

## TELEPHONE SETS

### 701, 702, 711, 712, AND 713 TYPES

#### IDENTIFICATION, INSTALLATION, AND MAINTENANCE

##### 1. GENERAL

1.01 This section covers PRINCESS<sup>®</sup> telephone sets equipped with rotary dials (Fig. 1).

1.02 Information contained in this section was formerly found in Section 502-710-100, 502-710-200, and 502-710-300 which have been canceled.

##### 2. IDENTIFICATION

2.01 These sets are equipped with a concealed lamp which illuminates the dial when the handset is removed. This lamp also serves as a night light under control of a slide switch located in the base at rear of set (Fig. 2).

2.02 Table A lists the major components of 700-series PRINCESS telephone sets.

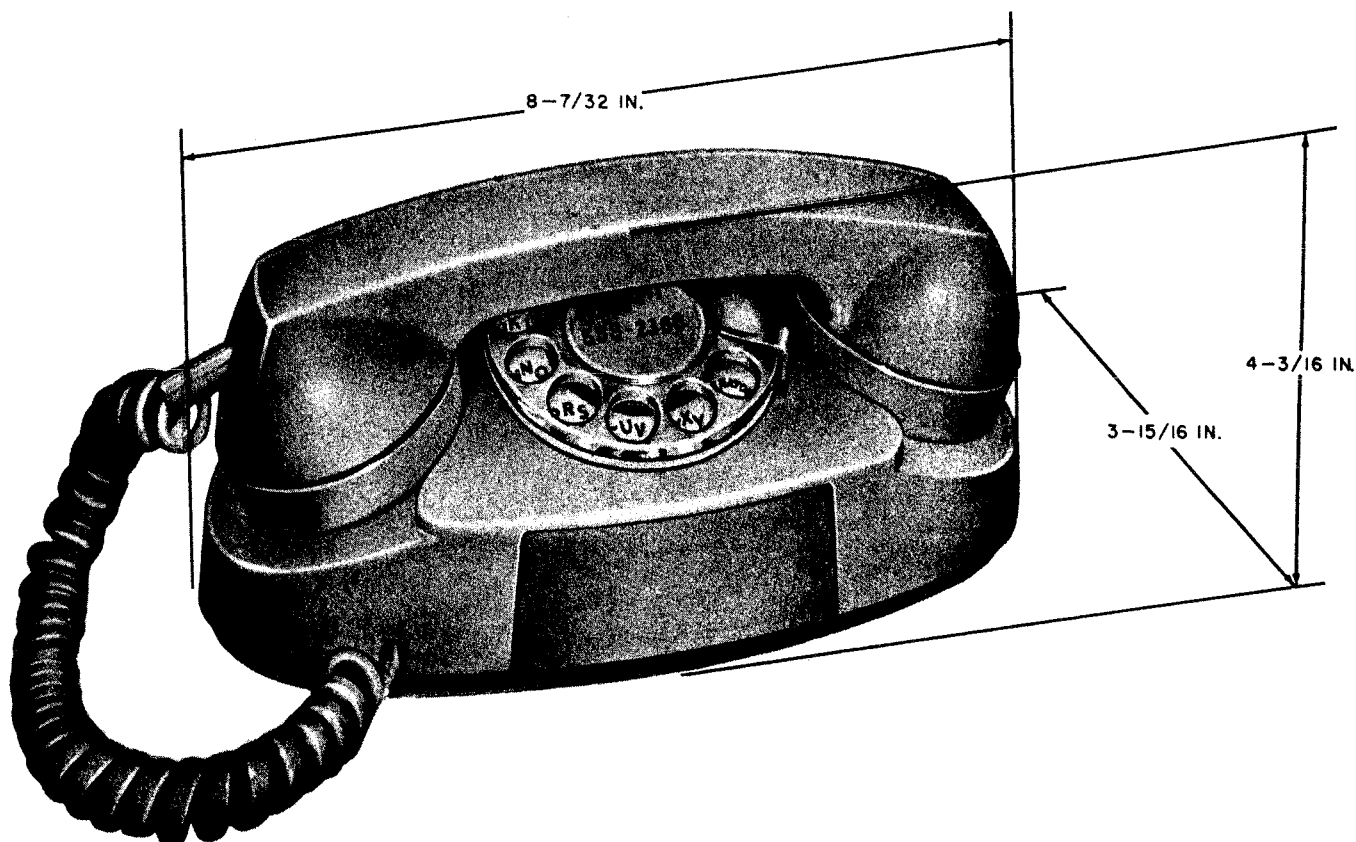


Fig. 1 — 700-Series Telephone Set

**TABLE A**  
**COMPONENTS AND FEATURES — 700-SERIES PRINCESS STYLE TELEPHONE SET**

TYPE SET	HOUSING*	MOUNTING CORD	NETWORK	INTERNAL RINGING	MESSAGE WAITING LAMP	USED WITH 1A KTS	USED WITH 1A1, 1A2 KTS
701B(MD)	P-81M200	D6AB	495A	No	No	Yes	Yes
701D(MD)	P-81P200	D6AB	495A	No	KS-16893L1	Yes	No
702B	P-89A800	D5AK	4010B	Yes	No	Yes	Yes
702D	P-89A900	D5AK	4010B	Yes	KS-16893L1	Yes	No
711B(MD)	P-81K300	D14H or D14L	495A	No	No	No	No
712B	P-89C300	D14L	4010B	No	No	Yes	Yes
713B	P-86C300	D6AF	4010B	No	No	Yes	No

**TABLE A (Cont)**  
**COMPONENTS AND FEATURES — 700-SERIES PRINCESS STYLE TELEPHONE SET**

TYPE SET	3-TYPE SPEAKER-PHONE	1A HOME INTERPHONE	2A FARM INTERPHONE	EQUIPPED WITH EXCLUSION SWITCH	EQUIP. WITH HOLD KEY
701B(MD)	No	No	No	No	No
