

## TELEPHONE SETS

### 2702, 2712, AND 2713 TYPES

#### IDENTIFICATION, INSTALLATION AND MAINTENANCE

#### 1. GENERAL

**1.01** This section covers PRINCESS® telephone sets equipped with 12-button TOUCH-TONE® dials (Fig. 1, 2, and 3).

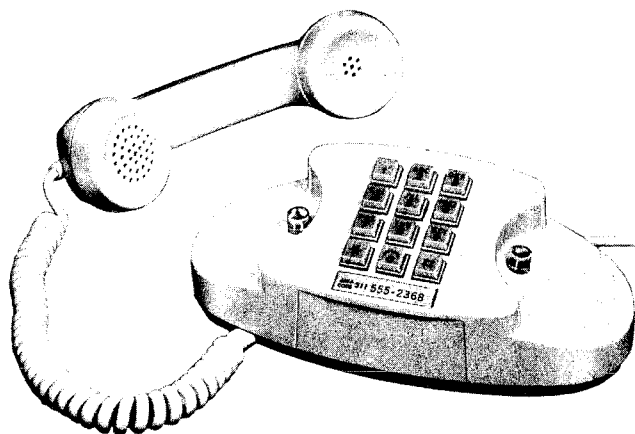


Fig. 1 — 2702B Telephone Set

#### 2. IDENTIFICATION

##### PURPOSE AND APPLICATION

- 2702B — individual or 2-party flat rate service (CO or key telephone system lines)
- 2702D — message waiting indication (PBX)
- 2712B — 2-line pickup (CO or key telephone systems), hold on one CO line
- 2713B — 2-line pickup, hold on both lines (CO-nonkey system)

##### FEATURES

- Set design features are shown in Table A.
- Optional set features are shown in Table B.

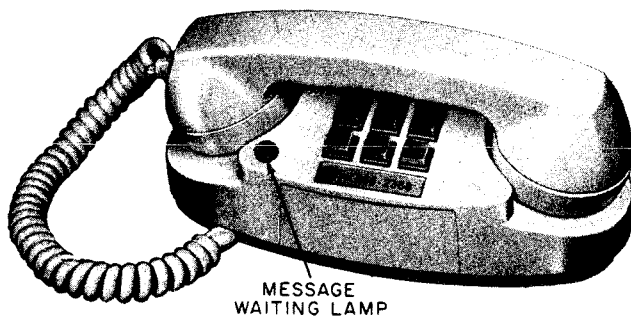


Fig. 2 — 2702D Telephone Set

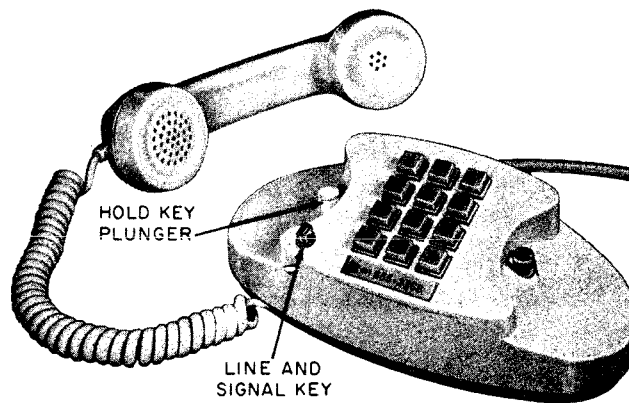


Fig. 3 — 2712B or 2713B Telephone Set

**TABLE A**  
**DESIGN FEATURES**

SET	DIAL/ NIGHT LAMP	MESSAGE WAITING LAMP	RINGER VOLUME/OFF- CONTROL	CO AND 1A KEY TELEPHONE SYSTEM LINES		
				INDIVIDUAL OR 2-PARTY FLAT RATE SERVICE	2-LINE PICKUP	2-LINE PICKUP WITH HOLD (CO LINES ONLY)
2702B	•		•	•		
2702D	•	•	•	•		
2712B	•		*	•	•†	
2713B	•		*	•	•	•

\* Not equipped with internal ringer.

† Shop wired to provide hold on one CO line (for use with 1A home interphone).

