

SUPPLEMENTARY TEST INSTRUCTION  
 COIN SUPERVISORY CIRCUIT

CONTENTS

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|------------------------|------------------------|
| 1. GENERAL INFORMATION | 3. SUPPLEMENTARY TESTS |
| 2. TEST EQUIPMENT      | 4. OPERATIONAL TESTS   |

1. GENERAL INFORMATION

1.1 This section describes a method of verifying the operation of the Dial Tone First Feature of the Coin Supervisory Circuits, SD-25061-01, SD-25061-02 and SD-25444-01.

1.2 When performing the tests of this section, that test operation listed in the results column of Paragraph 3 is of primary importance. However, any additional circuit operation which appears to be false should be investigated.

1.3 After performing the tests of Paragraph 3 and before returning the Coin Supervisory Circuit to service, operational tests of existing features are required. See Paragraph 4.

1.4 After the District Junctor Test Circuit, SD-25158-01, has been modified, operational tests of the Dial Tone First Feature are required. See Handbook 61, Section 131.2.

2. TEST EQUIPMENT

2.1 Cords and Accessories

<u>AMT</u>	<u>CODE</u>	<u>DESCRIPTION</u>	<u>WITH</u>
1	ITE-4137A	Continuity Test Set	32A Kit
1	ITE-4442	Volt-Ohmmeter	
1	R-9572	Test Receiver	ITE-4023
As Req.	349A	Make-Busy Plugs	ITE-4023
As Req.	508A	Tool, Blocking	ITE-4023

3. SUPPLEMENTARY TESTS

3.1 Insert make-busy plug 349A into jack MB. At the Coin Supervisory Selector Circuit, verify that the associated relay SB operates.

3.2 Using the ITE-4137A, Continuity Test Set, and/or the ITE-4442, Volt-Ohmmeter, and the R-9572, Test Receiver, verify the test results for those test connections shown in TABLES A and/or B and/or C.

4. OPERATIONAL TESTS

4.1 Prior to returning the Coin Supervisory Circuits to service, operational tests per Handbook 61, Section 131, Paragraphs 5 through 12 are required.

GLOSSARY

TABLES A and/or B and/or C

1. B - Represents a bottom or break contact for a flat or wire-spring relay respectively.
2. C - Represents "Continuity" i.e. a reading of zero on the Ohm Scale of a Volt-Ohmmeter.
3. M - Represents a make contact of a wire-spring relay.
4. NC - Represents "No Continuity" i.e. a reading of Infinity on the Ohm Scale of a Volt-Ohmmeter.
5. OSR - Represents "Ohm Scale Reading". It is to be interpreted as neither zero nor infinity but does not imply any specific value. This is used as the Test Result Verification when Diodes and/or Networks are involved.
6. T - Represents a top contact of a flat-spring relay.
7. When neither B, M or T is shown i.e. a numerical designation only is shown, a terminal or fixed contact of a relay is represented.
8. \* - Represents a contact on a relay that has been replaced.
9. \*\* - Represents an Installer's Note. "Test Connection shown has been rated 'Mfr. Disc.' and may have been replaced by Terminal Strips A and B and/or direct connection to the appropriate relay contact or terminal." When such is the case, the corresponding test point should be determined and the indicated test made accordingly.

TABLE A

SD-25061-01 FIGURE WIRING	S T E P	BLOCK RELAY (O) OPERATED (N) NORMAL	TEST CONNECTION				TEST RESULT
			ONE END		OTHER END		
			CONTACT	RELAY	CONTACT	RELAY	
NOTES: 1) All Test Operations and Test Results apply to FIGURE K and ZB Wiring,							
2) When FIGURE K and ZB Wiring are provided, FIGURE H and APPARATUS E (See CIRCUIT NOTE 108) must be provided,							
3) When additional Figures and Wiring are involved, they are listed in their respective column opposite the applicable test instruction,							
	1		5T	LT	8B	T	C
	2		7T	LT	7T	CN	C
	3		9	LT	(5T 6T)	(T ) CN)	C
	4		2	LT	5T	Z1	C
C or E D or F	5		A	CN1	3B	OP	C
	6		2	CN1	6B	M	C
	7		2	CN1	11B	M	C
	8		1M	CN1	3T	OP	C
C,D,E, or F	9		4T	Z2	(6T 5B)	(SC) OP)	C
	10		5T	Z2	1T	Z1	C
	11		6T	Z2	2B	CR	C
	12		7T	Z2	6B	Z1	C
C,D,E, or F A B	13		9T	Z2	7B	Z1	C
	14		3B	Z2	8T	T	C
	15		4B	Z2	1B	W	C
	16		4B	Z2	3T	W	C
C,D,E, or F	17		5B	Z2	3T	CR	C
	18		6B	Z2	2T	NC	C
	19		7B	Z2	6T	CC	C
	20		2T*	LT	8B	T	NC
	21		1T*	LT	7T	CN	NC
	22		2RT*	LT	(4B 5T 6T)	(T ) T ) CN)	NC
	23	CN1 (0)	2T	CN1	3B	OP	NC
	24	Z2 (0)	2B	CR	(1T 2T)	(Z1) Z1)	NC
C,D,E, or F	25		5T	Z2	(2B 6T)	(CR) SC)	NC
	26		4B	Z2	3T	CR	NC
	27		3T	Z1	6T	SC	NC