701D(MD)	No	No	No	No	No
702B	Yes	No	No	No	No
702D	No	No	No	No	No
711B(MD)	Yes	Yes	Yes	Yes	No
712B	Yes	Yes	Yes	Yes	Yes
713B	No	No	No		Yes

**Note:** The following components are common to all 700-series PRINCESS telephone sets:

- Dial 8A
- Dial lamp, KS-19387 (GE259); order by KS number
- Dial lamp, socket, KS-19240, L2
- Handset, G3AR
- Handset cord, H4CJ

\* The last two digits of housing part number must be replaced by the code number which corresponds to the color desired; (i.e.,) P-81M258 white housing. See section covering telephone apparatus color.

**2.03** These sets are available in standard telephone colors. Refer to Section 500-120-100 for promoted and nonpromoted colors.

#### 701-TYPE TELEPHONE SET

**2.04** The 701-type telephone sets (Fig. 3) are rated Manufacture Discontinued (MD).

**2.05** The 701B and 701D telephone sets are not equipped with an internal ringer. When

a ringer is required, an E1-type external ringer may be used.

**2.06** The 701B sets are factory wired for individual line or 2-party flat rate service. Internal wiring changes must be made when other services are to be provided. See sections covering telephone set connections.

**2.07** 701B telephone sets may be used with the following services:

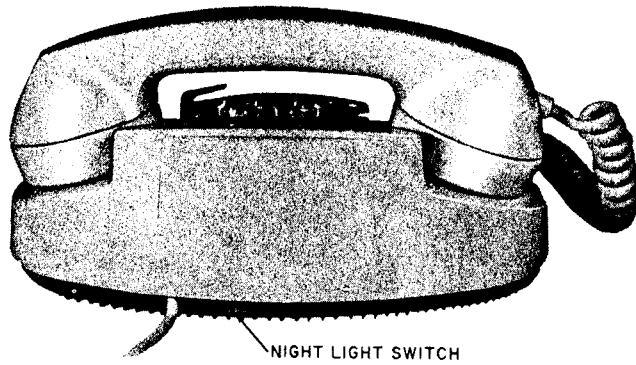


Fig. 2 — 700-Series Telephone Set, Rear View

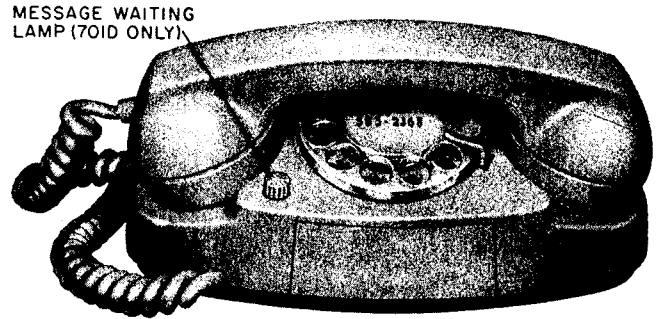


Fig. 3 — 701-Type Telephone Set

- 4-party selective and 8-party semiselective service
- 1A1 and 1A2 key telephone systems
- 3-type speakerphone system

