

TELEPHONE SETS
THE CALL DIRECTOR
EQUIPPED WITH HEAD SET JACKS
636 AND 637 TYPES — GENERAL PURPOSE
638 AND 639 TYPES USED WITH STATION LINE CONCENTRATOR
IDENTIFICATION AND ASSEMBLY OF PARTS

1.00 GENERAL

1.01 This section covers THE CALL DIRECTOR telephone sets arranged for either handset or operator's head telephone set use. They permit answering, originating, signaling, or holding calls on central office, PBX, tie lines, etc.

1.02 This section is reissued to add the 636C telephone set.

1.03 Due to extensive changes marginal arrows have been omitted.

1.04 The 636- (18-button) and 637- (30-button) type telephone sets are used with 1A, 1A1, 1A2, and 6A key telephone systems. The 636-type is identical in external appearance to the 638-type and the 637-type is identical to the 639-type telephone set.

1.05 The 638- (18-button) and 639- (30-button) type telephone sets require station line concentrator units, and are used with 1A1, 1A2 and 6A key telephone systems.

1.06 All telephone sets are shipped from the factory wired for use in 1A1 or 1A2 key telephone systems. Pickup and hold button positions are equipped with 51A lamps.

1.07 When the 636- and 637-type sets are to be connected to 1A or combinations of 1A1 and 1A system line circuits, certain spade-tipped leads provided in the set must be rearranged in accordance with the section entitled Telephone Sets, The Call Director, 636 and 637 Types, Equipped With Headset Jack, Connections.

2.00 IDENTIFICATION

2.01 These sets are equipped with a colored plastic housing P-81J8 (+ color code) for 18-button sets and P-81J9 (+ color code) for 30-button sets. A stainless steel bezel, which supports a clear plastic faceplate and mat, snaps onto the housing. Five colored mats are furnished with each set. (See Table A.)

TABLE A

FACE PLATES, MATS, BEZEL

Type Set	Face Plate Assembly	Face Plate Only	Non-Glare Face Plate Assembly	Non-Glare Face Plate Only	Set of 5 Mats	Individual Mats					Bezel Assembly
						Gold	Blue	Green	Cream White	Silver	
636 (A1 thru A2)	20E	P-11E996	20E1	P-25E624	P-13E564	P-12E003	P-12E004	P-12E005	P-12E006	P-12E007	P-11E994
636A4	20F	P-12E747	20F1	P-25E625							
636 (A6 thru A10)	20E	P-11E996	20E1	P-25E624							
636 (A14 thru A15)	20H	P-15E711	20H1	P-25E627							
636 (B1 thru B2)	20E	P-11E996	20E1	P-25E624							
636 B4	20F	P-12E747	20F1	P-25E625							
636 (B6 thru B10)	20E	P-11E997	20E1	P-25E624							
636 (B14 thru B15)	20H	P-15E711	20H1	P-25E627	P-13E551	P-11E998	P-11E999	P-12E000	P-12E001	P-12E002	P-11E995
637 (A1 thru A3)	21G	P-11E997	21G1	P-25E635							
637A4	21H	P-12E748	21H1	P-25E636							
637A5	21J	P-12E746	21J1	P-25E637							
637A9	21K	P-12E740	21K1	P-25E638							
637 (A10 thru A15)	21G	P-11E997	21G1	P-25E635							
637A19	21K	P-12E740	21K1	P-25E638							
637 (C1 thru C3)	21G	P-11E997	21G1	P-25E635	P-13E564	P-12E003	P-12E004	P-12E005	P-12E006	P-12E007	P-11E995
637C4	21H	P-12E748	21H1	P-25E636							
637C5	21J	P-12E746	21J1	P-25E637							
637C9	21K	P-12E740	21K1	P-25E638							
637 (C10 thru C15)	21G	P-11E997	21G1	P-25E635							
637C19	21K	P-12E740	21K1	P-25E638							
638 (A1 thru A2)	20E	P-11E996	20E1	P-25E624							
638A4	20F	P-12E747	20F1	P-25E625							
638 (A6 thru A10)	20E	P-11E996	20E1	P-25E624							
638 (B1 thru B2)	20E	P-11E996	20E1	P-25E624							
638B4	20F	P-12E747	20F1	P-25E625							
638 (B6 thru B10)	20E	P-11E996	20E1	P-25E624							
639 (A1 thru A3)	21G	P-11E997	21G1	P-25E635	P-13E551	P-11E998	P-11E999	P-12E000	P-12E001	P-12E002	P-11E995
639A4	21H	P-12E748	21H1	P-25E636							
639A5	21J	P-12E746	21J1	P-25E637							
639A9	21K	P-12E740	21K1	P-25E638							
639 (A10 thru A15)	21G	P-11E997	21G1	P-25E635							
639 (C1 thru C3)	21G	P-11E997	21G1	P-25E635							
639C4	21H	P-12E748	21H1	P-25E636							
639 (C10 thru C12)	21G	P-11E997	21G1	P-25E635	P-13E551	P-11E998	P-11E999	P-12E000	P-12E001	P-12E002	

