

KS-21250, LIST 1 (MD) AND LIST 2 COIN CRAFTS TEST SETS

1. KS-21250, LIST 2

1.01 Use of the new KS-21250, List 2 test set is described in detail in Section 105-250-100. Abbreviated operating instructions are also provided with the test set and in the Public Services Maintenance Check Booklet and Section 506-900-503.

2. KS-21250, LIST 1

2.01 The KS-21250, List 1 portable test set may be used to check certain features of the coin telephone set when a central office coin station test line is not available or when dial long line equipment is used in the CO.

Danger: High voltages on leads when test buttons are operated.

Note: The timing circuit in this test set is designed to time a 450 ms 1A coin relay.

2.02 Perform following pretest set-up.

- (a) On 1-type sets, remove cover unit assembly and hang it on a KS-20950 parking tool or connect a P11C patch cord between P1 and J1.

- (b) On 2-type sets, open door and faceplate assembly and connect a P11C patch cord between P1 and J1.

Warning: Disconnect CO tip and ring from set.

- (c) Connect the test set to TB1 terminals in telephone set, Red to R, Green to T, and Yellow to G.

2.03 Perform the following tests.

(a) ***Telephone Tests:***

Note 1: The table and step numbers referenced in the test are found in Section 506-900-503 or the Public Services Maintenance Check Booklet.

Note 2: In these tests, only the ***possible cause*** and ***remedial action*** entries apply in the referenced tables and steps.

Note 3: When test set is ***on***, it supplies battery to the telephone set and sidetone is available except when COLLECT or REFUND/TIME button is depressed.

DTF MODE (C/D-TYPE SETS ONLY)

	<u>Test</u>	<u>Table</u>	<u>Step</u>
(1)	Handset on hook. Test set ON. Deposit quarter. <ul style="list-style-type: none"> • Totalizer steps back (C-type sets only) • Beep tones heard in test set (C-type sets only) 	B	6
(2)	Refund money using REFUND/TIME button	B	6
(3)	Handset off-hook. Deposit nickel less than initial rate. <ul style="list-style-type: none"> • Totalizer does not step back (C-type sets only) • No beep tone(s) heard, except in 1D/2D sets beep tones will be heard 	B	7
(4)	Operate dial <ul style="list-style-type: none"> • Clicks/TT signals heard in test set 	B	7
(5)	Go on-hook <ul style="list-style-type: none"> • Totalizer steps back (C-type sets only) • Beep tone(s) heard except in 1D/2D sets beep tone(s) will not be heard. 	B	8
(6)	Refund coin(s)		
(7)	Go off-hook. Reverse Red and Green test set leads. Deposit nickel. <ul style="list-style-type: none"> • Totalizer steps back (C-type sets only) • Beep tone heard 	B	12 and 14
(8)	Refund nickel		

CF MODE (A/C-TYPE SETS ONLY)

(1)	Handset on-hook. Test set ON. Deposit quarter. <ul style="list-style-type: none"> • Totalizer steps back • Beep tones heard in test set 	A	5
(2)	Refund coin using REFUND/TIME button	A	5

CF MODE (Cont)

	<u>Test</u>	<u>Table</u>	<u>Step</u>
(3)	Handset off-hook; test set OFF. Deposit nickel less than initial rate. Turn test set ON. <ul style="list-style-type: none"> • Totalizer does <i>not</i> step back • No beep tone(s) heard 	A	7
(4)	Go on-hook <ul style="list-style-type: none"> • Totalizer steps back • Beep tone(s) heard in test set. 	A	6
(5)	Go off-hook; operate dial <ul style="list-style-type: none"> • Clicks/TT signals are <i>not</i> heard • Sidetone present in handset. 	A	6
(6)	Refund coin(s) using REFUND/TIME button		
(7)	Test set OFF. Deposit initial rate. Turn test set on. <ul style="list-style-type: none"> • Totalizer steps back • Beep tones heard in test set 	A	8
(8)	Operate dial <ul style="list-style-type: none"> • Clicks/TT signals heard • Sidetone present 	A	9
(9)	Refund coin(s) using REFUND/TIME button		

POSTPAY MODE (E-TYPE SETS ONLY)

(1)	Handset off-hook. Test set ON. <ul style="list-style-type: none"> • Sidetone present in handset 	E	4
(2)	Rotate dial and release <ul style="list-style-type: none"> • Clicks heard 		
(3)	Insert KS-14995, L3 tool between coin chute and hopper to prevent loss of deposited coins		
(4)	Deposit nickel less than initial rate <ul style="list-style-type: none"> • Totalizer does not step back • No beep tones heard 	E	14

POSTPAY MODE (Contd)

	<u>Test</u>	<u>Table</u>	<u>Step</u>
(5)	Hang-up <ul style="list-style-type: none"> ● Totalizer steps back ● Beep tone(s) heard 	E	17
(6)	Handset off-hook — Deposit initial rate <ul style="list-style-type: none"> ● Totalizer does not step back ● In a 1E1 set, a click is heard in test set speaker 	E	15
(7)	Reverse Red and Green leads of test set. <ul style="list-style-type: none"> ● Totalizer steps back ● Beep tones heard in speaker 	E	17
(8)	Deposit quarter <ul style="list-style-type: none"> ● Five beeps heard 	E	6
(9)	Disengage chute locking spring; slowly pull top of chute forward while holding KS-14995, L3 tool. Lift chute and tool out of set and retrieve coins.		

(b) **Timing Test**—Coin relay (CF and DTF sets only). Remove coin chute assembly. Connect test set Red to No. 3 on coin relay. Yellow to G relay terminal. Black to top lead of relay resistor.

- (1) Deposit coin (or trip hopper trigger).
- (2) Press and hold REFUND/TIME button.
Relay operates. Timing light(s) can be read. Refer to Table A.

(3) Release and lift return chute assembly out. Operate COLLECT button. Observe in hopper that coin vane moves to collect position.

- (4) Reassemble disconnected components.

TABLE A

ADJUSTMENT OF COIN RELAY USING KS-21250L2 TEST SET

BELOW -20°F	-20°F TO 20°F	20°F TO 60°F	60°F TO 100°F	ABOVE 100°F
Test set indicator lights will indicate SLOW after adjustment	Test out indicator lights will indicate SLOW after adjustment			*JUST FAST then 1/4 turn CCW
				*JUST FAST then 1/2 turn CCW
		*JUST SLOW. then 1/4 turn CCW	*JUST SLOW then 1/4 turn CW	
*JUST SLOW then 1/2 turn CCW				

* Adjust coin relay timing screw in 1/4 turn increments until the KS-21250L2 test set just indicates fast or slow as specified for the temperature range at time of adjustment. Then turn the relay timing screw the specified amount as indicated above in the table.



(c) **Coin Relay Operate Margin** (CF and DTF sets only). **Check**—with a working central office line connected to coin telephone set.

- (1) Connect Yellow lead of test set to 3 on coin relay and Black lead of test set to top of relay resistor, lift handset. (Test Set Off.)

- (2) Deposit initial rate.
- (3) Dial any digit but 0. Hang up. Relay should operate despite added shunt load built into the test set. If coin relay fails to operate, have test deskperson assist in determining loop and ground resistance measurements.

2.04 Return coin telephone set to normal operation.

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2.05 When finished with test set, **turn it "OFF."**

2.06 Replacement batteries for the KS-21250, List 1 test set are:

Quantity	Type
2	KS-14369—48 volt
12	KS-14368—1.5 volt or 1.5 volt Alkaline for operation below 0°F (Eveready No. E91 or RAY-O-VAC No. 815)