

700-TYPE MODULAR STATION APPARATUS

IDENTIFICATION

1.00 INTRODUCTION

1.01 This section covers the description and use of 700-type modular station apparatus and its associated equipment.

1.02 Due to extensive changes marginal arrows have been omitted.

2.00 GENERAL

2.01 The 700-type modular station apparatus is designed to permit answering, originating, monitoring, or holding calls on central office lines, PBX extensions, automatic tie lines, radio circuits, etc, when associated with 102A key equipment, 112A key equipment, or the 756 PBX.

2.02 Each modular assembly consists of one or more keys and a dial apparatus unit, if required, mounted side by side or end to end. An assembly may include a telephone set or handset mounting. Various combinations of keys may be connected together to operate as a single unit.

2.03 Assemblies may be flush mounted either end to end or side by side in customer-owned consoles and tables (Fig. 1). They may be surface mounted side by side in apparatus cases (Fig. 2).

2.04 Each key is equipped with a release mechanism comprised of a shaft, latch-bar arm, bushing, and spring.

2.05 Mechanical linkage is provided to join two or more keys so that the operation of any pickup key will release operated pickup keys in the assembly.

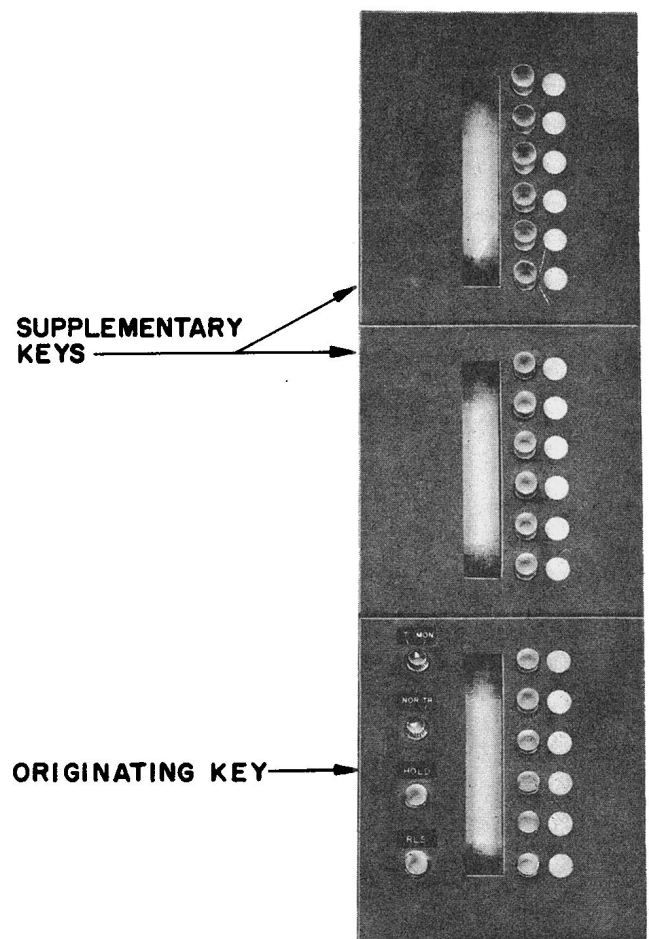


Fig. 1 — End-to-end Assembly, Flush Mounted

2.06 On side-by-side assemblies, a bushing is used to join adjacent shafts (Fig. 3). Latch bars are joined together on end-to-end assemblies by means of a link (Fig. 4).