**TABLE B**  
**OPTIONAL FEATURES**

SET	1A1 OR 1A2 KEY TELEPHONE SYSTEM (WITHOUT HOLD)		1A HOME INTERPHONE	2A FARM INTERPHONE	3-TYPE SPEAKERPHONE	EXCLUSION OR RINGER/ EXTENSION CUTOFF	SIGNALING
	1-LINE PICKUP	2-LINE PICKUP					
2702B	•				•		
2712B		•	•	•	•	•	•
2713B							*

\* Change mounting cord to provide signal leads.

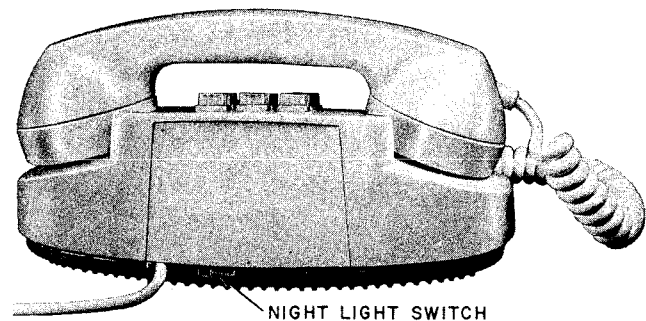
#### COLOR

These sets are available in all standard colors. Refer to Section 500-120-100 for promoted colors.

- **Night light switch:** allows dial lamp to be operated at reduced intensity (dial lamp illuminates dial at full intensity with handset off-hook) (Fig. 4).

#### OPERATING FEATURES

- **Message waiting lamp:** 2702D set — visual signal, under control of a PBX attendant, indicates an uncompleted incoming call (Fig. 2).
- **Line and signal key:** 2712B and 2713B sets — permits line selection by turning, signaling by depressing (Fig. 3 and 6).
- **Hold key plunger:** 2712B set — provides for mechanical hold on one CO line; 2713B set — provides for mechanical hold on either nonselected CO line (Fig. 3).



**Fig. 4 — 2700 Series Telephone Set, Rear — Night Light Switch Location**

**ORDERING GUIDE**

Set, Telephone, 2702B-\*  
 Set, Telephone, 2702D-\*

Set, Telephone, 2712B-\*

Set, Telephone, 2713B-\*

\* Add appropriate color suffix.

**TABLE C**  
**COMPONENT ORDERING GUIDE**

COMPONENT	TELEPHONE SET			
	2702B	2702D	2712B	2713B
<b>REPLACEABLE:</b>				
Cord, Handset	H4CJ-*			
Cord, Mounting	D5AK-*	D5AK-*	D14L-*	D6AF-*
Dial	35E4A			
Housing and Plunger Assembly	P-84D8-*	P-85H0-*	P-84D9-*	
Key, Line			638B	638D
Lamp, Dial	KS-19387, L1†			
Lamp, Message Waiting		KS-16893, L1		
Retainer, Number Card	P-25E803			
Ringer	M1A			
Set, Hand	G3AR-*			
Socket, Dial Lamp	KS-19240, L2†			
<b>OPTIONAL:</b>				
Kit of Parts (Polarity Guard)	D-180229‡			
Transmitter			664C§	
<b>ASSOCIATED:</b>				
Transformer (Dial Lamp)	2012A (or equivalent)			
Transformer (Interphone Power)			2012A§	
Unit, Control			51A§	

\* Add appropriate color suffix.

† Available as D-179919 kit of parts (containing dial lamp, socket and installation instructions).

‡ Consists of P-90D054 guard assembly, P-21F675 terminal board assembly, P-26E164 retainer, and P-43A392 screw. The P-90D054 guard assembly may be ordered separately for 2702D sets and 2712B sets equipped with 664C transmitter.

§ For use with 1A home interphone.

