

**SUBSCRIBER SETS**  
**688, 690, 1690, AND 2690 TYPES**

**IDENTIFICATION**

**1. GENERAL**

**1.01** This section is issued to:

- Include information formerly found in Section 502-200-100
- Group similar type subscriber sets
- Add P-90D095 polarity guard Fig. 11
- Add information on the 2690-type subscriber set
- Show 688A, 688B, 690A, 690B, 1690C1, 1690C2, and 1690C3 (MD)

**2. IDENTIFICATION**

(a) *Table Index*

Table A — Replacements for Subscriber Sets Rated Manufacture Discontinued

Table B — 688-, 690-, 1690-, and 2690-Type Subscriber Set Components

Table C — 688-, 690-, 1690-, and 2690-Type Subscriber Set Functions

(b) *Ringers* — C4A ringer (Fig. 1) provided in 688-, 690-, 1690-, and 2690-type subscriber sets.

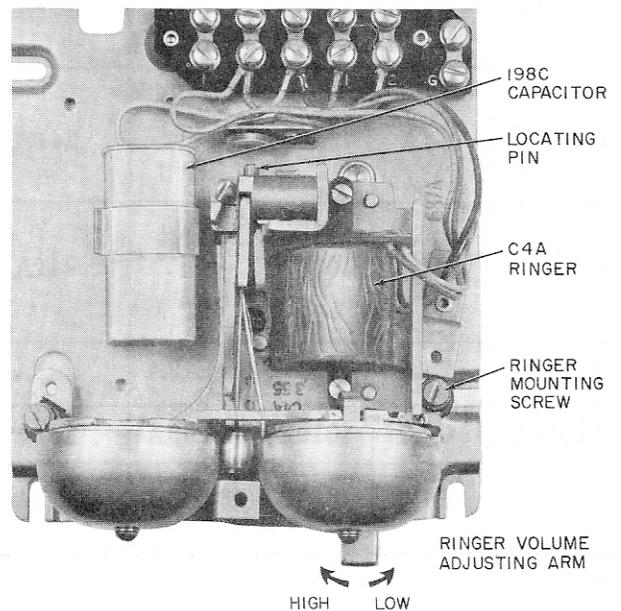


*When replacing the C-type ringer in 688-type subscriber set, take care that the locating pin and projecting arm are properly seated before securing mounting screws (Fig. 2).*

**TABLE A**

**REPLACEMENTS FOR SUBSCRIBER SETS RATED MANUFACTURE DISCONTINUED**

TYPE SET	SUGGESTED REPLACEMENT
688A, 688B	688C
690A1, 690B1	690C1
690A2, 690B2	690C2
690A3, 690B3	690C3
1690C1	2690C1
1690C2	2690C2
1690C3	2690C3



**Fig. 1 — Assembly of C4A Ringer**

TABLE B

## 688-, 690-, 1690-, AND 2690-TYPE SUBSCRIBER SET COMPONENTS

TYPE SET	RINGER	NETWORK	DIAL	AMPLIFIER	VARISTOR	INDUCTOR	BUZZER	FACE-PLATE
688A*	C4A	425D		151D	100A	266A	KS-8109	None
688B*	C4A	425D		151D	100A	266A	KS-8109	
688C	C4A	425E		241A	100A	266A	KS-8109	
690A1*	C4A	425D	8C-58	151D	100A	266A	KS-8109	36A1
690A2*	C4A	425D	8C-58	151D	100A	266A	KS-8109	None
690A3*	C4A	425D	8C-58	151D	100A	266A	KS-8109	
690B1*	C4A	425D	8C-58	151D	100A	266A	KS-8109	36A1
690B2*	C4A	425D	8C-58	151D	100A	266A	KS-8109	None
690B3*	C4A	425D	8C-58	151D	100A	266A	KS-8109	
690C1	C4A	4010B	8C-58	241A	100A	266A	KS-8109	36A1
690C2	C4A	4010B	8C-58	241A	100A	266A	KS-8109	None
690C3	C4A	4010B	8C-58	241A	100A	266A	KS-8109	
1690C1*	C4A	4010B	25A3 or 25W3	241A	100A	266A	KS-8109	136A1
1690C2*	C4A	4010B	25A3 or 25W3	241A	100A	266A	KS-8109	None
1690C3*	C4A	4010B	25A3 or 25W3	241A	100A	266A	KS-8109	
2690C1	C4A	4010B	35A3A	241A	100A	266A	KS-8109	222A1
2690C2	C4A	4010B	35A3A	241A	100A	266A	KS-8109	None
2690C3	C4A	4010B	35A3A	241A	100A	266A	KS-8109	

