## SERVICE COIN TELEPHONE SETS

## **1E-TYPE**

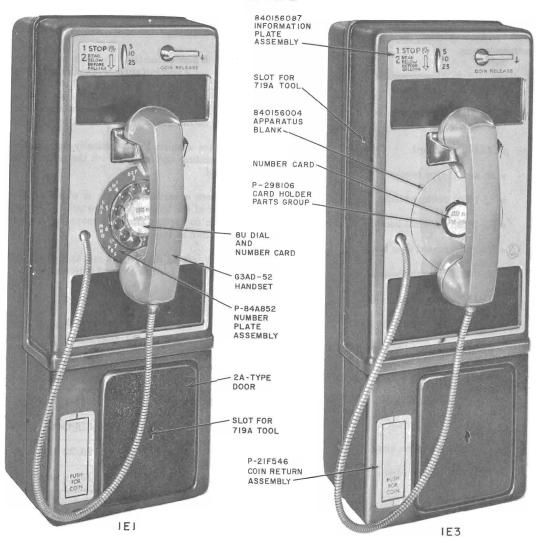


Fig. 1—1E-Type Coin Telephone Sets

#### 1. GENERAL

- 1.01 This section provides installation, operation test and trouble analysis, maintenance, and connection information for the 1E-type coin telephone sets.
- 1.02 The 1E1 coin telephone set is for use in dial postpay systems; the 1E3 set is for manual postpay service.

## 2. INSTALLATION

- 2.01 The 1E-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 walk-up/drive-up mounting
- **2.02** 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.

## **BACKBOARDS AND SECURITY STUDS**

2.03 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 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

2.04 Refer to Fig. 2 and Table B 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.

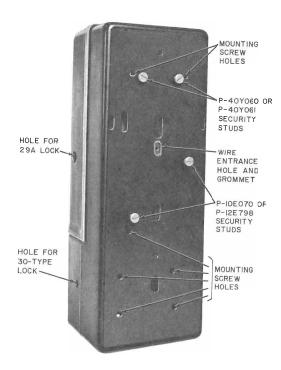


Fig. 2—Location of Mounting Screw Holes and Security Studs

## MOUNTING ARRANGEMENTS

- 2.05 To gain access to the coin telephone set mounting holes:
  - (1) Remove cover unit assembly per 2.07.
  - Remove 1A10A chute-totalizer per 2.08.
  - (3) Remove 30A coin chassis per 2.14.
- 2.06 Refer to Table B for mounting applications.

## COMPONENTS

## Cover Unit Assembly

- 2.07 To remove cover unit assembly:
  - 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.
  - (4) Disconnect plug P1 (Fig. 3) by pulling straight out as cover is carefully lifted off.

## 1A10A Chute—Totalizer

- 2.08 To remove chute-totalizer (Fig. 3):
  - (1) Disconnect plug P2.
  - (2) Release chute locking lever.
  - (3) Lift spring out of groove in chute.
  - (4) Tilt top of chute forward and lift out.
- 2.09 To install chute-totalizer in set:
  - (1) Place chute on locating pins at rear of hopper assembly, and back of housing.

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

- (2) Place spring in groove on chute.
- Lock spring in place by pushing chute locking lever down.
- (4) Reconnect totalizer plug P2 to J2.

## 10A Totalizer

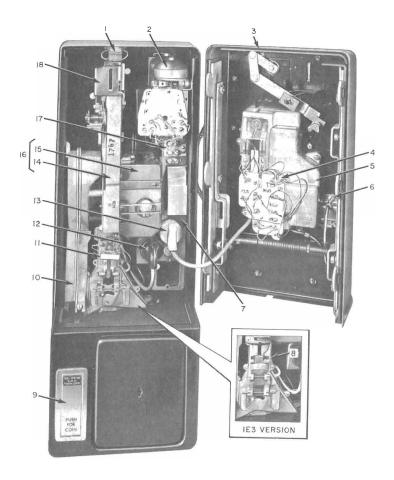
**Note:** A black reference mark is on the outside ratchet wheel to help determine whether the totalizer shaft is off-normal or in it's **home** position. As viewed from the front of the coin telephone set, a totalizer is in it's **home** position when the mark is at a point 1 tooth to the left of 6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

TABLE B
MOUNTING APPLICATIONS

		SECURITY STUDS			
BACKBOARD,	BACKBOARD	SHORT S	HOULDER	LONG SHOULDER	
BOOTH, SHELF, MOUNTING, OR KIOSK	REQUIRED	P-40Y060 (SHORT THREADS)	P-10E070 (LONG THREADS)	P-40Y061 (SHORT THREADS)	P-12E798 (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:

- A 178A-3 backboard is furnished 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 furnished with each coin telephone set for mounting to backboard.