2.08 The 701D telephone set is equipped with a message waiting lamp (see Fig. 3). This set is intended for use with PBX which provides message waiting feature.

#### 702-TYPE TELEPHONE SET

2.09 The 702-type telephone sets (Fig. 4) are similar to the 701-type except that an internal ringer (M1A) is provided.

2.10 The 702B and 702D telephone sets replace the 701B and 701D sets, respectively.

#### 711B TELEPHONE SET

2.11 The 711B telephone set is rated Manufacture Discontinued (MD).

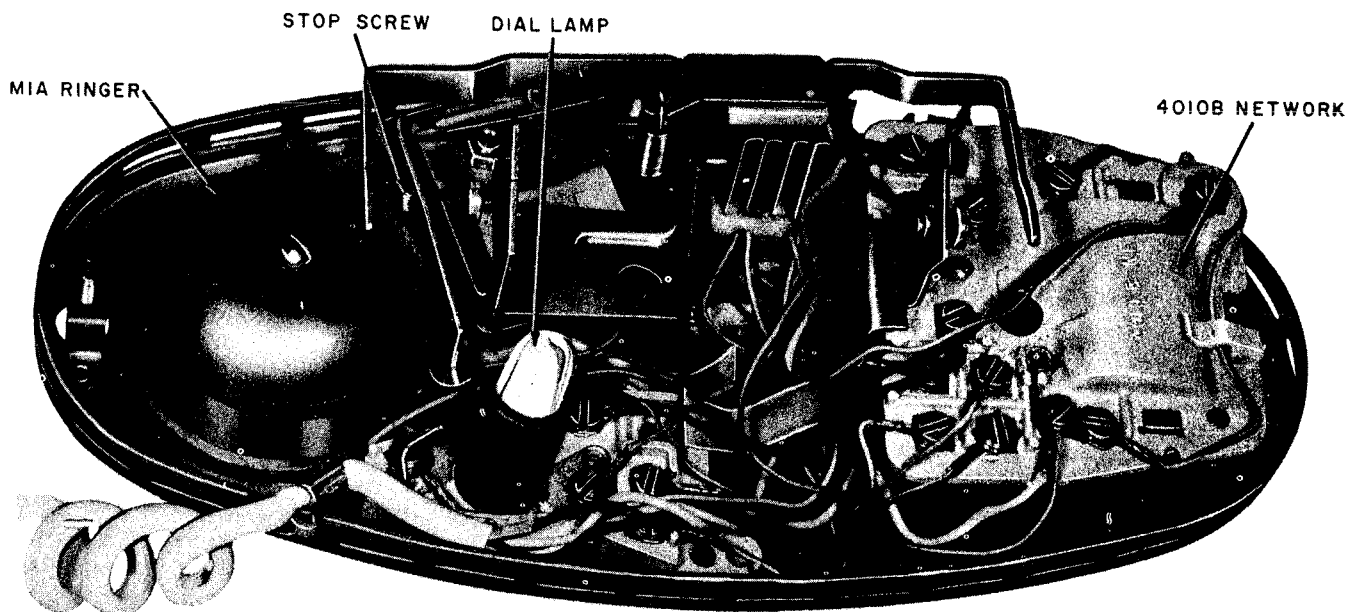
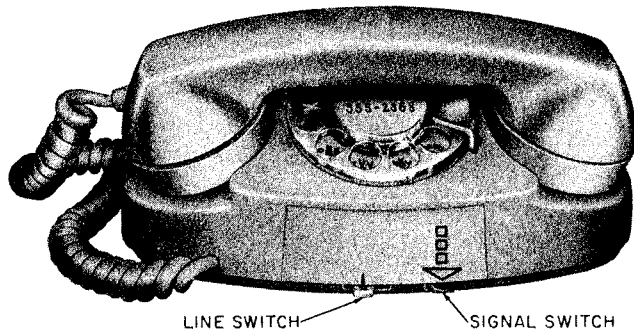


Fig. 4 — 702-Type Telephone Set, Dial and Housing Removed



**Fig. 5 — 711B (MD) Telephone Set**

**2.12** The 711B telephone set (Fig. 5) is not equipped with an internal ringer. When a ringer is required, an E1-type external ringer may be used.

