

SUBSCRIBER SETS

IDENTIFICATION AND ASSEMBLY OF PARTS

I GENERAL

- 1.01** This section covers identification and assembly of parts for induction coil and network type subscriber sets. It also includes subscriber sets used as ringers only.
- 1.02** This section is reissued to:
- (a) List subscriber sets which are rated Manufacture Discontinued, and their suggested replacements.
 - (b) Show changes in components of network type subscriber sets.
 - (c) Include 685C, 687D, 688A, and 690-type subscriber sets.
- 1.03** The selection and color of subscriber sets associated with the various hand telephone sets are included in the section on common battery station sets for general use.
- 1.04** The selection of subscriber sets used as ringers only is included in table form in the section on subscriber set ringers for general use.
- 1.05** Connections for types of subscriber sets are covered in separate sections listed in the index.
- 1.06** Subscriber sets are identified by a code number stamped on the metal base or inside the cover.
- 1.07** Cording for subscriber sets is not covered in detail in this section. However, cording should be done to eliminate the possibility that cord conductors may contact any moving part or make electrical contact with terminals other than the one intended.
- 1.08** This section includes the assembly of the following parts in the subscriber sets:
- Ringers.
 - Cording.
 - Induction coils.
 - Electron tubes.
 - Varistors.
- 1.09** The combination of apparatus is shown in Table A.
- 1.10** Subscriber sets rated Manufacture Discontinued and their suggested replacements are listed in Table B.

TABLE A
COMBINATION OF APPARATUS

Type Set	Ringer	Network	Electron Tube	Relay	Capacitor	Varistor	Amplifier	Inductor	Buzzer
685A	C4A	425E							
685B	C4A	425E		S36					
685C	C4A	425D		KS-19132, L1					
686A	C4A	425E	426A						
687A	C4A				198C				
687B			426A	UA-112		20A			
687D							151D	266A	
688A	C4A	425D				100A	151D	266A	KS-8109
690A1 *	C4A	425D				100A	151D	266A	KS-8109
690A2	C4A	425D				100A	151D	266A	KS-8109
690A3	C4A	425D				100A	151D	266A	KS-8109

* The 690A1 subscriber set uses an 8C-58 dial and 36A faceplate.

TABLE B
REPLACEMENTS FOR SETS RATED MANUFACTURE DISCONTINUED

TYPE SET	SUGGESTED REPLACEMENT
634BA	685A
634CE	
634YD	
684A	
684C	
684BA	
634CG	685B
634CH	
634AT	686A
531A	687A
584DE	
584DF	
531C	687B
392L	L1A ringer
592A	
592C	

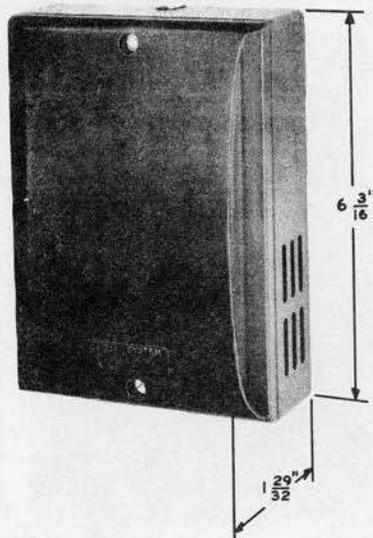


Fig. 1 - 531-Type Subscriber Set

2. IDENTIFICATION

Subscriber Sets - 500 Series

2.01 531 and 584 Types: These subscriber sets are black or color finished and consist of a metal base with mounted apparatus and a removable plastic cover (Fig. 1). Uses and components are as follows:

- (a) 531A: For use as a high impedance extension ringer. Consists of a B-type ringer and an 0.5-uf capacitor.
- (b) 531C: For use for auxiliary signal facilities. Consists of a relay, varistor, and electron tube.
- (c) 584DE: For use as a high-impedance ringer. Consists of an 0.5-uf capacitor.
- (d) 584DF: For use when a low-impedance ringer is required.