TABLE A (CONT.)

SD-25061-01		S T E P	BLOCK RELAY (O) OPERATED (N) NORMAL	TEST CONNECTION				TEST RESULT
FIGURE	WIRING			ONE END		OTHER END		
				CONTACT	RELAY	CONTACT	RELAY	
NOTES: 4) Use the Ohm Scale of an ITE-4442, Volt-Ohmmeter, when performing the tests of STEPS 28 through 32,  CAUTION: DO NOT TOUCH GROUND WITH EITHER PROBE OF THE ITE-4442, VOLT-OHMMETER, WHEN PERFORMING THE TESTS OF STEPS 28 THROUGH 31.								
KK		28		( (1 ( (	LT	PCHG. 09 ) T.S. on C.SR.) UNIT )	1870 OHMS ± 1%	
K		29		( (1 (	LT	PCHG. 24 ) T.S. (A) ) ON UNIT )		
KK		30		( (8 (	LT	PCHG. 09 ) T.S. on C.SR.) UNIT )	3200 OHMS ± 1%	
K		31		( (8 (	LT	PCHG. 24 ) T.S. (A) ) ON UNIT )		
		32		9T	Z2	8B          Z2	OSR	
NOTES: 5) Use the Volt Scale of an ITE-4442, Volt-Ohmmeter, when performing the tests of STEPS 33 through 36, and								
KK		33		( (1 (	LT	PCHG. 09 ) T.S. on C.SR.) UNIT )	POSITIVE 48 VOLTS IS PRESENT	
K		34		( (1 (	LT	PCHG. 24 ) T.S. (A) ) ON UNIT )		
KK		35		( (8 (	LT	PCHG. 09 ) T.S. on C.SR.) UNIT )		
K		36		( (8 (	LT	PCHG. 24 ) T.S. (A) ) ON UNIT )		
NOTES: 6) Use the R-9572, Test Receiver, when performing the tests of STEPS 37 through 40.								
		37		(2M (	CN1	BATTERY)	GROUND IS PRESENT	
		38		(8T (	Z2	BATTERY)		
		39		(4T (	Z1	BATTERY)	BATTERY IS PRESENT	
		40		8B	Z2	GROUND		
		41	Remove all test equipment and connections. Restore all electrically operated relays to normal.					
		42	Make a visual inspection for connections which may have been inadvertently broken during wiring or test operations.					

TABLE B

SD-25061-02		S T E P	BLOCK RELAY (O) OPERATED (N) NORMAL	TEST CONNECTION				TEST RESULT
FIGURE	WIRING			ONE END		OTHER END		
				CONTACT	RELAY	CONTACT	RELAY	
NOTES: 1) All Test Operations and Test Results apply to FIGURE Q and ZS Wiring, 2) When FIGURE Q and ZS Wiring are provided, Figures D and S must be provided, 3) When additional Figures and Wiring are involved, they are listed in their respective column opposite the applicable test instruction,								
		1		5T	LT	8B	T	C
		2		2T*	LT	8B	T	NC
		3		7T	LT	5B	CN	C
		4		1T*	LT	5B	CN	NC
		5		9	LT	(6T (5T	(CN T )	C
		6		6T	CN	(4B (2B (2RT*	T ) OW) LT)	NC
		7		2	LT	8B	B1	C
		8		8B	B1	(5B (5T (6B (4T	B2) RL) T ) Z2 )	NC
		9		11	RC2	(12M (8T	RC2) SC )	C
		10		11	RC2	5T	Z2	NC
		11		1L	RC1	2B	RP	C
		12		11M	RC2	1	RC1	C
		13		10M	RC2	3T	OW	C
		14		10	RC2	PCHG 41** T.S. on C. SR. UNIT		C
		15		10	RC2	3T	OW	NC
		16		3M	RC1	1U	RC2	C
		17		8M	RC2	(3T (5M	RP ) RC1)	C
		18	RC2(O)	8B	RC2	1U	RC2	NC
		19		9B	RC2	2B	RP	NC
		20		10B	RC2	4	RC1	NC
		21		11B	RC2	4T	Z2	NC
		22		12B	RC2	8T	SC	NC
E		23		1B	Z	2B	W	C
F		24		1B	Z	4T	W	C

