SERVICE
COIN TELEPHONE SETS
1C- AND 2C-TYPE

CONTENTS PAGE

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1. GENERAL

1.01 This section is reissued to:

- Revise method of resetting totalizer
- Add information on reference mark provided on new totalizer
- Add information on new CF-DTF mode switch on totalizer
- Delete KS-20227 booth reference from Table C
- Add reference to Section 506-402-100 for color selection and replaceable components.
- Add installation and maintenance information on fingerwheels
- Add trap and vane release test to Table E
- Add information for replacing coin trap and associated parts
- Revise instruction plates on Fig. 1
- Show method for operating entrance stop (Fig. 34)

1.02 The 1C1 set can be modified to a 1C2 by replacing the rotary dial-equipped P-90E400 cover unit assembly with a TOUCH-TONE® dial-equipped P-90E500 cover unit assembly. No wiring changes are necessary. No provision is made for modifying a 2C1 set to a 2C2.

1.03 Refer to Section 506-402-100 for replaceable components, color selection, and associated apparatus.

2. INSTALLATION

LOCATION

2.01 The 1C-type coin telephone set (Fig. 1) can be installed in/on the following:

- 178A-3 backboard
- 10- and 11-type booths
- KS-14611 outdoor booth
- KS-16797 universal booth
- KS-19206 curved door booth
- KS-19267 coin telephone shelf
- KS-19340 wood booth
- KS-19425 indoor-outdoor booth
- KS-19426 walk-up, drive-up mounting
- KS-19580 outdoor booth
- KS-19945 shelf
- KS-20194 wedge shelf
- KS-20255 telephone kiosk.
- KS-20842 mounting

2.02 The 2C-type coin telephone set (Fig. 2) can be installed in the following:

- KS-19206 curved door booth
- KS-19340 wood booth
- KS-19426 walk-up, drive-up mounting
- KS-19442 deluxe glass booth
- KS-20194 wedge shelf
- A wall that will allow the phone to be recessed.
- KS-20630 booth

2.03 Consider the following:

- Visibility, accessibility, and possible accident hazards in selecting locations.
- Mounting surfaces—Consult a supervisor before locating coin telephone set on finishes that would be expensive to repair if the set is removed.
- Inductive effects—Locate telephone and associated wiring at least 6 inches from neon fixtures, transformers, or other interference-causing equipment.

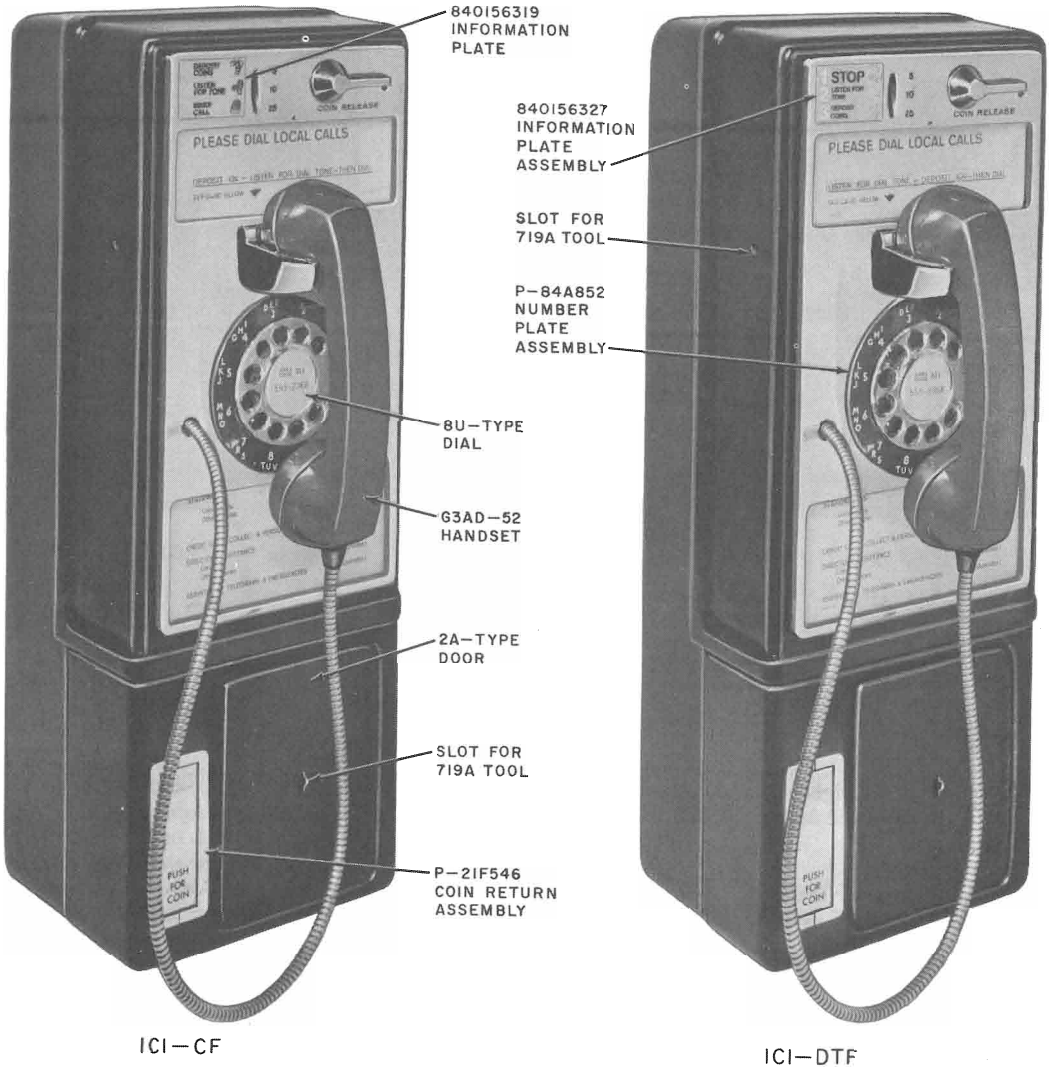


Fig. 1—1C-Type Coin Telephone Sets

BACKBOARDS AND SECURITY STUDS

2.04 Refer to Section 506-100-101 and observe the following:

When mounting the coin telephone set, a vertical surface must be provided. A tilt greater than 1-1/2 degrees in any direction can cause chute malfunction. A vertical surface may be determined by the following steps:

(a) Place a spirit level vertically against the mounting surface on which the set is to be installed.

(b) When a vertical reading is obtained, the end of the level opposite the point of contact

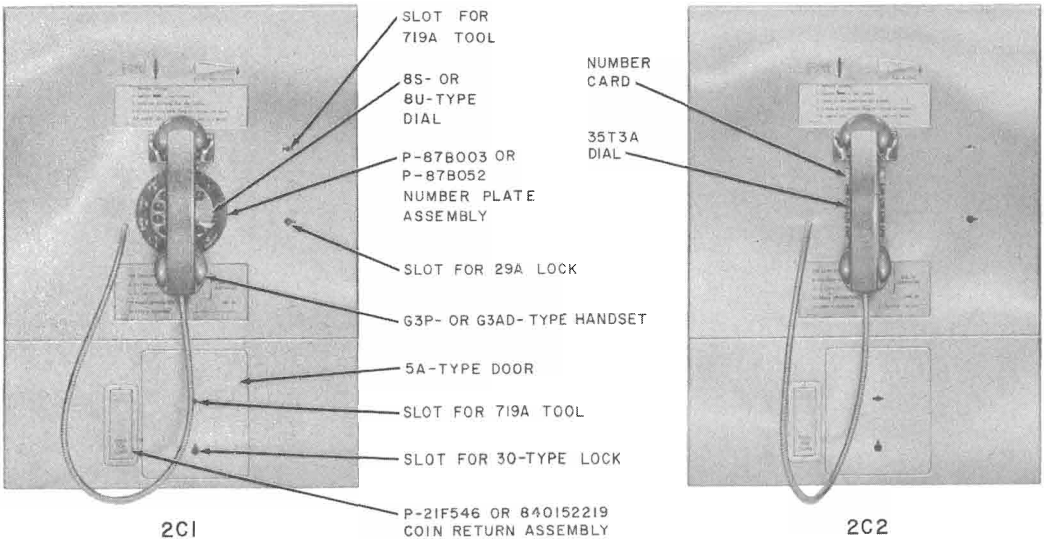


Fig. 2—2C-Type Coin Telephone Sets

shall be no farther from the mounting surface than shown in Table A.

(c) The left to right mounting axis shall also be within 1-1/2 degrees of true vertical.

TABLE A

METHOD OF DETERMINING A VERTICAL SURFACE

SPIRIT LEVEL LENGTH	MAXIMUM ALLOWABLE DISTANCE OUT OF PLUMB
18 inches	15/32 inch
24 inches	5/8 inch
30 inches	25/32 inch
36 inches	15/16 inch

2.05 Refer to Fig. 3 and 4 and Tables B and C for security stud requirements.

Use security studs with short thread length in the two top holes. Use long thread length studs in the two bottom holes. Top studs must be flush or under flush with inside of backplate to avoid interference with chute. Security studs are not furnished and must be ordered separately.

MOUNTING ARRANGEMENTS

2.06 To gain access to the coin telephone set mounting holes:

(1) Remove cover unit assembly (1C-type) per 2.10 or open door and faceplate assembly (2C-type) per 2.11.

(2) Remove 1AA chute per 2.12.

(3) Remove 1A coin chassis per 2.18.

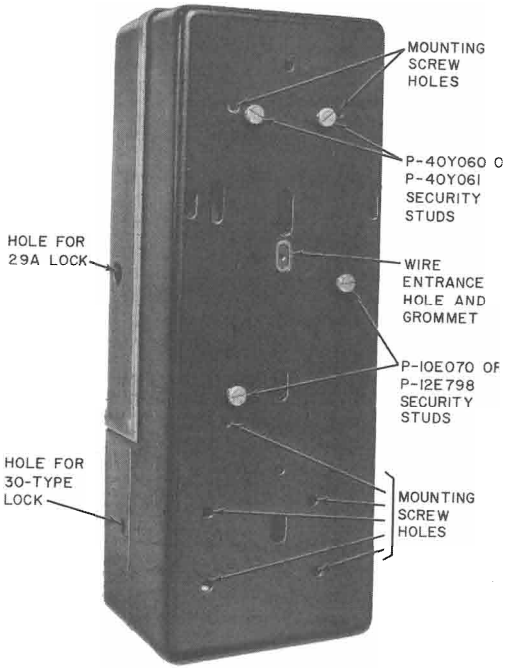


Fig. 3—Location of Mounting Screw Holes and Security Studs in 1C-Type

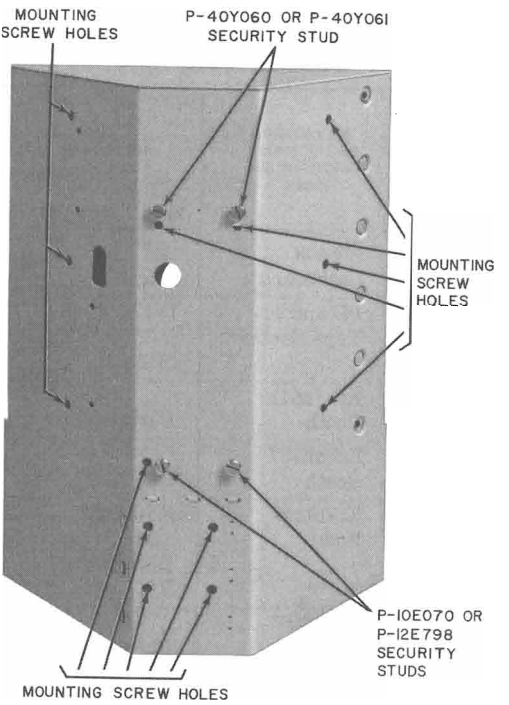


Fig. 4—Location of Mounting Screw Holes and Security Studs in 2C-Type

1C-Type

2.07 Refer to Table B.

2C-Type

2.08 To fully recess a 2C-type set in a wall:

(a) Ensure that the wall will accept the set.

(b) Refer to Fig. 5 for dimensions of the set.

(c) Cut a hole in the wall.

- Height—22-25/64 inches
- Width—16-9/64 inches
- Depth—6 inches

Ensure that the lip of the faceplate overlaps the wall around the hole.

2.09 Refer to Table C for all other applications.

COMPONENTS

Cover Unit Assembly (1C-Type)

2.10 To remove cover unit assembly:

(1) Unlock 29A lock.

(2) Release locking mechanism with 719A tool by turning tool 1/8-turn counterclockwise.

(3) Pull cover forward about 3 inches to gain access to plug P1.