#### LEGEND

- 1 P-27E542 Chute Locking Lever and P-27E497 Spring
- 2 C4A Ringer
- 3 Cover Unit Assembly
  - @840658033 (1E1-3) @840659031 (1E3-3)
  - ●840658447 (1E1-44) ●840659445 (1E3-44)
  - ●840658512 (1E1-51) ●840659510 (1E3-51)
- 4 TB2
- 5 P-90D274 Dial and Housing Assembly (1E1) or P-23F651 Housing Assembly (1E3)
- 6 P-15E444 Coverplate and P-181678 BHM Screw

- 7 30A Coin Chassis
- 8 50B Hopper (1E3 only)
- 9 P-21F546 Coin Return Assembly
- 10 P-15E730 Return Chute Assembly
- 11 50A Hopper (1E1 only)
- 12 P2
- 13 P1
- 14 1A Chute
- 15 10A Totalizer
- 16 1A10A Chute-Totalizer
- 17 TB1
- 18 P-23F361 Entrance Stop

Fig. 3—Assembly of Parts (1E1 and 1E3)

## **2.10** 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. 4.

- (1) Remove 1A10A chute-totalizer per 2.08.
- Loosen screw and remove transparent dust cover.
- (3) Rotate shaft in the proper direction (Fig. 4) until detent roller on inside ratchet 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.
- (4) Slowly rotate shaft in proper direction, and count the steps until T1 springs operate.
- (5) Each step rotated from home position represents a 5-cent rate as shown in Table C.

TABLE C
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

## 2.11 To reset totalizer rate:

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

## Increasing Rate (Fig. 5)

- Rotate shaft in proper direction (Fig. 4) until it is in home position as described in 2.10(3).
- (2) Further rotate shaft approximately 10 steps until a tab on the T1 cam is accessible as shown in Fig. 5 and 6.
- (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. 5 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 2.10.

## Decreasing Rate (Fig. 6)

- (7) Repeat steps (1) through (3).
- (8) 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. 6 and push tab in direction of the straight arrow.

(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 2.10.

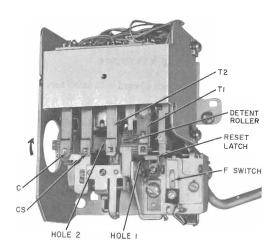


Fig. 4—Checking Totalizer Rate

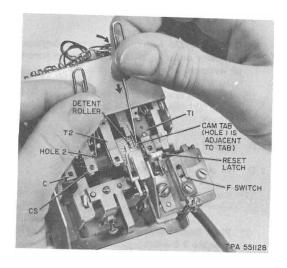


Fig. 5—Increasing Totalizer Rate

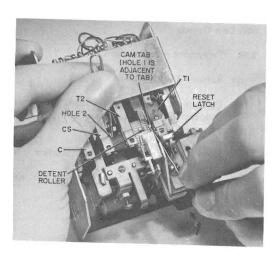


Fig. 6—Decreasing Totalizer R



2.12 To remove totalizer from chute:

To 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.
- 2.13 To install totalizer on chute:
  - 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.

#### **30A Coin Chassis**

- 2.14 To remove coin chassis:
  - (1) Remove 1A10A chute-totalizer.
  - (2) Disconnect (S-R) and (G) leads from coin hopper (1E1 only) and carefully pull leads through guide hole on hopper.
  - (3) Loosen chassis mounting captive screw.
  - (4) Pull chassis assembly out at bottom and slide down to remove.
- 2.15 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.
- (2) Seat chassis tabs in slots.
- (3) Tighten chassis mounting captive screw.
- (4) On the 1E1 set, reconnect (S-R) and (G) leads to coin hopper after threading them through eyelet on side of hopper.
  - Connect (S-R) to left side of resistor
  - · Connect (G) to right side

#### Instruction Cards

- 2.16 Instruction cards are not furnished with set and must be procured locally.
- 2.17 To install card:
  - (1) Push up with fingers.
  - (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 (840153381), in faceplate using No. 4 (.050) Allen wrench.

