

COIN TELEPHONES — SINGLE SLOT INSTALLATION

I. GENERAL

1.01 This section covers location wiring, backboards, installation, setting totalizer charge rate, and testing of the 1A-type coin telephone. It also covers installation of cash box and door, use and assembly of the card holders, OUT OF SERVICE notice, and alarm switches.

1.02 This section is being reissued to give additional information on the 1A-type coin telephone.

1.03 Photographs are of shop models; production models may vary slightly.

2. LOCATION

2.01 Selection of a satisfactory location is important because the coin telephone is designed for public use and deposited coins require a safeguard.



A vertical surface must be provided. A tilt of 1-1/2 degrees will cause malfunction of the telephone.

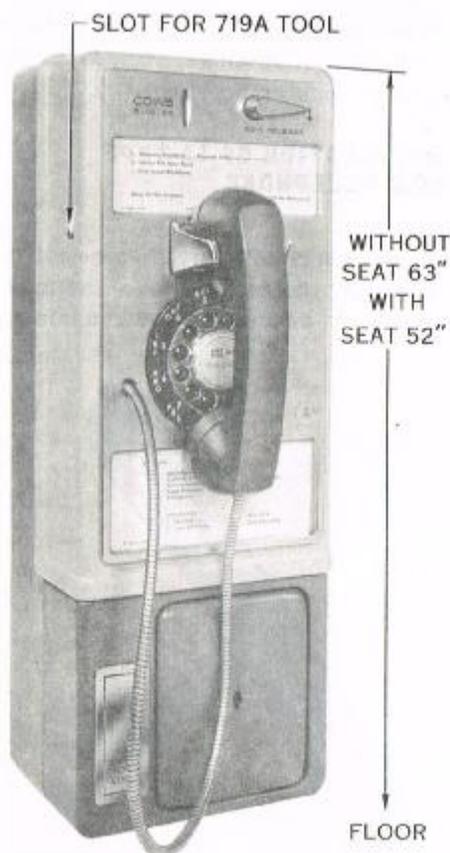


Fig. 1 — 1A1 Coin Telephone

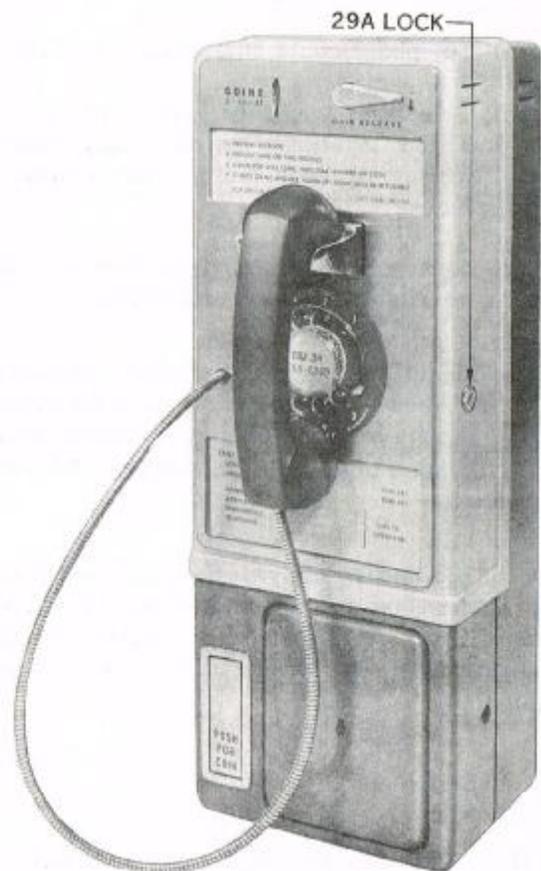


Fig. 2 - Location of 29A Lock

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2.02 Consideration should be given to user convenience. Observe the following:

- Ease of discovery.
- Sufficient light.
- Privacy of conversation.
- Freedom from noise and vibration.
- Clearance from oily or dirty objects.
- Clearance from heaters or stoves.
- Clearance from moving machinery, piled merchandise, or narrow aisles.