TABLE B (CONT.)

SD-25061-02		S T E P	BLOCK RELAY (O) OPERATED (N) NORMAL	TEST CONNECTION				TEST RESULT
FIGURE	WIRING			ONE END		OTHER END		
				CONTACT	RELAY	CONTACT	RELAY	
	ZU	25		1M	RC1	2L	RC3	C
	ZU	26		2M	RC1	1U	RC3	C
		27		2T	CR	2T	RL	C
E or F		28	RC1(O)	1B	RC1	11M	RC2	NC
		29		2B	RC1	12M	RC2	NC
		30		3B	RC1	1B	Z	NC
A,B,J, or K	ZT	31		4B	RC1	10	RC2	NC
		32		5B	RC1	2T	RL	NC
		33		1M	RC1	(7B M ) (4 M1 ) (PCHG. 47** ) (T.S. on C.SR.) (UNIT )		C
A,B,J, or K	ZT	34		2M	RC1	(8T M ) (5 M1 ) (PCHG. 46** ) (T.S. on C.SR.) (UNIT )		C
A,B,J, or K	ZT	35		1L	M1	4T	M	C
A,B,J, or K	ZT	36		11T	OP	2M	M1	C
		37	CS(O)			4T	M	NC
A,B,J, or K	ZT	38		PCHG. 48** T.S. on C.SR. UNIT		PCHG. 5** T.S. on C.SR. UNIT		C
A,B,J, or K	ZT	39		PCHG. 5** T.S. on C.SR. UNIT		(8T M ) (2T SP)		NC
A,B,J, or K	ZT	40		PCHG. 49** T.S. on C.SR. UNIT		PCHG. 6** T.S. on C.SR. UNIT		C
A,B,J, or K	ZT	41		PCHG. 6** T.S. on C.SR. UNIT		(7B M ) (2B SP)		NC
A,B,J, or K	ZT	42		PCHG. 45** T.S. on C.SR. UNIT		3M	M1	C
A,B,J, or K	ZT	43		4M	M1	2B	SP	C
A,B,J, or K	ZT	44		5M	M1	2T	SP	C
A,B,J, or K	ZT	45	M1(O)					
A,B,J, or K	ZT	46		4B	M1	1M	RC1	NC
A,B,J, or K	ZT	47		5B	M1	2M	RC1	NC
		48	Z1(O)					
		49		5T	T	1B	OW	NC
		50		2B	CR	12B	RC2	C

TABLE B (CONT.)

SD-25061-02		S T E P	BLOCK RELAY (O) OPERATED (N) NORMAL	TEST CONNECTION				TEST RESULT
FIGURE	WIRING			ONE END		OTHER END		
				CONTACT	RELAY	CONTACT	RELAY	
E  F  H	W	51		8T	Z2	6T	CC	C
		52		3T	OS	(1B 1B)	(OP) W )	C
		53		3T	OS	(1B 3T)	(OP) W )	C
		54		3B	Z2	5B	NC	C
		55		3B	Z2	7T	SD	C
J, K, or L		56		3B	Z2	6T	SD	C
		57		9T	Z2	7B	Z1	C
		58		6B	Z2	(3B 6B)	T ) Z1)	C
		59		3T	T	1B	Z1	C
		60		7T	Z2	4B	OS	C
J or K	ZU	61	Z2(0)					
		62		5T	Z2	2B	CR	NC
		63		1B	Z2	1B	Z1	NC
		64		4B	Z2	(3T 1B)	(OS) OP)	NC
		65			PCHG. 5** T.S. on C.S.R. UNIT		(2T 8T)	(SP) M )
J or K	ZU	66			PCHG. 6** T.S. on C.S.R. UNIT	(2B 7B)	(SP) M )	C
J or K	ZU	67		4T	M	11T	OP	C
		68		5B	SC	5T	B1	C
		69		5B	B2	(4B 7B)	(SC) B1)	C NC
		70	SC(0)	7T	SC	12	RC2	NC
E  F		71		3T	Z1	12B	RC2	NC
		72	RL(0)	1T	RL	5	RC1	NC
		73	CR(0)	3T	CR	5B	RC1	NC
		74	W(0)	3B	W	3B	RC1	NC
		75	W(0)	5T	W	3B	RC1	NC
A, B, J, or K	ZT	76	SP(0)	1T	SP	8T	M	NC
A, B, J, or K	ZT	77		1B	SP	7B	M	NC
J or K	ZU	78	SP(0)	1T	SP		PCHG. 5** T.S. on C.S.R. UNIT	NC
J or K	ZU	79		1B	SP		PCHG. 6** T.S. on C.S.R. UNIT	NC

