COIN SUPERVISORY CIRCUITS
TESTS USING DISTRICT JUNCTOR TEST CIRCUIT
NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section describes a method of testing coin supervisory circuits in No. 1 crossbar offices on an individual circuit basis with the automatic district junctor test circuit.

1.02 This section is reissued to change the method of gaining access to coin supervisory circuits. Test (M), Stuck Coin Test with Automatic Release, is added. This is a general revision therefore arrows, usually used to indicate changes, have been omitted.

1.03 The tests covered are:

(A) Coin Collection After Disconnection - The purpose of this test is to check that the coin is collected after disconnection on a local charge call.

(B) Coin Return After Disconnection - The purpose of this test is to check that the coin is returned after disconnection on a free call.

(C) Coin Collection at 4-1/2 Minutes - The purpose of this test is to check that the coin is collected after 4-1/2 minutes of the talking period.

(D) Line Test at 5 Minutes - The purpose of this test is to check for the presence of a coin ground at the end of 5 minutes of the talking period.

(E) Operate Test of LT Relay - The purpose of this test is to place an operate test on the LT relay.

(F) Non-operate Test of LT Relay - The purpose of this test is to place a non-operate test on the LT relay.

(G) Operate Test of CB Relay - The purpose of this test is to place an operate test on the CB relay.

(H) Non-operate Test of CB Relay - The purpose of this test is to place a non-operate test on the CB relay.

(I) Stuck Coin Test without Automatic Release - The purpose of this test is to signal the coin control operator on a stuck coin condition.

(J) Signal Operator at 4-1/2 Minutes - The purpose of this test is to signal the overtime monitor at 4-1/2 minutes on a no coin condition.

(K) Signal Operator at 5 Minutes - The purpose of this test is to signal the overtime monitor at 5 minutes if a second coin is not deposited.

(L) Signal Operator on "No Coin" - The purpose of this test is to signal the coin control operator on a no coin condition.

(M) Stuck Coin Test with Automatic Release - The purpose of this test is to check the automatic coin collect or coin return feature of the coin supervisory circuit following the disconnection of an operator having been called in as a result of a stuck coin condition.

1.04 Where it is desired to test the coin collect feature in Test (I) or (M), the LC key is operated and not the FC key.

1.05 Tests (C), (D), (J) and (K) are made only with coin overtime district junctor circuits.

1.06 Where it is desired, Tests (C) and (D) may be combined into a single test call instead of making two independent test calls by making Test (D) only. Similarly Tests (J) and (K) may be combined by making Test (K) only.

1.07 The tests covered in this section should be made during periods of light traffic as the coin supervisory circuit to be tested is selected by preference.

1.08 An operator or assistant at the switchboard will be required when performing these tests except as noted in 1.09.

1.09 An assistant at the sender make-busy frame will be required, if the sender make-busy frame is remote from the district junctor test frame and the coin supervisory circuits are arranged for use with central "A" switchboard.

1.10 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.

1.11 The test circuit, when used for testing coin supervisory circuits, obtains access to these circuits through the coin district junctor circuits. The coin district junctor circuits are selected on a particular circuit basis.

1.12 Since there is no method of selecting coin supervisory circuits in rotation, each individual test is started manually. A regular class of test is imposed on the coin district junctor circuit. The tests made on the coin supervisory circuit seized by the district junctor circuit, are controlled by the operation of keys in the test circuit.

1.13 Lamps are provided in the test circuit, which light during the time that a coin supervisory circuit is under test, indicating which circuit has been seized.

1.14 Regular service circuits are made use of, in addition to the automatic district junctor test circuit and the coin supervisory circuit under test. These include the coin district junctor circuit, coin supervisory link and controller circuit, subscriber's sender, sender link and controller circuit, originating marker circuit, marker connector circuit, district link, office link, and the cords and positional circuits for overtime monitoring and coin supervision at the "A" switchboard and the sender make-busy frame.

1.15 Manual lines are provided at the automatic district junctor test frame to enable the testman to ascertain what indications are received at the "A" switchboard from the circuits under test. In offices served by a local "A" switchboard a talking line from the test frame terminates in a manual line circuit at the sender monitor position. By operating the CS key, the testman can signal the operator. However, in offices served by a central "A" switchboard coin supervision is handled at the sender make-busy frame and therefore, the line to the sender monitor position is not provided. Where district junctor circuits are arranged for overtime collection another talking line terminating in a manual line circuit at the "A" switchboard is provided. By operating the CO key at the test frame the testman can signal the "A" operator handling coin overtime.

1.16 Registers, such as the district junctor peg count, originating marker peg count and the registers associated with the district junctor test frame, will operate in making the tests covered herein. A record of the readings of such registers should be made before and after the tests are made and this record forwarded in accordance with local instructions.