**2.13** The 711B telephone set is equipped with a slide switch for line selection and a switch (push-to-operate) for signaling.

**2.14** This set is factory wired for 2-line pickup, exclusion, and signaling. The exclusion feature is operated by raising the left switch hook plunger.

**2.15** This set may also be used with the following services:

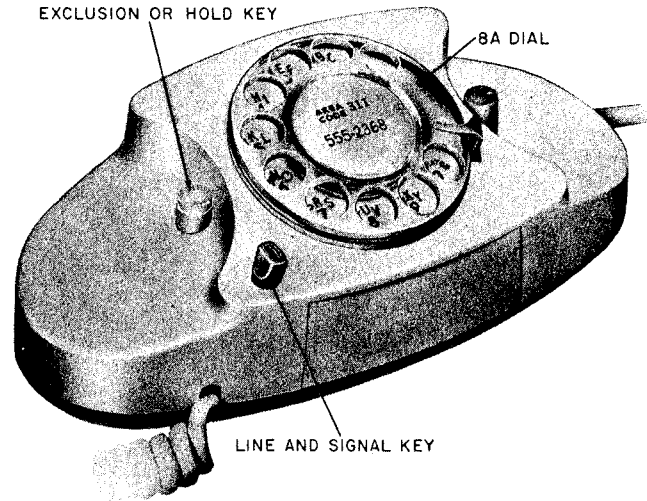
- 1A HOME INTERPHONE system
- 2A FARM INTERPHONE system
- 3-type speakerphone system

**2.16** This set is not equipped for "A" lead control and cannot be used with 1A1 or 1A2 key telephone systems.

#### **712B TELEPHONE SET**

**2.17** The 712B telephone set (Fig. 6) is not equipped with an internal ringer. When a ringer is required, an E1-type external ringer may be used.

**2.18** This set is equipped with a 638A key for line selection and signaling. Line selection is accomplished by turning the key and signaling by depressing the key.



**Fig. 6 — 712B Telephone Set — Without Handset**

**2.19** An exclusion or hold key is included and is operated by raising the left switch hook plunger.

**2.20** The 712B telephone set is factory wired for 1A HOME INTERPHONE and is initially intended for use with the following services:

- 1A, 1A1, and 1A2 key telephone systems
- 2A FARM INTERPHONE system
- 3-type speakerphone system

#### **713B TELEPHONE SET**

**2.21** The 713B telephone set is not equipped with an internal ringer. When a ringer is required, an E1-type external ringer may be used.

**2.22** The 713B telephone set is a 2-line set similar in appearance to the 712B telephone set. This set is equipped with a 638C key which permits selection of either of two CO lines and when used in conjunction with the hold key, permits mechanically holding the nonselected line. This is accomplished by manually raising the left-hand plunger before operating the turn key.

**2.23** The 638C key has a pushbutton element for signaling which is furnished not wired,

but can be wired in by changing the mounting cord.

- 2.24 This set is initially intended for use with 2-line residential nonkey system use.

### 3. INSTALLATION

3.01 Insofar as possible, be guided by the customer's wishes in placing apparatus. Consider the following:

- Safety for yourself, customer, and maintenance personnel.
- Availability of power outlet for transformer.
- Location of telephone set so ringer volume is adequate for area.
- General appearance of installation.

### DIAL LIGHT TRANSFORMER

3.02 Select a 105-120 volt ac receptacle that is on a circuit not controlled by a switch. A 2012A transformer should be used with each telephone set. A 2A clamp is available to secure this transformer to the service outlet. For multiple installations, see section covering station transformers.

3.03 For proper illumination of the dial, the length of the wire between the transformer and the telephone set should not exceed 250 feet of standard inside wire. *Do not use a 25-foot mounting cord because of added resistance.*

### RINGER

3.04 When an external ringer is required, install an E1-type with each 701-, 711-, 712-, or 713-type telephone set (see Fig. 7).