Caution: Do not turn screw beyond stopping point as this may damage screw or wrench.

- 2.18 To remove card:
  - (1) Loosen setscrew in faceplate.
  - (2) Push card up with fingers.
  - (3) Pry out bottom of card with small screwdriver or equivalent.
- 2.19 A gummed OUT-OF-SERVICE sticker (Form E-4914) is available in books of five. Place one sticker over coin slot when required.

## Number Card (8U Dial)

**Note:** The fingerwheel (840151872) is shipped assembled to the 8U dial and must be removed to install number card. It is secured with a No. 4-40 setscrew (840360598).

- **2.20** To remove 840151872 fingerwheel:
  - (1) Using a No. 4 (.050) Allen wrench, turn the setscrew in a clockwise direction until it clears fingerwheel (Fig. 7).

Caution: Do not turn setscrew beyond stopping point as this may damage screw or wrench.

- (2) Turn fingerwheel in a clockwise direction until "O" (operator) hole is in the 9 position and lift off.
- 2.21 Install number card.
- 2.22 To install fingerwheel:
  - 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. 7).

## Caution: Observe caution following 2.20(1).



Fig. 7—Installing Fingerwheel on 8U Dial

#### WIRING

2.23 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.

- **2.24** Feed inside wire through wire entrance hole as set is mounted on backboard.
- 2.25 Dress wire behind and run to right side of coin chassis.
- 2.26 Conceal wiring near telephone using approved molding or tubing.
- 2.27 Locate any protector, connecting blocks, etc, where they will be inaccessible to person using coin telephone set.
- 2.28 A 123A1A protector can be installed inside a 1E-type set as shown in Fig. 8 using two

P-205607 screws (8-32 by 1/2-inch brass RHM or equivalent) provided separately. Dress leads to avoid interference with chute operation.

Warning: Ensure that the protector ground terminal is directly connected to the signal and protector ground with no less than No. 14 AWG wire. Refer to Sections 460-100-200 and 460-100-201.



After installation has been completed, refer to Part 3 and verify if the coin telephone set is operating correctly.
 Also verify that entrance stop is adjusted properly.

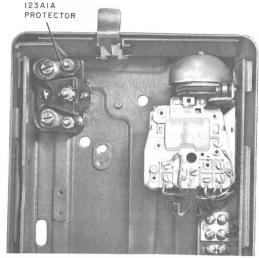


Fig. 8—Housing and Mounting Plate Assembly

## 3. OPERATION TESTS AND TROUBLE ANALYSIS

- 3.01 Apparatus Required:
  - P11C cord (Fig. 9) or KS-20950, List 1 cover parking tool (Fig. 10)
  - · Coins: 1 dime, 4 nickels, and 1 quarter
  - KS-14995, List 3 trap and vane release tool (Fig. 11)

3.02 Refer to Table D for trouble analysis test for 1E1 set.



A minimum of 2 nickels and 1 dime or 4 nickels will be retained in the cash box when the procedures in Table D, Trouble No's. 12 through 16 are performed. Arrangements to have money redeemed should be made with supervisor prior to making these tests.

3.03 Refer to Table E for trouble analysis test for 1E3 set.

#### 4. MAINTENANCE

#### **Clearing Chute**

- **4.01** When troubles indicate foreign objects or stuck coins in chute:
  - (a) Remove cover unit assembly.
  - (b) Remove 1A10A chute-totalizer.
  - (c) Swing upper plate assembly open (Fig. 12).



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.

- (d) Remove any foreign objects or stuck coins with an orange stick. Do not use screwdriver.
- (e) Clean off any foreign material adhering to chute magnets.
- (f) If trouble cannot be cleared, replace chute.

**Note:** Ensure that all magnets are free of foreign material before installing chute in set.



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

(g) Check entrance stop operation (4.21).

#### **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:
  - 1A10A chute-totalizer
  - 10A totalizer
  - 30A coin chassis
  - Instruction cards
  - Number card (1E1)
- **4.04** Components other than those listed in 4.03 can be removed as outlined below.