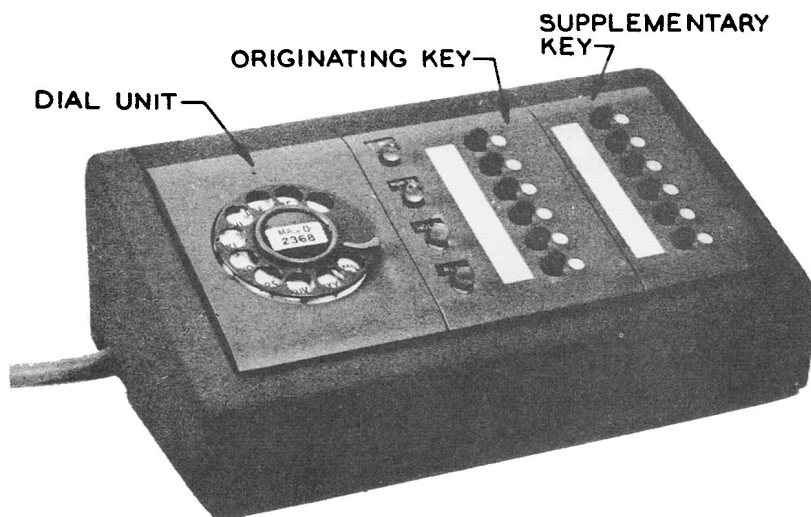


Fig. 2 — Side-by-side Assembly, Surface Mounted

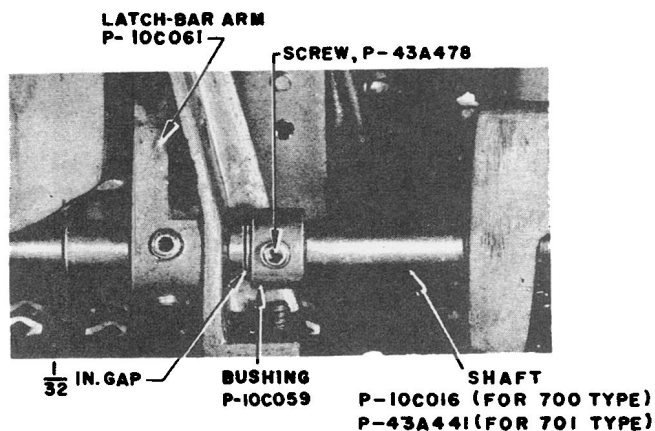


Fig. 3 — Side-by-side Assembly, Mechanical Linkage

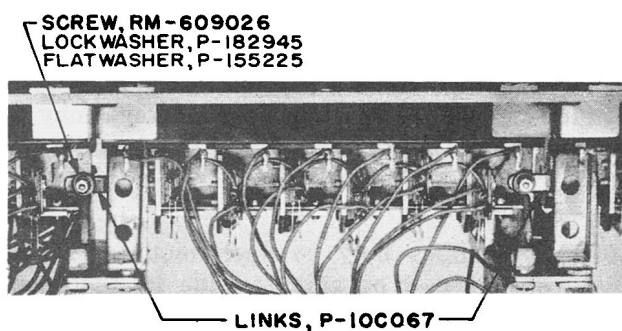


Fig. 4 — End-to-end Assembly, Mechanical Linkage

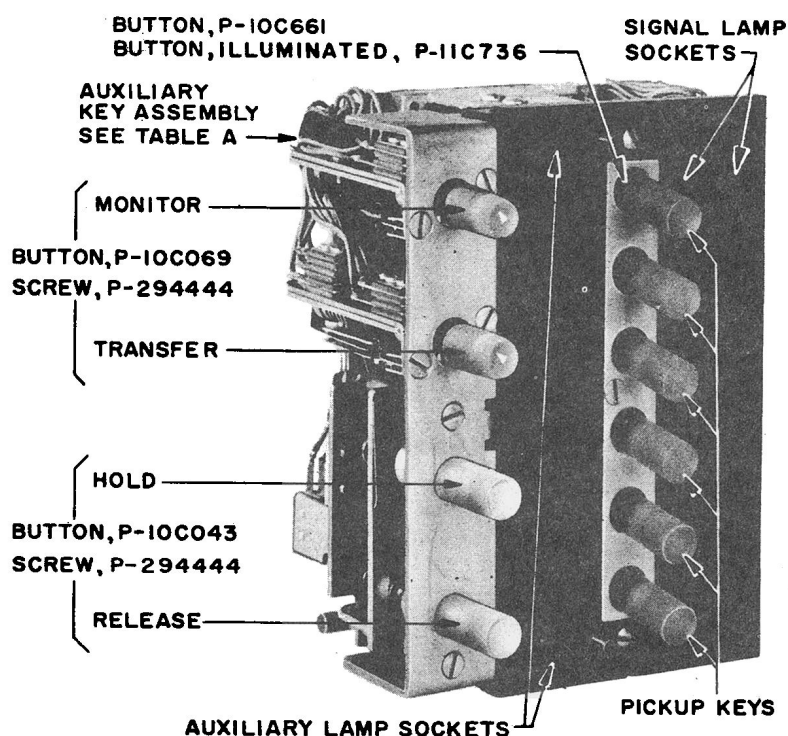


Fig. 5 — Originating Key

3.00 700 AND 701 KEYS

3.01 The 700-type originating keys consist essentially of four common keys and six push-button type pickup keys assembled in a frame and wired to a terminal strip having lugs suitable for wire-wrapped connections. On some models the keys and lamp sockets are wired to a miniature male connector which provides for the rapid connection and disconnection of cables.

3.02 Associated plunger rod assemblies, return springs, and latch bars are assembled in a die-cast frame to which is attached a lamp housing assembly providing lamp sockets for signaling, and two auxiliary lamp sockets which may be used for edge lighting of the faceplate.

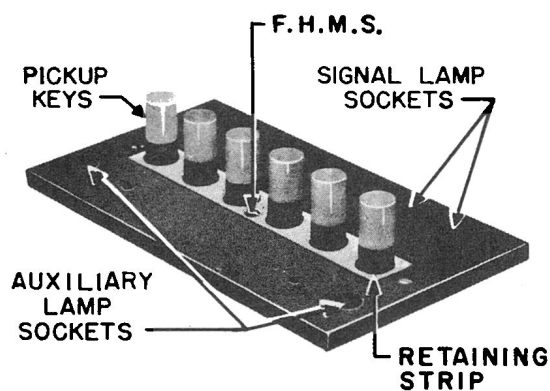
3.03 Only one originating key is required since four of the buttons provided on this key are common to an entire assembly (Fig. 5).

TABLE A
AUXILIARY KEY ASSEMBLY

Originating Key Part	Part No.
700A	P-11C270
700B	P-10C001
700C	P-11C270
700D	P-11C580
700E	P-11C748

3.04 The first position (release) push button, when depressed, will release any operated pickup keys in the assembly.

3.05 The second position (hold) push button has contacts arranged to provide a path for a holding feature. With the exception of the 700D key, the operation of this nonlocking push button will release any locked pickup keys in the assembly.



**Fig. 6 — Supplementary Key,
Top View**

3.06 The third position (transfer) push-turn button is nonlocking, but when turned clockwise 90 degrees, it provides transfers of circuits and cannot be depressed.