2.02 The 531- and 584-type subscriber sets are rated Manufacture Discontinued. They are replaced by the 687-type set.

2.03 592 Type: These subscriber sets have high impedance loud-ringing bells and a removable metal cover. The apparatus and exposed 4-inch gongs are mounted on a black finished metal base (Fig. 2). Uses are as follows:

- (a) 592A: For use on nonpolarized ringing lines.
- (b) 592B: For use on magneto nonpolarized ringing lines.
- (c) 592C: For use on polarized ringing lines.

2.04 The 592-type subscriber set is rated Manufacture Discontinued and replaced by the L1A ringer. Refer to the section covering ringers for L1A ringer uses.

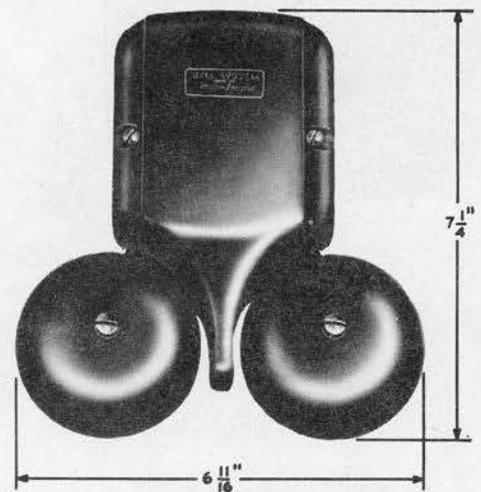


Fig. 2. - 592-Type Subscriber Set

Subscriber Sets - 600 Series

2.05 634 and 684 Types: These subscriber sets are antisidetone induction coil sets. Components are as follows:

- (a) The apparatus mounted on the metal base of 634A and 684A subscriber sets includes an induction coil, biased ringer with gongs, and ringing capacitors.

(b) A black finished hinged metal cover is attached to the base of the 634-type subscriber sets (Fig. 3).

(c) A removable black molded plastic cover is attached to the base of the 684-type subscriber set (Fig. 4).

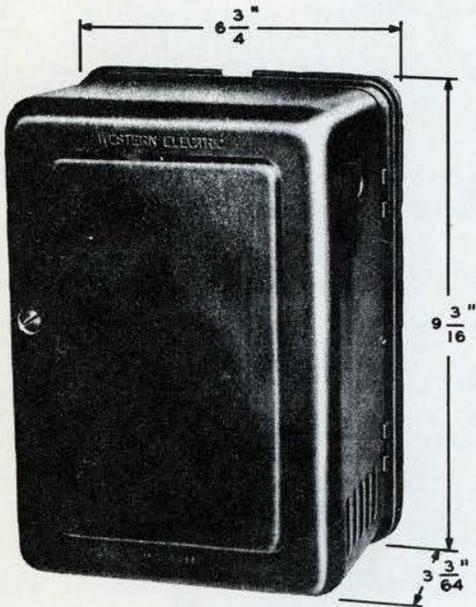


Fig. 3 - 634-Type Subscriber Set

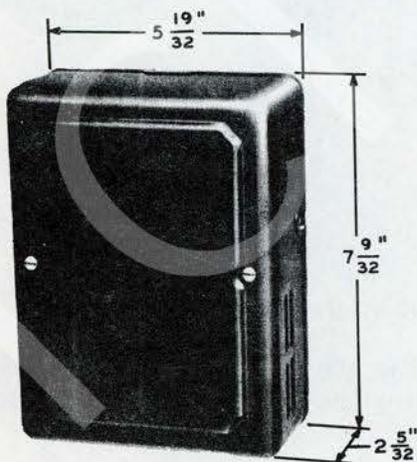


Fig. 4 - 684-Type Subscriber Set

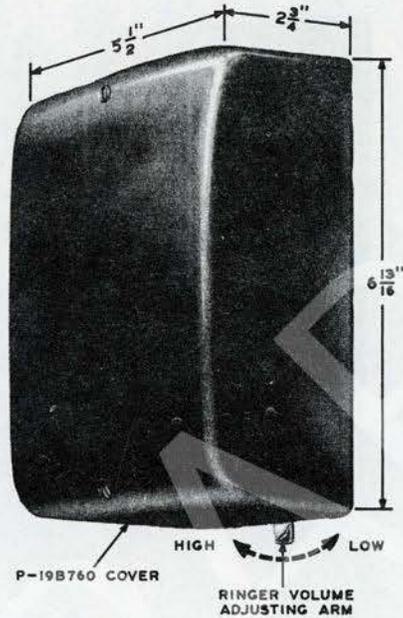


Fig. 5 - 685-, 6-, 7-, and 8-Type Subscriber Sets, External View

2.06 The 634- and 684-type subscriber sets are rated Manufacture Discontinued and are replaced by 685 and 686-type subscriber sets.