2.03 To prevent unauthorized removals, the coin telephone and backboard must be securely mounted with the proper fasteners. Avoid locations in which:

- (a) Telephone could be dislodged by hard use.
- (b) Telephone could be easily pried loose. These locations include round columns, window or door facings, and uneven surfaces.
- (c) Glass showcases or fragile objects could be damaged by dropping handset.

2.04 Consult a supervisor before locating on finishes expensive to repair if the coin telephone were removed. Customer should arrange to drill holes in glazed tile, marble, and similar surfaces.

2.05 To avoid inductive effects, locate the coin telephone and associated wiring at least 6 inches away from neon or fluorescent lights, transformers, or other interference causing equipment.

3. WIRING

3.01 Select wire and place it in accordance with the sections covering the particular wiring involved. Wire all coin telephones with triple wire.

3.02 Conceal wiring near coin telephone. If this is impossible, use approved molding or tubing. If tubing or molding is not used, the GS wire must be taped with friction tape. JKT wire need not be taped.

3.03 Locate any terminating apparatus, such as protectors or connecting blocks, where it is inaccessible to person using coin telephone.

4. BACKBOARDS

4.01 The 178A backboard is designed to be used with 1A-type coin telephone.

4.02 For information on mounting backboards, refer to the section on installation of backboards.

4.03 Fig. 1 shows suggested heights for mounting 1A-type coin telephones. These heights may vary with local conditions or customer requirements.

4.04 When using the single slot coin telephone in booths, mountings, etc., refer to the section on mountings or booths.

5. INSTALLATION OF 1A-TYPE COIN TELEPHONE

5.01 To gain access to the 1A-type coin telephone mounting holes, remove the cover, coin chute totalizer assembly, and chassis assembly.



Fig. 3 - 719A Tool

5.02 Remove cover as follows:

- (1) Unlock the 29A lock on right side of set (Fig. 2).
- (2) Insert the 719A tool (Fig. 3) into the locking mechanism on the left side of cover (Fig. 1).
- (3) Turn tool approximately 1/8 turn, releasing locking mechanism so that cover can be removed.
- (4) Pull plug 1 (Fig. 4) straight out as cover is lifted off. Remove carefully.