\* MD

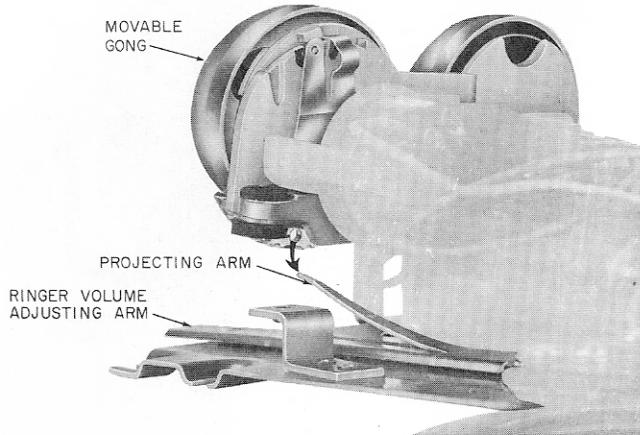
**TABLE C**  
**688-, 690-, 1690-, AND 2690-TYPE SUBSCRIBER SET FUNCTIONS**

SET	USES	REMARKS	FIG.
688A (MD)	With 400-type key mounting in 1A1, 1A2, and 6A key telephone systems.	Replaced by 688B (MD)	3
688B (MD)	Same as 688A (MD)	Arranged to minimize vulnerability of polarity guard to high line voltage surges.	4
688C	Same as 688A (MD)	Same as the 688B (MD), except the set is provided with a 241A amplifier. Recommended to replace 688B (MD).	
690A1 (MD)	Initially intended for amplifying signals of N1 transmitter unit in 52- or 53-type head telephone sets to the level of T1 transmitter unit in a G-type handset when used in 400-type key mountings.	Provided with clear plastic faceplate retained by a snap-on bezel. The 36A1 faceplate and two mats colored silver and gold are furnished. Provides a rotary dial, ringer, and optional buzzer.	5
690A2 (MD)	Initially intended for use with the 420A3 and 421A3 key mountings. Provide same functions as 690A1 (MD).	Not provided with faceplate or mats, but a bracket and four screws are provided to secure the set to key mounting, both being under a common faceplate.	6
690A3 (MD)	Initially intended for use with 423A3, 424A3, and 425A3 key mountings. Provide same functions as 690A1 (MD).	Not provided with faceplate, mat, or dustpan. Equipped with mounting screws, a top plate, and brackets for mounting the set in the dustpan of the key mounting.	
690B1 (MD)	Same as 690A1 (MD)	Same as 690A1 (MD), except the circuit is arranged to minimize vulnerability of polarity guard to high voltage surges. Replaces 690A1 (MD).	5
690B2 (MD)	Same as 690A2 (MD)	Same as 690A2 (MD), except the circuit is arranged to minimize vulnerability of polarity guard to high voltage surges. Replaces 690A2 (MD).	6
690B3 (MD)	Same as 690A3 (MD)	Same as 690A3, (MD), except the circuit is arranged to minimize vulnerability of polarity guard to high line voltage surges. Replaces 690A3 (MD).	
690C1	Same as 690A1 (MD)	Same as 690B1 (MD), except contains 241A amplifier and 4010B network. Designed to accommodate either rotary or TOUCH-TONE® dial. Replaces 690B1 (MD).	5