2.07 685 and 686 Types: These subscriber sets are network sets. They provide transmission and ringing performance equivalent to that of 500 series telephone sets when used with coin collectors; and hand telephone sets equipped with G-type handsets or equivalent (Fig. 5). Uses are as follows:

- (a) 685A: For use in manual or dial systems with all classes of service except 4-party selective and 8-party semiselective (Fig. 6).
- (b) 685B: For use with coin collectors on long loops. Arranged to reduce inductive noise.
- (c) 685C: For use in 2- and 4- wire circuits (Fig. 7).
- (d) 686A: For use in manual or dial systems for 4-party selective and 8-party semiselective services.

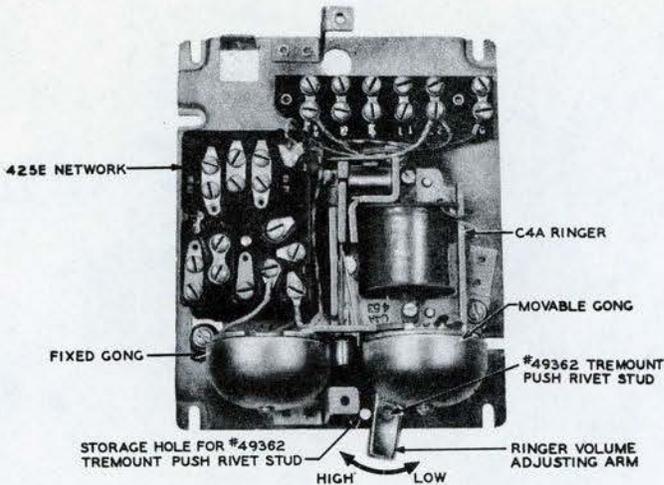


Fig. 6 - 685A Subscriber Set, Internal View

Note: 685-, 6-, 7-, and 8-type subscriber sets are equipped with a 4-step manually operated ringer volume-control arm. It protrudes through one end of the cover and operates a cam on the ringer.

2.08 687 Type: Uses are as follows:

- (a) 687A: For use as an extension ringer (Fig. 8).
- (b) 687B: Provides auxiliary signal facilities for 4-party selective and 8-party semi-selective services (Fig. 9).

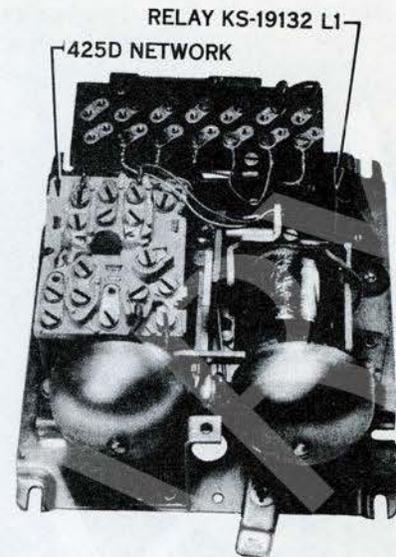


Fig. 7 - 685C Subscriber Set, Internal View

- (c) 687D: Provides transmitter amplification for head telephone sets when used with a 685C subscriber set in 2- and 4- wire services (Fig. 10).

2.09 688A: Provides transmission and ringing features for 52- and 53-type head telephone sets when used with 1A1, 1A2, and 6A key telephone units. A buzzer provides a means for local signaling when required (Fig. 11).