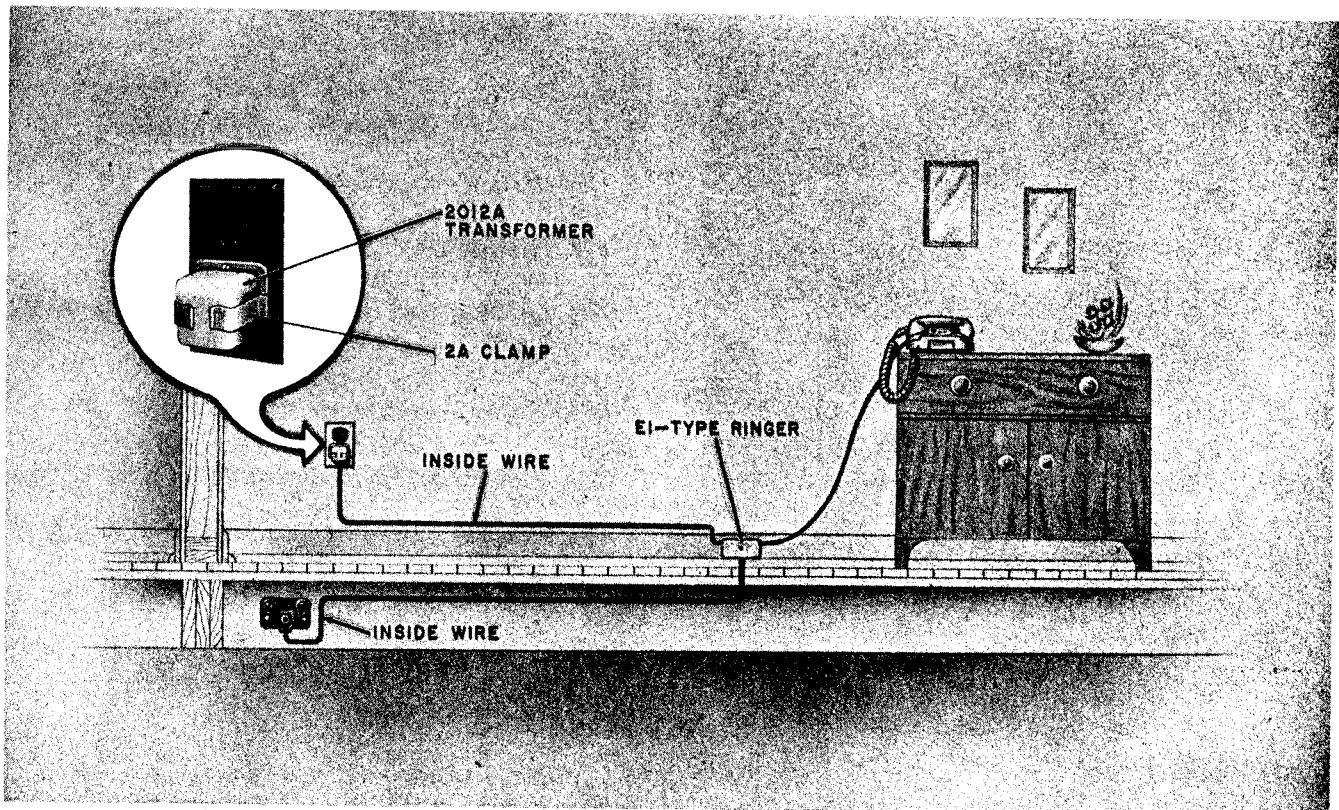


Fig. 7 — Typical Installation of 701-Type Telephone Set

**3.05** When no ringer is used, the mounting cord of a telephone set should be terminated on a connecting block or plug.

## INDUCTORS

**3.06** A 1610A or 1635A inductor must be installed in the base of the 701B telephone set when ringer is not used and tip party identification is required.

**3.07** The 1610A inductor has been replaced by the 1635A inductor to allow space for the P-15E719 weight when required.

**3.08** Install the 1610A inductor (ordered separately) as follows:

- (1) Remove housing from telephone set.
- (2) Loosen dial and mounting cord stay hook, lay aside.
- (3) Install inductor as shown in Fig. 8 and 9.