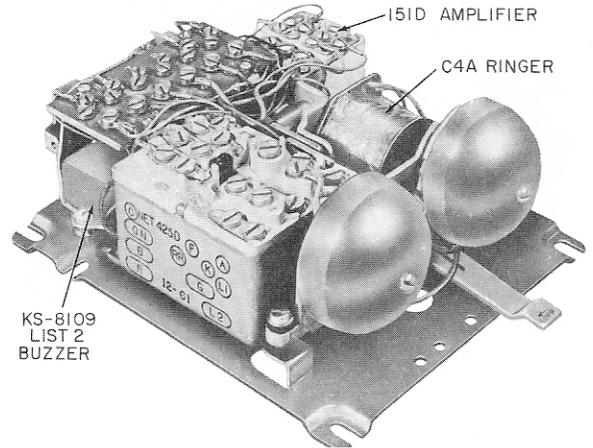
**TABLE C (Cont)**  
**688-, 690-, 1690-, AND 2690-TYPE SUBSCRIBER SET FUNCTIONS**

SET	USES	REMARKS	FIG.
690C2	Same as 690A2 (MD)	Same as 690B2 (MD), except contains 241A amplifier and 4010B network. Designed to accommodate either rotary or TOUCH-TONE dial. Replaces 690B2 (MD).	6
690C3	Same as 690A3 (MD)	Same as 690B3 (MD), except contains 241A amplifier and 4010B network. Designed to accommodate either rotary or TOUCH-TONE dial. Replaces 690B3 (MD).	
1690C1 (MD)	Initially intended for use with 1400-type key mountings and 52- or 53-type head telephone sets.	Flush mounted set equipped with 4010B network, a 241A amplifier, a KS-8109L2 buzzer, a 25A3 or 25W3 TOUCH-TONE dial, a C4A ringer, and a 136A1 faceplate. Faceplate contained in a snap-on bezel and includes a silver and gold mat. The ringer volume control protrudes through the faceplate.	
1690C2 (MD)	Initially intended for use with 1420A3 or 1421A3 key mountings.	Same as 1690C1 (MD), except it is not equipped with a faceplate and bezel. The set is provided with a bracket and four mounting screws which are used to affix the set to the key mounting using a common faceplate.	7
1690C3 (MD)	Initially intended for use with 1423A3, 1424A3, or 1425A3 key mountings.	Same as 1690C1 (MD), except it is not equipped with a faceplate, bezel, or dustpan. It is equipped with a top plate and brackets for mounting the set in the dustpan of the key mounting using a common faceplate.	8
2690C1	Same as 1690C1 (MD)	Same as 1690C1 (MD), except contains 35A3A 12-button TOUCH-TONE dial and a 222A1 faceplate. Faceplate is contained in a snap-on bezel. The ringer volume control protrudes through the faceplate. Replaces 1690C1 (MD).	
2690C2	Initially intended for use with 2420A3 or 2421A3 key mounting.	Same as 1690C2 (MD), except contains 35A3A 12-button TOUCH-TONE dial. Replaces 1690C2 (MD).	9
2690C3	Initially intended for use with 2423A3, 2424A3, or 2425A3 key mountings.	Same as 1690C3 (MD) except contains 35A3A 12-button TOUCH-TONE dial. Replaces 1690C3 (MD).	10

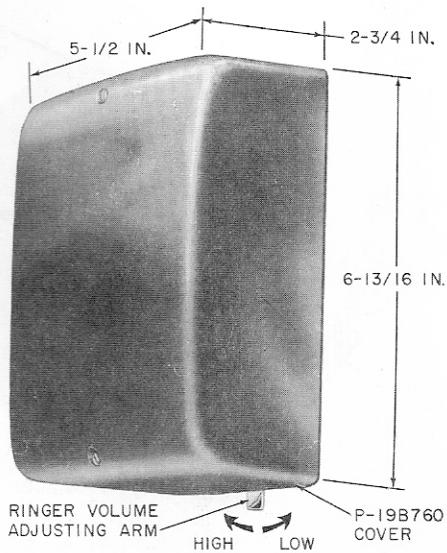
**Note:** The 688-type subscriber sets are equipped with a 4 step manually operated ringer volume control arm. It protrudes through one end of the cover and operates a cam on the ringer.



