

**BELL SYSTEM PRACTICES**  
**Station Installation and Maintenance**

**SECTION C36.306**  
**Issue 2, July, 1954**  
**AT&T Co Standard**

## **STATION CONTROL KEYS**

### **DESCRIPTION AND INSTALLATION**

#### **1. GENERAL**

- 1.01 This section covers the description and installation of the keys most commonly used at station installations.
- 1.02 It is reissued to include keys designed for use with the 1A1 key telephone system and to bring all information up to date. Marginal arrows indicating changes are omitted.
- 1.03 This section does not cover push-button keys used solely for local signaling, or keys which are an integral part of station sets or key boxes.
- 1.04 Contact spring combination alignment, sequence and other similar requirements are included in the section or on the standard drawings for the station system in which the key is employed.

#### **2. DESCRIPTION AND USE**

- 2.01 Tables 1 and 2, following, list and illustrate the most commonly used station keys. Under the heading "Use" the most common uses of the keys are indicated. Many of the keys, however (especially of the 6017-type) are employed in numerous circuit applications.
- 2.02 The push-button type keys and the 6026-type keys are equipped with designation card holders. Designation card holders may be obtained for 6017-type keys. For information on designation strips, cards, holders, etc., refer to the section entitled "Designation Strips and Cards—Description and Use."

Table 1—Lever Type Keys

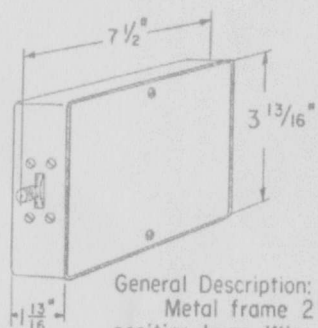



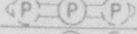





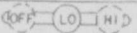


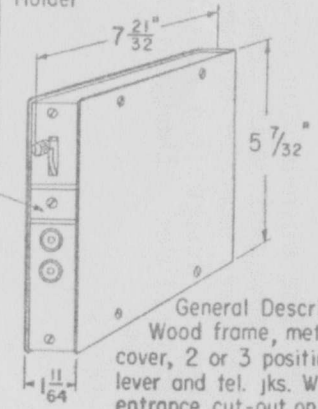

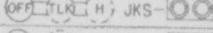
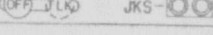
Description	Key	Operating Features	Use	OTHER APPARATUS IN KEY
 <p>General Description: Metal frame 2 or 3 position lever. Wire en- trance cut-out on back.</p>	(A) 6017 A		109-A Key Eq. and Other	
	6017 B		Key Systems and General	
	6017 D		4-Wire P.L. Systems & Other	
	6017 E		Key Systems and General	
	6017 K		5A Key Eq. and Other	
	6017 L		5B Key Eq. and Other	
	6017 S		2A & 2B Key Tel. Systems	
	6017 T		2A Key Tel. System	KS 8108 Buzzer
	6017 U		2A & 2B Key Tel. Systems	KS 8109 Buzzer
	*6017 W		2A Key Tel. System	KS 8110 Buzzer
	6030 A		Deaf Equip.	111B Amp. & .006MF Cond.
	6017 P		110A Key Eq. and Other	
 <p>General Description: Wood frame, metal cover, 2 or 3 position lever and tel. jks. Wire entrance cut-out on back.</p>	(B) 6026 A		4A Key Eq. (Non-Hold)	361-C Jk., 215-A Jk. & 3A Var
	6026 B		4A Key Eq. (Hold)	361-C Jk., 215-A Jk. & 3A Var
	6026 C		4-Wire P.L. Term.	361-C Jk & 237-A Jk
	*Mfr. Disc.			