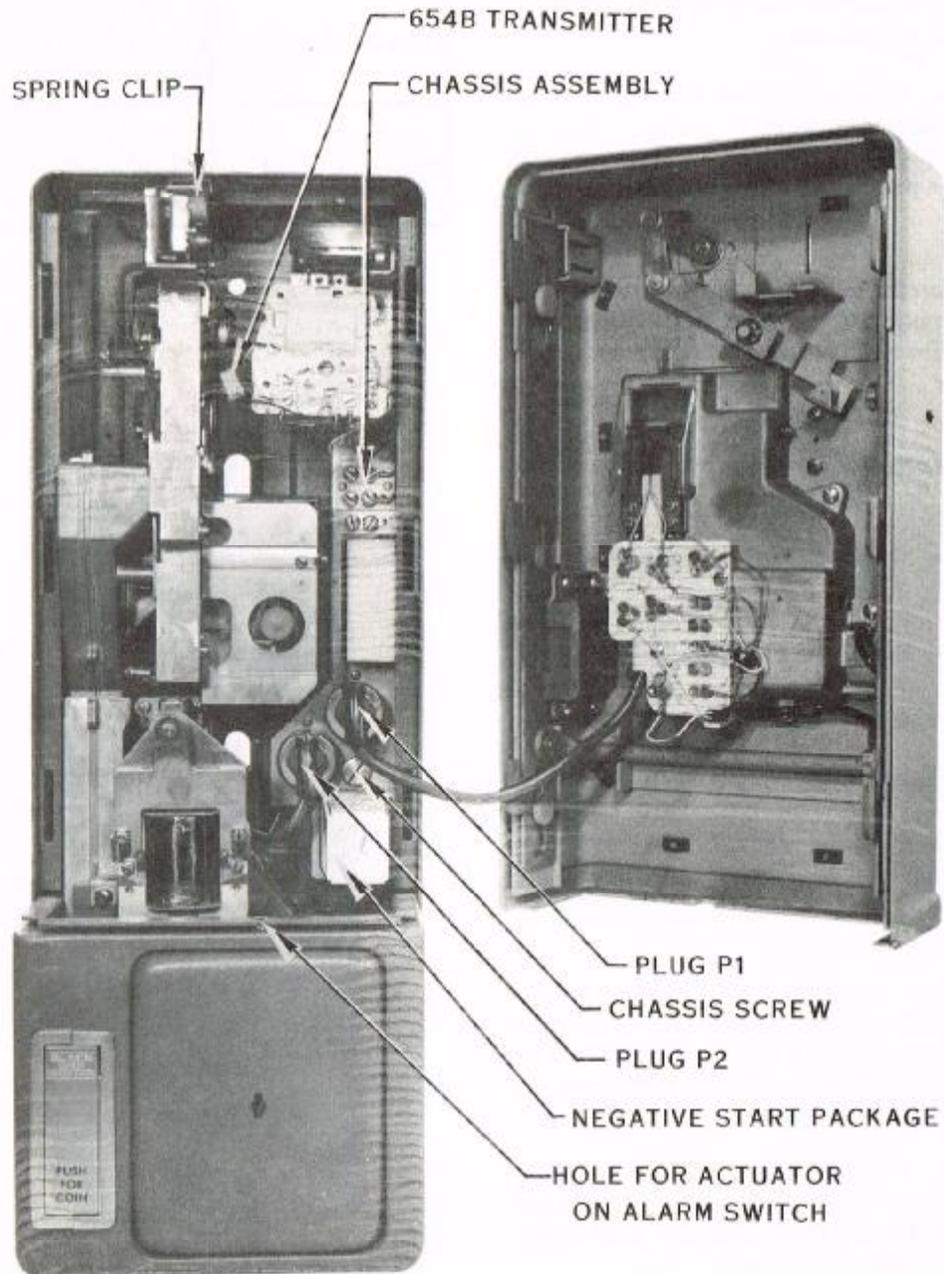


Fig. 4 - 1A-Type Coin Telephone, Internal View

5.03 To remove coin chute totalizer assembly:

- (1) Remove plug 2 (Fig. 4).
- (2) Disconnect 654B transmitter (Fig. 4).
- (3) Release spring clip (Fig. 4).
- (4) Tilt coin chute totalizer assembly forward, then lift up and out.
- (5) Remove nylon tape and wooden packing form from coin chute.
- (6) Remove paper insert to free totalizer coin arms.



Be careful not to damage totalizer when removing coin chute totalizer assembly. Do not separate totalizer and coin chute.

5.04 Remove chassis assembly (Fig. 4) as follows:

- (1) Remove black and yellow leads from coin relay.
- (2) Loosen chassis screw (Fig. 4).
- (3) Pull chassis out at bottom.
- (4) Slide chassis assembly down and lift out.



When removing chassis assembly, be careful not to damage negative start package (Fig. 4.)

5.05 Place four security studs in the IA-type coin telephone. See Table A for proper security studs and Fig. 5 for location. Security studs are not provided with the telephone set and must be ordered separately.

Caution: Security studs, shown in Table A, have short thread length and are used to avoid interference with the coin chute totalizer assembly.

5.06 Feed inside wire through entrance hole (Fig. 5) as set is put on backboard.

TABLE A
IA-TYPE COIN TELEPHONE FASTENERS

Mounting Surface	IA-Type Coin Telephone	
	Screws	Security Studs
178A-65 Backboard	P-210249 1/4-20 x 5/8 inch Machine Screws	P-40Y060
KS-14611 Booth	P-210249 1/4-20 x 5/8 inch Machine Screws	P-40Y061