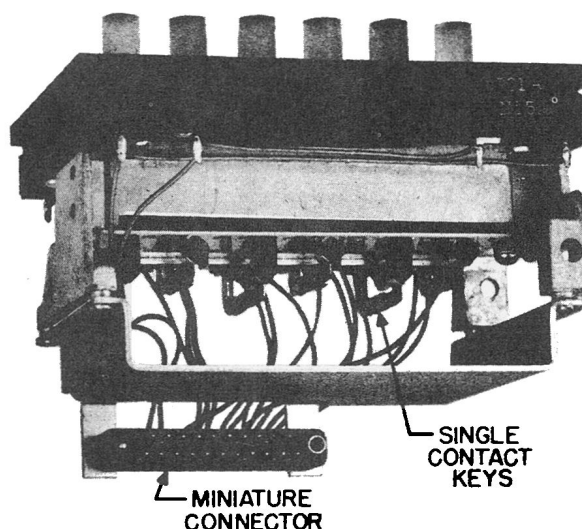
3.07 The fourth position (monitor) button is a turn button which provides two transfer circuits.

3.08 The 701-type supplementary keys, consisting of six push-button type pickup keys (Fig. 6), are essentially the same as 700-type keys, except for the omission of the four common buttons.

3.09 These keys may be connected together, or they may be connected to and used in conjunction with a 700-type key to enlarge an assembly to its required capacity. Basic features and uses of keys are listed in Table B.

3.10 The 700A originating keys and 701A supplementary keys are used for 112A key equipment installations. The contact springs and wiring meet the requirements of 112A circuits only. One lamp socket per pickup key is wired.

3.11 These keys are equipped with male miniature connectors for plug-type cable connections (Fig. 7).



**Fig. 7 — Supplementary Key,
Side View**

3.12 The 700B originating keys and 701B supplementary keys are used for 102A key equipment. The 701B keys are also used with the 756 PBX. Contact springs and wiring are adequate for telephone wiring plan use.

3.13 Keys and lamp sockets are wired to a terminal having lugs suitable for wire-wrapped connections. Two lamp sockets for each pickup key are wired.

3.14 The 700C originating keys and 701C supplementary keys are used in 112A key equipment installations. The contact springs and wiring meet the requirements of 112A circuits only. One lamp socket per pickup key is wired.

3.15 Keys and lamp sockets are wired to a terminal having lugs suitable for wire-wrapped connections.

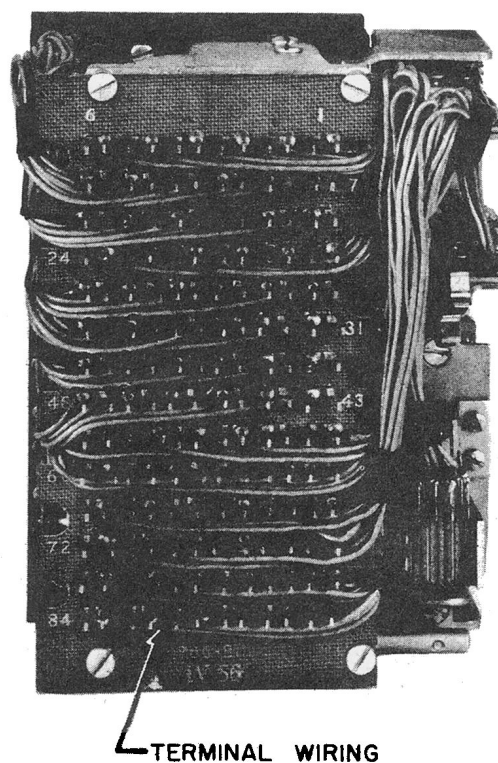
3.16 The 700D originating key is used with the 756 PBX. The keys and two lamp sockets per pickup key are wired to a terminal having lugs suitable for wire-wrapped connections (Fig. 8).

3.17 The second position (hold) push button on the 700D key differs from the hold button on other 700-type keys in that its operation does not release operated pickup keys.

TABLE B
700- AND 701-TYPE KEYS

Originating Keys	Features						Use		
	1 Lamp Wired per Pickup Key	2 Lamps Wired per Pickup Key	Terminal Wiring	Miniature Connector	Single Contact	Multiple Contact	112A Key Equipment Only	102A Key Equipment	756 PBX
700A	•			•	•		•		
700B		•	•			•		•	
700C	•		•		•		•		
700D		•	•			•			•
700E	•			•		•	•		
Supplementary Keys									
701A	•			•	•		•		
701B		•	•			•		•	•
701C	•		•		•		•		

**Fig. 8 – Originating Key,
Bottom View**



TERMINAL WIRING

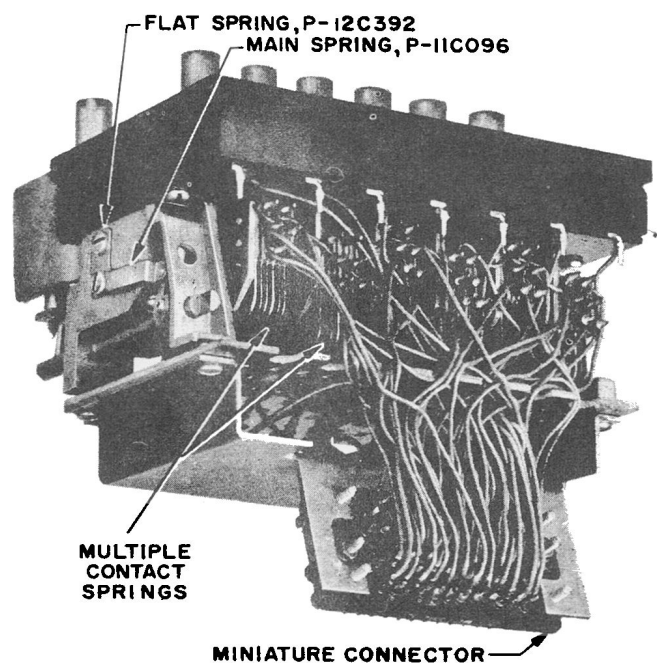


Fig. 9 — Originating Key, Side View

3.18 The 700E originating key is used in 112A key equipment installations. The contact springs and wiring are adequate for telephone wiring plan use. Multiple contact springs and one lamp socket per pickup key are wired to a miniature male connector (Fig. 9).