◗ TABLE B ◖

MOUNTING OF 1C-TYPE

BACKBOARD, BOOTH, SHELF, MOUNTING, OR KIOSK	BACKBOARD REQUIRED	SECURITY STUDS			
		SHORT SHOULDER		LONG SHOULDER	
		P-40Y060 (SHORT THREADS)	P-10E070 (LONG THREADS)	P-40Y061 (SHORT THREADS)	P-12E793 (LONG THREADS)
178A-3 Backboard	Furnished	2	2		
10- and 11-Type Booths	D-179939 or D-179940 Kit of Parts	2	2		
KS-14611 Booth	Furnished	2	2		
KS-16797 Booth	B-190387			2	2
KS-19206 Booth	KS-19206 List 6 Installation Kit	2	2		
KS-19267 Shelf	Furnished	2	2		
KS-19340 Booth	KS-19340, List 53	2	2		
KS-19425 Booth	Furnished			2	2
KS-19426 Mounting	KS-19426, List 7 Installation Kit			2	2
KS-19580 Booth	Furnished	2	2		
KS-19945 Shelf	Existing or 178A-3 (Note 1)			2	2
KS-20194, L5 Shelf	178A-3 (Note 1)	2	2		
KS-20255 Kiosk	Furnished			2	2
KS-20842 Mounting	Furnished	None Used			

Notes:

1. A 178A-3 backboard is furnsihed with each KS-19945 and KS-20194, L5 shelf unless otherwise specified.
2. Seven 1/4-20 by 5/8-inch hardened RHM screws (P-23F790) are furnsihed with each coin telephone set for mounting to backboard.

TABLE C

MOUNTING OF 2C-TYPE

BOOTH, SHELF, OR MOUNTING	BACKBOARD REQUIRED	SECURITY STUDS				COVER (Note 1)
		SHORT SHOULDER		LONG SHOULDER		
		P-40Y060 (SHORT THREADS)	P-10E070 (LONG THREADS)	P-40Y061 (SHORT THREADS)	P-12E793 (LONG THREADS)	
KS-19206 Booth	KS-19206, List 7 Installation Kit	2	2			127B-Type Fig. 6
KS-19340 Booth	KS-19340, List 54 Backboard	2	2			127B-Type Fig. 6
KS-19426 Mounting	Furnished			2	2	
KS-19442 Booth	KS-19340, List 54 Backboard	2	2			127A-Type Fig. 6
KS-20194 Shelf	Furnished	2	2			

Notes:

1. Three No. 8-32 by 3/16-inch RHM screws are furnished with cover for installation.
2. Seven 1/4-20 by 5/8-inch hardened RHM screws (P-23F790) are furnished with each coin telephone set for mounting to backboard.

(4) Disconnect plug P1 (Fig. 7) by pulling straight out as cover is carefully lifted off.

Door and Faceplate Assembly (2C-Type)

2.11 To open door and faceplate assembly:

(1) Unlock 29A lock.

(2) Release locking mechanism with 719A tool by turning 1/8-turn counterclockwise.

(3) Open door approximately 3 inches to gain access to plug P1 (Fig. 8).

(4) Disconnect P1 by pulling straight out as door is opened.

THINK ***Exercise care to keep the set from tipping over when door is opened.***

1AA Chute

2.12 To remove chute:

(1) Disconnect plug P2 (Fig. 7 or 8).

(2) Release chute locking lever.

(3) Lift spring out of groove in chute.

(4) Tilt top of chute forward and lift out.

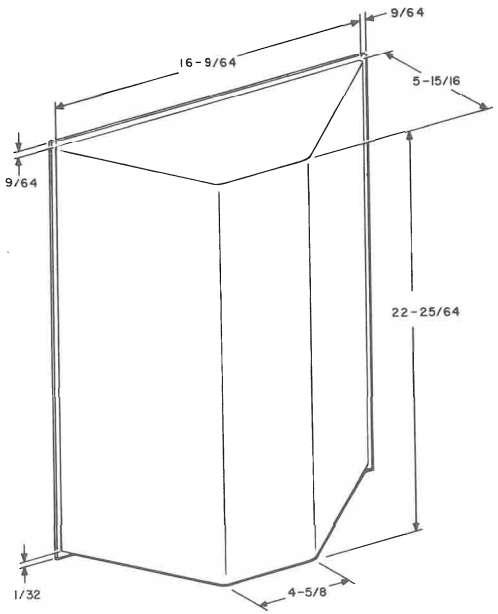


Fig. 5—Rear View of 2C-Type, Showing Dimensions

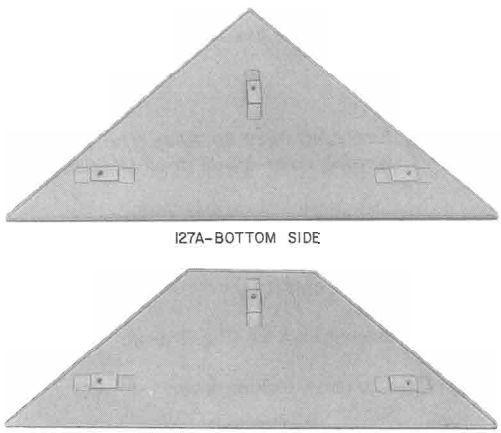


Fig. 6—127A- and 127B-Type Covers

2.13 To install chute in set:

(1) Place chute on locating pins at rear of hopper assembly, and back of housing (Fig. 9).

Note: Ensure that reject chute, return chute, and coin return assemblies line up properly.

(2) Place spring in groove on chute.

(3) Lock spring in place by pushing chute locking lever down.

(4) Reconnect totalizer plug P2 to J2.

1A Totalizer

Note 1: On current model totalizers, the ***PP-DTF*** connector assembly is replaced by a ***CF-DTF*** slide switch (Fig. 10). The switch can be moved from one position to another by using a small screwdriver or KS-16750, List 2 releaser.

Note 2: A black reference mark is on the outside ratchet wheel of current model totalizers to help determine whether the totalizer shaft is off-normal or in it's ***home*** position. As viewed from the front of the coin telephone set, a totalizer is in it's ***home*** position when the mark is at a point 1 tooth to the left of 6 o'clock position.

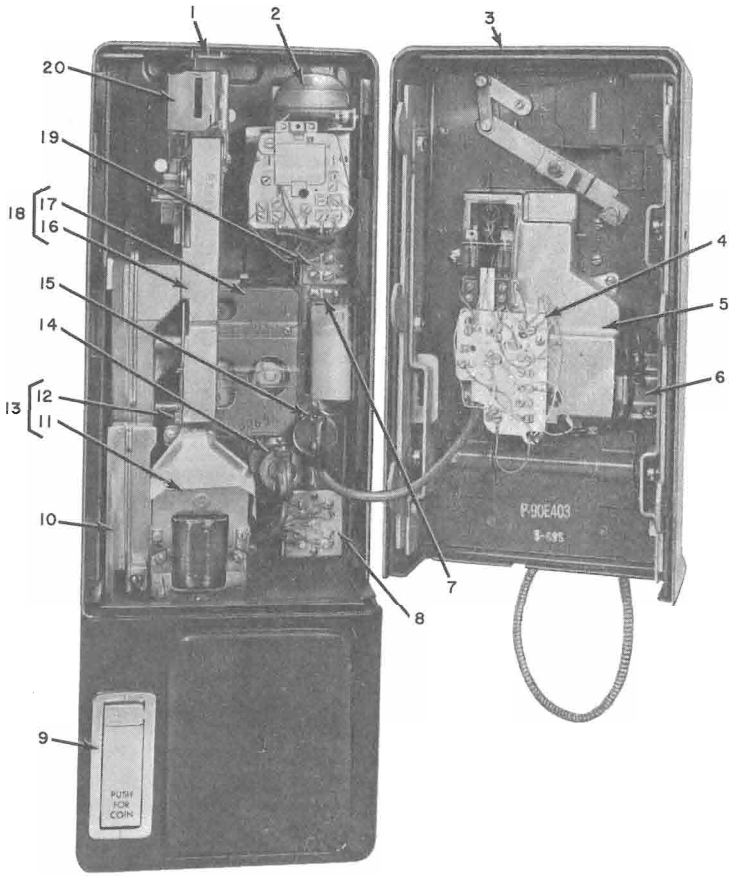
2.14 To determine totalizer initial rate setting:

Use extreme care when checking initial rate or resetting totalizer. Avoid damaging pawl and spring pile-ups. Do not attempt to turn totalizer cam shaft in direction opposite to that shown in Fig. 11.

(1) Remove 1AA chute per 2.12.

(2) Loosen retaining screw and remove transparent dust cover.

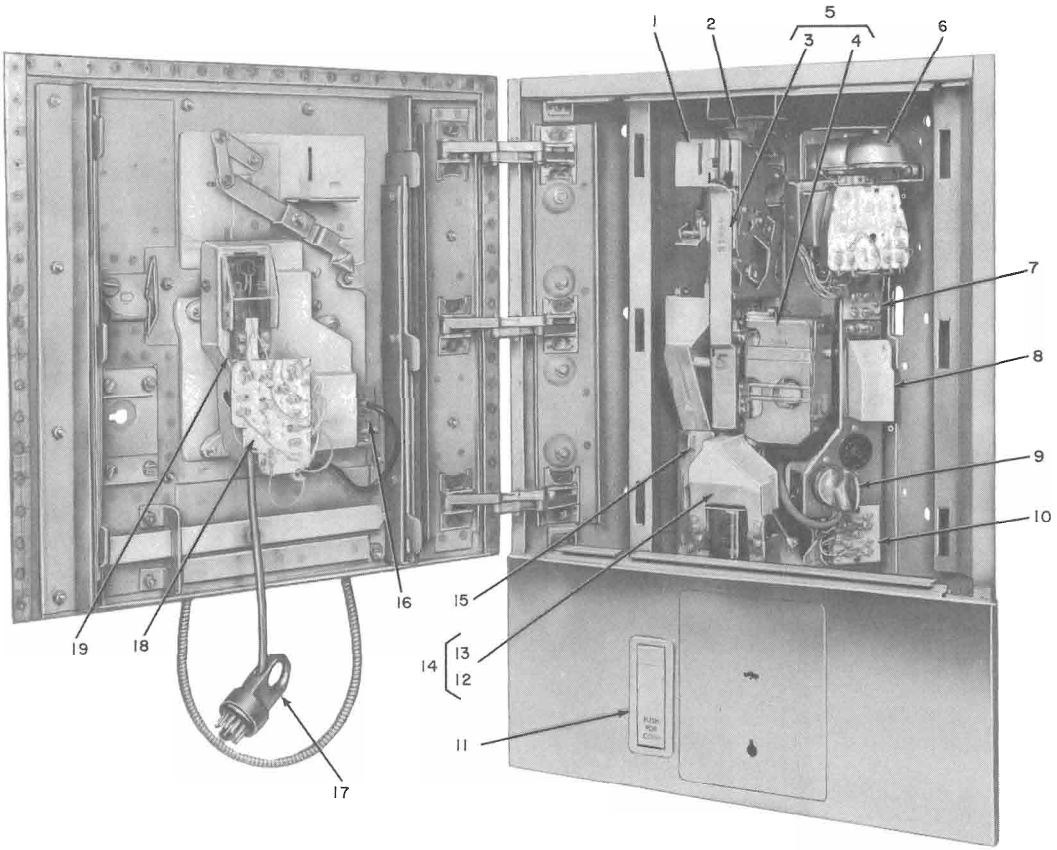
(3) Rotate shaft in the proper direction (Fig. 11) until detent roller on detent wheel is positioned between the two black marks. This occurs at the same time T2 rests in depression in shaft. This position is called ***home*** position.



