COIN SUPERVISORY CIRCUITS
MISCELLANEOUS TESTS
NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section describes a method of performing miscellaneous tests of the coin supervisory circuits in No. 1 crossbar offices.

1.02 This section is reissued to add to the testing of the make-busy features (Test B) of coin supervisory circuits arranged for use with toll switchboard No. 3C or 3CL; also to add to the testing of the splitting features from the overtime monitoring operator (Test E) of coin supervisory circuits arranged for use with "A" switchboard in the same building. This is a general revision therefore arrows, usually used to indicate changes, have been omitted.

1.03 The tests covered are:

(A) Time Alarm Features: This test checks the proper operation of the timing features of the coin supervisory circuit.

(B) Make-Busy Features: This test checks that a make-busy plug in the MB jack and the operation of various relays makes the coin supervisory circuit busy.

(C) Coin Supervisory Circuit Release Feature: This test checks that the coin supervisory release circuit functions to give the proper alarm signals and to release the coin supervisory circuits in the allotted time.

(D) Coin Collection Warning Tone: This test checks that a warning tone is applied to the line by coin supervisory circuits for use with district junctors arranged for overtime collection.

(E) Splitting and Ringback Features from Overtime Monitoring Operator: This test checks that ringback may be applied to recall the calling subscriber and also that when ringback is applied, the splitting feature may be used to prevent any severe disturbance on the called line.

(F) Suppression of Switching Noise Feature: This test checks that the feature for suppressing the switching noise in the coin supervisory circuit for use with a central "A" switchboard, is in operating condition.

1.04 The tests outlined in this section should preferably be made during periods of light traffic to avoid possible interference with service calls.

1.05 Tests (C), (D) and (E) are made only with coin supervisory circuits for use with coin overtime district junctor circuits. Test (F) is made only with coin supervisory circuits for use with coin overtime district junctor circuits arranged for use with a central "A" switchboard.

1.06 An assistant will facilitate the making of Test (C).

1.07 Lettered Steps: The letters a, b, c, etc., are added to a step number to indicate that the steps cover an action which may or may not be required, depending on local conditions. The conditions under which a lettered step or series of steps should be made are given in the action column, and all steps governed by the same condition are designated by the same letter. Where a condition does not apply, the associated steps should be omitted.

2. APPARATUS

2.01 The apparatus required for each test is shown in the following list. The details for each item are covered in the indicated paragraphs.

	No. Required for Tests					
	(A)	(B)	(C)	(D)	(E)	(F)
Apparatus						
No. 349A Plug (2.02)	1	1	1	1	1	1
Stop Watch (2.03)	1	-	1	-	-	-
Operator's Telephone Set (2.04)	-	-	2	-	-	-
Receiver (2.05)	-	-	-	1	-	-
No. 893 Cord (2.06)	-	-	-	-	1	-
Hand Set (2.07)	-	-	-	-	1	-
Meter (2.08)	-	-	-	-	-	1

2.02 No. 349A (or the replaced No. 298A) (make-busy) Plug.

2.03 KS-3008 Stop Watch or equivalent.

2.04 No. 52-type Telephone Head Set or equivalent operator's telephone set.

2.05 No. 716E (or the replaced No. 528) Receiver attached to a W2AB Cord equipped with two No. 360A Tools (2W21A Cord), a No. 411A Tool and a KS-6278 Tool.

2.06 No. 893 Cord, 6 feet long, equipped with two No. 360A Tools (1W13B Cord), a No. 419A Tool and a KS-6278 Tool.

2.07 No. 1011G Hand Set, equipped with a 2W37A Cord assembly (or the replaced 1011C Hand Set). The 2W37A Cord assembly consists of one W2DB Cord, one No. 471A Jack and two No. 2 Test Clips A.T. & T. Co. Spec. No. 6928.