2. APPARATUS

2.01 Automatic District Junctor Test Frame SD-25158-01.

2.02 Operator's Telephone Sets (as required).

3. PREPARATION

PREPARATION FOR ALL TESTS

STEP	ACTION	VERIFICATION
1	From the office records determine a coin district junctor circuit which prefers the coin supervisory circuit to be tested	
2	At district junctor test frame restore all operated keys	
3	Operate RN key momentarily	N lamp lights momentarily
4	From the particular circuit chart determine proper setting of G, S and H selectors required to connect to the coin district junctor	
5	Operate G PCR key	Proper G lamp lights
6	Restore G PCR key	
7	Operate S PCR key	Proper S lamp lights
8	Restore S PCR key	
9	Operate H PCR key	Proper H lamp lights
10	Restore H PCR key	
11a	If CN SUPV key is provided - Operate CN SUPV key	CCB and TA lamps remain extinguished Caution: If these lamps light, discontinue testing and restore to service all equipment being used
12b	If CN CON key is provided - Operate CN CON key	CCB and TA lamps remain extinguished Caution: If these lamps light, discontinue testing and restore to service all equipment being used

PREPARATION TESTS (A), (B), (E) THROUGH (I), (L) AND (M)

13c	If CS key is provided - Operate CS key. When operator answers, request her to assist in test of coin supervisory circuits by answering promptly when resignaled	
14c	Restore CS key	
15d	If coin supervisory circuits are arranged for use with central "A" switchboard and sender make-busy frame is remote from district junctor test frame, establish talking circuit using frame line circuit	

PREPARATION TESTS (C), (D), (J) AND (K)

STEP	ACTION	VERIFICATION
13	Operate CO key. When operator answers, request her to assist in test of coin supervisory circuits by answering promptly when resignaled	
14	Restore CO key	

4. METHOD

(A) Coin Collection After Disconnection

16	Operate LC and HLD CN keys	
17	Operate and restore ST key	LC lamp lights When test circuit simulates calling party disconnect - Coin supervisory, CNT and CNR lamps light
18c	If CS key is provided - Operate CS key	At "A" switchboard - Coin supervisory lamp remained extinguished
19c	Restore CS key	
20d	If coin supervisory circuits are arranged for use with central "A" switchboard	At sender make-busy frame - Coin supervisory lamp remained extinguished
21	Restore HLD CN and LC keys	All lamps extinguished
22	Restore all keys	
23	Operate RN key momentarily	N lamp lights momentarily

(B) Coin Return After Disconnection

16	Operate FC and HLD CN keys	
17	Operate and restore ST key	FC lamp lights When test circuit simulates calling party disconnect - Coin supervisory, CNT and CNR lamps light
18c	If CS key is provided - Operate CS key	At "A" switchboard - Coin supervisory lamp remained extinguished
19c	Restore CS key	
20d	If coin supervisory circuits are arranged for use with central "A" switchboard	At sender make-busy frame - Coin supervisory lamp remained extinguished
21	Restore HLD CN and FC keys	All lamps extinguished
22	Restore all keys	
23	Operate RN key momentarily	N lamp lights momentarily

STEP	ACTION	VERIFICATION
	(C) Coin Collection at 4-1/2 Minutes	
15	Operate LC, T and HLD CN keys	
16	Operate and restore ST key	LC lamp lights When 4-1/2 minutes of initial talking period has elapsed - Coin supervisory, CNT and CNR lamps light
17	Operate CO key	At "A" switchboard - Overtime coin supervisory lamp remained extinguished
18	Restore CO key	
19	Restore HLD CN key	Coin supervisory, CNT and CNR lamps extinguished
	Caution: Restore HLD CN key within 30 seconds after lighting of coin supervisory lamp to avoid interfering with the test call	
20	Restore LC and T keys	
21	Restore all keys	
22	Operate RN key momentarily	N lamp lights momentarily
	(D) Line Test at 5 Minutes	
15	Operate LC, T and HLD CN keys	
16	Operate and restore ST key	LC lamp lights When 4-1/2 minutes of initial talking period has elapsed - Coin supervisory, CNT and CNR lamps light
17	Restore HLD CN keys	Coin supervisory, CNT and CNR lamps extinguished
18	Operate HLD CN key	At end of 5 minutes of talking period - Coin supervisory lamp lights
	Caution: Operate HLD CN key within 30 seconds after lighting of coin supervisory lamp in step 16 to avoid interfering with the test call	
19	Operate CO key	At "A" switchboard - Overtime coin supervisory lamp remained extinguished
20	Restore CO and HLD CN keys	All lamps extinguished
21	Restore LC and T keys	
22	Restore all keys	
23	Operate RN key momentarily	N lamp lights momentarily