## Coin Hopper (50A for 1E1 set; 50B for 1E3)

- **4.05** To remove coin hopper:
  - Remove chute-totalizer and on 1E1 only disconnect (S-R) and (G) leads from hopper.
  - (2) Remove vault door and coin receptable.
  - Remove two P-10E809 special screw assemblies from inside vault.
  - (4) Lift hopper out of set.
- **4.06** To install coin hopper, use reverse procedure.
  - On 1E1 sets, thread wires from chassis through hopper eyelet and connect (S-R) lead to left terminal and (G) lead to right terminal of resistor.

### Return Chute Assembly

- 4.07 To remove return chute assembly:
  - (1) Remove 1A10A chute-totalizer.
  - (2) Loosen return chute screw.
  - (3) Lift assembly up and off.

ISS 1, SECTION 506-412-402

TABLE D
TROUBLE ANALYSIS — IE1

NO.	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	DEMENIAL ACTION
1	Invert handset on switchhook.  Note: Prevents armored cord from pushing handset off switchhook when cover is set down.				REMEDIAL ACTION
2	Remove cover unit assembly and disconnect plug P1. Place cover unit assembly on a firm level surface.				
3	Connect P11C cord between plug P1 and jack J1 of coin chassis or use a KS-20950 cover parking tool.				
4	Install KS-14995, L3 tool be- tween coin chute and hopper to catch deposited coins.				
5	Lift handset.	Dial tone received.	No dial tone.	Defective handset. Traffic overload. Switchhook contacts SH1 (NO), or SH2 & SH4 (NO), not making. Plugs P1 and P2 reversed. Totalizer mode switch in CF position. TB2 not wired correctly. Defective totalizer. Defective wiring in chassis, or dial and housing assembly. Nonstation trouble.	Replace handset.  Wait and repeat test.  Clean contacts or replace dia and housing assembly.  Reconnect properly.  Reposition switch to DTF.  Wire correctly.  Replace totalizer.  Replace defective apparatus.
6	Dial operator.	Dial tone breaks.	Dial tone does not break.	Defective dial.  Defective chassis.  TB2 not wired correctly.  Nonstation troubles.	Refer to testdesk. Replace defective apparatus.  Verify wiring. Refer to testdesk and correct
7	With and the	Operator answers.	Transmission path not estab- lished.	Defective handset.	trouble. Replace handset.
•	With operator on line, deposit nickel, dime, and quarter.	Operator identifies proper signal tones.	Operator cannot identify proper signal tones.	Defective totalizer. Defective chassis. 446F diode damaged.	Replace defective apparatus.
				Ring and tip reversed.	Correct.

## TABLE D (Cont'd.)

ROUBLE NO.	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
8	Listen for coin tones in hand- set as coins are deposited.	Tones should not be heard.	Tones are heard.	Defective chassis.	Replace chassis.
9	Disengage chute locking spring; slowly pull top of chute forward while hold- ing KS-14995, L3 tool. Lift chute and tool out of set and retrieve coins.				
10	Check for noise or cut-out in handset cord.	Noise should not be heard.	Noise is heard.	Defective handset.	Replace handset.
11	Request operator to call back.	Ringer operates at maximum volume.	No ringing or rings at low volume.	Improper line assignment.  Defective ringer.  Ringer out of adjustment.  Open capacitor in network.	Verify and correct.  Replace ringer or chassis.  Adjust.  Replace chassis.
12	Deposit initial rate and request operator to identify coin signal.	Identification properly made.	Identification cannot be made.	Nonstation troubles.	Refer to testdesk.
13	Thank operator and hang up.				377 '1 3 L LL
14	Lift handset, obtain dial tone, and dial a local charge num-	Ringing tone heard — When	Ringing tone not heard.	Traffic overload.	Wait and repeat test.
	ber (this should be pre- arranged).	called party answers, deposit coin tone should be heard.	Deposit coin tone not heard.	Nonstation troubles.	Refer to testdesk.
15 Deposit nickel.	Deposit coin tone remains.	Deposit coin tone stops.	Initial rate set for less than 10 cents.	Reset totalizer.	
		remains.	stops.	Wrong code totalizer or defective totalizer.	Replace totalizer.
			Totalizer reads out.	Defective chassis.	Replace chassis.
16 Deposit 2nd nickel.	Deposit 2nd nickel.	Deposit coin tone stops and talk path is estab-	Deposit coin tone does not stop.	Initial rate set for more than 10 cents.	Reset totalizer.
				Defective hopper.	Replace defective apparatus.
		lished.		Defective totalizer.	Hefen to testdock
		(Initial rate set for $10\phi$ ).		Nonstation troubles.	Refer to testdesk.
17	Hang up.	Totalizer restores.	Totalizer does not restore.	Defective dial and housing assembly.	Replace defective apparatus.
				Defective chassis.	
18	Return set to normal opera-				