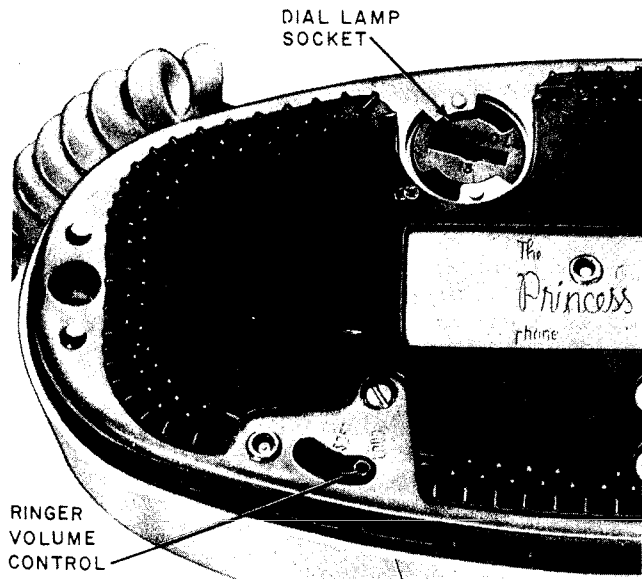


Fig. 5—PRINCESS Telephone Set, Partial Bottom View

- **Ringer volume control:** provides manual control of ringer volume (Fig. 5).

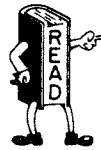
### 3. INSTALLATION

#### 3.01 Planning

(a) 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 dial lamp transformer.
- Location of telephone to provide adequate ringer coverage of area.
- General appearance of installation.

(b) Select a 105-120 volt ac receptacle on a circuit not controlled by a switch for dial lamp transformer. A 2A clamp is available to secure the 2012A transformer to the service outlet. For multiplied dial lamp sets, see section covering station transformers for selection information.

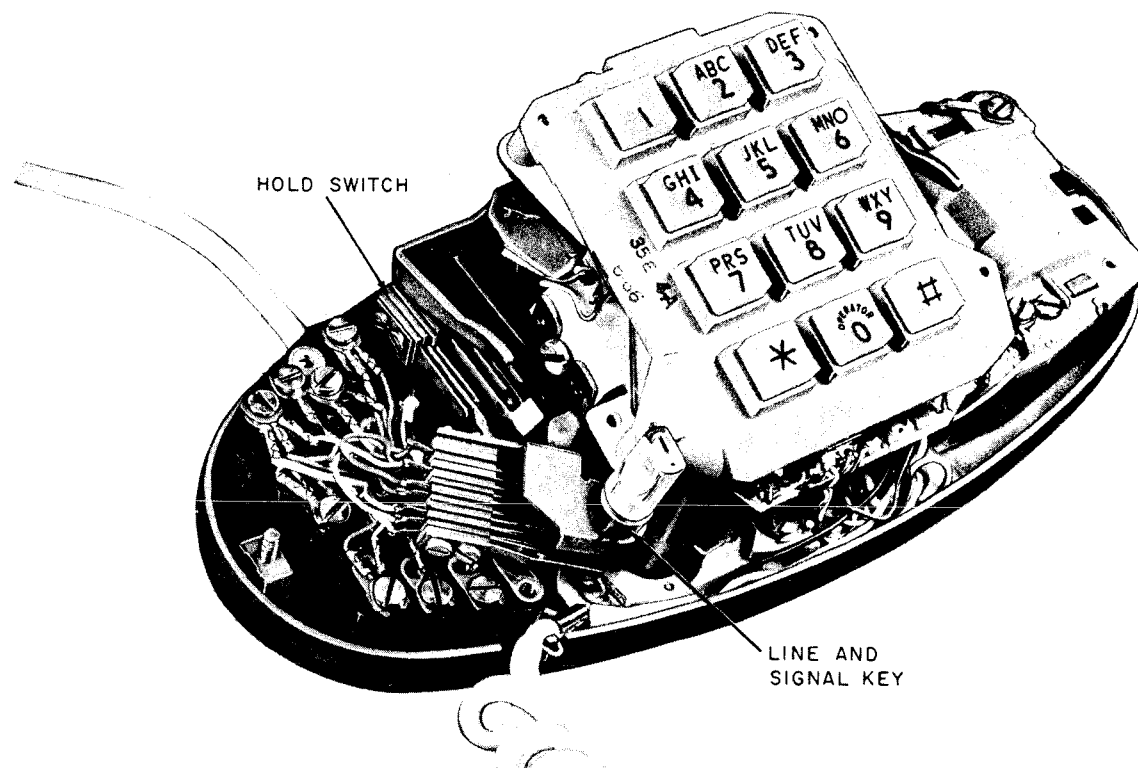


*For proper illumination of the dial, the wire run between transformer and telephone set should not exceed 250 feet of standard inside wire. Do not use a 25-foot mounting cord because the added resistance may result in decreased illumination.*