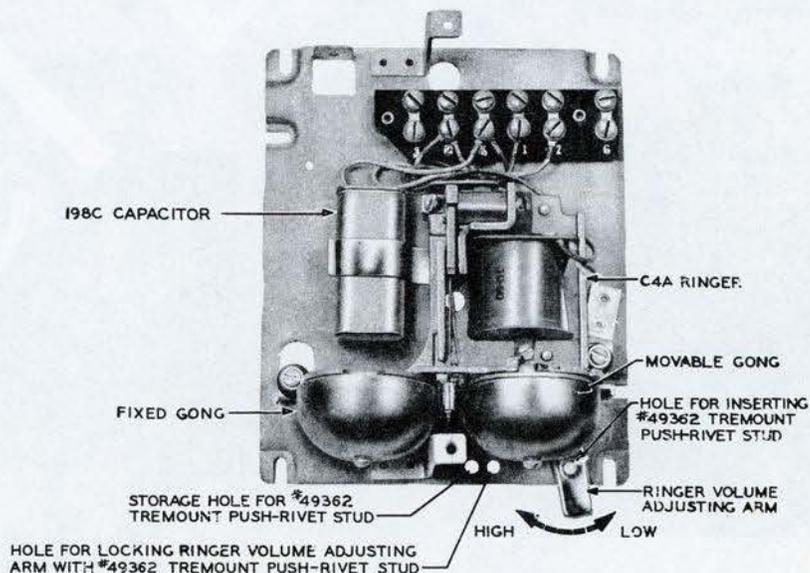


Fig. 8 - 687A Subscriber Set, Internal View

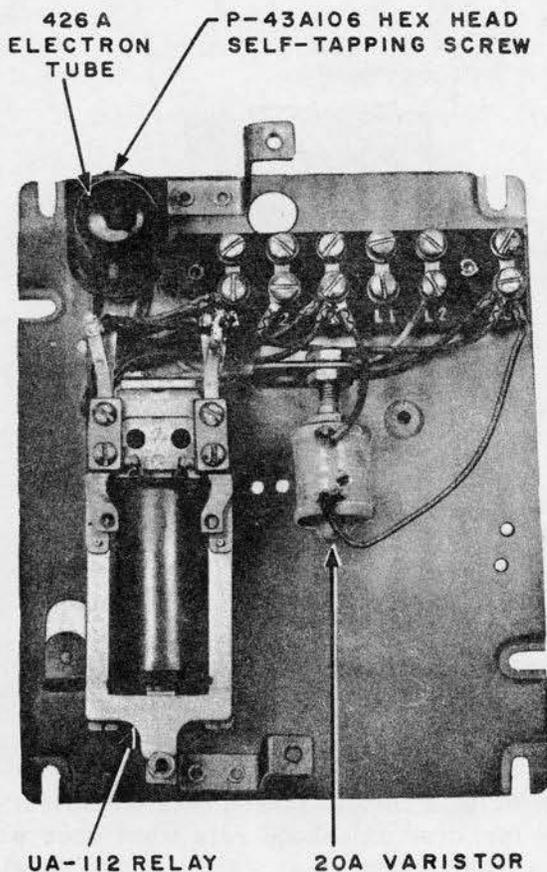


Fig. 9 - 687B Subscriber Set, Internal View

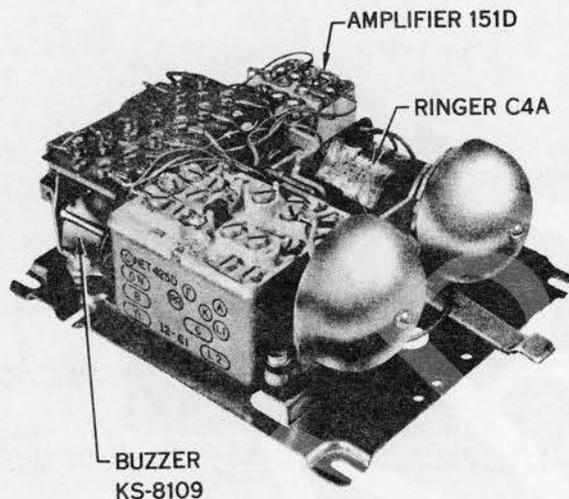


Fig. 11 - 688A Subscriber Set, Internal View

2.10 690 Type: Provides transmission, ringing, and dialing features for 52- and 53-type head telephone sets when used in 400-type key mountings. They are designed to be mounted flush with the key unit. A buzzer provides a means for local signaling when required. Uses are as follows:

- (a) 690A1: Provided with clear plastic faceplate and a snap-on bezel to retain the faceplate (Fig. 12). A faceplate and five mats colored silver, gold, blue, green and cream white are also provided to give a choice of color contrasts.