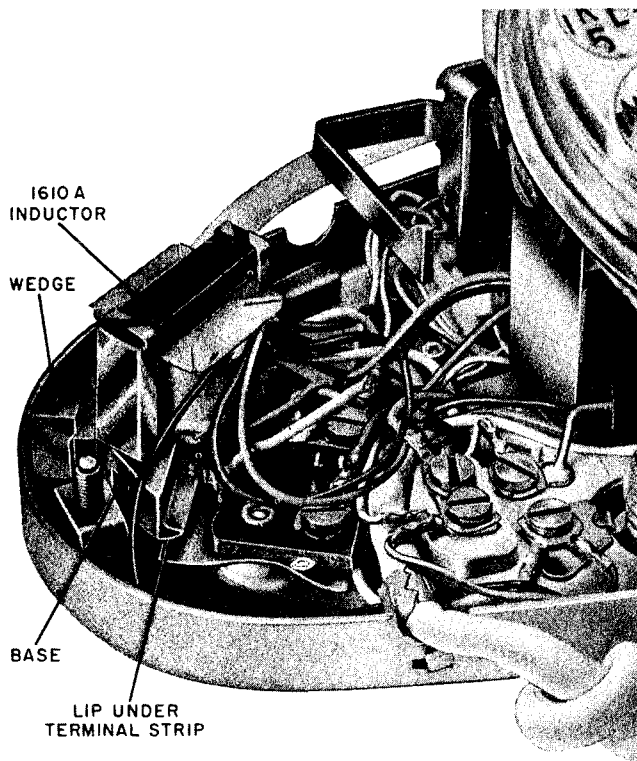


Fig. 8 — Location of 1610A Inductor

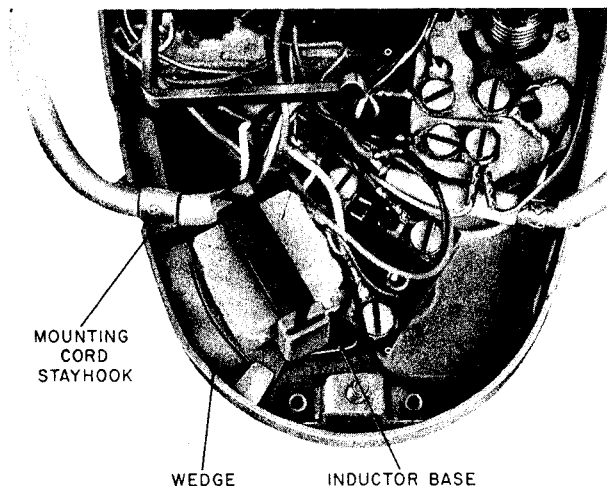


Fig. 9 — Top View, Location of Wedge

- (4) Insert wedge in position (Fig. 9).
- (5) Connect inductor between terminals B of network and 3 of terminal board.
- (6) Replace mounting cord stay hook, dial, and housing.

**3.09** Install the 1635A inductor (ordered separately) as follows:

- (1) Remove housing from telephone set.
- (2) Loosen dial and lay it aside.
- (3) Remove left screw from dial mounting bracket.
- (4) Install inductor as shown in Fig. 10.
- (5) Replace screw in dial mounting bracket.
- (6) Connect inductor between terminals B of network and 3 of terminal board.
- (7) Replace dial and housing.

## D-179924 KIT OF PARTS

**3.10** A D-179924 Kit of Parts containing a weight, spring, and insulator is available to reduce sliding while dialing the 701-type telephone set placed on a highly polished surface.