LEGEND

1—P-27E542 CHUTE LOCKING LEVER AND P-27E497 SPRING
2—C4-TYPE RINGER
3—P-90E400 (1C1) OR P-90E500 (1C2) COVER UNIT ASSEMBLY
4—TB2
5—P-90D274 (1C1) OR P-90D275 (1C2) DIAL AND HOUSING ASSEMBLY
6—P-15E444 COVER PLATE AND P-181678 BHM SCREW
7—1A COIN CHASSIS
8—TB3
9—P-21F546 COIN RETURN ASSEMBLY
10—P-15E730 RETURN CHUTE ASSEMBLY
11—1A COIN RELAY
12—P-15E717 COIN HOPPER ASSEMBLY
13—1AA COIN RELAY
14—P2
15—P1
16—1A CHUTE
17—1A TOTALIZER
18—1AA CHUTE
19—TB1
20—P-23F361 ENTRANCE STOP

Fig. 7—Assembly of Parts (1C-Type)



LEGEND

1—P-23F361 ENTRANCE STOP
2—P-27E542 CHUTE LOCKING LEVER AND P-27E497 SPRING
3—1A CHUTE
4—1A TOTALIZER
5—1AA CHUTE
6—C4-TYPE RINGER
7—TB1
8—1A COIN CHASSIS
9—P2
10—TB3
11—P-21F546 (STAINLESS) OR 840152219 (BRONZE) COIN RETURN ASSEMBLY
12—1A COIN RELAY
13—P-15E717 COIN HOPPER ASSEMBLY
14—1AA COIN RELAY
15—P-15E730 RETURN CHUTE ASSEMBLY
16—P-15E444 COVER PLATE AND P-181678 BHM SCREW
17—P1
18—TB2
19—P-90D274 (2C1) OR P-90D275 (2C2) DIAL AND HOUSING ASSEMBLY

Fig. 8—Assembly of Parts (2C-Type)

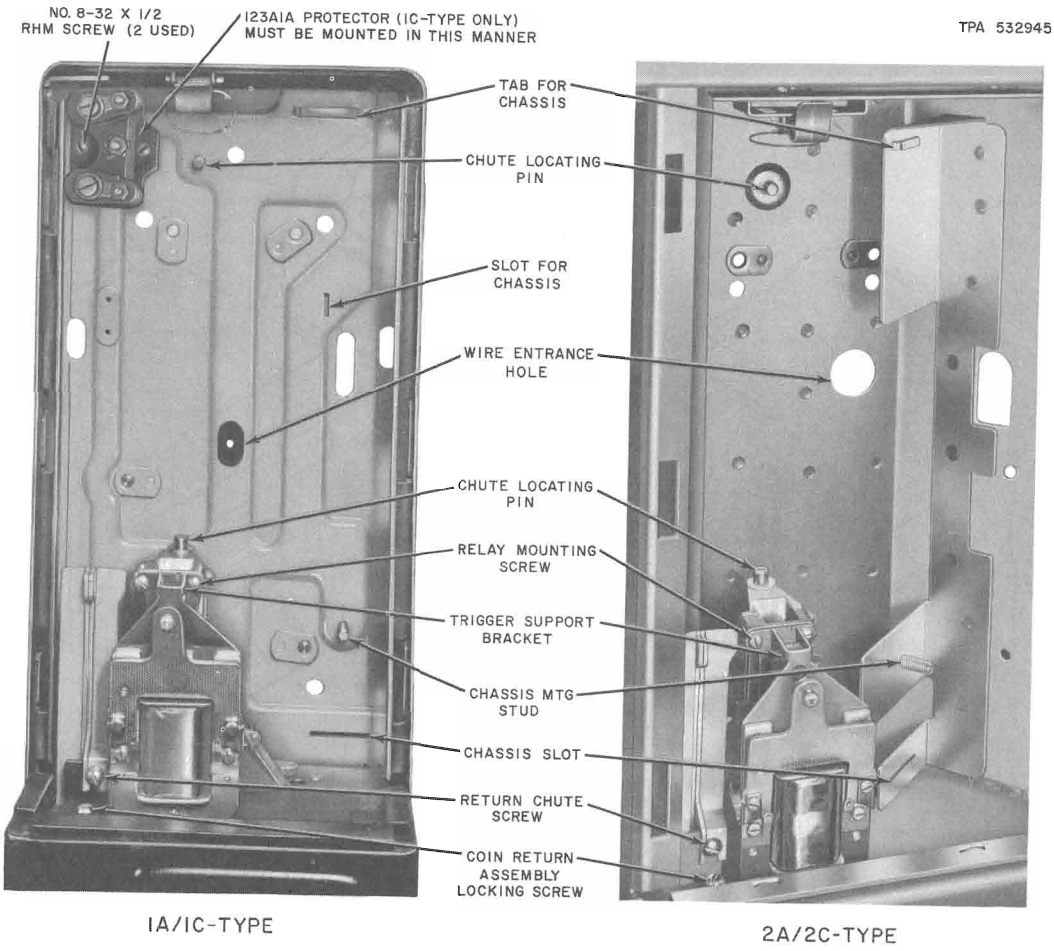


Fig. 9—Housing and Mounting Plate Assembly

(4) Release the reset latch by momentarily depressing it away from T1.

(5) Slowly rotate shaft in proper direction, and count the steps until T1 springs operate (indicated by forward movement of reset latch).

(6) Each step rotated from ***home position*** represents a 5-cent rate as shown in Table D.

2.15 To reset totalizer rate:

Note: Use two KS-16750, List 3 releasers or two paper clips to reset the rate.

Method I—Increasing Rate (Fig. 12)

(1) Rotate shaft in proper direction (Fig. 11) until it is in home position as described in 2.14 (3).

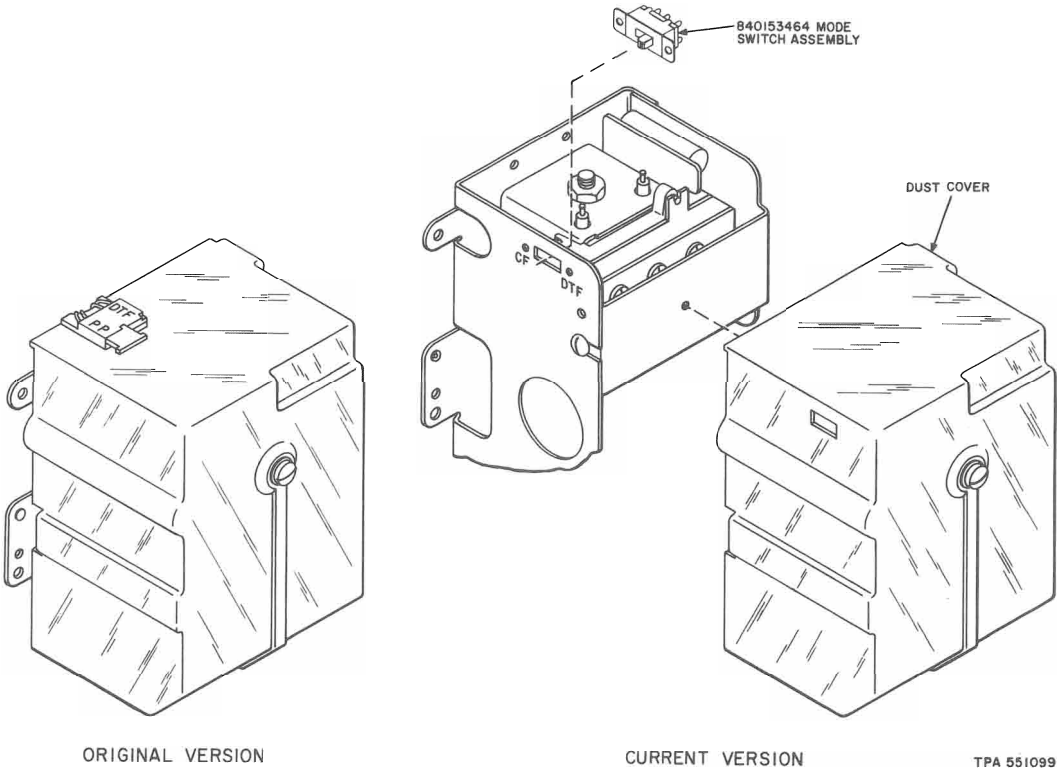


Fig. 10—Original and Current Versions of 1A Totalizer

TABLE D

METHOD FOR DETERMINING INITIAL RATE

NO. OF STEPS SHAFT IS ROTATED FROM HOME POSITION UNTIL T1 OPERATES	INDICATES FOLLOWING INITIAL RATE SETTING
1	5 cents
2	10 cents
3	15 cents
4	20 cents
5	25 cents
6	30 cents

(2) Further rotate shaft approximately 10 steps until a tab on the T1 cam is accessible as shown in Fig. 12 and 13.

(3) Insert a KS-16750, List 3 releaser or a paper clip into one of the four holes indicated as hole 2 in center of shaft. Hold paper clip firmly so that shaft cannot move.

Caution: Do not allow end of releaser or paper clip to extend too far beyond shaft; this may damage insulation of coil located directly beneath shaft.

(4) Position a second releaser or paper clip into the hole on T1 cam indicated as hole 1 and rotate cam in direction of the curved arrow as shown.

If hole 1 in T1 cam has been mutilated or clogged beyond use, place releaser or paper clip against tab as shown in Fig. 11 and push tab in direction of the straight arrow.

(5) One step of rotation of the T1 cam in this direction increases the rate by 5 cents.

(6) Check new initial rate setting per paragraph 2.14.

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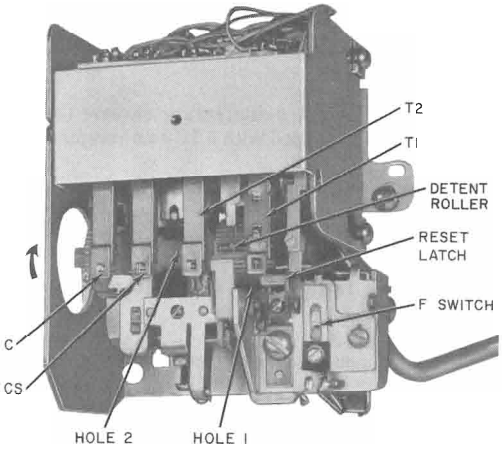


Fig. 11—Checking Totalizer Rate

Method II—Decreasing Rate (Fig. 13)

(7) Repeat steps (1) through (3).

(8) Position a second releaser or paper clip into the hole on T1 cam indicated as hole 1 (Fig. 13) and rotate cam in direction of the curved arrow as shown.

If hole 1 in T1 cam has been mutilated or clogged beyond use, place releaser or paper clip against tab as shown in Fig. 13 and push tab in direction of the straight arrow.

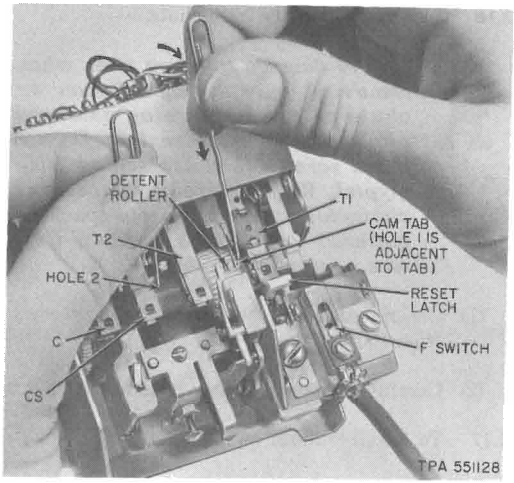


Fig. 12—Increasing Totalizer Rate

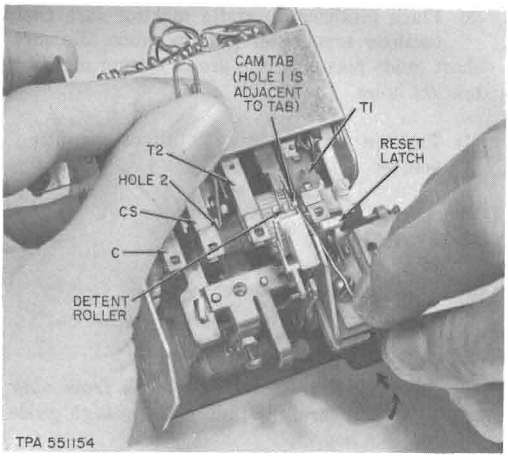


Fig. 13—Decreasing Totalizer Rate

(9) One step of rotation of the T1 cam in this direction decreases the rate by 5 cents.

(10) Check new initial rate setting per paragraph 2.14.

2.16 To remove totalizer from chute:

Do not damage totalizer arms when removing or replacing totalizer on chute or when returning damaged totalizers to service center. Do not move screws that are sealed with glyptal. When returning totalizers or chutes to service center, reuse packing material from which the new item was removed.

(1) Unscrew three captive-type mounting screws from chute.

(2) Carefully remove totalizer from chute.

2.17 To install totalizer on chute:

(1) Replace totalizer cover.

(2) Line up the long guide pins on the totalizer with holes in the chute.

(3) Place totalizer on chute making sure that totalizer arms enter slots in chute. Be sure short guide pins on chute are in mating totalizer bracket holes.

(4) Tighten three captive totalizer mounting screws.

1A Coin Chassis

2.18 To remove coin chassis:

(1) Remove 1AA chute.

(2) Disconnect (BK) and (Y) leads from coin relay and carefully pull leads through guide hole on coin hopper.

(3) Loosen chassis mounting captive screw.

(4) Pull chassis assembly out at bottom and slide down to remove.

2.19 To install coin chassis:

Note: When installing coin chassis assembly, dress inside wire behind chassis and to the right of TB1. Allow for wires to be connected to TB1 from right side.

(1) Slide chassis under tab (Fig. 9).

(2) Seat chassis tabs in slots.

(3) Tighten chassis mounting captive screw.

(4) Replace (BK) and (Y) leads on coin relay after threading through hole in hopper. Connect (Y) lead to terminal G and (BK) lead to terminal 3 of coin relay.

Coin Receptacle (Cash Box)

2.20 The coin telephone set is arranged for a 1B coin receptacle. If a greater capacity is desired, a 1C coin receptacle can be installed as follows:

Note: ▶Current manufacture chrome (−44) sets will be equipped with a 1C coin receptacle.◀

(1) Remove cash compartment door.

(2) Remove 1B coin receptacle.

(3) Remove false floor from bottom of cash compartment.

- Break spot welding at front tab
- Pry with large screwdriver or equivalent

(4) Install 1C coin receptacle.

(5) Install cash compartment door.

Instruction Cards (1C-Type)

2.21 Instruction cards are not furnished and must be procured locally.

2.22 To install card:

(1) Push up with fingers (Fig. 14).

(2) Snap card in place.

(3) Ensure that card is seated properly in slot.

(4) Tighten the No. 4-40 by 3/16 inch hex socket setscrew (84015381), if applicable, in faceplate using No. 4 (.050) Allen wrench.