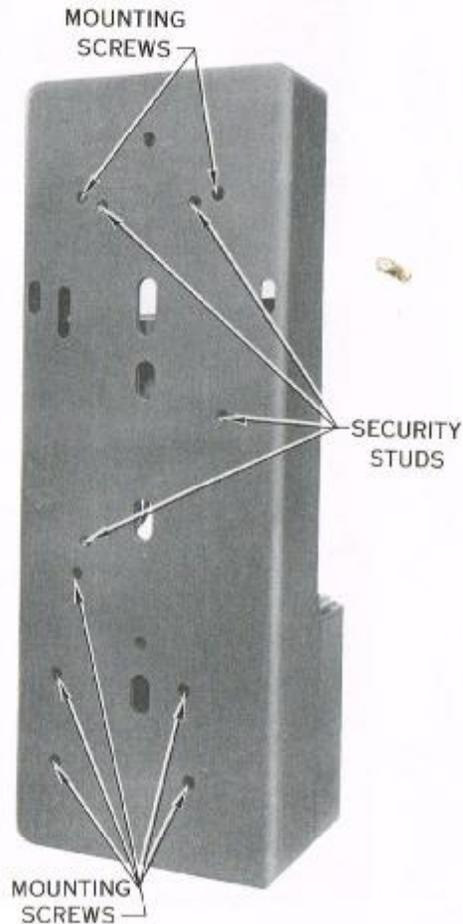


Fig. 5 - Location of Mounting Holes

5.07 Secure set to backboard with seven screws (Table A). Screws are not furnished with the 1A-type coin telephone and must be ordered separately.



Take care to mount the 1A-type coin telephone vertically. The coin mechanism will not operate properly if the set is tilted more than 1-1/2 degrees.

5.08 Replace chassis assembly as follows:

- (1) Dress inside wire so that it will lay behind chassis assembly.
- (2) Slide chassis assembly up into slot provided at top (Fig. 6).
- (3) Seat chassis locating tabs into slots at top and bottom.
- (4) Secure chassis holding screw to chassis stud (Fig. 6).
- (5) Connect black and yellow leads to coin relay.
- (6) Terminate inside wire on R, T, and G of TB1 (Fig. 7).

5.09 Replace coin chute totalizer assembly as follows:



If initial rate is other than 10 cents, totalizer must be set before it is mounted in housing. See instructions in 6. for setting totalizer.

- (1) Place coin chute totalizer assembly on top of hopper. Be sure pin on the hopper engages hole on coin chute.

Note: Be sure coin return assembly and coin return chute line up.

- (2) Place spring clip in groove on top of coin chute.
- (3) Lock spring into place.
- (4) Replace plug 2.
- (5) Replace plug for 654B transmitter.

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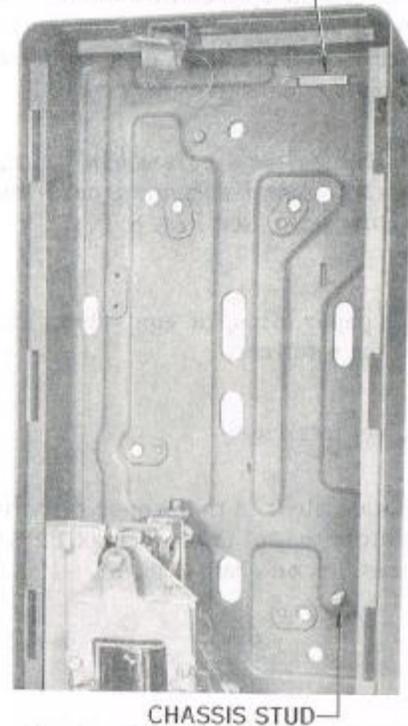


Fig. 6 – Chassis Replacement

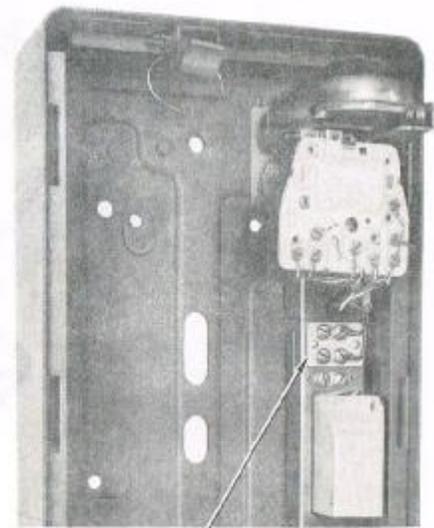


Fig. 7 – Method of Terminating Inside Wire

6. SETTING TOTALIZER CHARGE RATE

6.01 The totalizer, mounted on the side of coin chute, steps one increment for each 5 cents deposited. A nickel equals one, dime equals two, and a quarter equals five increments.