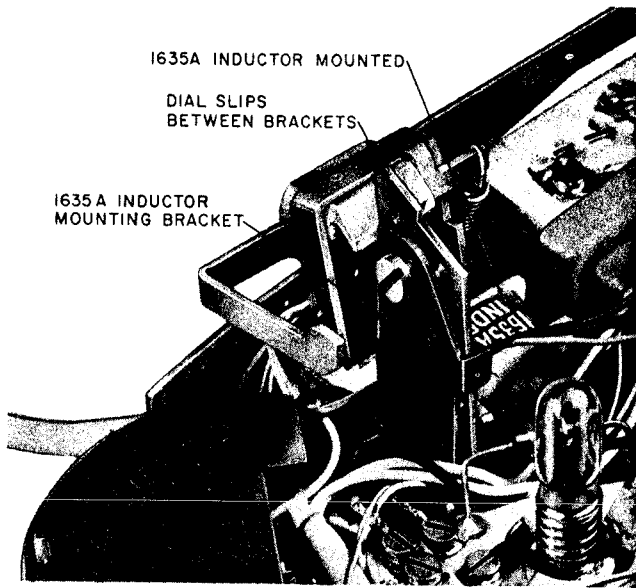


Fig. 10 — 1635A Inductor Mounted in 701B Telephone Set

### 3.11 Install D-179924 Kit of Parts as follows:

- (1) Remove telephone set housing.
- (2) Dress all leads to prevent wiring from being caught between weight and base of set.
- (3) Install P-25E307 insulator as shown in Fig. 11.
- (4) Install P-15E719 weight and P-24E510 spring retainer as shown in Fig. 12.
- (5) Replace telephone set housing.

### COLD-CATHODE TUBE

3.12 If 4-party selective or 8-party semiselective service is desired, a 425A or 426A cold-cathode tube may be ordered and installed in base of 701B or 702B telephone set as follows (see Fig. 13):

- (1) Remove telephone set housing.
- (2) Remove dial.
- (3) Remove and discard the mounting screw furnished as part of the electron tube.

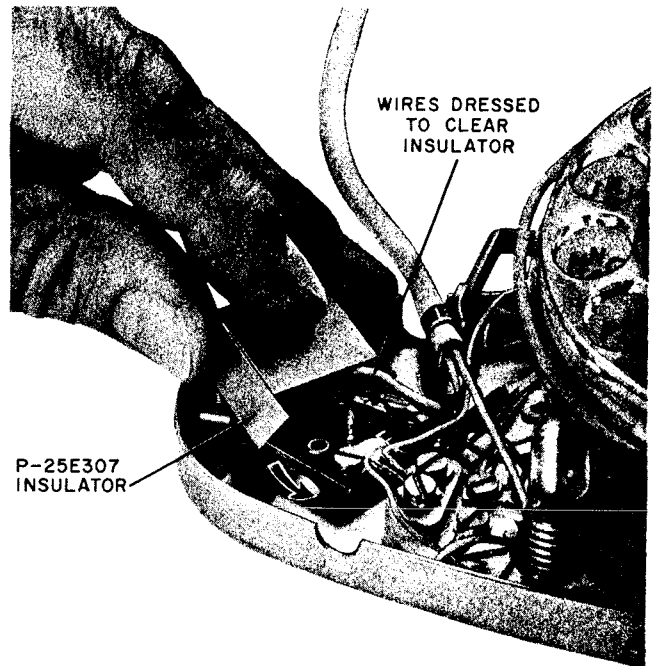


Fig. 11 — Placing Insulator Over Terminal

- (4) Install and connect tube as shown in Sections 502-710-400 and 402-710-403.
- (5) Replace dial and housing.

3.13 If the 711-, 712-, and 713-type telephone sets are to be used with 4-party selective or 8-party semiselective ringing, it is necessary to mount the 425A or 426A tube in a subscriber set.