TABLE B (CONT.)

SD-25061-02		S T E P	BLOCK RELAY (O) OPERATED (N) NORMAL	TEST CONNECTION				TEST RESULT	
FEATURE	WIRING			ONE END		OTHER END			
				CONTACT	RELAY	CONTACT	RELAY		
<p>NOTES: 4) Refer to Handbook 61, Section 0.3, Paragraph 2.1. for assistance in performing the tests of STEPS 80 through 82.</p> <p>5) Use the Ohm Scale of an ITE-4442, Volt-Ohmmeter, when performing the tests of STEPS 80 through 84,</p>									
A, B, H, J, or K		80		5B	SC	6T	M	OSR	
G or L		81		5B	SC	4T	M	OSR	
		82		(3M (9T	RC1 Z2	1L 8B	RC1 Z2	OSR	
<p>CAUTION: DO NOT TOUCH GROUND WITH EITHER PROBE OF ITE-4442, VOLT-OHMMETER, WHEN PERFORMING THE TESTS OF STEPS 83 AND 84.</p>									
		83		8	LT	215A T.P. ON REAR OF RELAY LT		3200 OHM ± 1%	
		84		1	LT	215A T.P. ON REAR OF RELAY LT		1870 OHM ± 1%	
<p>NOTES: 6) Use the Volt Scale of an ITE-4442, Volt-Ohmmeter, when performing the tests of STEPS 85 through 87, and</p>									
	NOTES ZU	85		( 2U	RC3	PCHG. 50** T.S. on C.SR.) UNIT		POSITIVE 48 VOLTS IS PRESENT	
		86		((1	LT)	BUS BAR			
P	ZP	87		((8 ((R1	LT) LT)	ON MISC. FUSE BAY			
<p>NOTES: 7) Use the R-9572, Test Receiver, when performing the tests of STEPS 88 through 97.</p>									
	ZU	88		(1L	RC3	BATTERY)		GROUND IS PRESENT	
	ZT	89		( 2	M1	BATTERY)			
	ZT	90		( 3	M1	BATTERY)			
		91		( 7B	Z2	BATTERY)			
		92		( 7B	B1	BATTERY)			
		93		5B	SC	BATTERY		GROUND IS PRESENT	
		94		(2U	RC2	GROUND)		BATTERY IS PRESENT	
		95		( 2L	RC1	GROUND)			
	ZT	96		( 2L	M1	GROUND)			
		97		( 8B	Z2	GROUND)			
		98	Remove all test equipment and connections. Restore all electrically operated relays to normal.						
		99	Make a visual inspection for connections which may have been inadvertently broken during wiring or test operations.						

