

**SUBSCRIBER SENDER SUPERVISORY
METER CIRCUIT
TESTS
NO. 1 CROSSBAR OFFICES**

1. GENERAL

1.01 This section describes the method of testing the subscriber sender supervisory meter circuit in No. 1 crossbar offices.

1.02 The tests and features tested are:

(A) Partial Dial Timing: This test checks that the subscriber sender supervisory meter circuit will sound an alarm when a predetermined number of senders has been in the partial dial condition for 10 to 20 seconds. It makes an operate and release test of the PDL relay and checks the operation of the PD meter on the sender make-busy frame.

(B) Partial Dial Immediate Alarm: This test checks that the subscriber sender supervisory meter circuit will immediately sound an alarm when a predetermined number of senders is in the partial dial condition. It makes an operate and release test of the PD2 relay and checks the operation of the PD meter on the sender make-busy frame.

(C) Stuck Sender Alarm: This test checks that the subscriber sender supervisory meter circuit will immediately sound an alarm when a predetermined number of senders is in the stuck sender condition. It makes an operate and release test of the SC relay and checks the operation of the SC meter on the sender make-busy frame.

1.03 These tests should be made during periods of light traffic.

2. APPARATUS

2.01 No. 35 type Test Set.

2.02 Two No. 893 Cords, six feet long, each equipped with two No. 360A Tools (1W13B Cords), two No. 364 Tools, and two KS-6278 Tools.

2.03 Two No. 508A (Relay Blocking) Tools.

2.04 KS-3008 Stop Watch (or equivalent).

3. PREPARATION

PREPARATION FOR ALL TESTS

STEP

ACTION

VERIFICATION

- 1 From office records determine:
- (a) Number of senders that must be in partial dial condition to start timing.
 - (b) Number of senders that must be in partial dial condition to immediately sound an alarm.
 - (c) Number of senders that must be in stuck sender condition to sound an alarm.

Note: Table A provides the operate and release values to be employed in Tests (A), (B), and (C), corresponding to the number of senders applying to each condition.

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<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>	
		<u>TABLE A</u>	
	<u>Number of Senders</u>	<u>Operate MA</u>	<u>Release MA</u>
	2	45	25
	3	66	48
	4	84	70
	5	101	92
	6	116	92
	7	130	109
	8	143	126
	9	156	142
	10	167	157
	15	215	171
	20	250	219
	26	282	249
	30	300	266

- 2 Locate No. 35 type test set at sender make-busy frame.
- 3 Open short-circuiting switch of each telegraph key and move all slides to their extreme right-hand positions.
- 4 Operate BAT and GRD CO key and G switch.

PREPARATION FOR TESTS A AND B

- 5 Connect ground to GRD terminal of test set and connect R terminal of test set to terminal 43 on miscellaneous terminal strip of sender make-busy frame.

PREPARATION FOR TEST C

- 5 Connect ground to GRD terminal of test set and connect R terminal of test set to terminal 44 on miscellaneous terminal strip of sender make-busy frame.

4. METHOD

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
	<u>(A) Partial Dial Timing</u>	
6	Block nonoperated A relay of subscriber sender supervisory meter circuit.	
	<u>Caution: This circuit should not be left unattended with the A relay blocked as this condition makes the partial dial alarm feature inoperative.</u>	

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
7	On No. 35 type test set - Operate short-circuiting switch of telegraph key No. 2 and adjust test set to provide proper release current as determined from Step 1(a) and Table A.	
8	Operate short-circuiting switch of telegraph key No. 1 and adjust test set to provide proper operate current as determined from Step 1(a) and Table A.	
9	Release short-circuiting switch of telegraph key No. 1.	
10	Remove blocking tool from A relay.	
11	Operate short-circuiting switch of telegraph key No. 1.	After 10 to 20 seconds, SSM lamp on sender make-busy frame lights and minor alarm sounds. PD meter on sender make-busy frame indicates correct number of senders.
12	Momentarily operate AR key on sender make-busy frame.	Minor alarm is silenced.
13	Release short-circuiting switch of telegraph key No. 1.	SSM lamp is extinguished.
14	Release short-circuiting switch of telegraph key No. 2 and return all slides to their extreme right-hand positions.	PD meter registers zero.
15	If no further tests are to be made - Remove all test cords and No. 35 type test set.	

(B) Partial Dial Immediate Alarm

6	Block nonoperated A and C relays of subscriber sender supervisory meter circuit. <u>Caution: This circuit should not be left unattended with A and C relays blocked as this condition makes the partial dial and stuck sender alarm features inoperative.</u>	
7	On No. 35 type test set - Operate short-circuiting switch of telegraph key No. 2 and adjust test set to provide proper release current as determined from Step 1(b) and Table A.	
8	Operate short-circuiting switch of telegraph key No. 1 and adjust test set to provide proper operate current as determined from Step 1(b) and Table A.	
9	Release short-circuiting switch of telegraph key No. 1.	

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<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
10	Remove blocking tool from C relay.	
11	Operate short-circuiting switch of telegraph key No. 1.	SSM lamp on sender make-busy frame lights immediately. Minor alarm sounds. PD meter on sender make-busy frame indicates correct number of senders.
12	Momentarily operate AR key on sender make-busy frame.	Minor alarm is silenced.
13	Release short-circuiting switch at telegraph key No. 1.	SSM lamp is extinguished.
14	Release short-circuiting switch of telegraph key No. 2 and return all slides to their extreme right-hand positions.	PD meter registers zero.
15	Remove blocking tool from A relay.	
16	If no further tests are to be made - Remove all test cords and No. 35 type test set.	

(C) Stuck Sender Alarm

6	Block nonoperated C relay of subscriber sender supervisory meter circuit. <u>Caution: This circuit should not be left unattended with C relay blocked as this condition makes the partial dial and stuck sender alarm features inoperative.</u>	
7	On No. 35 type test set - Operate short-circuiting switch of telegraph key No. 2 and adjust test set to provide proper release current as determined from Step 1(c) and Table A.	
8	Operate short-circuiting switch of telegraph key No. 1 and adjust test set to provide proper operate current as determined from Step 1(c) and Table A.	
9	Release short-circuiting switch of telegraph key No. 1.	
10	Remove blocking tool from C relay.	
11	Operate short-circuiting switch at telegraph key No. 1.	SSM lamp on sender make-busy frame lights immediately. Minor alarm sounds. SC meter on sender make-busy frame indicates correct number of senders.
12	Momentarily operate AR key at sender make-busy frame.	Minor alarm is silenced.

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
13	Release short-circuiting switch of telegraph key No. 1.	SSM lamp is extinguished.
14	Release short-circuiting switch of telegraph key No. 2 and return all slides to their extreme right-hand positions.	SC meter registers zero.
15	Remove all test cords and No. 35 type test set.	