TABLE E
TROUBLE ANALYSIS — IE3

TROUBLE NO.	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
1	Invert handset on switchhook.  Note: Prevents armored cord from pushing handset off switchhook when cover is set down.				ACTION
2	Remove cover unit assembly and disconnect plug P1—place cover unit assembly on a firm level surface.				
3	Connect P11C cord between plus P1 and jack J1 of coin chassis or use a KS-20950 cover parking tool.				
4	Install KS-14995, L3 tool be- tween coin chute and hopper to catch deposited coins.				
5	Lift handset.	Operator should answer.	Operator does not answers.	Defective handset. Defective chassis. Defective switchhook. TB2 not wired correctly. Nonstation troubles.	Replace defective apparatus.  Verify and correct.
6	With operator on line, deposit nickel, dime, and quarter.	Operator identi- fies proper sig- nal tones.	Operator cannot identify proper signal tones.	Defective totalizer. Defective chassis. Ring and tip reversed. Totalizer mode switch in CF position.	Refer to testdesk.  Replace defective apparatus.  Correct.  Reposition switch to DTF.
7	Listen for coin tones in hand- set as coins are deposited.	Tones should not be heard.	Tones are heard.	Defective chassis.	Replace chassis.
8	Disengage chute locking spring; slowly pull top of chute forward while hold- ing KS-14995, L3 tool. Lift chute and tool out of set and retrieve coins.				
9	Check for noise or cut-out in handset cord.	Noise should not be heard.	Noise is heard.	Defective handset.	Replace handset.

## TABLE E (Cont'd.)

ROUBLE NO.	ACTION	VERIFICATION	FAILURE	POSSIBLE CAUSE	REMEDIAL ACTION
10	Request operator to call back.	Ringer operates at maximum volume.	No ringing or rings at low volume.	Improper line assignment Defective ringer. Ringer out of adjustment. Open capacitor in network.	Verify and correct.  Replace ringer or chassis.  Adjust.  Replace chassis.
11	Repeat 4.				
12	Deposit a coin and request operator to identify coin signal.	Identification properly made.	Identification cannot be made.	Nonstation troubles.	Refer to testdesk.
13	Thank operator and hang up.				
14	Repeat 8.				
15	Return set to normal operation.				



Fig. 9-P11C Test Cord



Fig. 10—KS-20950, L1 Cover Parking Tool

**4.08** To replace return chute assembly, reverse procedure.

## Coin Return Assembly

- 4.09 To remove coin return assembly:
  - (1) Remove 1A10A chute-totalizer.
  - (2) Remove return chute assembly.
  - (3) Remove coin return assembly locking screw.

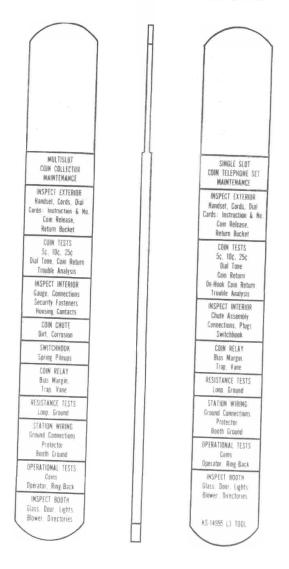


Fig. 11-KS-14995, L3 Tool

- (4) Insert finger in coin return and tilt top forward.
- (5) Lift coin return. Pull coin return assembly out and up.

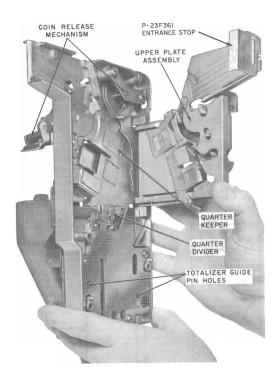


Fig. 12-1A Chute

- 4.10 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 1A10A chute-totalizer.