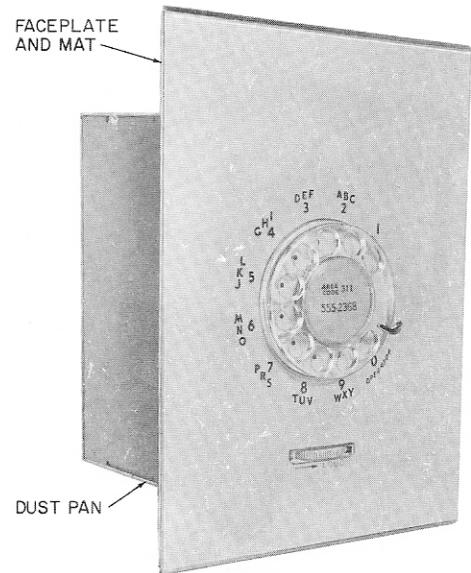
**Fig. 2 — Assembly of C4A Ringer in 688-Type Subscriber Set, Side View**



**Fig. 4 — 688-Type Subscriber Set, Interior**



**Fig. 3 — 688-Type Subscriber Set, External View**



**Fig. 5 — 690C1 Subscriber Set**

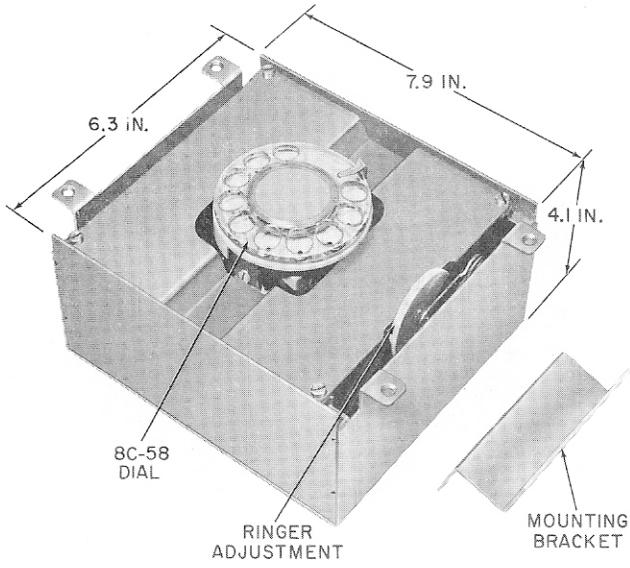


Fig. 6 — 690C2 Subscriber Set

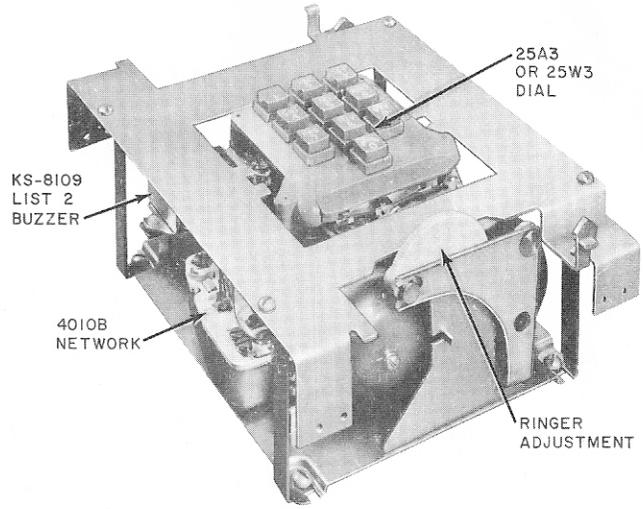