Table 2—Button Type Keys

Description	Key	* Operating Features	Use	OTHER APPARATUS IN KEY
<p>Designation Strip Windows</p> <p>4 5/8" to 5 1/8"</p> <p>6 25/64" to 7 59/64"</p> <p>5 3/64" to 27/32"</p> <p>Note: Some earlier keys equipped w/ snap on covers instead of screws.</p>	6021 A	P H <sub>R</sub> P H <sub>R</sub>	IA Key Tel. System(or equiv.)	
	6021 B	P P H <sub>R</sub> P H <sub>R</sub> S <sub>Y</sub>	"	
	6021 C	P P P P P	"	
	6021 K	P P P P P P	"	
	6021 L	P P P P P S	"	
	6021 M	P P P S	"	
	6021 N	H P P P	"	
	6022 A	C P P H <sub>R</sub> S <sub>Y</sub>	"	
	6023 A	P H <sub>R</sub> F H <sub>R</sub> P H <sub>R</sub> P H <sub>R</sub>	"	
	6027 A	H P P P P P	"	
	6027 B	H P P P P S	"	
	6028 A	H P P P P C	"	
	6028 B	H P P P S C	"	
	6028 C	P P P P P C	"	
	6028 D	P P P P S C	"	
	6021 DN	H P P P	IAI or IA Key Tel. Systems	
	6027 DA	H P P P P P	"	
	6027 DB	H P P P P S	"	
	6028 DA	H P P P P C	"	
	6021 P	① ② ③ ④ H L	750 P.B.X. Stations	78 A Resistance
<p>General Description:</p> <p>Metal frame, 4 to 8 push buttons (1 turn button on some keys). Buttons black except as indicated in column headed "Operating Features". Cable entrance cut-outs at top and bottom of back.</p>	*6021 D	① <sub>R</sub> ② <sub>G</sub> ③ <sub>W</sub> H <sub>B</sub> ④ <sub>L</sub>	"	78 A Resistance
	6021 J	H ① ② ③ ④ ⑤	755 P.B.X. Stations	
* Mfr Disc.		* Small letters indicate color when other than black.		

2.03 The lever type keys come equipped with black handles, but red or white handles are available for use where desired.

2.04 Most of the button type keys are furnished with black buttons but some of the older types have buttons colored for identification of features. These colors are indicated in the column headed "Operating Features" (Table 2).

### 3. SUPPLIES

3.01 Word order for keys as per this sample.

**(Quantity), Key, 6017E.**

3.02 The following list contains key parts commonly required.

<u>INDEX</u>	<u>ORDERING INFORMATION AND DESCRIPTION</u>
Buttons	<p><b>P-356091, Button.</b> (black)</p> <p><b>P-356092, Button.</b> (red)</p> <p><b>P-356093, Button.</b> (yellow) Buttons for 6021-, 6022-, 6023-, 6027-, and 6028-type keys.</p>
Covers	<p><b>P-356079, Cover.</b> Snap-on cover for 6021- and 6022-type keys.</p> <p><b>P-456722, Cover.</b> Screw-on cover for 6021- and 6022-type keys.</p> <p><b>P-356132, Cover.</b> Snap-on cover for 6023-type key.</p> <p><b>P-458438, Cover.</b> Screw-on cover for 6023-, 6027- and 6028-type keys.</p> <p><b>P-247750, Cover.</b> Cover for 6026-type keys.</p> <p><b>P-249312, Cover.</b> Cover for 6017- and 6030-type keys.</p>
Guard	<p><b>D-96008, Guard.</b> Device for blocking unused buttons on 6021-, 6022-, 6023-, 6027-, and 6028-type keys.</p>



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## ORDERING INFORMATION AND DESCRIPTION

Handles	<b>P-132717, Handle.</b> (black)
	<b>P-132718, Handle.</b> (red)
	<b>P-140271, Handle.</b> (white) Key handles for 6017- and 6030-type keys.
Ring (Retaining)	<b>P-470961, Ring.</b> Retaining ring for cover screws for 6021-, 6022-, 6023-, 6027-, and 6028-type keys.
Screws	<b>P-283047, Screw.</b> Cover screw for 6021-, 6022-, 6023-, 6027-, and 6028-type keys.
	<b>P-237768, Screw.</b> Cover screw for 6017-, 6026-, and 6030-type keys.
Washers	<b>P-356113, Shoulder Washer.</b>
	<b>P-243276, Lock Washer.</b> One of each required with buttons listed above.

## 4. INSTALLATION

### Locating and Mounting

4.01 Locate key where it will be readily accessible for operation by the user. Where designation strips are furnished locate the key in such a manner that the designations may be clearly seen by the user.