4.00 700A AND 701A MODULAR STATION UNITS

4.01 The 700A and 701A modular station units are used with the 756 PBX.

4.02 The 700A modular station unit consists essentially of a 751A apparatus unit, a 700D originating key, and one 701B supplementary key. The unit and keys are connected together, and enclosed in apparatus cases complete with a handset mounting and jack (Fig. 10). A 30-foot length of inside wiring cable, wired to the terminals, is a component part of the unit.

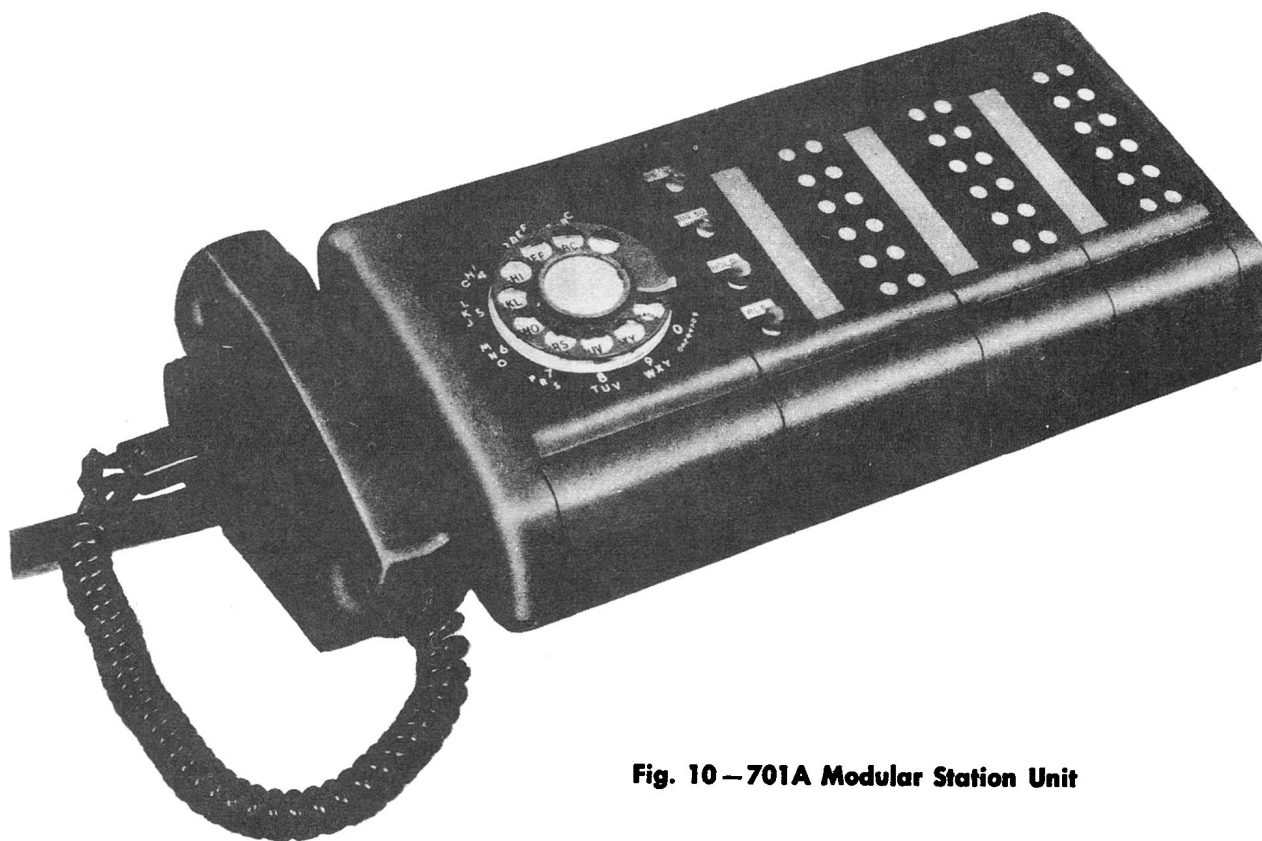


Fig. 10 — 701A Modular Station Unit

4.03 The four common push buttons of the 700D key are arranged and designated for their particular use.

4.04 The 701A modular station unit is the same as the 700A, except that it has an additional 701B key for a capacity of 18 pickup keys.

5.00 MOUNTING, BRACKET, AND ADAPTER ASSEMBLIES

5.01 In conjunction with the design of modular station apparatus, certain mountings, brackets, and adapters have been developed which couple keys and apparatus units together and support them for flush mounting in consoles and tables.

5.02 Code numbers and capacity of mountings, designed for flush mounting keys and apparatus units end to end, are listed in Table C.

5.03 Each assembly consists of the necessary brackets, plates, supports, and screws (Fig. 11) to couple and support the unit and keys.