TABLE B
COLOR LINE

*Promoted	†Non-Promoted
Moss Green (-51)	Black (-3)
White (-58)	Yellow (-56)
Light Beige (-60)	Rose Pink (-59)
Light Gray (-61)	Aqua Blue (-62)
	Turquoise (-64)

* Indicates set manufactured in quantity.

† Indicates set manufactured in limited quantity and can be obtained on special order only.

2.02 The noncontrollable transistorized amplifier talking and dialing circuit of these sets consists of the following components: a 425D network, a 151D amplifier, an 8C dial, a G3AR hand set, and a D1B ringer. The D1B ringer is a single-gong ringer equipped with a lever arm control mechanism arranged to vary ringing volume from LOUD to OFF. The control lever projects through the base at the lower left front of the set. In addition to the single-gong ringer, a 7-type buzzer (cover removed) or KS-8109, or equivalent, buzzer can be mounted internally on a 71A bracket.

2.03 These sets have two 517A jacks at the left rear of the housing (see Fig. 1 and 2) arranged to receive a 289B plug for headset operation. When the plug of a 52- or 53-type operator's

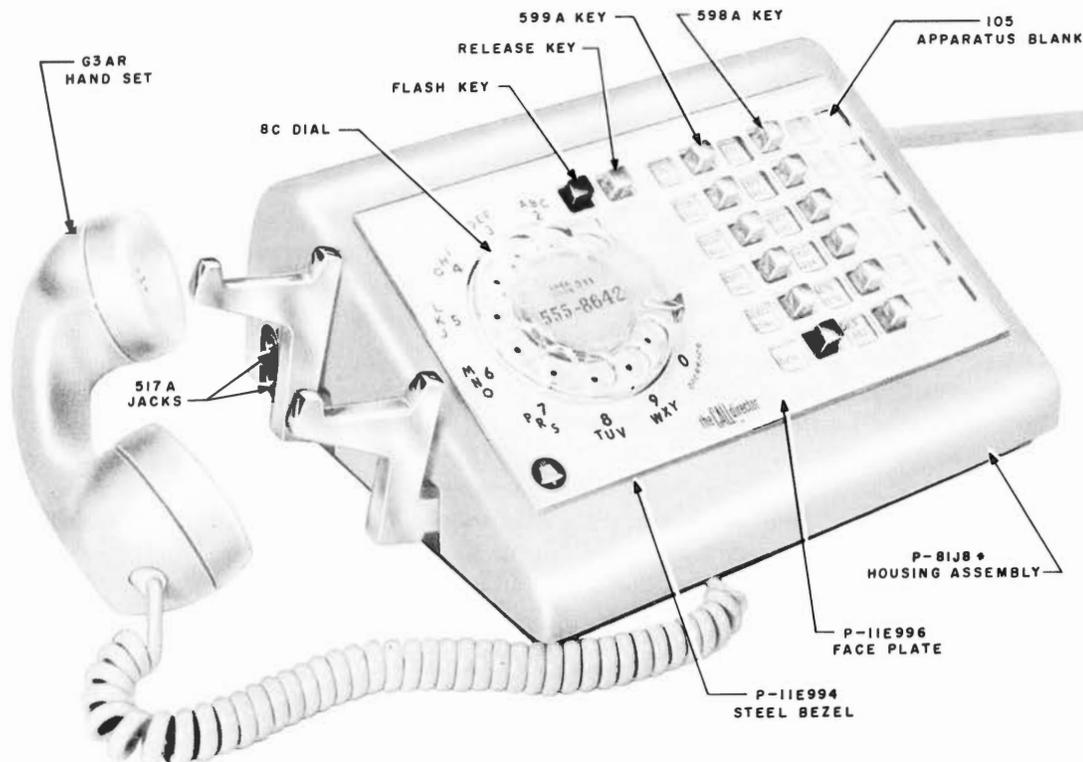


Fig. 1 — 638-Type Telephone Set

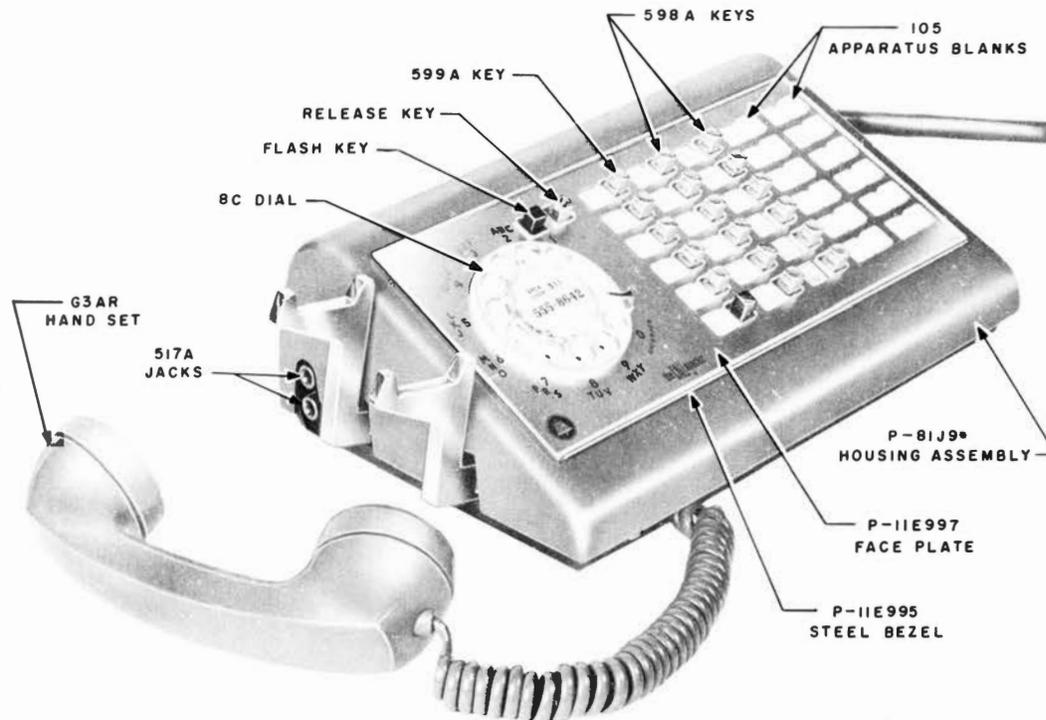


Fig. 2 — 639-Type Telephone Set

head telephone set or a G3L hand set is inserted in the jacks, the G3AR hand set and switchhook circuits are electrically inoperative.

2.04 A switch assembly (P-11E987) incorporates a flash and release key and is located at the top right of the dial finger wheel. These are required when operating under headset conditions.