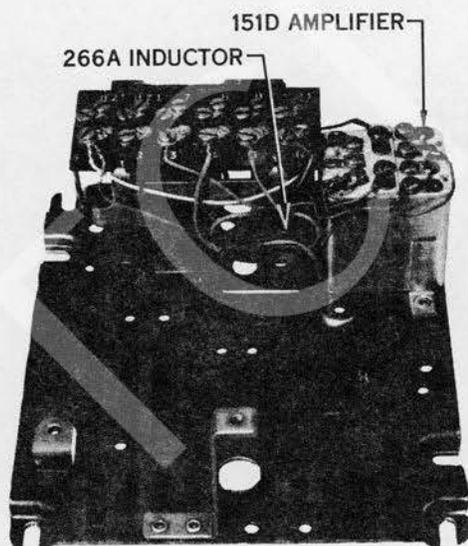


Fig. 10 - 687D Subscriber Set, Internal View

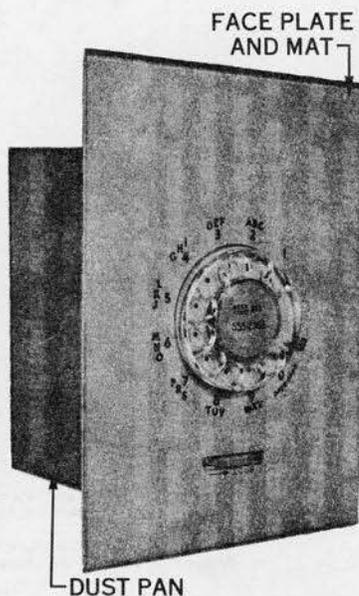


Fig. 12 - 690A1 Subscriber Set, External View

- (b) 690A2: Not provided with a faceplate or mats, but with a plate and four screws to secure subscriber set to key mounting.
- (c) 690A3: Not provided with a faceplate, mats, or dust pan. Equipped with mounting screws, a top plate, and brackets for mounting the set in the dust pan of a 400-type key mounting (Fig. 13).

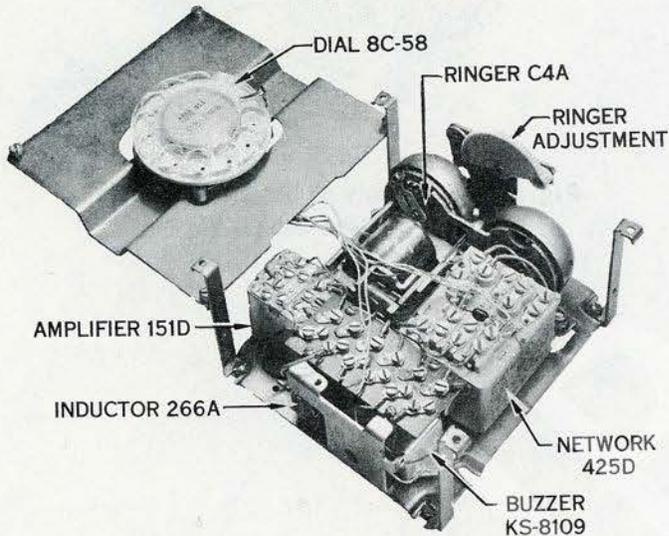


Fig. 13 – 690A3 Subscriber Set, Internal View

3. ASSEMBLY OF PARTS

Ringers

- 3.01** The C4A ringer is provided in 685-, 6-, 7-, 8-, and 690-type subscriber sets (Fig. 14).
- 3.02** When replacing the C-type ringer in 686-, 7-, and 8-type subscriber sets, take care that the locating pin and projecting arm are properly seated before securing mounting screws (Fig. 15).

Cording

- 3.03** In 685-type subscriber sets, secure the mounting cord stayhook to the tube bracket as shown in Fig. 16.