TABLE C
CODE NUMBERS AND CAPACITY
OF MOUNTINGS

Code	Dial Unit	Key
391A	1	0
	0	1
392A	1	2
	0	3
393A	1	3
	0	4
394A	1	1
	0	2

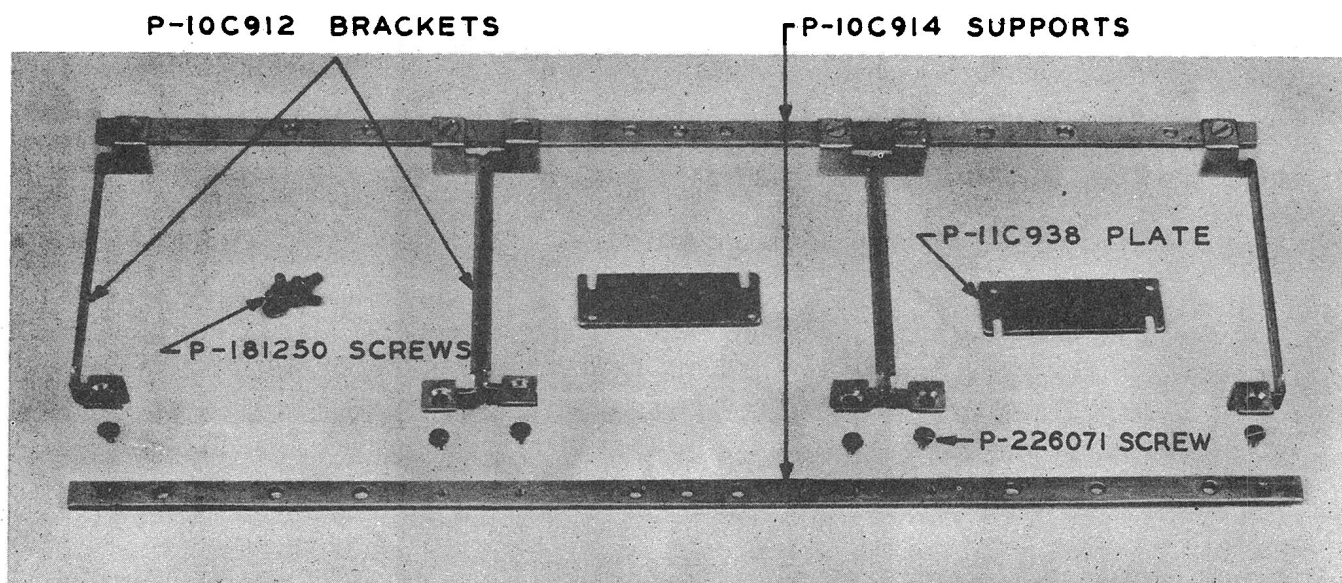


Fig. 11 – 392A Mounting Assembly

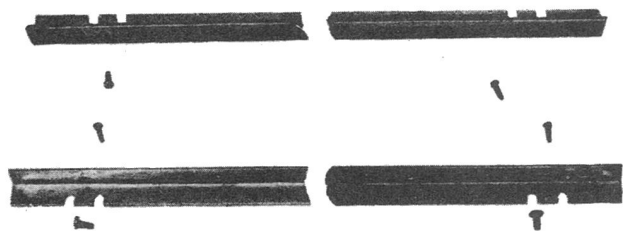


Fig. 12 — 54-type Bracket Assembly

5.04 The 54-type bracket assemblies may be used for side-by-side flush mountings (Fig. 12). Each assembly consists of two single-type brackets and the necessary screws for fastening the brackets to the unit and keys and for securing the assembly to the console. The 54A bracket has a capacity of three keys or one dial unit and two keys. It also provides for mounting a buzzer bracket, if required. The 54B bracket assembly has a capacity of seven keys or one dial unit and six keys. The 54C bracket has a capacity of one key and one apparatus unit.

5.05 The P-10C028 housings are available for filling vacant spaces on installations having 54-type brackets. Housings are not furnished with the brackets.

6.00 APPARATUS UNITS

6.01 The 750-type apparatus units provide a dial, terminal strip, and an audible signal for use in installations of 700-type modular station apparatus. In addition, some units provide lamps for illuminating the dial and have a miniature connector to allow for rapid connection and disconnection of connecting cable.

6.02 Component parts of 750-type apparatus units are mounted, either directly or by means of brackets, on a 3-3/4 by 5-inch fiber plate (Fig. 13 and 14). The apparatus unit may be placed at either end of the assembly, as required.