4.02 Where keys are mounted on desks, tables, etc., they should be mounted with the face of the key flush with the front edge of the desk or table leg. Avoid locating lever type keys in the knee well of desk when they might be struck by the user's knee, chair, etc.

4.03 The 6026-type lever key and the push-button type keys are furnished arranged for mounting on the right-hand side of a desk or table. Where it is desired to mount them on the left-hand side loosen the screws holding the key assembly in the framework and invert the key assembly.

4.04 The 6017- and 6030-type keys are arranged for mounting in any position. In addition, the key mechanism may be inverted in the key frame. Remove the lever handle and

the four screws adjacent to the lever. Turn the key in the frame (taking care to avoid strain on the soldered connection) and replace the screws and lever handle.

4.05 Each key is equipped with four mounting holes which will accommodate No. 8 screws. On hard wood or metal surfaces use two fasteners. On the side of a paneled desk, use three fasteners (in the framing around the panel). On soft wood or plaster over lath use four fasteners. Use fasteners of sufficient length and size to hold key firmly in place.

4.06 Where it is desired to reduce the number of holes in the mounting surface, the key and associated equipment may be mounted on a suitable common backboard.

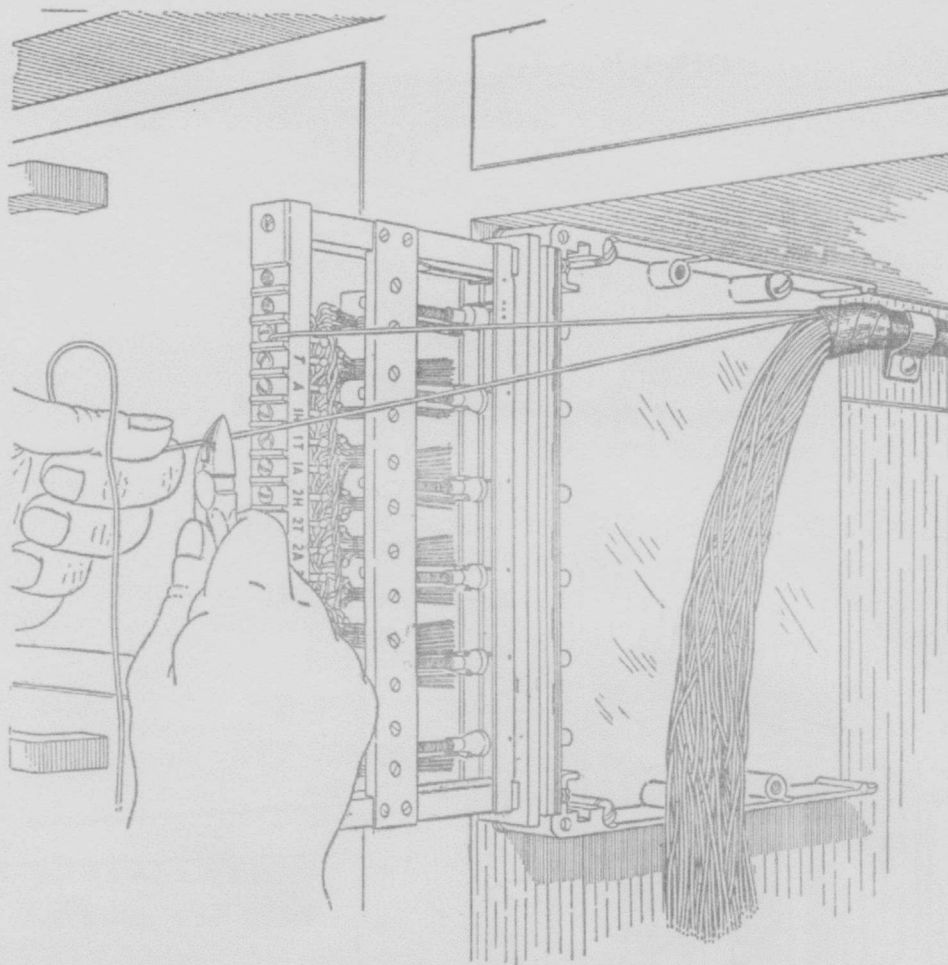
## **5. WIRING**

### **Button Keys**

5.01 When terminating cable at keys, strip and butt or tape cable (as required) with the butt located at the entrance cutout of the key. Leave sufficient slack in the conductors to permit retermination of the conductors if required later.