STEP	ACTION	VERIFICATION
	(E) Operate Test of LT Relay	
16	Operate LC and OLT keys	
17	Operate and restore ST key	LC lamp lights When test circuit simulates calling party disconnect - Coin supervisory and DN LT lamps light and CNT and CNR lamps light momentarily
18c	If CS key is provided - Operate CS key	At "A" switchboard - Coin supervisory lamp flashes
19c	Request operator to release coin supervisory circuit	At "A" switchboard - Coin supervisory lamp extinguished
20c	Restore CS key	
21d	If coin supervisory circuits are arranged for use with central "A" switchboard	At sender make-busy frame - Coin supervisory lamp flashes
22d	At sender make-busy frame - Release coin supervisory circuit	At sender make-busy frame - Coin supervisory lamp extinguished
23	Restore OLT and LC keys	All lamps extinguished
24	Restore all keys	
25	Operate RN key momentarily	N lamp lights momentarily
	(F) Non-operate Test of LT Relay	
16	Operate LC and NO LT keys	
17	Operate and restore ST key	LC lamp lights When test circuit simulates calling party disconnect - Coin supervisory and DN LT lamps light and CNT and CNR lamps light momentarily
18c	If CS key is provided - Operate CS key	At "A" switchboard - Coin supervisory lamp remained extinguished
19c	Restore CS key	
20d	If coin supervisory circuits are arranged for use with central "A" switchboard	At sender make-busy frame - Coin supervisory lamp remained extinguished
21	Restore NO LT and LC keys	All lamps extinguished
22	Restore all keys	
23	Operate RN key momentarily	N lamp lights momentarily

STEP	ACTION	VERIFICATION
	(G) Operate Test of CB Relay	
16	Operate LC, HLD CN and OCB keys	
17	Operate and restore ST key	LC lamp lights When test circuit simulates calling party disconnect - Coin supervisory, CNT and CNR lamps light
18c	If CS key is provided - Operate CS key	At "A" switchboard - Coin supervisory lamp remained extinguished
19c	Restore CS key	
20d	If coin supervisory circuits are arranged for use with central "A" switchboard	At sender make-busy frame - Coin supervisory lamp remained extinguished
21	Restore HLD CN, LC and OCB keys	All lamps extinguished
22	Restore all keys	
23	Operate RN key momentarily	N lamp lights momentarily
	(H) Non-operate Test of CB Relay	
16	Operate LC, HLD CN and NO CB keys	
17	Operate and restore ST key	LC lamp lights When test circuit simulates calling party disconnect - Coin supervisory, CNT and CNR lamps light
18c	If CS key is provided - Operate CS key	At "A" switchboard - Coin supervisory lamp flashes
19c	Request operator to release coin supervisory circuit	At "A" switchboard - Coin supervisory lamp extinguished
20c	Restore CS key	
21d	If coin supervisory circuits are arranged for use with central "A" switchboard	At sender make-busy frame - Coin supervisory lamp flashes
22d	At sender make-busy frame - Release coin supervisory circuit	At sender make-busy frame - Coin supervisory lamp extinguished
23	Restore HLD CN, LC and NO CB keys	All lamps extinguished
24	Restore all keys	
25	Operate RN key momentarily	N lamp lights momentarily
	(I) Stuck Coin Test without Automatic Release	
16	Operate FC, HLD CN and STK CN keys	
17	Operate and restore ST key	FC lamp lights When test circuit simulates calling party disconnect - Coin supervisory, CNT and CNR lamps light

STEP	ACTION	VERIFICATION
18c	If CS key is provided - Operate CS key	At "A" switchboard - Coin supervisory lamp lights steadily
19c	Operate RCN key momentarily	CNT and CNR lamps extinguished
20c	Restore STK CN key	
21c	Request operator to apply coin return potential to coin supervisory circuit momentarily	CNT and CNR lamps light
22c	Request operator to release coin supervisory circuit	
23c	Restore CS key	
24d	If coin supervisory circuits are arranged for use with central "A" switchboard	At sender make-busy frame - Coin supervisory lamp lights steadily
25d	Operate RCN key momentarily	CNT and CNR lamps extinguished
26d	Restore STK CN key	
27d	At sender make-busy frame - Apply coin return potential to coin supervisory circuit	CNT and CNR lamps light
28d	At sender make-busy frame - Release coin supervisory circuit	
29	Restore HLD CN and FC keys	All lamps extinguished
30	Restore all keys	
31	Operate RN key momentarily	N lamp lights momentarily
	(J) Signal Operator at 4-1/2 Minutes	
15	Operate LC, T, HLD CN and NO CN keys	
16	Operate and restore ST key	LC lamp lights When 4-1/2 minutes of initial talking period has elapsed - Coin supervisory lamp lights
17	Operate CO key	At "A" switchboard - Overtime coin supervisory lamp flashes
18	Restore NO CN key	
19	Request operator to apply coin collect potential to coin supervisory circuit	CNT and CNR lamps light
20	Restore HLD CN and CO keys	Coin supervisory, CNT and CNR lamps extinguished
	Caution: Restore HLD CN key within 30 seconds after lighting of coin supervisory lamp to avoid interfering with test call	