Use extreme care when setting totalizer. Avoid damaging pawl and spring pile-ups. (See Fig. 8.)

6.02 Two paper clips, or equivalent, are used to set the totalizer.

6.03 To set totalizer:

- (1) Rotate shaft in the proper direction (from bottom to top) until springs T2 rest in depression on shaft (Fig. 8).

- (2) Release plastic latch reset (Fig. 9) and check springs T1.

- (a) If springs T1 are not operated, proceed with the normal sequence of instructions.

- (b) If springs T1 are found to be operated, omit instruction 3; follow instructions 4, 5, and 6; omit instruction 7, and then proceed in the normal sequence of instructions.

- (3) Rotate shaft in proper direction until springs T1 operate as indicated by a movement of the plastic latch reset (Fig. 9).

- (4) Do not allow the shaft to move. Insert one of the paper clips into hole located near the offset on right end of shaft. (See Fig. 9.)

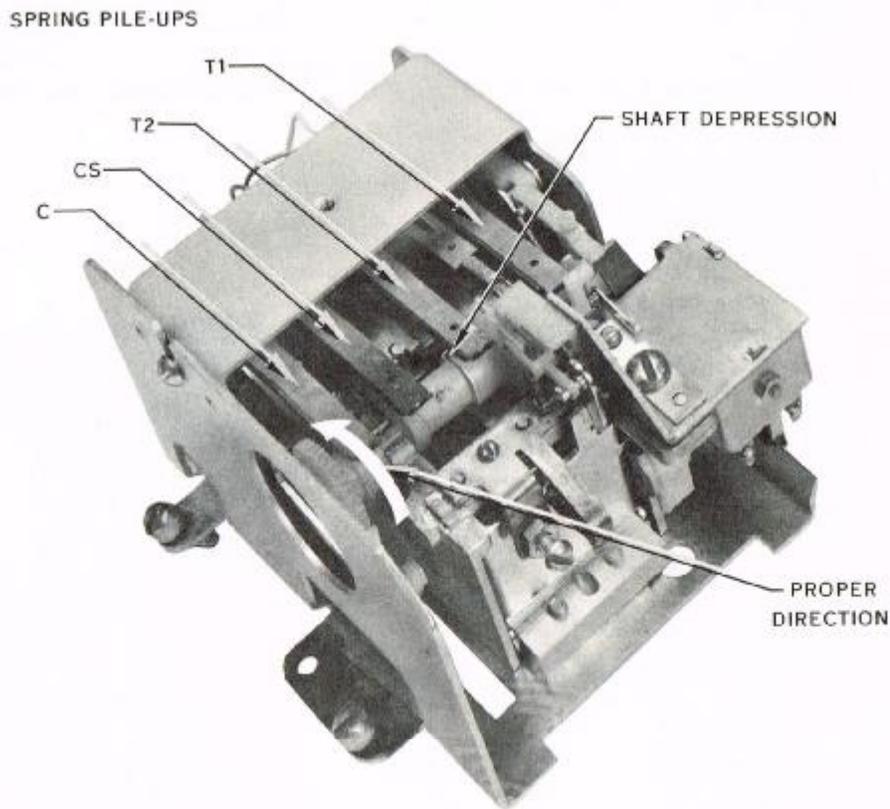


Fig. 8 - Totalizer Spring Pile-ups

- (5) Hold the paper clip so right end of shaft cannot move.
- (6) Insert the second paper clip into one of the four holes located in center of shaft (Fig. 9). Do not allow paper clip point to extend too far beyond shaft; this may damage insulation of coil located directly beneath the shaft.
- (7) Rotate second paper clip in the proper direction (Fig. 8) until springs T2 come to rest in depression on the shaft. This is zero rate position.



Do not remove paper clips from holes in the shaft.

- (8) Set proper charge rate (Table B).
- (9) Remove paper clips.

6.04 To check for correct rate setting:

- (1) Rotate shaft in proper direction until springs T2 rest in depression on shaft (Fig. 8).
- (2) Release plastic latch reset (Fig. 9).
- (3) Rotate shaft in proper direction, one step for each 5 cents of the lowest chargeable rate.
- (4) Springs T1 should operate (indicated by plastic latch reset moving forward) when lowest chargeable rate has been stepped (Fig. 9).