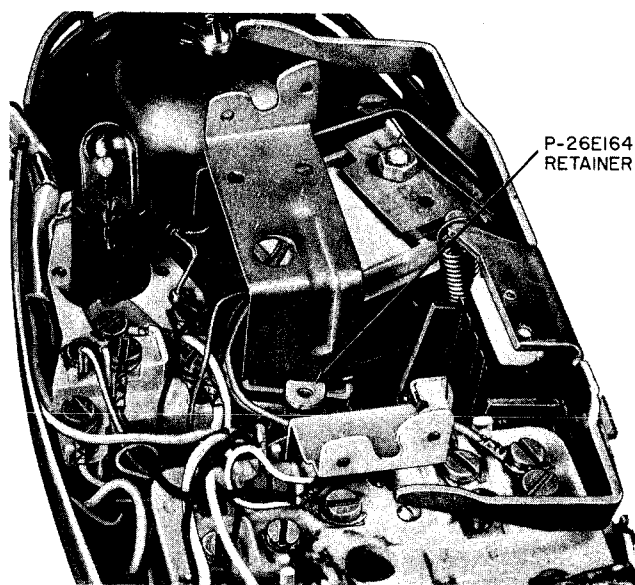
#### 3.02 Installing

- Normal installation** — in accordance with standard practices for desk-type telephone sets.
- Portable installation** — refer to appropriate section in Division 461 for selection of appropriate jacks and plugs for these sets.
- External ringer** — install an E1-type ringer, when required, for 2712- or 2713-type telephone sets.
- 664C transmitter** (2712B set — optional) — refer to appropriate connection and maintenance section in Division 512 (1A home interphone).
- Polarity guard (optional)** — install the D-180229 Kit of Parts as follows:
  - Remove housing; loosen dial mounting screws and move the dial to one side without disconnecting the dial leads.
  - Insert the P-26E164 retainer in left-hand dial mounting bracket (Fig. 7).
  - Insert tabs of P-21F675 terminal board into notches in right-hand dial mounting bracket and secure to retainer using P-43A392 screw.
  - Connect polarity guard in accordance with connections shown in appropriate connection section.
  - Reinstall dial on mounting bracket, securing the P-90D054 guard assembly mounting bracket under the right-hand dial mounting screw (Fig. 8).
  - Reinstall housing.

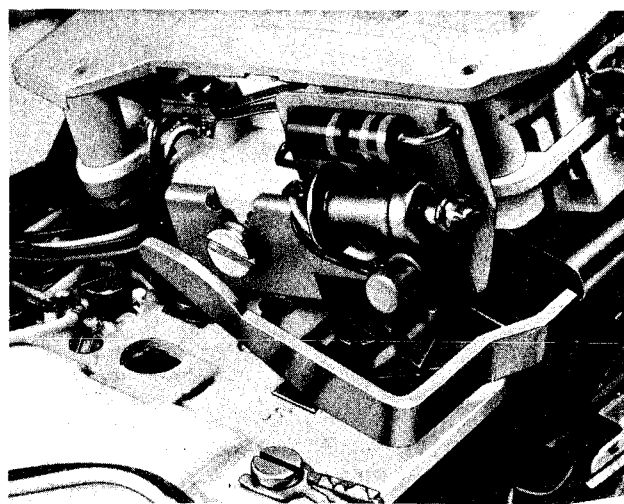
**Note:** The P-21F675 terminal board and P-26E164 retainer, furnished with D-180229 Kit of Parts, are not used in sets equipped with message waiting lamp or home interphone transmitter (2702D and 2712B sets). The 2702D set has spare terminals 3 and 4



**Fig. 6 — 2713B Telephone Set, Housing Removed (2712B set is similar in appearance)**



**Fig. 7 — Installing Terminal Board Retainer in PRINCESS Telephone Set**



**Fig. 8 — Polarity Guard Mounted in PRINCESS Telephone Set**

on the message waiting lamp terminal board to facilitate connecting the polarity guard (Fig. 9). Use D-161488 connectors (2) to connect polarity guard in 2712B sets equipped with home interphone transmitter.

#### 4. MAINTENANCE

**4.01** Maintenance of the 2700-type telephone sets is limited to replacing defective com-

ponents and burnishing or adjusting switch contacts.