TABLE C

SD-25444-01		S T E P	BLOCK RELAY (O) OPERATED (N) NORMAL	TEST CONNECTION				TEST RESULT
FIGURE	WIRING			ONE END		OTHER END		
				CONTACT	RELAY	CONTACT	RELAY	
NOTES: 1) All Test Operations and Test Results apply to FIGURE F and ZK Wiring, 2) When additional Figures and Wiring are involved, they are listed in their respective column opposite the applicable test instruction,								
		1		5T	LT	10B	T	C
		2		7T	LT	5B	CN	C
		3		9	LT	(6T 7T)	(CN T)	C
		4		2	LT	9B	RC2	C
NOTES: 3) Induction Coil (A) is involved, in part, in the path for the test of STEP 5. Although a Test Result of C (Infinity) is shown, the actual Test Result will be, in part, approximately 12 ohms,								
C or D		5		7B	RC2	(3B 3T 3B 8T)	(OP Z2 RC2 SC)	C
		6		6B	RC2	5B	RC1	C
		7		2T	RC2	(9T 3T)	(RC1 RP)	C
		8		10T	RC2	PCHG. 51** T.S. on C.S.R. UNIT		C
		9		11T	RC2	2B SD PCHG. 53** T.S. on C.S.R. UNIT		C
		10		12T	RC2	(1T 6T)	(RC2 RC1)	C
		11		8T	RC1	(1B 2B)	(Z W)	C
		12		10T	RC1	(2T 2T)	(RL CR)	C
		13		12T	RC1	2B	RP	C
		14		1B	RC1	4T	RC3	C
		15		4B	RC1	2B	RC3	C
		16		1T	Z1	2B	CR	C
		17		PCHG. 51** T.S. on C.S.R. UNIT		(2B SD (PCHG. 53** (T.S. on C.S.R.) (UNIT )		NC
		18	RC1,RC2(O)	8B	RC2	3T	Z2	NC
		19		5B	RC2	8T	SC	NC
		20		2B	RC2	12T	RC1	NC

TABLE C (CONT.)

SD-25444-01		STEP	BLOCK RELAY (O) OPERATED (N) NORMAL	TEST CONNECTION				TEST RESULT	
FIGURE	WIRING			ONE END		OTHER END			
				CONTACT	RELAY	CONTACT	RELAY		
		21		1T	RC2	6T	RC1	NC	
		22		6B	RC1	6B	RC2	NC	
		23		3B	RC1	3B	RC2	NC	
		24		4T	RC1	2B	SD	NC	
		25		8T	RC1	1B	Z	NC	
		26		11T	RC1	2T	RL	NC	
		27		2T*	LT	10B	T	NC	
		28		1T*	LT	7T	CN	NC	
		29		3B	T	(2B 6T 2RT* 7T)	(OW) CN) LT) T)	NC	
		30		2B	CR	2T	Z1	NC	
		31	Z1(0)	3T	Z2	2T	Z1	NC	
		32	Z2(0)	2B	CR	1T	Z1	NC	
		33	Visually verify that (D) Ground and Battery have been disconnected from Punchings 43 and 45, respectively, of the Coin Supervisory Unit Terminal Strip,						
<p>NOTES: 4) Refer to Handbook 61, Section 0.3, Paragraph 2.1, for assistance in performing the test of STEP 34,</p> <p>5) Use the Ohm Scale of an ITE-4442, Volt-Ohmmeter, when performing the tests of STEPS 34 through 36,</p>									
		34		6T	RC1	12T	RC1	OSR	
<p>CAUTION: DO NOT TOUCH GROUND WITH EITHER PROBE OF ITE-4442, VOLT-OHMMETER. WHEN PERFORMING THE TESTS OF STEPS 35 AND 36.</p>									
		35		1LT		PCHG. 08** T.S. on C.S.R. UNIT		1870 OHM ± 1%	
		36		8LT		PCHG. 08** T.S. on C.S.R. UNIT		3200 OHM ± 1%	
<p>NOTES: 6) Use the Volt Scale of an ITE-4442, Volt-Ohmmeter, when performing the tests of STEPS 37 through 39, and</p>									
E	ZI	37		((1	LT)	PCHG. 08** )		POSITIVE 48 VOLTS IS PRESENT	
		38		((8	LT)	T.S. on C.S.R.)			
				((R1	LT)	UNIT )			
		39		(		)			
				( 5T	RC3	PCHG. 45** )			
				(		T.S. on C.S.R.)			
				(		UNIT )			

TABLE C (CONT.)

SD-25444-01		S T E P	BLOCK RELAY (O) OPERATED (N) NORMAL	TEST CONNECTION				TEST RESULT
				ONE END		OTHER END		
FIGURE	WIRING			CONTACT	RELAY	CONTACT	RELAY	
NOTES: 7) Use R-9572, Test Receiver, when performing the tests of STEPS 40 through 44.								
		40		(PCHG. 43** (T.S. on C.SR. (UNIT		BATTERY)		GROUND IS PRESENT
		41		(10B	RC2	BATTERY)		
		42		(1B	RC3	BATTERY)		
		43		(11B	RC2	GROUND		
		44		(10B	RC1	GROUND		BATTERY IS PRESENT
		45	Remove all test equipment and connections. Restore all electrically operated relays to normal.					
		46	Make a visual inspection for connections which may have been inadvertently broken during wiring or test operations.					

Manager, Crossbar Product Engineering  
Control Center