6.03 Description and use of various 750-type apparatus units are listed in Table D.

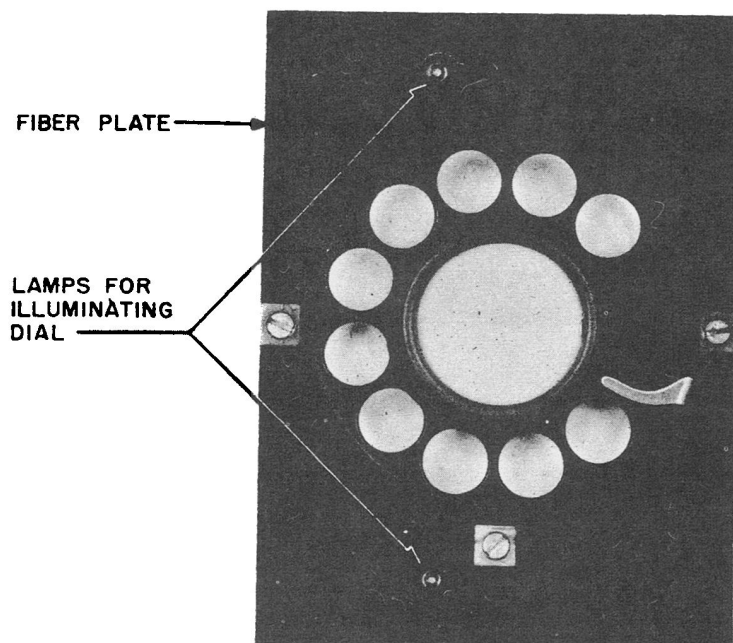


Fig. 13 — 750-type Apparatus Unit, Front View

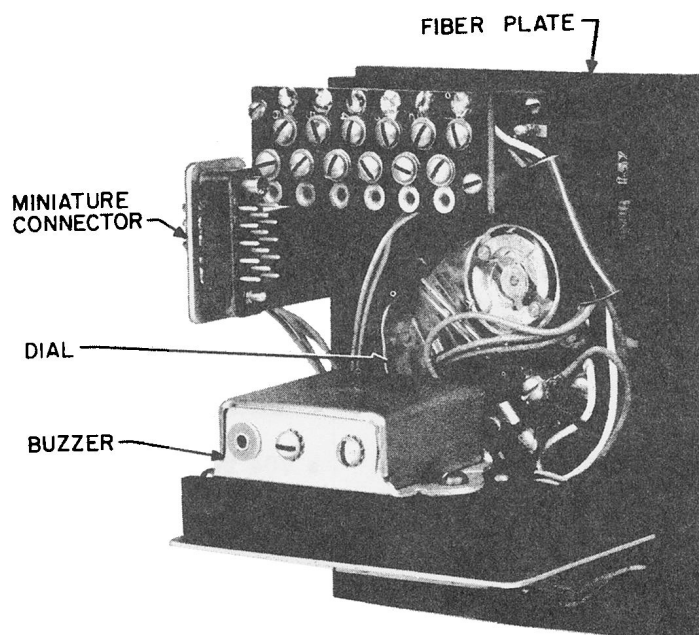


Fig. 14 — 750-type Apparatus Unit, Rear View

TABLE D

750-TYPE APPARATUS UNITS

Code	Dial	Audible Signal	Dial Illumination	Miniature Connector	Use
750A	6J41	Edwards Buzzer 115-2	•	•	112A Key*
750B	6K41				112A Key
750C	6A	4B Buzzer			1A1, 6A, 102A Key
750D	6E				102A (modified)
750E	†	KS-8109 Buzzer	•	•	112A Key
750F	6J41	Edwards Buzzer 155-2	•		112A Key

* Manufacture discontinued. Replaced by 750F.

† Equipped for dial; dial not furnished with unit.

6.04 The 751A apparatus unit is designed for use in the 756 PBX modular-station unit. Component parts include:

- 6D41 dial.
- C4A ringer with volume control.
- Jacks and associated network for headset and handset use.
- Alarm indicator lamps.
- Terminals for wire-wrapped connections.

6.05 Components and features of the 751A apparatus unit are shown in Fig. 15 and 16. Design of this unit requires that it be installed on the left side of the assembly.

7.00 APPARATUS CASES AND HANDSET MOUNTINGS

7.01 Apparatus cases are designed to house 700-type keys and apparatus units for use on desks, tables, and other horizontal surfaces. A housing may be made by joining together a combination of the following basic cases (Fig. 17):

- 703 type for originating key and apparatus units.
- 704 type for supplementary keys.
- 705 type for left end.
- 706 type for right end.