2.23 To remove card:

(1) Loosen setscrew in faceplate.

(2) Push up with fingers.

(3) Pry bottom out with small screwdriver or equivalent.

2.24 A gummed OUT-OF-SERVICE sticker (Form E-4914) is available in books of five. Place over coin slot when required.

Fig. 14—Installing Instruction Cards (1C-Type)

Instruction Cards (2C-Type)

2.25 Refer to 2.21.

2.26 To install card:

(1) Push down with fingers (Fig. 15).

(2) Snap card in place.

(3) Ensure that card is seated properly in slot.

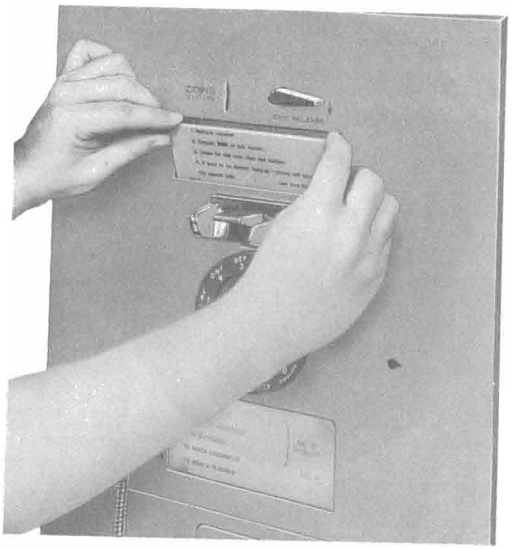


Fig. 15—Installing Instruction Cards (2C-Type)

2.27 To remove card:

(1) Push down with fingers.

(2) Pry top out with small screwdriver or equivalent.

2.28 Repeat 2.24.

Number Card (8S Dial [MD])

Note: The fingerwheel for an 8S dial is packaged separately.

2.29 Place number card in fingerwheel.

2.30 Place fingerwheel on dial with operator hole over the 9 position.

2.31 Rotate fingerwheel counterclockwise until spring clamp snaps in place.

Number Card (8U Dial)

Note: The fingerwheel (840151872) is shipped assembled to the 8U dial and must be removed

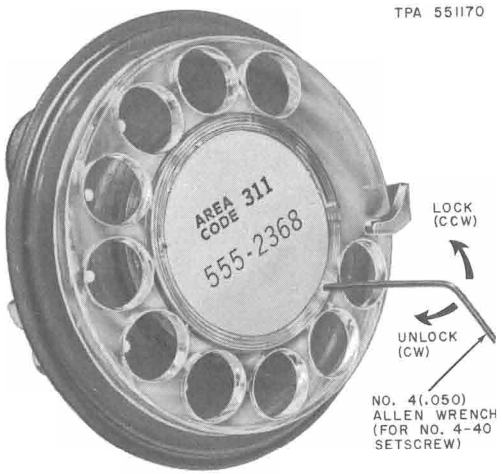


Fig. 16—Installing Fingerwheel on 8U Dial

to install number card. It is secured with a No. 4-40 setscrew (840360598).

2.32 To remove 840151872 fingerwheel:

(1) Refer to Fig. 16, use a No. 4 (.050) Allen wrench and turn the setscrew in a clockwise direction until it clears fingerwheel.

Caution: Do not continue turning setscrew beyond stopping point as this may result in damage to screw or wrench.

(2) Turn fingerwheel in a clockwise direction until operator hole is in the 9 position and lift off.

2.33 Install number card.

2.34 To install fingerwheel:

(1) Ensure that setscrew is all the way in (clockwise).

(2) Place fingerwheel on dial with operator hole over the 9 position.

(3) Rotate fingerwheel counterclockwise until it is in its normal position.

(4) Using a No. 4 (.050) Allen wrench, turn the setscrew in a counterclockwise direction until the stop is reached (Fig. 16).

Caution: Observe caution following 2.32(1).

Number Card (TOUCH-TONE® Set)

2.35 The number card shall be furnished locally.

2.36 A P-21F947 card holder bracket, P-21F948 window, and two hex nuts (Fig. 17) are packaged separately and shipped in the cash compartment.

2.37 Install number card as follows:

(1) Remove dial housing.

(2) Insert P-21F948 window in faceplate from rear (Fig. 18).

(3) Insert number card in window (Fig. 18).

(4) Secure window and number card using the P-21F947 card holder bracket and two hex nuts (Fig. 19).

(5) Install dial housing.

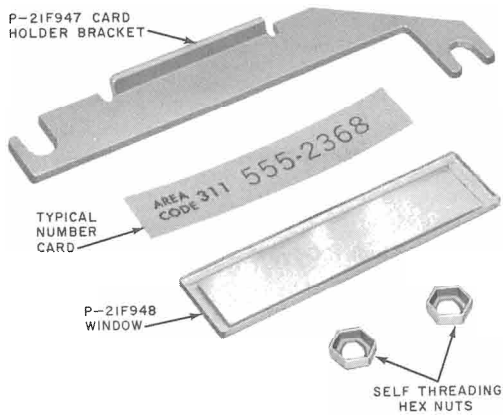


Fig. 17—Number Card and Associated Hardware (TOUCH-TONE Set)

Note: Ensure that the four dial housing mounting screws are tight to prevent dial housings from becoming loose in areas where excessive vibration occurs.

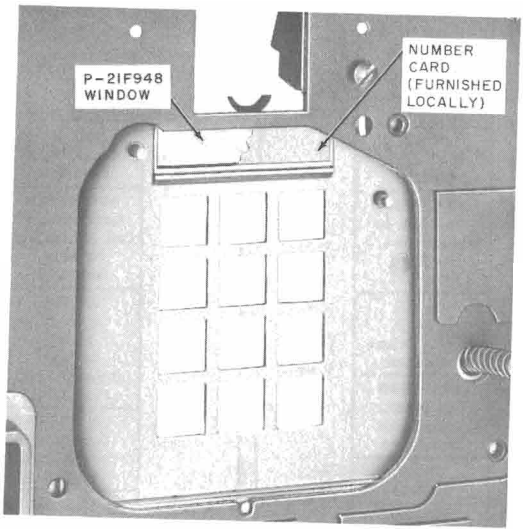


Fig. 18—Window and Number Card Installed in Faceplate (TOUCH-TONE Set)

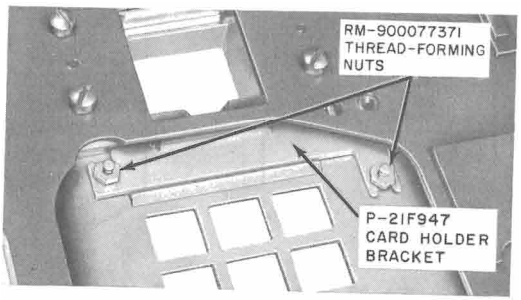


Fig. 19—Card Holder Bracket Installed (TOUCH-TONE Set)

Fig. 20—P11C Test Cord

WIRING

2.38 Select and place wire in accordance with sections covering inside wiring. Wire all coin telephone sets with triple conductor station wire to provide individual ground for each station. The ground connection for this conductor must be the same one used for signaling ground.

Note: Refer to Section 460-100-201 for additional information on signaling ground.

2.39 Feed inside wire through wire entrance hole (Fig. 9) as set is mounted on backboard.

2.40 Dress wire behind and run to right side of coin chassis.

2.41 Conceal wiring near telephone. If this is not possible, use approved molding or tubing.

2.42 Locate any protectors, connecting blocks, etc, where they will be inaccessible to person using coin telephone set.

2.43 A 123A1A protector can be installed inside a 1C-type set as shown in Fig. 9, using two P-205607 screws (8-32 by 1/2-inch Phillips round head brass or equivalent) provided separately. Dress leads to avoid interference with chute operation if a protector is installed inside the set. No provisions are provided for mounting a protector inside a 2C-type set.

2.44 Ensure that the protector ground terminal is properly grounded with no less than No. 14 AWG wire.

After installation has been completed, refer to Part 3; verify that the coin telephone set is operating correctly and that information plate agrees with mode of service.

3. OPERATION TESTS AND TROUBLE ANALYSIS

On trouble reports of coins collected or returned in error, try to obtain area code and telephone number of called party to facilitate tracing trouble in central office. Refer to Section 506-900-503 (Coin Maintenance Check Booklet) for additional checks and adjustments.

3.01 ***Apparatus Required:***

- P11C Cord (Fig. 20)
- Coins: 1 penny, 2 nickels, 1 dime, 2 quarters
- 146B Bias Margin Gauge (Fig. 21)
- ▶KS-14995, List 3 Coin Trap and Vane Release Tool (Fig. 22)◀

Fig. 21—146B Bias Margin Gauge

3.02 Table E includes following trouble analysis tests for Coin First Service:

- Totalizer and Coin Relay Operation (On-Hook)
- Totalizer Operation (Off-Hook)
- Dial Shorting Test
- ▶Trap and Vane Release Test◀
- Coin Relay Bias Margin Test
- Returning Set to Normal Operation

3.03 Table F includes following trouble analysis tests for Dial Tone First Service.

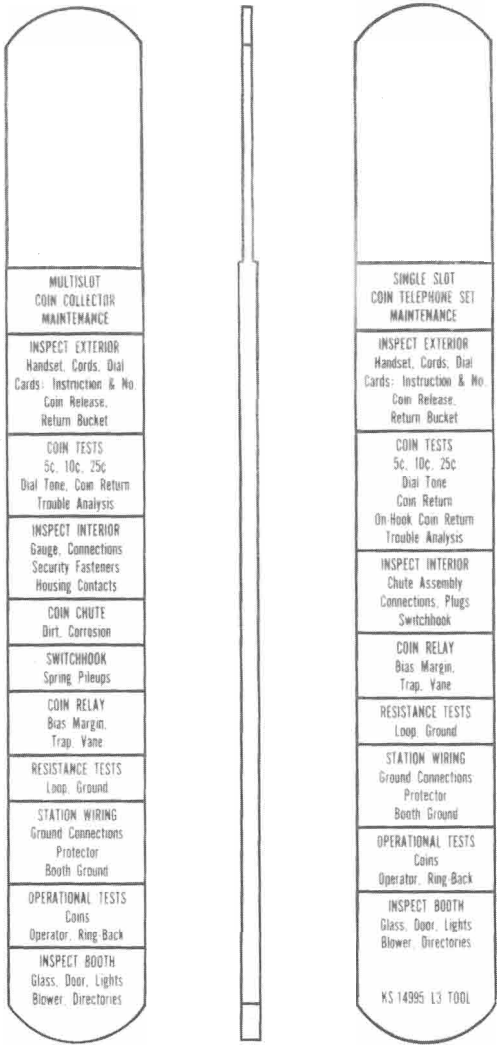


Fig. 22—▶KS-14995, List 3 Tool◀

- Dial Tone Test
- Totalizer and Coin Relay Operation
- ▶Trap and Vane Release Test◀
- Coin Relay Bias Margin Test
- Returning Set to Normal Operation

◆TABLE E◆

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE) COIN FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
	Preparation For All Tests Except Trap and Vane Release				
1	Invert handset on switchhook (Fig. 23) (1C-type only). Note: Prevents cord from pushing handset off switchhook when cover is set down				
2	Remove cover unit assembly (1C-type) or open door and face plate assembly (2C-type) and disconnect plug P1. Place cover unit assembly (1C-type) on firm level surface				
3	Connect P11C cord between plug P1 and jack J1 of coin chassis				
	Totalizer and Coin Relay Operation (On-Hook)				
4	Deposit penny and operate coin release lever	Coin is returned	Coin does not return	Blocked coin chute	Clear
				Defective coin release mechanism	Replace defective linkage
5	Deposit quarter in chute	Coin relay refunds coin	Coin does not return	Blocked coin chute	Clear
				Tip and ring reversed or coin trunk trouble	Reconnect or refer to test-desk
				Plugs P1 and P2 reversed	Reconnect properly
				Totalizer plug or mode switch in DTF position.	Reconnect plug or reposition switch.
				TB3 not wired correctly	Wire correctly
				Traffic overload	Wait
				Coin jam in hopper	Clear jam
				Full coin receptacle	Level coins and notify coin collection department
				Coin relay HT contacts not making	Clean contacts or replace coin relay
				Switchhook transfer contacts SH1(NC) or SH3(NC) not making	Clean contacts or replace dial and housing assembly

TABLE E (Cont)

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE) COIN FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
5 (Cont)				Switchhook contacts SH2 and SH4 not breaking	Adjust contacts or replace dial and housing assembly
				Defective totalizer Defective A relay Defective handset Defective dial (TOUCH-TONE only) Defective wiring in dial housing or chassis assembly	Replace defective apparatus
6	Deposit nickel	Nickel returned	Nickel does not return	Switchhook transfer contacts SH1(NC) or SH3(NC) not making	Clean contacts or replace dial and housing assembly
				TB2 not wired correctly	Wire correctly
				Defective wiring in dial housing or chassis assembly	Replace defective apparatus
				Traffic overload	Wait
	Totalizer Operation (Off-Hook)				
	Note: Totalizer set for an initial rate of 10 cents.				
7	Lift handset and deposit nickel in coin chute	No dial tone	Dial tone heard	T1 contacts remain latched after refund	Replace totalizer
				Switchhook transfer contacts SH3(NC) not breaking (rotary dial sets only)	Replace dial and housing assembly
				Defective chassis or chassis wiring	Replace chassis
				Defective wiring in dial and housing assembly	Replace dial and housing assembly
8	Deposit second nickel	Normal dial tone is heard	No dial tone. Reduced level or intermittent dial tone	Defective handset	Replace handset
				Switchhook contacts SH3(NO) or SH2 and SH4(NO) not making Switchhook transfer contacts SH1(NO) not making	Clean contacts or replace dial and housing assembly