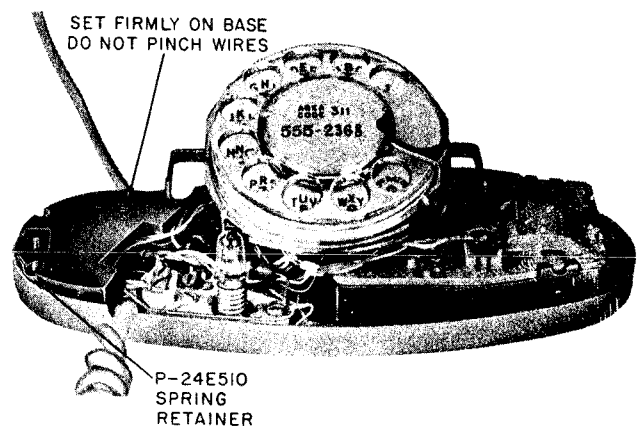


Fig. 12 — Location of P-24E510 Spring Retainer and P-15E719 Weight

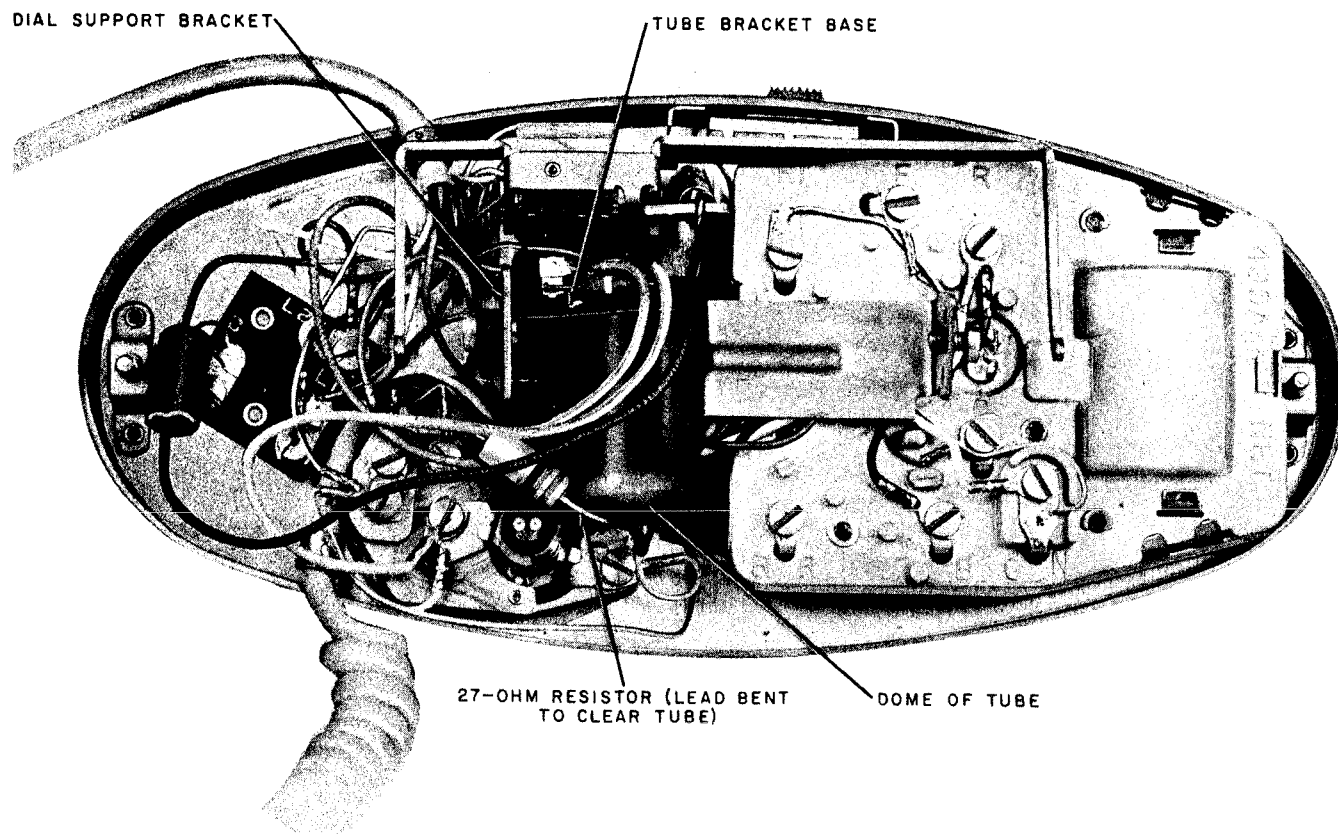


Fig. 13 — Location of Cold-Cathode Tube in 701B Telephone Set

#### PORTABLE INSTALLATION

**3.14** Jacks and plugs are available for portable installation of these telephone sets. Refer to Sections 461-630-100 and 461-630-101, respectively, for selection of appropriate types.

#### 4. MAINTENANCE

**4.01** Maintenance of the 700-series PRINCESS telephone sets is limited to replacing defec-

tive components (Table A) and burnishing or adjusting switch hook contacts.

**4.02** Refer to sections covering dials, handsets, cords, ringers, networks, line keys, etc., for maintenance of these components.

**4.03** Housings, dial plates, and handsets may be cleaned with a damp KS-2423 cloth. *Do not use scouring cleaners or colored components as this may damage finish.*