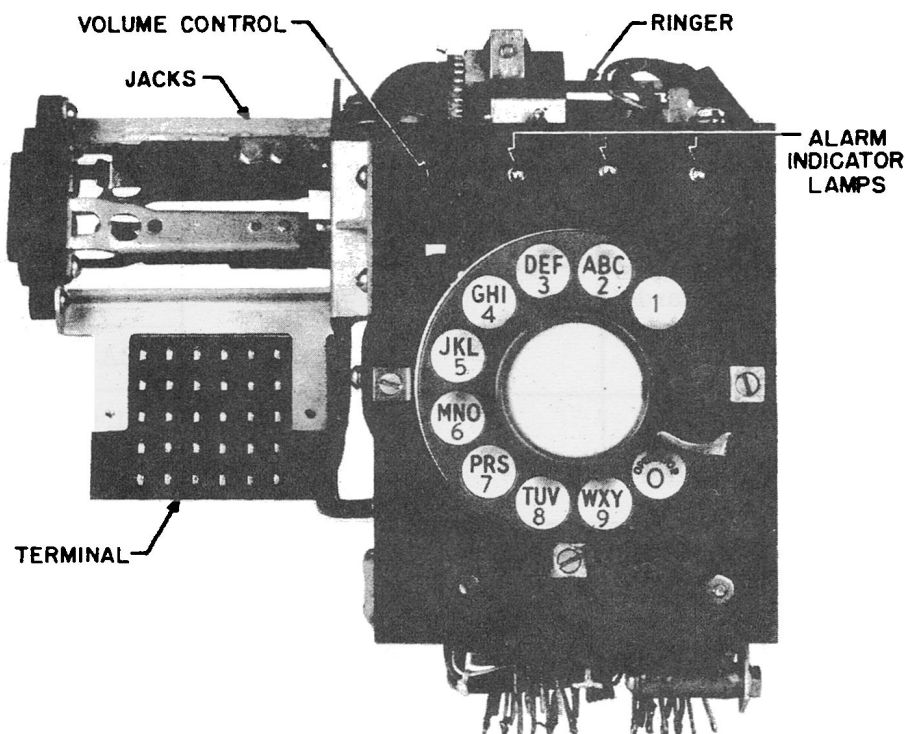


Fig. 15 – 751-type Apparatus Unit, Front View

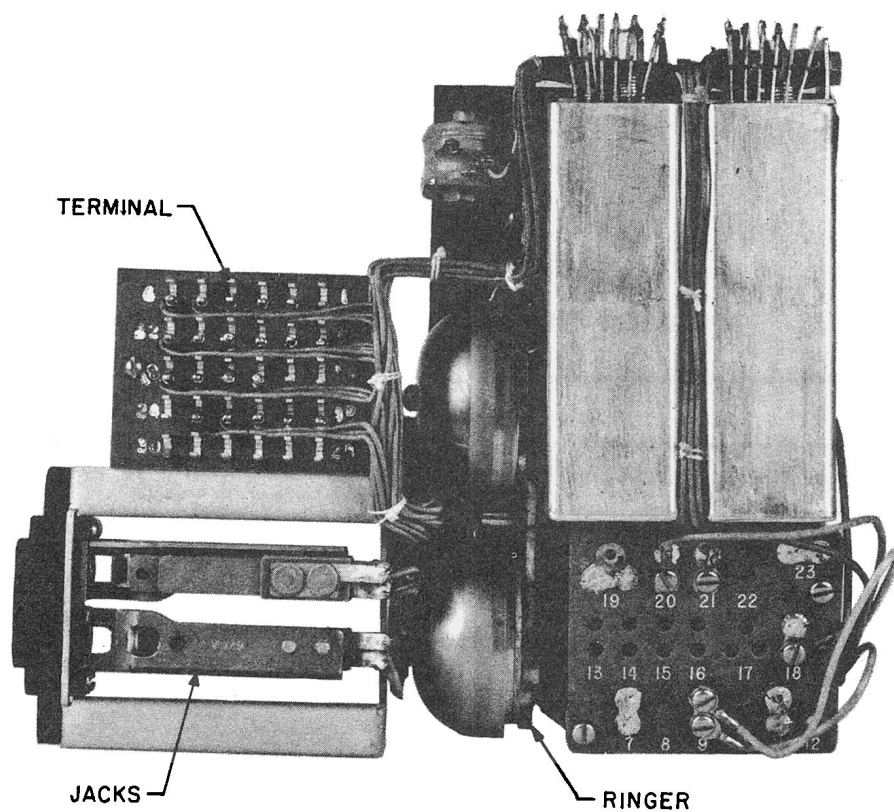


Fig. 16 – 751-type Apparatus Unit, Rear View

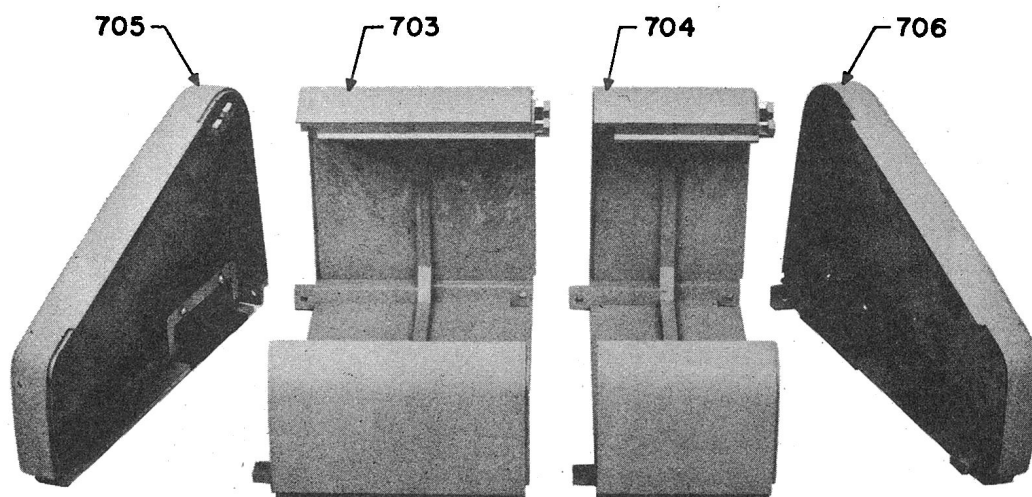


Fig. 17 – Apparatus Cases

7.02 Individual cases join together by means of an interlock arrangement at the top and are secured at the bottom with two screws. Cases are equipped with nonskid pads (Fig. 18).

7.03 Cases have a wrinkled enamel finish and may be obtained in three different colors as listed in Table E.

TABLE E
APPARATUS CASES IN COLOR

Use	Code	Code Suffix and Color
Originating Keys and Apparatus Units	703	A — Beige-Gray B — Pearl-Gray C — Gray-Green
Supplementary Keys	704	
Left End	705	
Right End	706	