6.05 Example: For a 10-cent rate, shaft should be rotated two steps. On the second step, springs T1 should operate (Fig. 9).

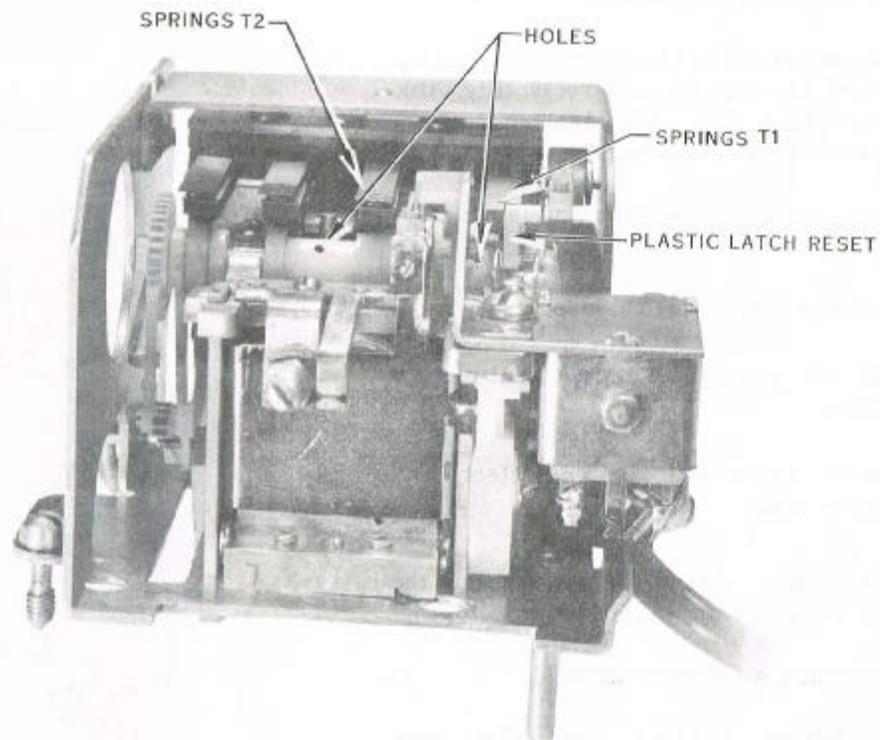


Fig. 9 – Totalizer, Front View

TABLE B
SETTING CHARGE RATE OF TOTALIZER

Lowest Chargeable Rate	Rotate Shaft in Proper Direction (From Bottom to Top)
5 cents	One step
10 cents	Two steps
15 cents	Three steps
20 cents	Four steps
25 cents	Five steps
30 cents	Six steps

7. TESTING

7.01 Before replacing cover, connect cover to chassis with P11C test cord, and test totalizer in the following manner:

- (1) Provide ground to line by strapping ground around contacts on coin relay (Fig. 10). Place paper clip, or equivalent, from G terminal to terminal No. 3.
- (2) Be sure trigger on coin relay is not tripped.
- (3) Dial tone should now be heard.
- (4) Dial any digit. Dial tone will not be broken.
- (5) Remove paper clip, or equivalent, and replace cover.

7.02 Final testing should be made with the cover in place and include the following:

- (a) With handset ON switchhook:
 - (1) Deposit nickel. Coin shall pass through the coin chute and be refunded by operation of the coin relay.
 - (2) Repeat with dime and quarter.

(b) With handset OFF switchhook:

- (1) Deposit penny to check coin release mechanism. Coin will stop in chute.
- (2) Operate coin release lever. Penny will drop into coin return.
- (3) Deposit nickels, dimes, and quarters as shown in Table C. All coins will pass through coin chute, stepping totalizer once for each 5 cents deposited.

(c) Coin tone signaling:

- (1) Contact local testboard or operator for coin check.
- (2) One beep should be heard for nickels, two beeps for dimes, and a series of five beeps for quarters. These beeps can be monitored on the tip and ring of the line using a 1011B test set in the monitor position.