TABLE E (Cont)

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE)

COIN FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
8 (Cont)				Totalizer set for more than initial rate	Reset totalizer rate
				T1 contacts (NO) not making F contacts (NC) not making	Replace totalizer
				Defective wiring in dial and housing assembly	Replace dial and housing assembly
				Defective dial Defective chassis Defective totalizer	Replace defective apparatus
				Totalizer transfer contacts T2(NC) not making (totalizer steps continuously)	Replace totalizer
9	Dial any digit but "0" or "1"	Dial tone breaks	Cannot break dial tone	Totalizer contacts T1 not latching	Replace totalizer
				Defective dial Defective handset (TOUCH-TONE only Defective wiring in chassis, or dial and housing	Replace defective apparatus
		Coins not returned	Coins returned	Defective dial	Replace dial
10	Hang up handset	Coins returned	Coins not returned	Traffic overload Coin trunk trouble	Wait for refund pulse Refer to testdesk
11	Lift handset and deposit dime	Dial tone is heard	No dial tone	Defective totalizer Traffic overload	Replace totalizer Wait for dial tone
12	Dial any digit but "0" or "1"	Dial tone breaks	Cannot break dial tone	Defective totalizer	Replace totalizer
13	Hang up handset	Coin is returned	Coin not returned	Traffic overload Coin trunk trouble	Wait for refund pulse Refer to testdesk
	Dial Shorting Test				
14	Remove dust cover. Lift handset and operate hopper trigger by hand	Dial tone heard	No dial tone	Traffic overload	Wait for dial tone
15	Dial any digit but "0" or "1"	Dial tone remains after dialing	Dial tone breaks	Totalizer transfer contacts T1(NC) not making	Replace totalizer

◆ TABLE E (Cont) ◆

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE) COIN FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
15 (Cont)				Defective chassis	Replace chassis
16	Deposit nickel	Dial tone remains after deposit	Line drops off Coin returned	Defective chassis	Replace chassis
17	Hang up handset	Nickel returns	Nickel does not return	Traffic overload Defective coin trunk	Wait for coin return pulse Refer to testdesk
	Trap And Vane Release Test				
18	Remove chute — totalizer from set				
19	Remove coin relay dust cover				
	Caution: *Tilt selector card by pressing downward on one of the ears before manually operating the coin relay. This avoids jamming selector card and cam engaging surfaces.*				
20	Press downward on left ear of selector card and manually operate coin relay armature to its full extent of travel	Coin vane moves to collect (left) position; coin trap moves downward			
21	With armature fully operated, insert KS-14995, L3 tool into hopper to operate trap to the limit of its travel (Fig. 24)				
22	Release armature and slowly withdraw tool	Armature, trap, and vane should return to nonoperated position and trap should be locked	Armature, trap, or vane does not return to its normal position	Relay could be mounted in a binding position	Loosen mounting screws and re-align relay; tighten screws
					Replace relay
			Vane does not restore properly	Vane binds	Remove coin relay from hopper and free vane
				Vane broken	Replace vane per Section 506-100-110

TABLE E (Cont)

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE) COIN FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
22 (Cont)			Trap does not operate, restore, or lock properly	Trap broken Trap spring bent or broken Trap lever broken Trap pin bent or broken	Replace defective apparatus per Paragraph 4.11 through 4.13
23	Press downward on right ear of selector card and manually operate coin relay armature to its full extent of travel	Coin vane moves to refund (right) position; coin trap moves downward			
24	With armature fully operated, insert KS-14995, L3 tool into hopper to operate trap to the limit of its travel (Fig. 24)				
25	Release armature and slowly withdraw tool	Same as 22	Same as 22	Same as 22	Same as 22
26	Install dust cover				
27	Install chute — totalizer				
	Coin Relay Bias Margin Test				
	Note: Make this test when coin relay fails to operate or operates incorrectly				
28	Remove coin relay dust cover				
29	Lift handset, obtain dial tone, call testdesk and request a bias margin test. (Use central office test circuit where available)				

◗TABLE E (Cont)◖

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE) COIN FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
30	Slip 146B bias margin gauge over left polepiece extension arm from left side of coin relay (Fig. 25)				
31	Request deskman to apply central office collect (or return) voltage as indicated in the lower left corner of gauge	Relay operates to collect (or return) coins as indicated in lower left corner of gauge	Relay does not operate properly	Defective coin relay	Replace coin relay
32	Reverse the 146B bias margin gauge by turning it around on the same polepiece extension arm				
33	Request deskman to apply central office collect (or return) voltage as indicated on the left corner of gauge	Relay operates to collect (or return) coins as indicated in lower left corner of gauge	Relay does not operate properly	Defective coin relay	Replace coin relay
34	Remove 146B gauge				
35	Hang up handset				
36	Install dust cover				
	Returning Set To Normal Operation				
37	Call operator and deposit nickel, dime, and quarter	Coins identified by operator	Improper coin signal tones	Defective totalizer Defective chassis	Replace totalizer Replace chassis
38	Listen for coin tones in handset as coins are deposited	No coin tones heard in handset	Coin tones heard in handset	Defective chassis	Replace chassis

◗TABLE E (Cont)◖

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE)

COIN FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
39	Request operator to return coins	Coins returned	Coins not returned	Nonstation trouble	Repeat request, and if failure reoccurs refer to testdesk
40	Request operator to ring back (hang up)	Ringer operates at maximum volume	No ringback or low volume	Defective ringer or leads Ringer out of adjustment Open ringer capacitor in network	Replace ringer Adjust Replace chassis

◆ TABLE F ◆

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE)

DIAL TONE FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
	Preparation For All Tests Except Trap and Vane Release				
1	Invert handset on switchhook (Fig. 23). (1C-type only) Note: Prevents armored cord from pushing handset off switchhook when cover is set down				
2	Remove cover unit assembly (1C-type) or open door and faceplate assembly (2C-type) and disconnect plug P1. Place cover unit assembly (1C-type) on firm level surface				
3	Connect P11C cord between plug P1 and jack J1 of coin chassis				
	Dial Tone Test				
4	Lift handset	Dial tone received	No dial tone	Defective handset	Replace handset
				Traffic overload	Wait
				Switchhook contacts SH1(NO), or SH2(NO), and SH4(NO), not making	Clean contacts or replace dial and housing assembly
				Plugs P1 and P2 reversed	Reconnect properly
				Totalizer plug in PP position or mode switch in CF position.	Reconnect plug or reposition switch.
				TB2 not wired correctly	Wire correctly
				TB3 not wired correctly	Wire correctly
				Defective totalizer	Replace totalizer
				Defective wiring in chassis, or dial and housing assembly	Replace defective apparatus
				Nonstation trouble	Refer to testdesk
	Totalizer and Coin Relay Operation				
5	Deposit quarter	Quarter does not return	Quarter falls in return bucket	TB3 not wired correctly	Wire correctly
				Chute path blocked	Clear

◗TABLE F (Cont)◖

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE)

DIAL TONE FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
5 (Cont)				Defective totalizer Defective chassis	Replace defective apparatus
6	Depress switchhook	Quarter is returned	Quarter does not return	Switchhook contacts SH2(NO) and SH4(NO) not breaking	Replace dial and housing assembly
				Defective coin trunk	Refer to testdesk
				Defective totalizer Defective chassis	Replace defective apparatus
				Defective coin relay	Replace coin relay
7	Deposit nickel, dial coin test line	Dial tone breaks	Dial tone does not break	Defective dial	Replace dial
				Tip, ring, or grd reversed	Wire correctly
				Defective chassis	Replace chassis
		Recording states that insufficient deposit was made	Recording is not heard	Initial rate set for 5 cents	Reset totalizer rate
				TB3 not wired correctly	Wire correctly
				Totalizer contacts T1 making for nickel deposit	Reset totalizer rate or replace totalizer
				Defective chassis	Replace chassis
8	Depress switchhook	Coin returned	Coin not returned	Switchhook contacts SH2(NO) or SH4(NO) not breaking	Replace dial and housing assembly
				Defective coin trunk	Refer to testdesk
				Defective totalizer Defective chassis	Replace defective apparatus
				Defective coin relay	
9	Deposit 2 nickels, dial coin test line	Tone ringing heard in handset	Insufficient deposit recording heard	Initial rate set for more than 10 cents	Reset totalizer
				Defective T1 or F contacts in totalizer	Replace totalizer
				Defective chassis	Replace chassis
				Switchhook SH3(NO) not making	Clean contacts or replace dial housing
				TB3 not wired correctly	Wire correctly
10	Hang up handset	Coins are returned	Coins not returned	Defective coin trunk	Refer to testdesk
11	Deposit penny and operate coin release lever	Penny is returned	Coin does not return	Defective coin chute	Clear
				Defective coin release mechanisms	Replace defective linkage

◗ TABLE F (Cont) ◖

TROUBLE ANALYSIS — SINGLE SLOT (1C- AND 2C-TYPE)

DIAL TONE FIRST

TROUBLE NUMBER	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
	Trap and Vane Release Test				
	Note: Refer to Table E.				
	Coin Relay Bias Margin Test				
	Note: Refer to Table E.				
	Returning Set To Normal Operation				
12	Call operator and deposit nickel, dime, and quarter	Coins identified by operator	Improper coin signal tones	Defective totalizer Defective chassis	Replace totalizer Replace chassis
13	Listen for coin tones in handset as coins are deposited	No coin tones heard in handset	Coin tones heard in handset	Defective chassis	Replace chassis
14	Request operator to return coins	Coin returned	Coins not returned	Nonstation trouble	Repeat request, and if failure reoccurs refer to testdesk
15	Request operator to ring back (hang up)	Ringer operates at maximum volume	No ringback or low volume.	Defective ringer or leads Ringer out of adjustment Open ringer capacitor in network	Replace ringer Adjust Replace chassis

3.04 Refer to Table G for dial Long Line requirements.

3.05 Refer to Table H for loop ranges.

3.06 Refer to Table I for operate values of coin relays.

4. MAINTENANCE

Clearing Chute

4.01 When troubles indicate foreign objects or stuck coins in chute:

(a) Operate coin release lever in attempt to clear coins in return chute.

(b) If trouble does not clear:

- Remove cover unit assembly (1C-type) or open door and faceplate assembly (2C-type)
- Remove 1AA chute
- Swing upper plate assembly open (Fig. 26)

Exercise extreme care when closing the upper plate assembly. It should not make contact with the quarter divider or the quarter divider will become damaged when the upper plate assembly is closed against it.

- Remove any foreign objects or stuck coins with an orange stick. Do not use screwdriver.
- Clean off any foreign material adhering to chute magnets.

(c) If trouble cannot be cleared, replace 1AA chute.

When returning 1AA chutes to service center, reuse packing material from which the new item was removed.

(d) Chute should be tested by depositing coins with cover unit assembly both off and on housing (1C-type) or with door and faceplate assembly both open and closed (2C-type).

Electrical Troubles

4.02 If electrical troubles are indicated, refer to Part 3 (Operation Tests and Trouble Analysis) and Part 5 (Connections).

4.03 Refer to Part 2 for the removal and replacement of the following components:

- 1AA chute
- 1A chute
- 1A totalizer
- 1A coin chassis
- Instruction cards
- Number cards

4.04 Components other than those listed in 4.03 can be removed as outlined below.

1AA Coin Relay

4.05 To remove coin relay:

(1) Disconnect (BK) lead from terminal 3 and (Y) from terminal G.

(2) Remove vault door and coin receptacle.

(3) Remove two P-10E809 special screw assemblies from inside vault.

(4) Lift 1AA coin relay out of set.

4.06 To install 1AA coin relay use reverse procedure.

1A Coin Relay

4.07 To remove 1A coin relay without removing hopper assembly:

(1) Disconnect (BK) and (Y) leads.

(2) Remove two relay mounting screws on top front of coin relay (Fig. 9).

(3) Remove two slotted hex head screws on sides of coin relay.