## Ringer

- 4.11 To remove C4A ringer:
  - (1) Remove 1A10A chute-totalizer.
  - (2) Disconnect (S-R) and (G) leads from hopper and remove 30A coin chassis.
  - (3) Disconnect four ringer leads; two from TB1 and two from network.
  - (4) Remove two ringer mounting screws and lift off ringer.
- 4.12 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 F.

TABLE F
C4A RINGER CONNECTIONS

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

## Handset

- 4.13 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 coverplate which secure handset cord to dial housing.
  - Loosen stay-hook screw and remove handset cord.
- 4.14 To install handset, reverse procedure. Make connections per Table G.

TABLE G
HANDSET CONNECTIONS

WIRE	CONNECT TO
W	TB2-2
R	TB2-3
BK	TB2-6
W	TB2-8

## Dial and Housing Assembly

- **4.15** To remove dial and housing assembly:
  - (1) Remove handset.
  - (2) Remove four mounting screws and remove dial and housing assembly from cover.
- 4.16 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.

- 4.17 To remove dial (1E1 only):
  - (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 dial, remove and discard the dust cover.

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

TABLE H
DIAL CONNECTIONS

WIRECOLOR	CONNECT TO
BL	TB2-9
G	TB2-10
W	TB2-2
W	TB2-3
Y	TB2-9
Y	TB2-13

## **Fingerwheel**

- **4.19** To remove 840151872 fingerwheel, refer to 2.20.
- **4.20** To install fingerwheel, refer to 2.22.

## P-23F361 Entrance Stop

- 4.21 The P-23F361 entrance stop (Fig. 13) 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.
- 4.22 A prefabricated locking tab arrangement 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 connections, or those that are out-of-service which require further maintenance or repair.
- **4.23** To replace entrance stop:
  - (1) Remove 1A10A chute-totalizer.
- (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.
- 4.24 There should be no binding or rubbing of parts when coin release lever or knob is

#### SECTION 506-412-402

operated fully and allowed to return to normal without force.

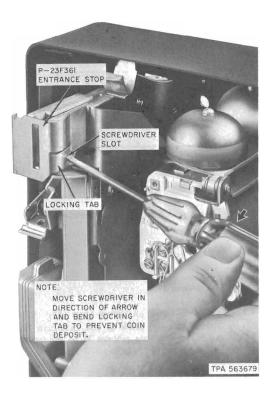


Fig. 13—Adjustment of Entrance Stop to Prevent Coin Deposit

## 840360184 Knob and Shaft Assembly

4.25 The 840360184 knob and shaft, assembly can be substituted for the lever-type coin

release handle and shaft assembly to counteract vandalism and prevent serious damage to internal linkage and other chute actuating components.

**4.26** For installation information refer to Section 506-101-400.

#### 840156087 Information Plate

- **4.27** Orders for replacement information plates shall specify "equipped with two RM900077371 thread-forming nuts."
- 4.28 The 216B tool (3/8-inch socket wrench) can be used to install or remove these special nuts on or off the mounting studs.

#### CLEANING

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 pertoleum spirits.



F After all maintenance has been completed, refer to Part 3 and verify if the coin telephone set is operating correctly.

#### 5. CONNECTIONS

5.01 Refer to Fig. 14 for connecting diagram.

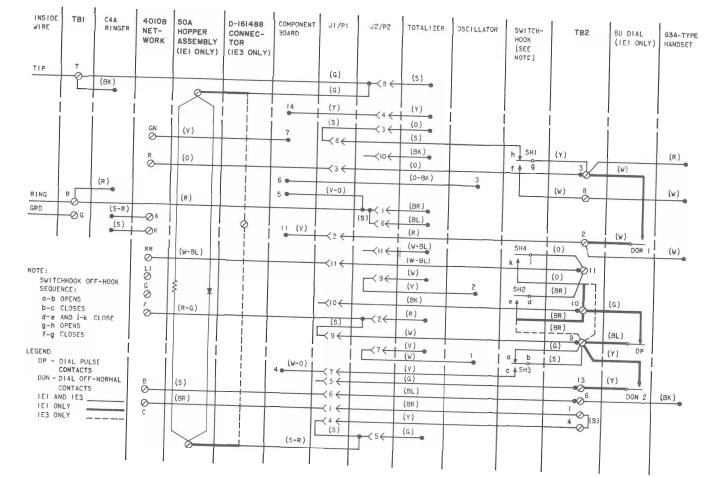


Fig. 14—1E1 and 1E3 Coin Telephone Sets—Connections