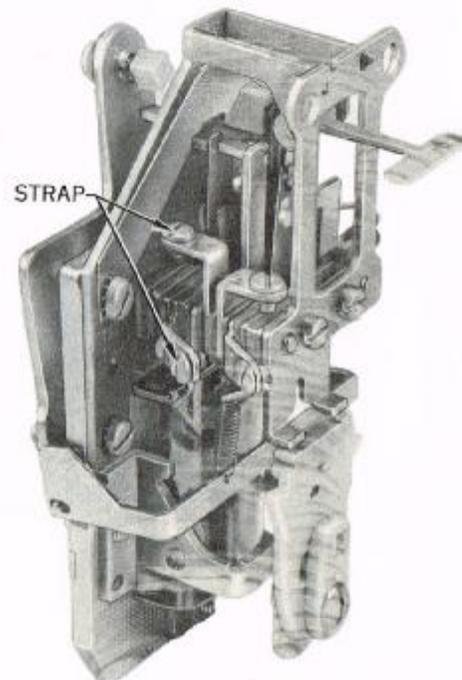


Fig. 10 — Method of Strapping Ground Around Contacts

TABLE C
TESTS WITH COINS

Tests	Lowest Chargeable Rate Set in Totalizer		
	5 Cents	10 Cents	Over 10 Cents
Deposit nickel	Dial tone	No dial tone	No dial tone
Deposit second nickel	Does not apply	Dial tone	No dial tone
Deposit dime	Dial tone	Dial tone	No dial tone
Deposit quarter	Dial tone	Dial tone	Dial tone if totalizer is set for 25 cents or less
Deposit amount of money for which totalizer is set	Does not apply	Does not apply	Dial tone

Note: After making each test, dial digit to break dial tone, hang up, and coins will be refunded.

- (3) Coin identification tones should not be heard in the handset.
- (4) Testboard or operator should be able to collect or return coins at this time.

8. CASH BOX AND DOOR INSTALLATION

8.01 To install 1B cash box, push cash box directly into vault.

8.02 To install the 1C cash box, remove the false floor assembly by breaking the welded tab. Insert a screwdriver in the middle of the false floor assembly, and simultaneously push in and pry up. After removing this assembly, the 1C cash box is installed in the same manner as the 1B.

8.03 The 2A-65 door is held in place on all four sides by its locking mechanism. The mechanism is actuated by using a 719A tool in the center of the door. A lock on the right side of the telephone set holds the door in place.

9. INSTRUCTION CARD INSTALLATION

9.01 To remove either cardholder, push up and gently pry out at the bottom with a screwdriver (Fig. 11).



Fig. 11 - IA1 Coin Telephone, Method of Removing Windows

9.02 To replace both cardholders, push up and in at bottom. Be sure cardholder is seated in slot at bottom.

10. OUT OF SERVICE STICKER

10.01 A gummed OUT OF SERVICE sticker (Fig. 12) is available to place over coin slot when the coin telephone is out of service. These are available in books of five, ordered as E-4914.

11. ALARM SWITCHES

11.01 The IA switch kit can be installed in the IA-type coin telephone to detect fraudulent entry.

11.02 This kit consists of two Micro Switches assembled with associated brackets, two actuators, and four screws.

11.03 Tapped holes are provided in housing assembly for Micro Switches. One set of holes is located directly in front of coin relay;

the other is on housing near the upper left hand side. (See Fig. 4.)

11.04 When the alarm switch is mounted on left side of housing, the actuator will rest on the locking mechanism of the cover. The locking mechanism will hold the switch in the operated position. When the switch is installed in this manner, the alarm wires should be connected to the C and NC terminals on the alarm switch.

11.05 When the switch is mounted in front of the coin relay, it can be used two ways:

- (1) As an alarm for the vault door -- the actuator extends through a hole in the housing (Fig. 4) and rests on top of the locking mechanism of the vault door. When the switch is in this position, the alarm wires should be connected to the C and NC terminals of the alarm switch.
- (2) As an overall alarm -- the Micro Switch rests against the vault top. With the switch in this position, the alarm wires should be connected to the C and NC terminals.



Fig. 12 - OUT OF SERVICE Sticker