5.02 In general, keys should not be used as bridging points for wire or cable runs unless keys are mounted on the same or adjoining desks. Not more than two cable or wire conductors should be connected to the same key terminal.

5.03 To facilitate termination of the conductors when the key is located in a knee well or other inaccessible location the key unit may be removed from the frame and reversed as shown in Fig. 1A. After the conductors are terminated return the key unit to its proper place. This method of termination automatically provides sufficient slack in the conductors.



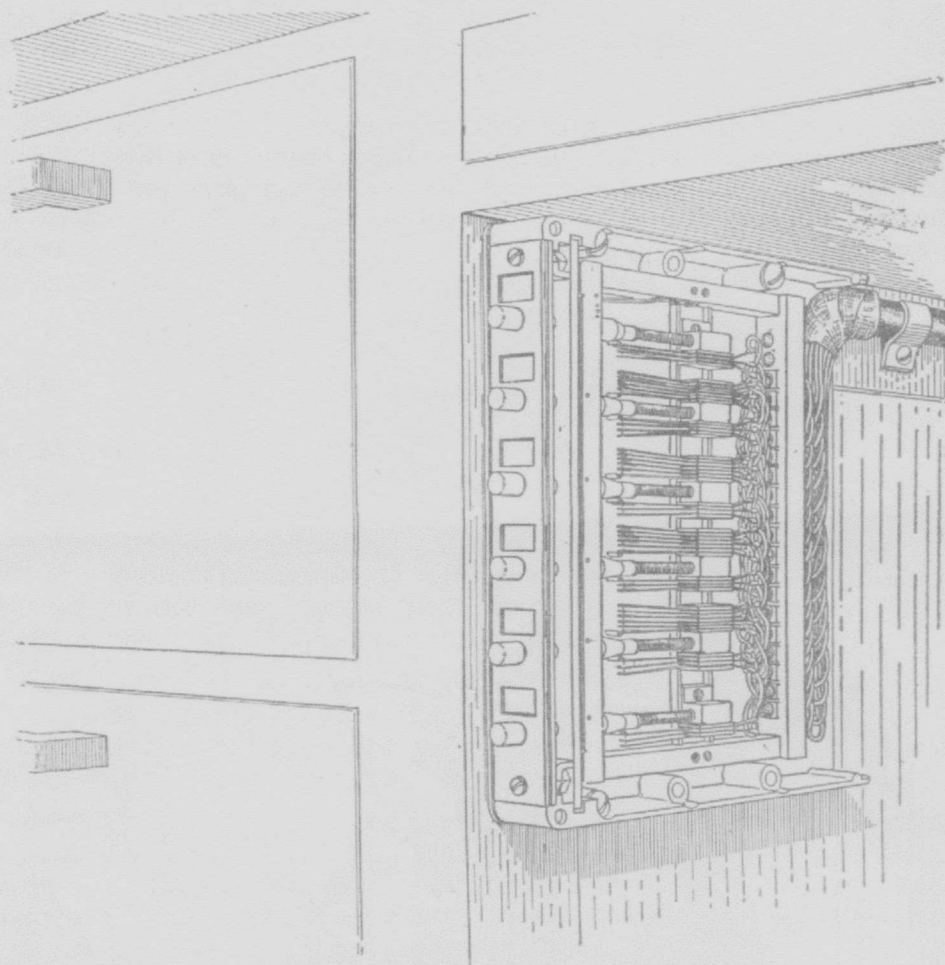
A

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B

Fig. 1—Terminating Cable at Key



5.04 Fig. 2 illustrates key with cable conductors terminated and slack dressed in such a manner as not to interfere with cover when placed on key.