TABLE G

REQUIREMENTS FOR DIAL LONG LINE CIRCUITS ON COIN LINES
(FOR LIMITATIONS OTHER THAN COIN CONTROL)
(ASSUMES 300-OHM STATION SET RESISTANCE)

TYPE OF CENTRAL OFFICE	REQUIREMENTS
Step-by-Step	DLL CKT Required on Loops Over 1050 ohms
Panel	DLL CKT Required on Loops Over 885 ohms
No. 1 Crossbar	DLL CKT Required on Loops Over 1200 ohms
No. 5 Crossbar	DLL CKT Required on Loops Over 1300 ohms
No. 1 ESS	DLL CKT Required on Loops Over 1300 ohms
No. 2 ESS	DLL CKT Required on Loops Over 1300 ohms

TABLE H

MAXIMUM ALLOWABLE LOOP RANGES FOR CENTRAL OFFICE
COIN SUPPLY VOLTAGES — COLLECT AND RETURN ONLY
(MAXIMUM GROUND RESISTANCE 50 OHMS;
MAXIMUM DC EARTH POTENTIAL ±3 VOLTS)

TYPE OF CENTRAL OFFICE	MINIMUM COIN VOLTAGE	LOOP RANGE
SXS, Panel, No. 1 XBar	100 volts (100-120V)	1900 ohms
SXS, Panel, No. 1 XBar	115 volts (115-120V)	2700 ohms
No. 5 XBar, No. 1 ESS, No. 2 ESS	125 volts (125-135V)	3100 ohms

Note: Loop Range = Conductor Loop Resistance (excluding coin telephone set resistance).

TABLE I

OPERATE VALUES OF COIN RELAYS

MARKING ON RELAY	OPERATING TIME	OPERATE CURRENT	NON-OPERATE CURRENT
1A*	450 ±50 milliseconds (Note 2)	41 milliamps	30 milliamps
1A (Note 1)			

Notes:

1. Coin relays marked 1A without the asterisk symbol have bifurcated rather than solid contact springs.
2. The timing interval of 450 milliseconds may be compared with the time it takes for a rotary dial to return to normal after dialing digit 4.

Fig. 23—Cover Unit with Handset Inverted

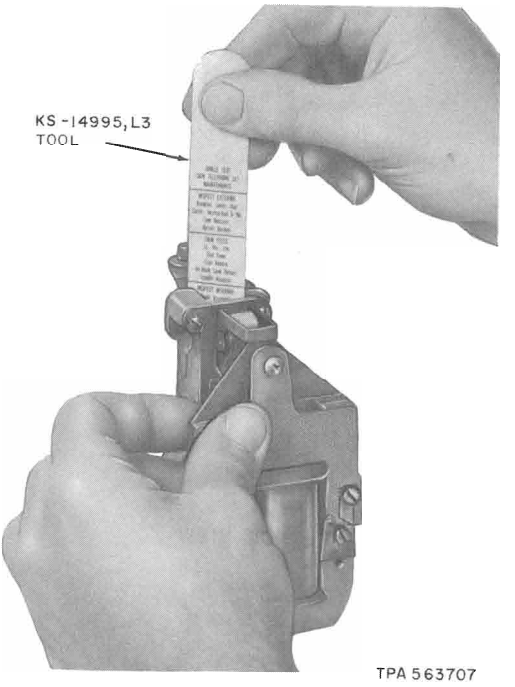


Fig. 24—Trap and Vane Release Test

(4) Check that hopper trigger (Fig. 27) is in horizontal (up) position and pull off coin relay. ***Do not damage hopper trigger.***

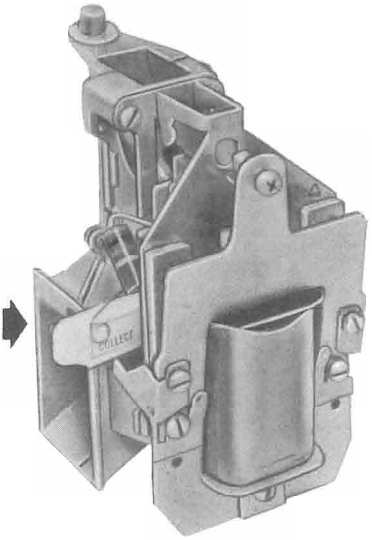
When returning 1A coin relays to service center, reuse packing material from which the new item was removed.

4.08 To install 1A coin relay (Fig. 27):

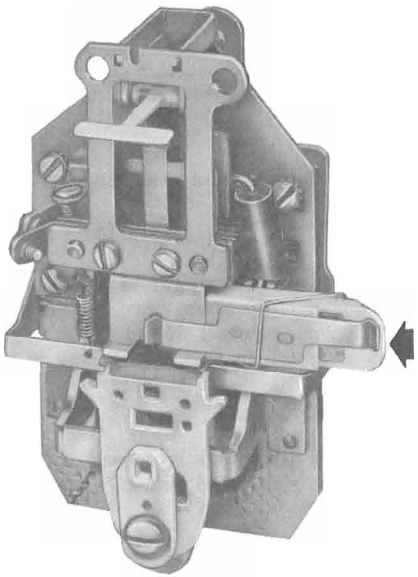
(1) Move vane on hopper to left (or collect) position.

(2) With hopper trigger in nonoperated (or horizontal) position, move relay into position until trigger enters T-shaped slot in hopper and trap lever tab just enters opening in selector card.

(3) Press down slightly on ear of left side of selector card and manually move armature



SIDE VIEW



BACK VIEW

Fig. 25—Bias Margin Gauge in Position for Collect Test

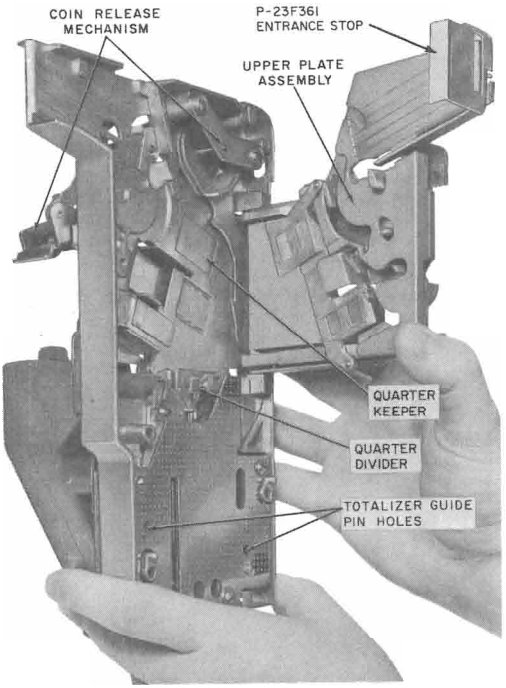


Fig. 26—Chute

forward to its operated position. Hold armature in this position.

(4) Move coin relay forward until square stem on vane enters hole in cam and mounting screw holes line up.

Note: Do not attempt to install relay if trigger support bracket is so distorted that mounting holes do not engage hopper bosses.

(5) Place and tighten evenly two mounting screws in top of coin relay and two slotted hex head mounting screws in each side of relay.

(6) Make sure that trigger, armature, trap, and vane operate without binding. ▶Refer to trap and vane release test in Table E.◀

(7) Reconnect (Y) lead to terminal G and (BK) lead to terminal 3.

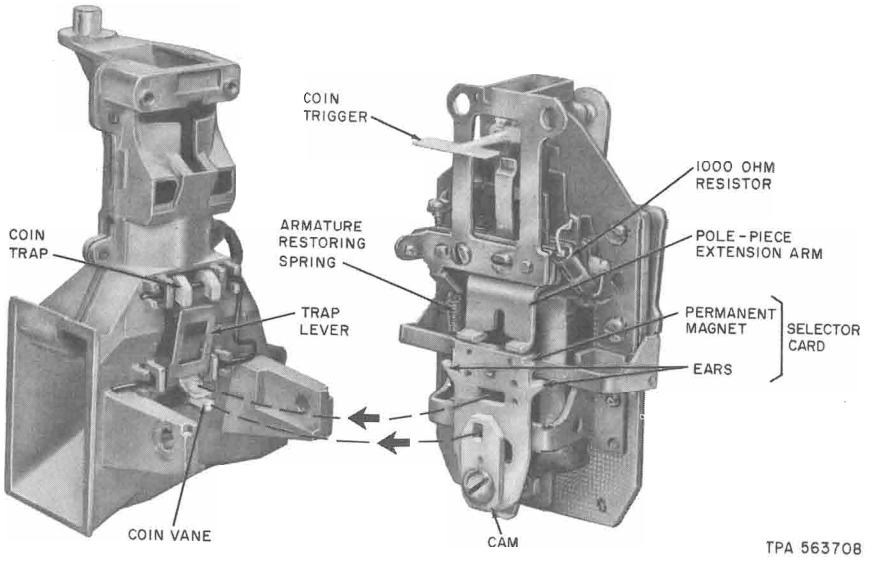


Fig. 27—Coin Hopper and Rear View of Coin Relay

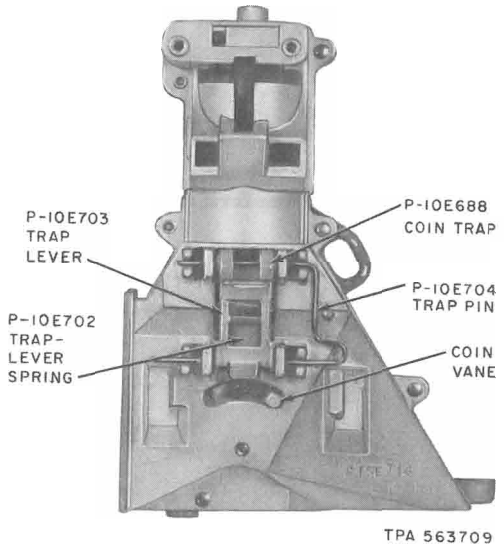


Fig. 28—Trap-Lever Spring and Trap-Lever Assembly

Coin Hopper

4.09 To remove coin hopper:

(1) Remove 1A coin relay.

(2) Remove vault door and coin receptacle.

(3) Remove two P-10E809 special screw assemblies from inside vault.

(4) Lift hopper out of set.

4.10 To install coin hopper, use reverse procedure.

Replacing Coin Trap and Associated Parts

4.11 To remove trap-lever and coin trap:

(1) Remove coin relay from hopper (4.07).

(2) Move vane to right.

(3) Remove trap pin (Fig. 28) by sliding vertical portion over boss on front of hopper.

(4) Turn coin trap sideways and remove through opening.

4.12 To replace trap-lever spring:

(1) Remove old spring.

(2) Place trap-lever and new P-10E702 spring on a flat surface (Fig. 29).

(3) Use a KS-6320 orange stick to bend trap-lever spring around center bar of trap-lever (Fig. 29 and 30).

Caution: Avoid distorting trap-lever spring during bending and insertion operations.

4.13 To replace coin trap and trap-lever:

(1) Partially insert trap pin into hole in hopper (Fig. 31) and place trap-lever on trap pin.

(2) Insert coin trap in hopper and engage pin in trap (Fig. 32).

Caution: Be sure that trap-lever spring is between trap pin and hopper (Fig. 33).

(3) Push trap pin into position.

(4) Check operation per Table E.