2.08 KS-14510 (or the replaced M9B) Meter or equivalent ohmmeter.

3. METHOD

STEP	ACTION	VERIFICATION
	(A) Time Alarm Features	
1	Insert No. 349A plug into MB jack	Coin supervisory circuit is normal
2	Block operated B1 relay	
3	Remove No. 349A plug from MB jack	After 29 to 59 seconds - AL lamp on time alarm circuit lights Green aisle pilot and green main aisle pilot light Intermittent minor alarm sounds
4	Insert No. 349A plug into MB jack	AL lamp extinguished Aisle pilot lamps are extinguished Intermittent minor alarm is retired
5	Remove blocking tool from B1 relay	
6a	If coin supervisory circuit is not arranged for overtime coin collection, but is arranged for use with sender make-busy frame - Block operated OP relay	Major alarm sounds
7a	Remove blocking tool from OP relay	Major alarm is silenced
8b	If coin supervisory circuit is arranged for overtime coin collection for use with central "A" switchboard - Block operated OP, SD and CR relays	Major alarm sounds
9b	Remove blocking tool from CR relay	Major alarm silenced
10b	Block operated CC relay	Major alarm sounds
11b	Remove blocking tools from CC, SD and OP relays	Major alarm silenced
12	Remove No. 349A plug from MB jack	

STEP	ACTION	VERIFICATION
	(B) Make-Busy Features	
1	Insert No. 349A plug into MB jack	At coin supervisory selector circuit - Associated SB relay operates
2	Block operated RL relay	
3	Remove No. 349A plug from MB jack	Associated SB relay remains operated
4	Block operated B2 relay	
5	Remove blocking tool from RL relay	Associated SB relay remains operated
6a	If coin supervisory circuit is not arranged for overtime coin collection, or is arranged for overtime coin collection for use with "A" switchboard in same building - Block operated OS relay	
7a	Remove blocking tool from B2 relay	Associated SB relay remains operated
8b	If coin supervisory circuit is arranged for overtime coin collection for use with central "A" switchboard - Block operated SP1 relay	
9b	Remove blocking tool from B2 relay	Associated SB relay remains operated
10b	Block operated M1 relay	
11b	Remove blocking tool from SP1 relay	Associated SB relay remains operated
12b	Block operated OS relay	
13b	Remove blocking tool from M1 relay	Associated SB relay remains operated
14	Block operated R relay	
15	Remove blocking tool from OS relay	Associated SB relay remains operated
16	Block operated TR relay	
17	Remove blocking tool from R relay	Associated SB relay remains operated
18	Remove blocking tool from TR relay	Associated SB relay releases
19c	If coin supervisory circuit is arranged for overtime coin collection for use with "A" switchboard in same building - Block operated SP relay	Associated SB relay operates
20c	Remove blocking tool from SP relay	Associated SB relay releases
21d	If coin supervisory circuit is arranged for overtime coin collection for use with toll switchboard No. 3C or 3CL - Block operated SP relay	Associated SB relay operates

STEP	ACTION	VERIFICATION
22d	Block operated R1 relay	
23d	Remove blocking tool from SP relay	Associated SB relay remains operated
24d	Remove blocking tool from R1 relay	Associated SB relay releases
	(C) Coin Supervisory Circuit Release Feature	
1	Establish talking circuit between "A" switchboard, sender make-busy frame and the coin supervisory release circuit	
2	At coin supervisory release circuit - Block operated CB relay	All CC and RL relays operate At sender make-busy frame - CB lamp lights Minor alarm sounds At "A" switchboard - CC and pilot lamps light
3	At sender make-busy frame - Operate ASB key momentarily	At sender make-busy frame - CB lamp is extinguished Minor alarm is retired CC lamp lights
4	At "A" switchboard - Operate RL key momentarily	At "A" switchboard - CC and pilot lamps are extinguished
5	At coin supervisory release circuit - Remove blocking tool from CB relay	At coin supervisory release circuit - After 60 to 90 seconds - All RL relays release 6 to 8 minutes later - All CC relays release
6	Operate CB relay momentarily	After 30 to 60 seconds - T3 relay operates
7	Within 30 seconds after T3 operates - Operate CB relay momentarily	T1 relay does not operate, and within 30 seconds T4 relay operates releasing T3 relay
8	Within 2 minutes after T4 operates - Operate CB relay momentarily	T4 relay releases and T1 relay operates
9	At sender make-busy frame - Operate ASB key momentarily to retire alarm	
10	At "A" switchboard - Operate RL key momentarily to retire alarm	
11	At coin supervisory release circuit - Block operated CC and RL relays	
12	At coin supervisory circuit - Insert No. 349A plug into MB jack	At coin supervisory circuit - Coin supervisory circuit is normal
13	At coin supervisory circuit - Block operated OW relay	At coin supervisory circuit - RL relay operates
14	Remove blocking tool from OW relay	RL relay releases