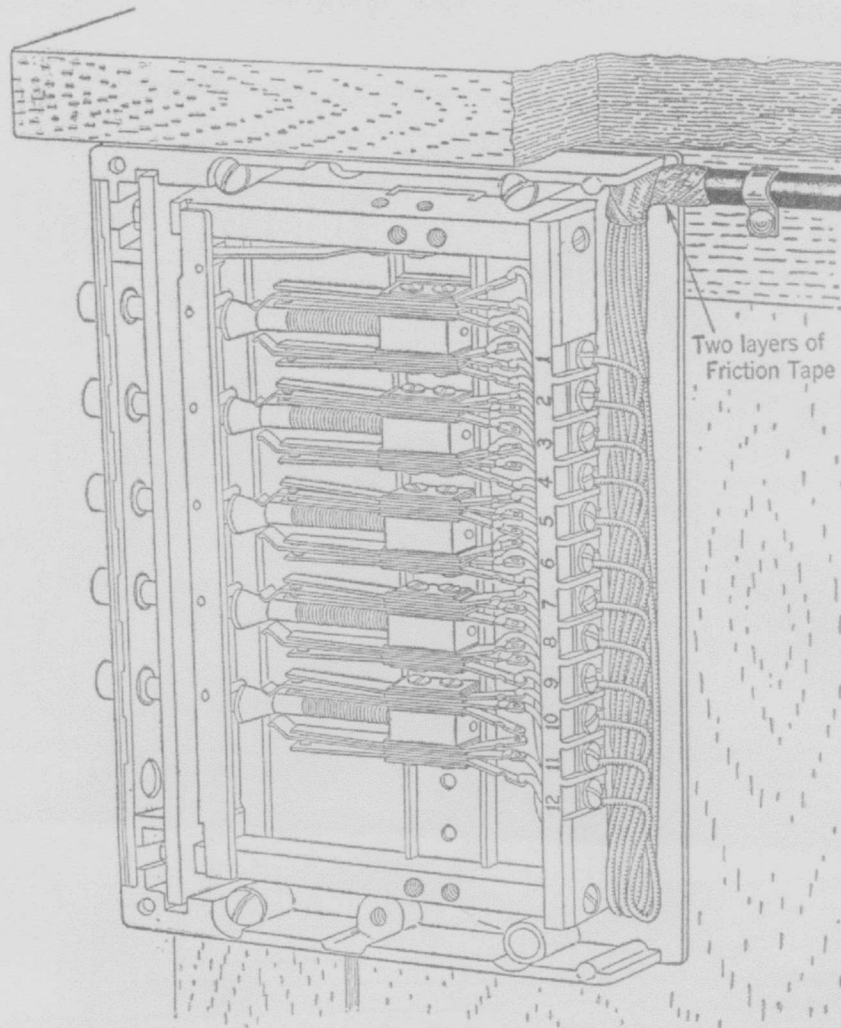
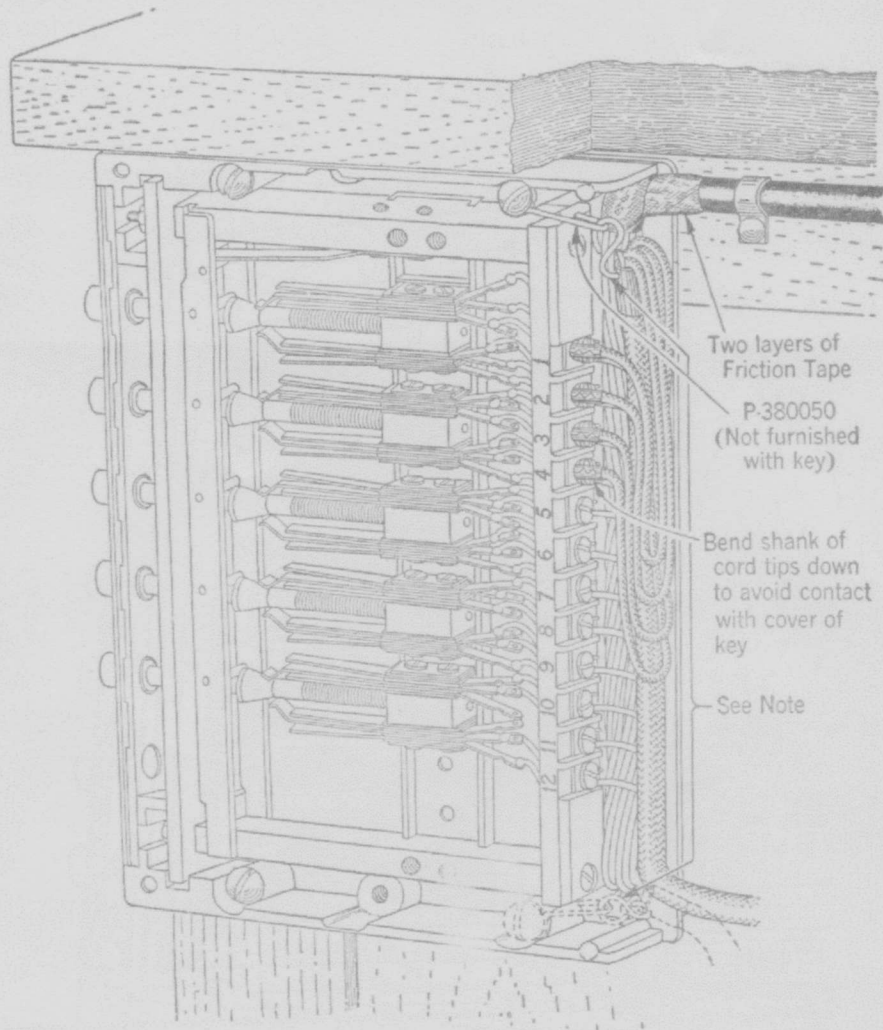