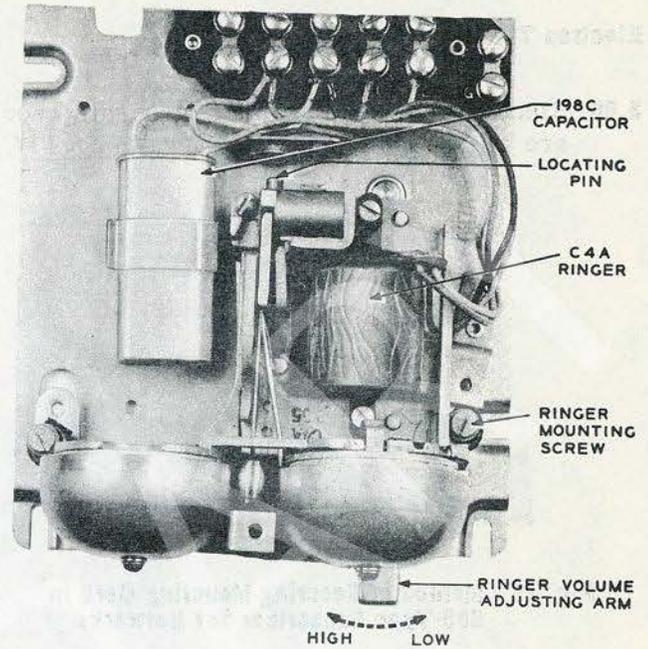


Fig. 14 – Assembly of C4A Ringer in 685-, 6-, 7-, and 8-Type Subscriber Sets, Front View

Networks

- 3.04** Network induction coils found in 685- and 686-type subscriber sets are not replaceable in the field.

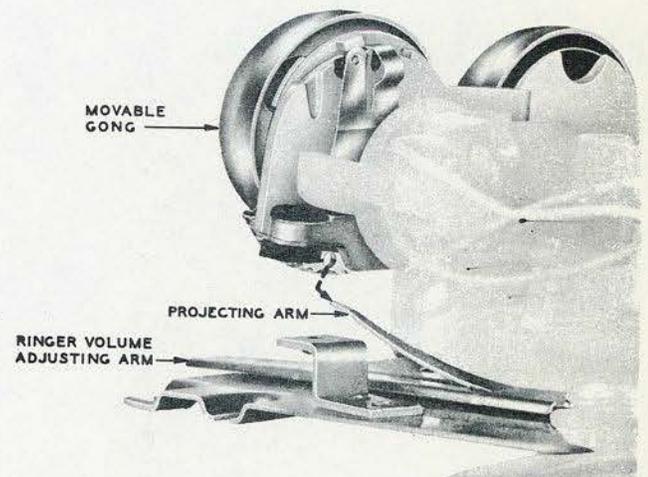


Fig. 15 – Assembly of C4A Ringer in 685-, 6-, 7-, and 8-Type Subscriber Sets, Side View

Electron Tubes and Varistors

3.05 Electron tubes and varistors generally used are normally mounted as shown in Fig. 17.

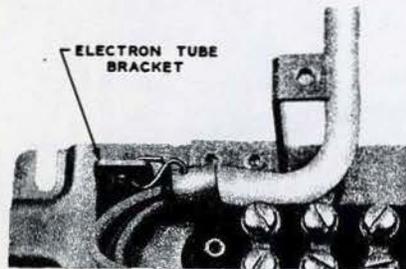


Fig. 16 - Method of Securing Mounting Cord in 685-Type Subscriber Set Networks

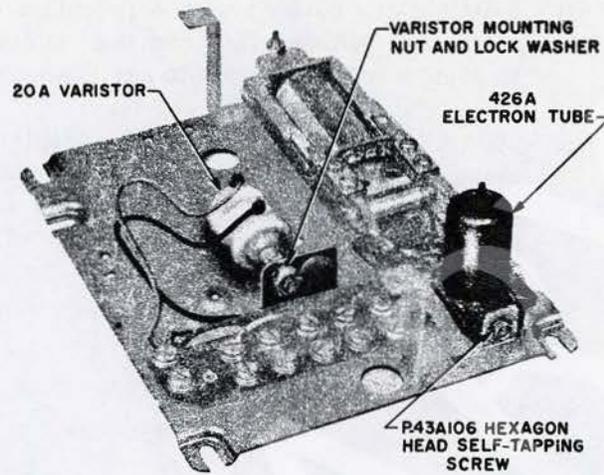


Fig. 17 - Assembly of Tube and Varistor in 687-Type Subscriber Set