STEP	ACTION	VERIFICATION
15	At coin supervisory circuit - Block operated CC relay	At coin supervisory circuit - NC relay operates
16	Remove blocking tool from CC relay	NC relay releases
17	Remove No. 349A plug from MB jack	
18	Repeat Steps 12 to 17, inclusive, until all coin supervisory circuits are tested	
19	At coin supervisory release circuit - Remove blocking tools from CC and RL relays	
	(D) Coin Collection Warning Tone	
1	Insert No. 349A plug into MB jack	Coin supervisory circuit is normal
2	Block operated CC relay	
3a	If coin supervisory circuit is arranged for use with "A" switchboard in same building - Connect receiver to 36 and 37 terminals of associated terminal strip	Low tone is heard
4b	If coin supervisory circuit is arranged for use with central "A" switchboard - Connect receiver to 11 and 21 terminals of associated terminal strip	Low tone is heard
5	Remove blocking tool from CC relay	
6	Remove No. 349A plug from MB jack	
	(E) Splitting and Ringback Features from Overtime Monitoring Operator	
1	Insert No. 349A plug into MB jack	
2a	If coin supervisory circuit is arranged for use with "A" switchboard in same building - Attach No. 1011G hand set to 38 and 39 terminals of associated terminal strip	
3b	If coin supervisory circuit is arranged for use with central "A" switchboard - Attach No. 1011G hand set to 00 and 10 terminals of associated terminal strip	
4b	Block operated TR relay	
5	Block operated OP relay	
6	Apply ground to 2B spring of RP relay	Operator answers signal
7a	If coin supervisory circuit is arranged for use with "A" switchboard in same building - Request operator to insert a plug into line splitting jack and to ring back on coin overtime monitor jack momentarily	SP relay operates and no ringing signal is heard

STEP	ACTION	VERIFICATION
8b	If coin supervisory circuit is arranged for use with central "A" switchboard - Request operator to insert a plug into line splitting jack and to ring back on coin overtime monitor jack momentarily	SP1 relay operates and no ringing signal is heard
9a	If coin supervisory circuit is arranged for use with "A" switchboard in same building - Transfer hand set connection to 36 and 37 terminals of associated terminal strip	
10b	If coin supervisory circuit is arranged for use with central "A" switchboard - Transfer hand set connection to 11 and 21 terminals of associated terminal strip	
11	After requesting operator to ring back on coin overtime monitor jack momentarily, operate hand set key to monitor position	Ringing signal is heard
12	Restore hand set key to talk position and request operator to remove cords from coin overtime monitor jack and line splitting jack	
13b	If coin supervisory circuit is arranged for use with central "A" switchboard - Remove blocking tool from TR relay	
14	Remove ground from 2B spring of RP relay	
15	Remove blocking tool from OP relay	Circuit restores to normal
16	Remove No. 349A plug from MB jack	

(F) Suppression of Switching Noise Feature

1	Insert No. 349A plug into MB jack	Coin supervisory circuit is normal
2	Connect the meter to 2B spring of TR relay and 2T spring of SP1 relay	
3	Block CL relay normal	
4	Block operated TR relay	Meter reads approximately 100 ohms
5	Remove blocking tool from CL relay	CL relay operates Meter reads approximately 50 ohms
6	Block operated RP relay	Meter reads approximately 0 ohms
7	Operate RL relay momentarily	Meter reads approximately full scale momentarily
8	Operate Z2 relay momentarily	Meter reads approximately full scale momentarily
9	Operate OP relay momentarily	Meter reads approximately full scale momentarily

STEP	ACTION	VERIFICATION
10	Operate CP relay momentarily	Meter reads approximately full scale momentarily
11	Operate T relay momentarily	Meter reads approximately full scale momentarily
12	Operate CO relay momentarily	Meter reads approximately full scale momentarily
13	Block operated C relay	Meter reads approximately 110 ohms
14	Block operated OM1 and CP relays	Meter reads approximately 0 ohms
15	Disconnect meter	
16	Remove blocking tools from CP, OM1, C and TR relays	Circuit restores to normal
17	Remove No. 349A plug from MB jack	