Fig. 2—Key with Cable Terminated

5.05 Where the location of the telephone set will permit, the set cord may also be terminated directly on the key terminals as illustrated in Fig. 3. With this arrangement the cord stay hook is attached to a P-380050 cord hook which is secured under the head of a mounting screw as illustrated.



**Fig. 3—Key with Telephone Set Cord Terminated**

Note: Cord stay hook may be fastened under either top or bottom mounting screw as desired. If cord tips are too large to fit in terminal slots or if cord is not equipped with stay hook, terminate cord on connecting block and run wire to key terminals.

- 5.06 Block all unused buttons by placing a D-96008 guard over the exposed portion of the key push rod.

#### Lever Type Keys

- 5.07 Fig. 4 illustrates termination of wire and cord at a key of the 6017-type. Wherever cord terminals and conductors of wire or cable are terminated at the same screw terminal, cord tips should be placed above wire or cable conductors.

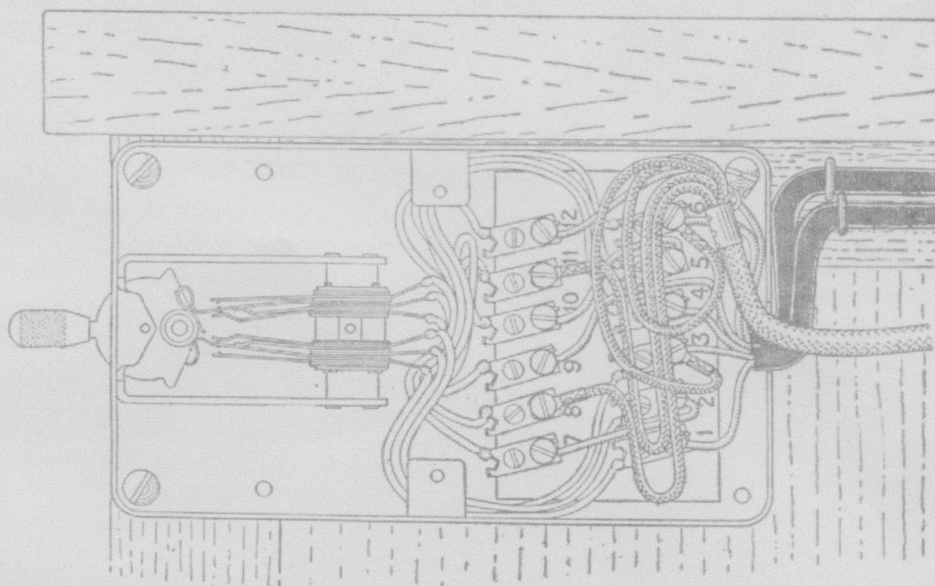


Fig. 4—Wire and Cord Terminated on 6017-type Key

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