4.14 Replace relay on hopper per 4.08.

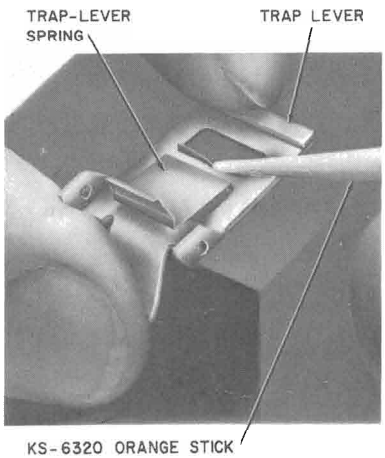


Fig. 29—Bending Trap-Lever Spring

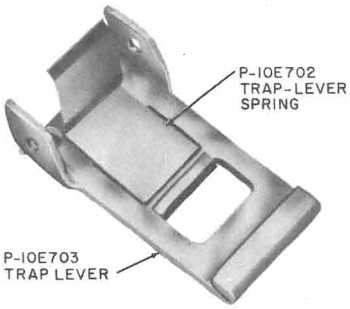


Fig. 30—Trap-Lever Spring Assembled on Trap Lever

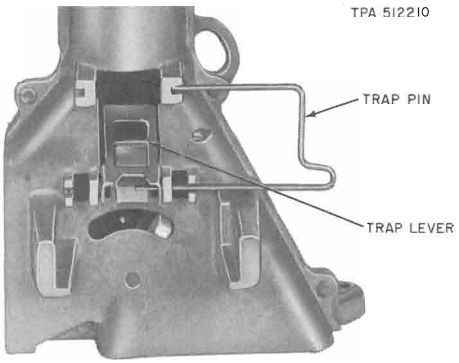


Fig. 31—Placing Trap-Lever Pin on Hopper

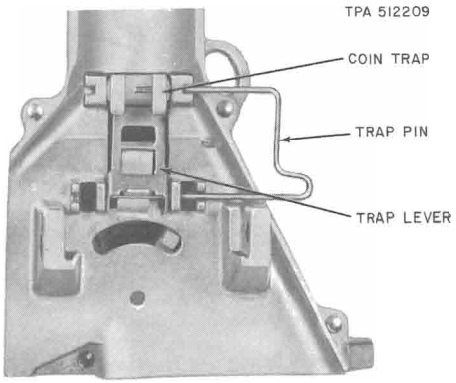


Fig. 32—Placing Coin Trap in Hopper

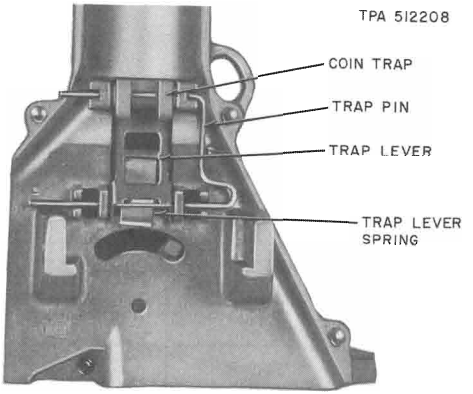


Fig. 33—Trap-Lever Spring Under Trap Pin

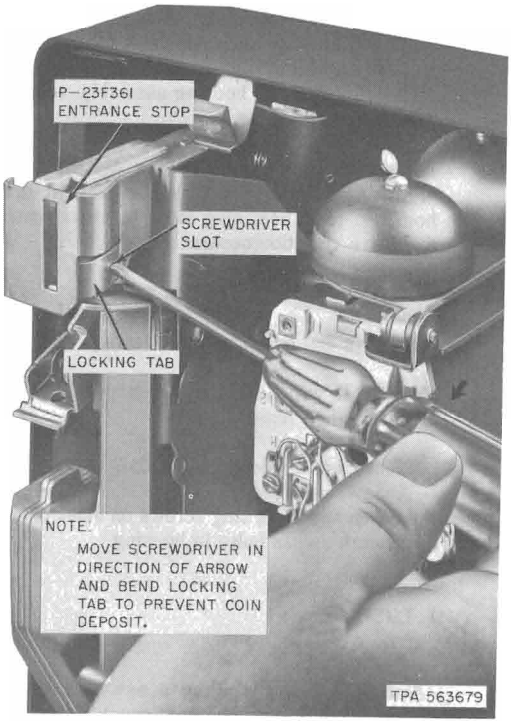


Fig. 34—Operation of Entrance Stop

Return Chute Assembly

4.15 To remove return chute assembly:

(1) Remove 1AA chute.

(2) Loosen return chute screw (Fig. 9).

(3) Lift assembly up and off.

4.16 To replace return chute assembly, reverse procedure.

Coin Return Assembly

4.17 To remove coin return assembly:

(1) Remove 1AA chute.

(2) Remove return chute assembly.

(3) Remove coin return assembly locking screw (Fig. 9).

(4) Insert finger in coin return and tilt top forward.

(5) Lift coin return. Pull coin return assembly out and up.

4.18 To install coin return assembly:

(1) Tilt top of coin return assembly toward set.

(2) Push coin return assembly into set.

(3) Push in and down on bottom of coin return assembly until flush with front of housing.

(4) Install coin return assembly locking screw. Tighten screw only enough to hold return assembly in place. Further tightening will bend screw.

(5) Replace return chute assembly.

(6) Replace 1AA chute.

Ringer

4.19 To remove C4A ringer:

(1) Remove 1AA chute.

(2) Remove 1A coin chassis.

(3) Disconnect four ringer leads; two from TB1 and two from network.

(4) Remove two ringer mounting screws and lift off ringer.

4.20 To install C4A ringer, reverse procedure making sure that locating pin on bottom of ringer is in grommet on chassis assembly. Make connections per Table J.

TABLE J

RINGER CONNECTIONS

WIRE COLOR	CONNECT TO
BK	TB1-T
R	TB1-R
S-R	Term. A (Network)
S	Term. K (Network)

Handset

4.21 To remove handset:

(1) Disconnect handset leads from terminal board (TB2) on rear of dial housing.

(2) Remove P-181678 BHM screw, and P-15E444 cover plate which secure handset cord to dial housing.

(3) Loosen stay-hook screw and remove handset cord.

4.22 To install handset, reverse procedure. Make connections per Table K.

TABLE K

HANDSET CONNECTIONS

WIRE COLOR	CONNECT TO	
	ROTARY	TOUCH-TONE
W	TB2-2	TB2-7
R	TB2-3	TB2-3
BK	TB2-6	TB2-5
W	TB2-8	TB2-8

Dial and Housing Assembly

4.23 To remove dial and housing assembly:

(1) Remove handset.

(2) Remove four mounting screws and remove dial and housing assembly from cover.

4.24 To install dial and housing assembly, reverse procedure.

Note: Ensure that the four dial housing mounting screws are tight to prevent dial housings from becoming loose in areas where excessive vibration occurs.

4.25 To remove dial:

(1) Remove dial and housing assembly.

Note: It will not be necessary to remove handset when removing dial.

(2) Disconnect dial leads from TB2.

(3) Loosen two mounting screws on sides of dial through access holes in housing.

(4) Lift off dial.

Note: Before installing a new rotary dial, remove and discard the dust cover.

4.26 To install dial, reverse procedure making sure that dial is properly seated on four locating pins. Make connections per Table L.

Fingerwheel (8S Dial [MD])

Note: The releasing hole has been partially plugged to deter tampering.

4.27 To remove P-21F299 fingerwheel:

(1) Use a KS-16750 releaser and rap sharply to break out the remaining plastic below the blind releasing hole.

(2) Rotate the fingerwheel in a clockwise direction as far as possible.

(3) Insert KS-16750 releaser or paperclip in hole and push down to disengage fingerwheel clamp. Continue to rotate the fingerwheel in a clockwise direction.

(4) When clamp spring releases, remove fingerwheel and dial will return to normal.

4.28 To install P-21F299 fingerwheel, refer to 2.30 and 2.31.

Fingerwheel (8U Dial)

4.29 To remove 840151872 fingerwheel refer to 2.32.

4.30 To install 840151872 fingerwheel refer to 2.34.

P-23F361 Entrance Stop

4.31 The P-23F361 entrance stop (Fig. 34) is installed on the chute to minimize coin chute stuffing. When the coin release lever is operated, the entrance stop moves sideways and closes the coin slot.

4.32 On later production entrance stops, a prefabricated locking tab arrangement (Fig. 34) can be bent with a screwdriver, by authorized personnel, to hold the upper plate assembly off normal. This will prevent customer coin deposits in newly installed coin telephone sets awaiting initial service connection, or those that are out of service which require further maintenance or repair.

4.33 To install the new entrance stop on a chute having an early version entrance stop (without locking tab feature):

(1) Remove 1A chute.

(2) Remove and retain two No. 6-32 by 5/32 RHM screws (P-218068) which secure the old entrance stop. Discard old entrance stop.

(3) Install the new entrance stop in the same location using the hardware retained.

4.34 There should be no binding or rubbing of parts when coin release lever is operated fully and allowed to return to normal without force.

TABLE L

DIAL CONNECTIONS

TYPE DIAL	WIRE COLOR	CONNECT TO	
		COIN FIRST	DTF
Rotary	BL	TB2-9	TB2-9
	G	TB2-10	TB2-10
	W	TB2-2	TB2-2
	W	TB2-3	TB2-3
	Y	TB2-9	TB2-9
	Y	TB2-9	TB2-13
TOUCH-TONE	G	TB2-4	TB2-4
	W	TB2-2	TB2-2
	R	TB2-5	TB2-5
	R-G	TB2-6	TB2-6
	BK	TB2-1	TB2-1
	O-BK	TB2-11	TB2-11
	O-R	TB2-12	TB2-12
	BL	TB2-3	TB2-3
	W-BL	TB2-7	TB2-7
	O-W	TB2-10	TB2-9
	V	TB2-10	TB2-13

Information Plate and Plate Assembly

4.35 Unless otherwise specified by the telephone company, all 1C-type sets will be shipped from the factory or service center with an 840156319 information plate, indicating Coin-First service. When specified, 1C-type sets may be obtained wired for Dial-Tone-First service and equipped with an 840156327 information plate assembly. These plates are equipped with studs and secured with thread-forming hex nuts.

4.36 Studded plates for field replacement can be ordered as follows:

- ***For Coin First Service***—840156319 Information Plate e/w two RM-900077371 thread-forming nuts*
- ***For Dial-Tone-First Service***—840156327, Assembly, information plate e/w two RM-900077371 thread-forming nuts*

*Use a 216B tool (3/8-inch socket wrench) to install or remove these nuts from studs.

4.37 Some 1A/1C-type sets and all 2A/2C-type sets will not have drilled holes to accept the studded information plates; however, provision can be made localy to procure studless plates and affix them to the flat surface of a non-drilled face plate or panel phone cover.

4.38 To install studless plates on coin telephone set:

(1) Clean faceplate or panel of dirt and grime using KS-19578, List 1 cleaning fluid.

(2) Wipe dry with a different, lint-free cloth.

(3) Apply 3M Company double sided industrial tape No. 9122 (or an approved equivalent) to the back surface of the information plate and trim neatly to size.

(4) Peel off the back protective tape covering, carefully orient the plate on the faceplate or front cover (Fig. 1) and press in place applying firm pressure to ensure complete adhesion.

CLEANING

4.39 When necessary, the external surface of the coin telephone set may be cleaned with KS-7860 petroleum spirits or a suitable liquid wax such as Johnson's No. 7700 cleaning and polishing wax emulsion.

Warning: Use safety precautions while using highly flammable KS-7860 petroleum spirits.

5. CONNECTIONS

5.01 Refer to Fig. 35 through 38 for connecting diagrams.

6. CONVERSIONS (Coin First to Dial Tone First or Dial Tone First to Coin First)

6.01 To convert a coin first set to dial tone first or a dial tone first set to coin first:

(a) Connect leads per Tables M and N.

(b) Connect plug on totalizer to the appropriate position (PP or DTF) or move slide switch to correct position (CF or DTF).

(c) Check information plate and ensure that it corresponds to the type service being offered.

TABLE M
COIN CHASSIS CONNECTIONS

CONNECT TO	WIRE COLOR	
	COIN FIRST	DTF MODE
TB3-1	G	R
TB3-2	G-BK	G
TB3-3	R, S-R	G-BK
TB3-4	BL, S-W	BK
TB3-5	G-W	——
TB3-6	V	BL, V-O
TB3-7	BK	——
TB3-8	——	S-R, R-G
TB3-9	——	W-BR
Insulate and store	W-BR, V-O, R-G	S-W, G-W, V

TABLE N
DIAL HOUSING CONNECTIONS

TYPE DIAL	WIRE COLOR	CONNECT TO		OTHER END CONNECTED TO
		COIN FIRST MODE	DTF MODE	
Rotary	Y	TB2-9	TB2-13	DON-2 contact on 8S Dial
	Y	TB2-9	TB2-9	DON-2 contact on 8S Dial
	G	TB2-13	TB2-9	SH3
TOUCH-TONE	V	TB2-10	TB2-13	t contact on dial
	O-W	TB2-10	TB2-9	s contact on dial
	G	TB2-13	TB2-9	SH3