Fig. 8 — 1690C3 (MD) Subscriber Set

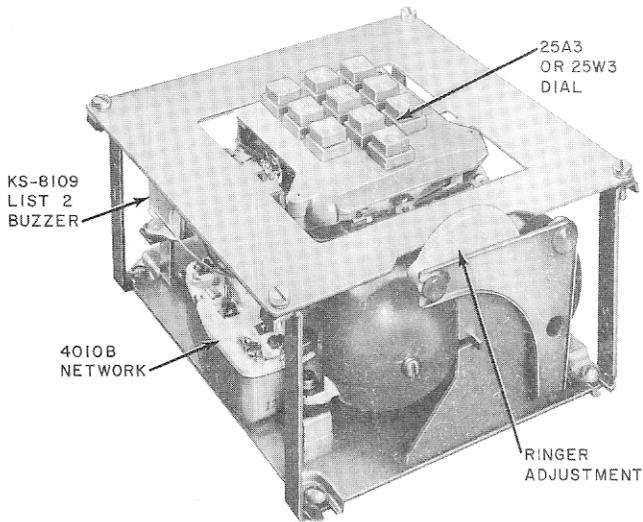


Fig. 7 — 1690C2 (MD) Subscriber Set

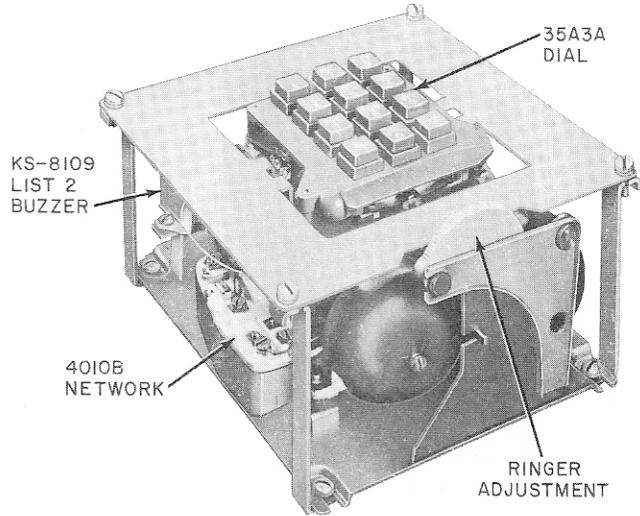
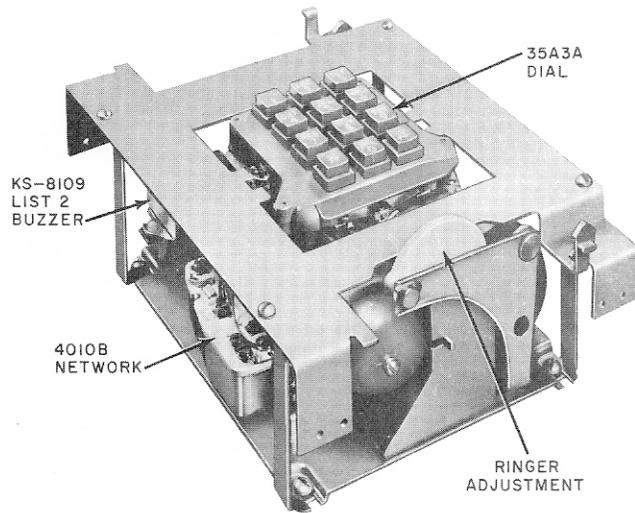
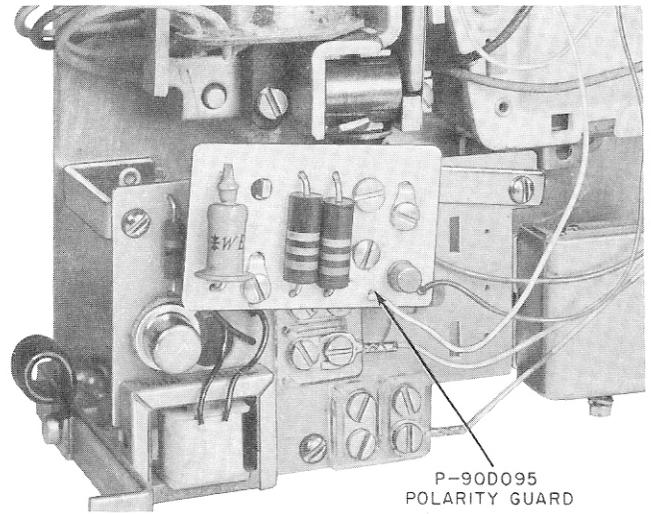


Fig. 9 — 2690C2 Subscriber Set



**Fig. 10 — 2690C3 Subscriber Set**



**Fig. 11 — P-90D095 Polarity Guard Installed in 1690- and 2690-Type Subscriber Sets**