STEP	ACTION	VERIFICATION
21	Restore LC and T keys	
22	Restore all keys	
23	Operate RN key momentarily	N lamp lights momentarily
	(K) Signal Operator at 5 Minutes	
15	Operate LC, T, HLD CN and NO CN keys	
16	Operate and restore ST key	LC lamp lights When 4-1/2 minutes of initial talking period has elapsed - Coin supervisory lamp lights
17	Operate CO key	At "A" switchboard - Overtime coin supervisory lamp flashes
18	Restore NO CN key	
19	Request operator to apply coin collect potential to coin supervisory circuit	CNT and CNR lamps light
20	Restore CO and HLD CN key	Coin supervisory, CNT and CNR lamps extinguished
21	Operate NO CN and HLD CN keys	At end of 5 minutes of talking period - Coin supervisory lamp lights
	Caution: Operate NO CN and HLD CN keys within 30 seconds after lighting of coin supervisory lamp in step 16 to avoid interfering with test call	
22	Operate CO key	At "A" switchboard - Overtime coin supervisory lamp lights steadily
23	Request operator to insert plug into monitor jack momentarily	At "A" switchboard - Overtime coin supervisory lamp flashes
24	Restore NO CN key	
25	Request operator to insert plug into monitor jack momentarily	At "A" switchboard - Overtime coin supervisory lamp extinguished
26	Restore CO and HLD CN keys	All lamps extinguished
	Caution: This test must be completed before DSC contact of test timer has closed and reopened	
27	Restore LC and T keys	
28	Restore all keys	
29	Operate RN key momentarily	N lamp lights momentarily

STEP	ACTION	VERIFICATION
	(L) Signal Operator on "No Coin"	
16	Operate LC, HLD CN and NO CN keys	
17	Operate and restore ST key	LC lamp lights When test circuit simulates calling party disconnect - Coin supervisory lamp lights
18c	If CS key is provided - Operate CS key	At "A" switchboard - Coin supervisory lamp flashes
19c	Request operator to insert plug into release jack momentarily	At "A" switchboard - Coin supervisory lamp continues to flash
20c	Restore NO CN key	
21c	Request operator to apply coin collect potential to coin supervisory circuit	CNT and CNR lamps light
22c	Request operator to release coin supervisory circuit	
23c	Restore CS key	
24d	If coin supervisory circuits are arranged for use with central "A" switchboard	At sender make-busy frame - Coin supervisory lamp flashes
25d	At sender make-busy frame - Insert plug into release jack momentarily	At sender make-busy frame - Coin supervisory lamp continues to flash
26d	Restore NO CN key	
27d	At sender make-busy frame - Apply coin collect potential to coin supervisory circuit	CNT and CNR lamps light
28d	At sender make-busy frame - Release coin supervisory circuit	
29	Restore HLD CN and LC keys	All lamps extinguished
30	Restore all keys	
31	Operate RN key momentarily	N lamp lights momentarily
	(M) Stuck Coin Test with Automatic Release	
16	Operate FC, HLD CN and STK CN keys	
17	Operate and restore ST key	FC lamp lights When test circuit simulates calling party disconnect - Coin supervisory, CNT and CNR lamps light
18c	If CS key is provided - Operate CS key	At "A" switchboard - Coin supervisory lamp lights steadily
19c	Operate RCN key momentarily	CNT and CNR lamps extinguished

STEP	ACTION	VERIFICATION
20c	Restore STK CN key	
21c	Request operator to apply coin return potential to coin supervisory circuit momentarily	CNT and CNR lamps light
22c	Operate RCN key momentarily	CNT and CNR lamps extinguished
23c	Request operator to insert plug into release jack momentarily	CNT lamp lights
24c	Restore CS key	
25d	If coin supervisory circuits are arranged for use with central "A" switchboard	At sender make-busy frame - Coin supervisory lamp lights steadily
26d	Operate RCN key momentarily	CNT and CNR lamps extinguished
27d	Restore STK CN key	
28d	At sender make-busy frame - Apply coin return potential to coin supervisory circuit momentarily	CNT and CNR lamps light
29d	Operate RCN key momentarily	CNT and CNR lamps extinguished
30d	At sender make-busy frame - Insert plug into release jack momentarily	CNT lamp lights
31	Operate CA key momentarily	All lamps extinguished
32	Restore FC and HLD CN keys	
33	Restore all keys	
34	Operate RN key momentarily	N lamp lights momentarily