**4.02** Housings, handsets, and cords may be cleaned with a damp KS-2423 (or equivalent) cloth. *Do not use scouring cleaners or volatile solvents as these may damage finish.*

**4.03** Refer to sections covering dials, handsets, cords, ringers, etc., for maintenance of these components.

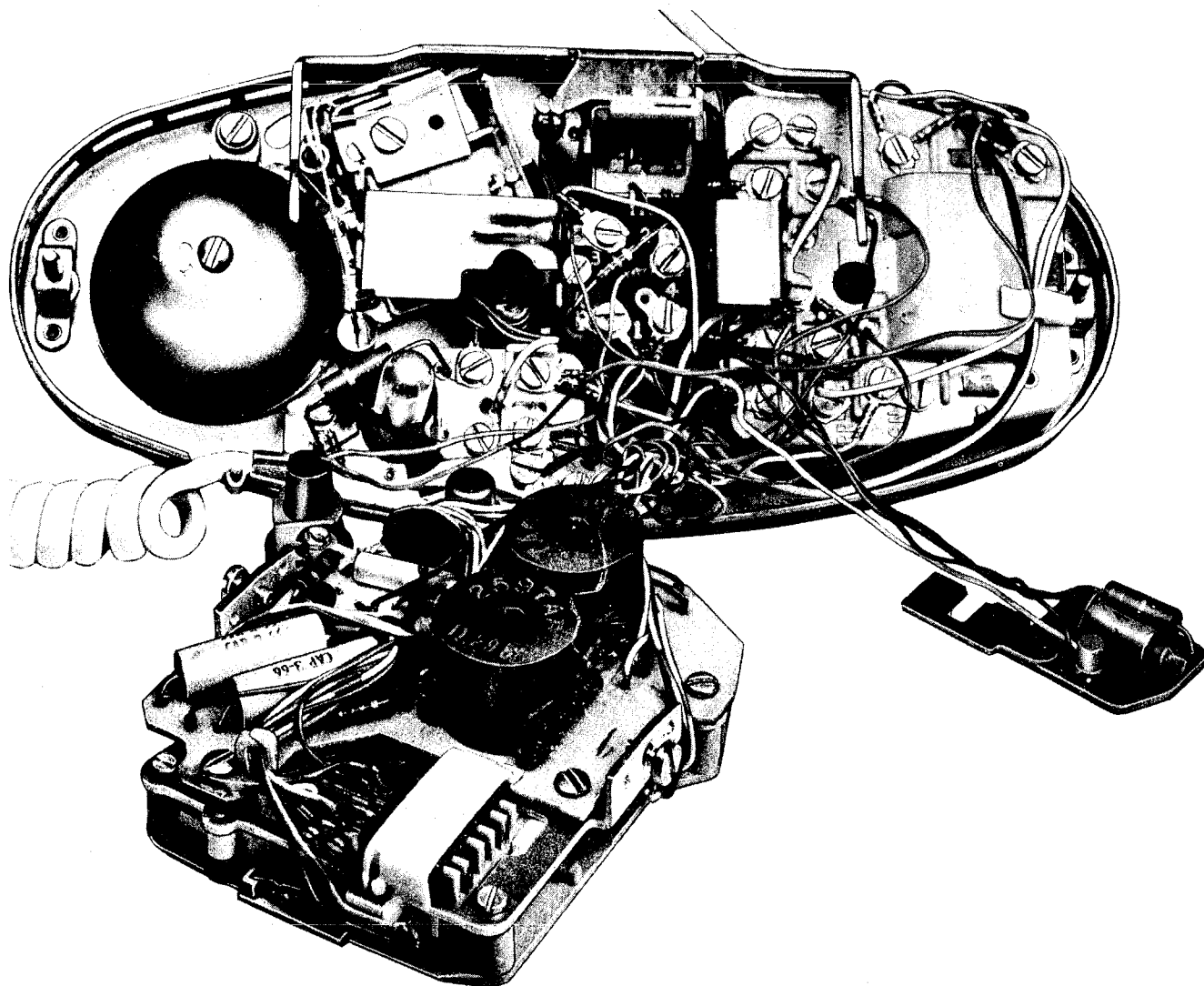


Fig. 9 — Polarity Guard Installation in 2702D Telephone Set