Operate MJ AR key.	MJ GD lamp extinguished.
Failure of CTA- or CTB- Relays to Release		
23	Check that MN AR, MJ AR keys are operated.	
24	Momentarily operate COA-COB key to COB position.	AOL lamp lighted. BOL lamp extinguished.
25	Block operated any E relay.	
26	Insert plug of monitoring receiver into MON jack and start timing.	One minute after start of first complete announcement, minor alarm sounds, CT, BOL lamps light, and AOL lamp extinguished.
27	Disconnect monitoring receiver from MON jack.	
28	Restore MN AR key.	Minor alarm silenced. MN GD lamp lighted.
29	Remove blocking tool from E relay.	
30	Momentarily operate TBL RLS key.	CT lamp extinguished.
31	Operate MN AR key.	MN GD lamp extinguished.
32	Block operated any E relay.	
33	Insert plug of monitoring receiver into MON jack and start timing.	One minute after start of first complete announcement, minor alarm sounded, CT, AOL lamps lighted, BOL lamp extinguished.

STEP	ACTION	VERIFICATION
34	Disconnect monitoring receiver from MON jack.	
35	Restore MN AR key.	Minor alarm silenced. MN GD lamp lighted.
36	Remove blocking tool from E relay.	
37	Momentarily operate TBL RLS key.	CT lamp extinguished.
38	Operate MN AR key.	MN GD lamp extinguished.
39	Block operated any E relay.	
40	Insert plug of monitoring receiver into MON jack and start timing.	One minute after start of first complete announcement, minor alarm sounded, CT lamp lighted.
41	Remove blocking tool from E relay for 5 seconds immediately after minor alarm sounds then reblock operated E relay and start timing.	Within 4 minutes after minor alarm sounded, major alarm sounded silencing minor alarm.
42	Disconnect monitoring receiver from MON jack.	
43	Restore MJ AR key.	Major alarm silenced. MJ GD lamp lighted.
44	Remove blocking tool from E relay.	
45	Momentarily operate TBL RLS key.	CT lamp extinguished.
46	Operate MJ AR key.	MJ GD lamp extinguished.

G. Grounded Ring Trunk Alarm

1	Check that TA AUD RLS key is operated.	
2	At relay rack — Operate G relay of 9A announcement system incoming trunk circuit.	Minor alarm sounded. TA lamp lighted. At distributing and alarm circuit — TA lamp lighted.
3	At distributing and alarm circuit — Restore TA AUD RLS key.	Minor alarm silenced. TA GD lamp lighted.
4	Momentarily operate TA RESET key.	TA lamp extinguished. At relay rack — TA lamp extinguished.
5	Operate TA AUD RLS key.	TA GD lamp extinguished.