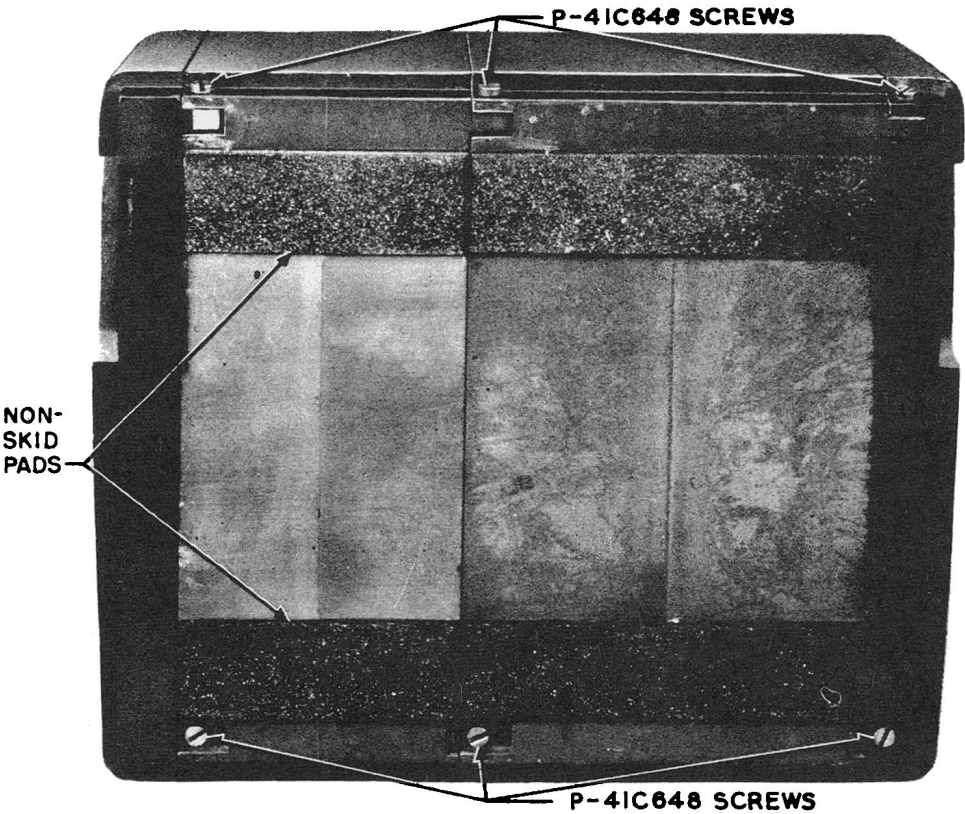


Fig. 18 — Apparatus Cases Joined, Bottom View

7.04 The 700A handset mountings are used in 756 PBX station unit assemblies to provide a platform mounting for 53-type headsets and G-type handsets. These handset mountings have the same interlock arrangement as apparatus cases.

8.00 FACEPLATES

8.01 Faceplates fit over the top of keys and apparatus units and are held in place by spring-type plugs. Curved-top faceplates are for installations using apparatus cases or modular-type adapters. Flat-top faceplates are for flush-mounted assemblies.



Refer to the C Section entitled 700-type Modular Station Apparatus, Assembly and Installation, before installing faceplates.

8.02 Holes are provided in key faceplates to accommodate key buttons. Lamp caps, located adjacent to the pickup keys, glow when illuminated from the rear. Windows permit viewing removable designation strips. Certain faceplates

allow for backlighting designation strips and key buttons.

8.03 Apparatus unit faceplates have a centrally located hole to accommodate a dial. Backlighting may be obtained by using a faceplate which has white translucent characters located outside the circumference of the dial hole.

8.04 Blank faceplates are provided for use when required. Table F lists the various faceplates and their uses.

9.00 DESIGNATION STRIPS

9.01 A special designation strip with transparent lettering on a black background must be used if backlighting is required. When illuminated from the rear by auxiliary lamps, the lettering appears white.

9.02 The P-10C333 designation strip is for use with all common keys except as follows. When 4E faceplates are used, a P-11C932 designation strip shall be installed. The P-11C596 is for use only with 756 PBX installations. (Fig. 19).

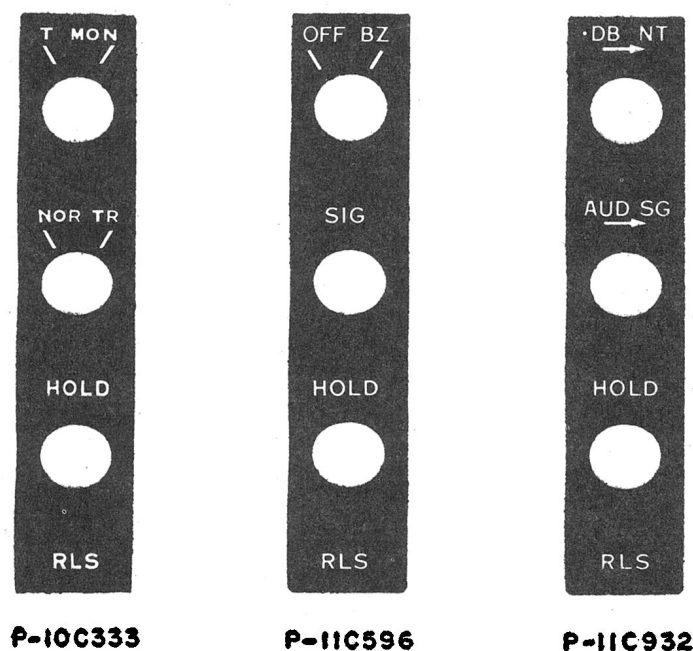


Fig. 19 — Common Key Designation Strips

9.03 Designation strips for line pickup keys requiring backlighting may be ordered in accordance with AT&TCo plant engineering letter (PEL 5910).

9.04 If backlighting is not required, designation strips for line pickup keys may be made up locally from bond paper.

9.05 Replacement of an entire strip is required whenever a change in designation is made.

TABLE F
FACEPLATES AND THEIR USES

Code	700 Key	701 Key	750 Dial Units	751 Dial Units	Blank	Mounting Space						Color		Backlighting	Lamps		Top	
						End to End				Side by Side		Sea Gray	Dark Gray		Single	Double	Flat	Curved
						Top	Center	Bottom	Single	2-3/4 in. Wide	4 in. Wide							
1A 1C 2A 2B	• •	•				•	•	•	•			• • • •		• • • •	• • • •		• • • •	
3A 3B					• •	•	•	•				• •					• •	
4A 4B 4C 4D 4E	• • • • •										• • • •	• • • •			• • • • •	• • • •		• • • • •
5A 5B 5C 5D 5E		• • • • •								• • • • •		• • • •		• • • • •	• • • •		• • • • •	
6A 6B 6C 7A 8A			• • • •	•							• • • •	• • • •	• •				• • • •	
9B 10B	•	•								•	•	• •		• •	• •		• •	
11A 12A 13B		•			• •					•	•	• • •			•		• • •	
14A 15A			•		•	•				•		•	•	•			•	•