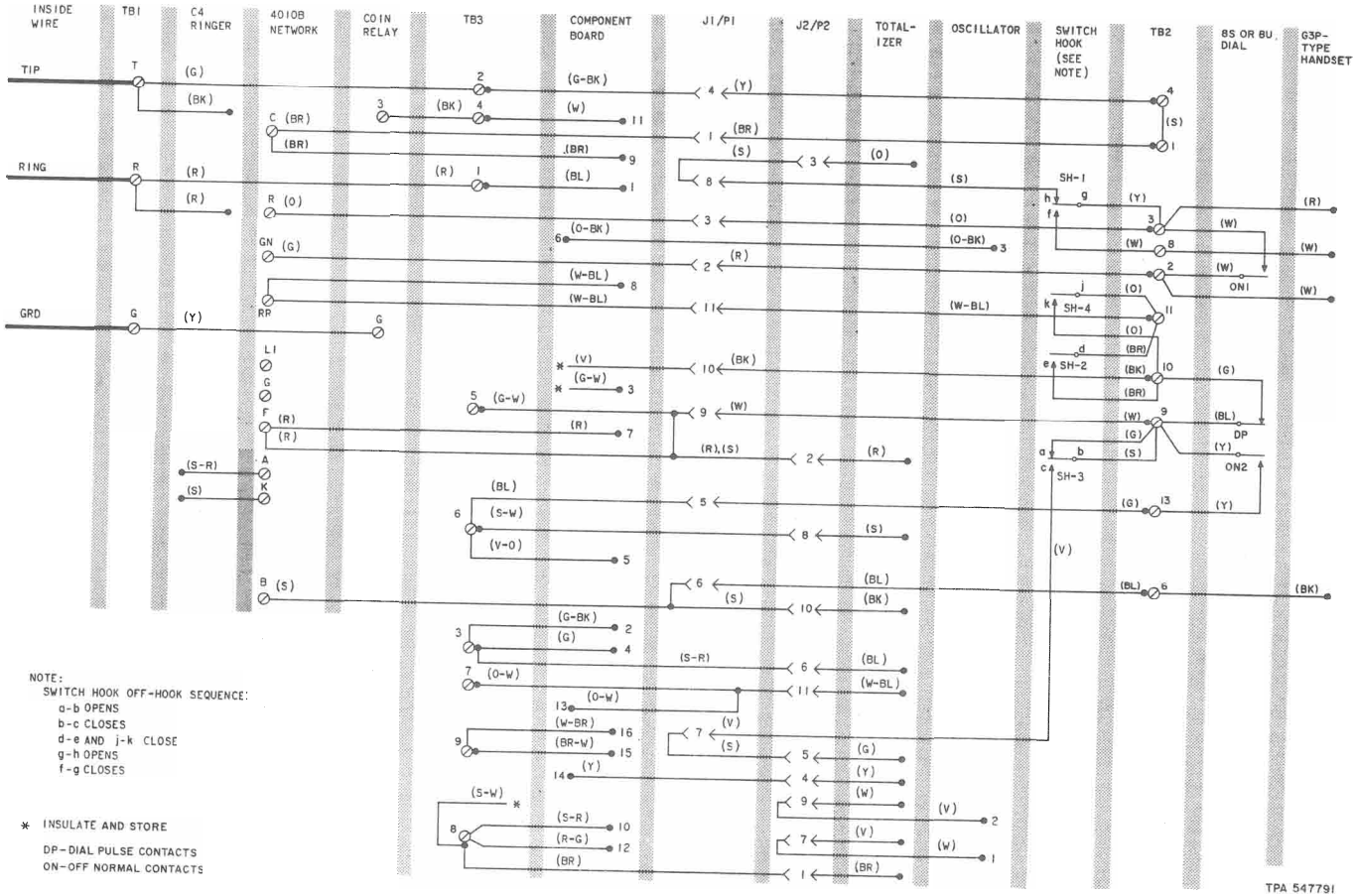


Fig. 35—1C1 or 2C1 Coin Telephone Set—DTF Connections

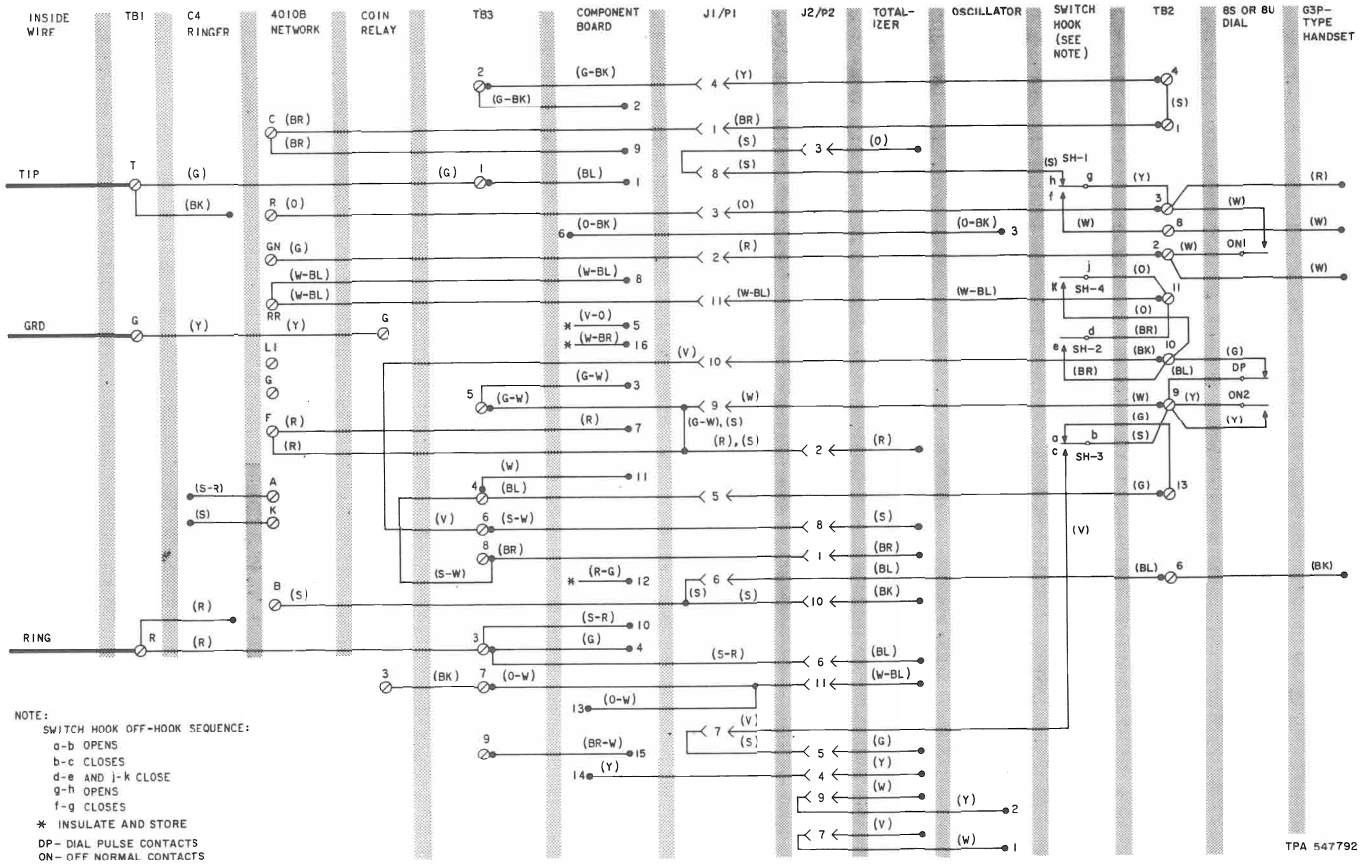
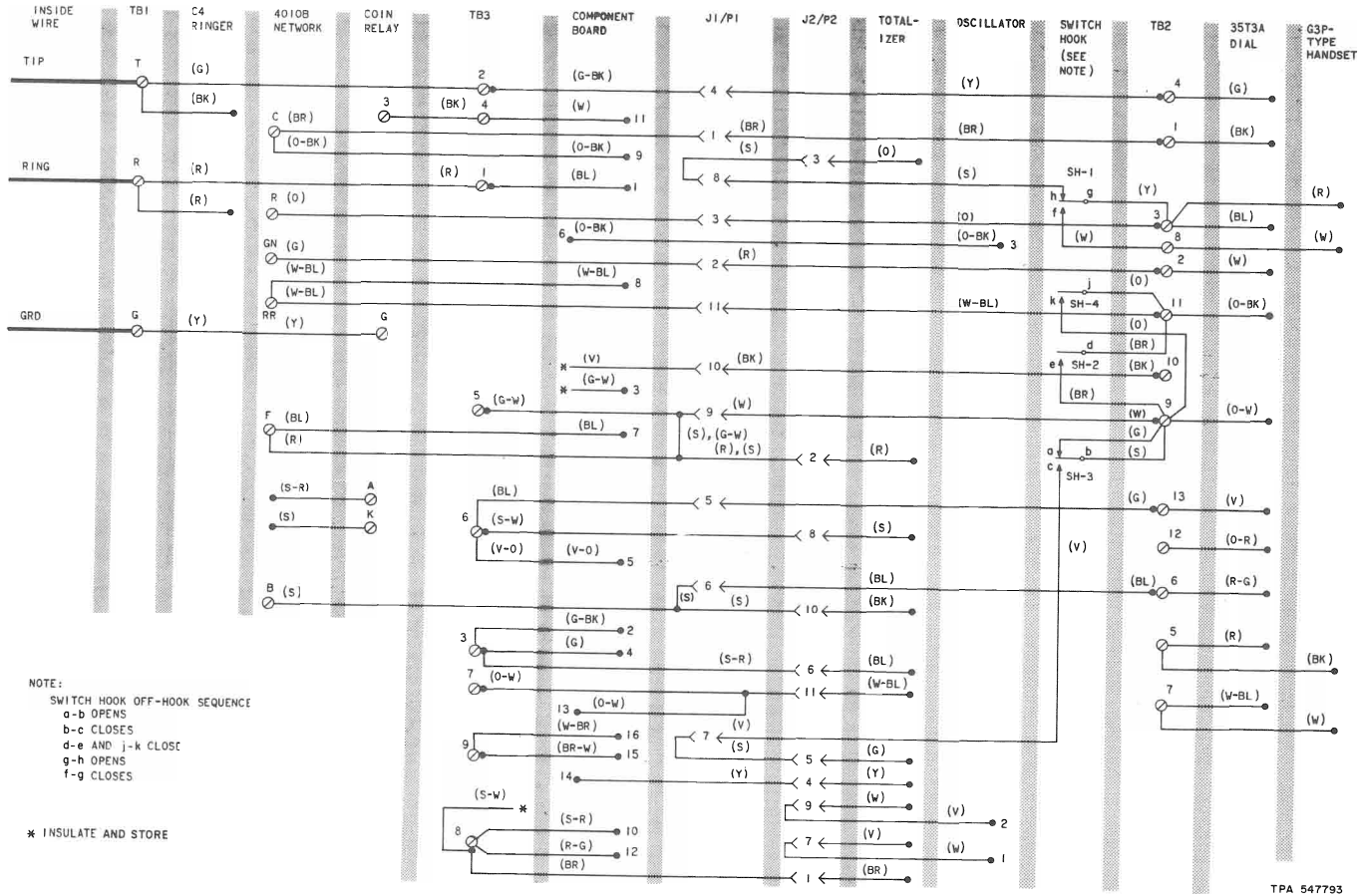


Fig. 36—1C1 or 2C1 Coin Telephone Set—Coin First Connections



Fib. 37—1C2 or 2C2 Coin Telephone Set—DTF Connections

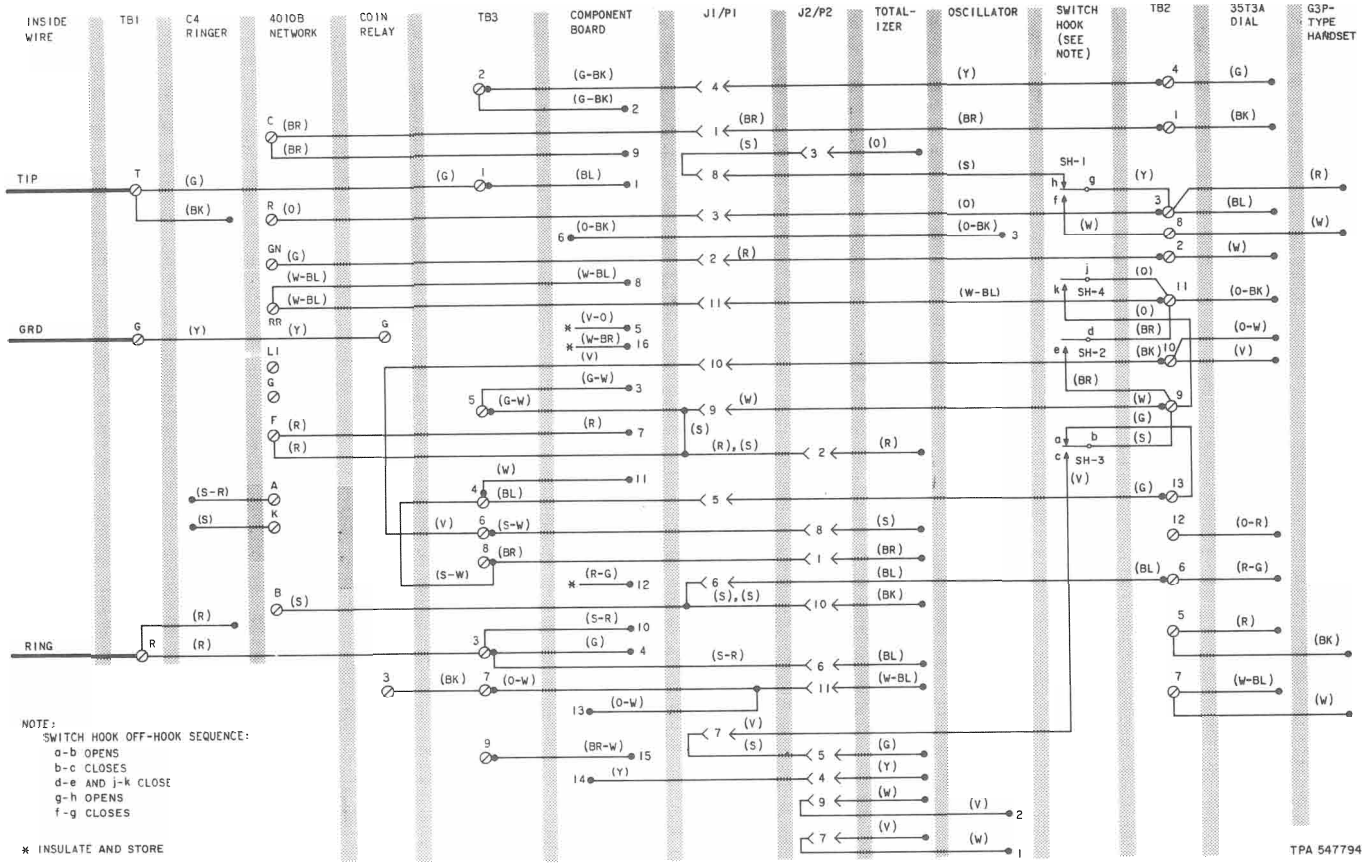


Fig. 38—1C2 or 2C2 Coin Telephone Set—Coin First Connections