- The *flash key* provides switchhook supervisory control on the selected line circuit involved. The amber colored (P-11E915) plastic button cannot be illuminated and is nonlocking in operation.
- The nonlocking *release key* mechanically activates the pivot bar to release any operated line pickup button. Its clear plastic (P-10E864) button cannot be illuminated.

2.05 Each set comes equipped with a Form E-4646 designation strip and an instruction card Form E-4653. Sets equipped with a 617A key are furnished a designation strip Form E-4832.

2.06 The 636-, 637-, 638-, and 639-type sets are supplied with 8-foot plastic-jacketed color matching mounting cords (see Table C). A metal or plastic frame is a part of the mounting at the telephone set end. In the frame are mounted 50-point plugs, an individual screw terminal strip for each key position, and a common terminal strip. Spade tipped conductors are either fastened beneath these terminals or are dead-ended and insulated to be used as required for service options.

2.07 In nonconcentrated sets the external end of the mounting cord terminates in a 50-point plug, one connector for each modular key position of the telephone set. Eighteen-button concentrator sets use a 50-conductor cord terminated externally in one 50-contact plug. Thirty-button sets have an 80-conductor cord terminated externally in two 50-contact plugs.

2.08 A-type connector cables are used to connect the mounting cord to the key system apparatus cabinet or distribution terminal (Fig. 3 and 4). See the section entitled Overfloor Ducts, Identification and Installation for housing mounting cord plugs and connector cable connectors.

TABLE C

Type Set	Mounting Cord			Concentrator Unit	Connector Cable		
	Code	No. of Conductors	Length ft.		Code	No. of Conductors	Length
636A	D120B	120	8'	-	A75A	150	†
636B	D120C	120		-	A75A	150	
637A	D200B	200		-	A100A	200	
637C	D200F	200		-	A100A	200	
638A	D50B	50		*235A	A25B	50	
638B	D50L	50		*235A	A25B	50	
639A	D80A	80		*236A	A40A	80	
639C	D80B	80		*236A	A40A	80	

* A concentrator unit must be associated with each set.

† Single end connector cables may be ordered in the following lengths - 50 ft. and 100 ft.

Double end connector cables may be ordered in the following lengths - 30 ft, 80 ft, 100 ft, or 200 ft.

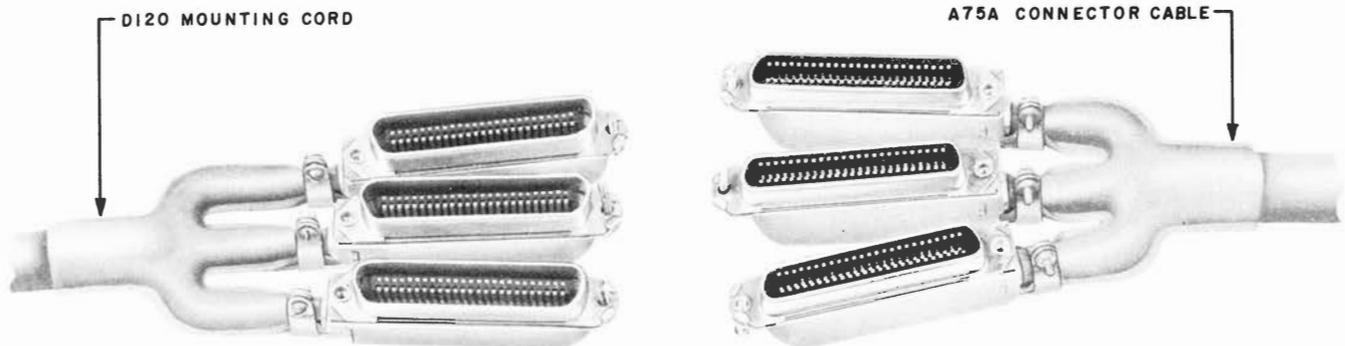


Fig. 3 - Mounting Cord and Connector Cable

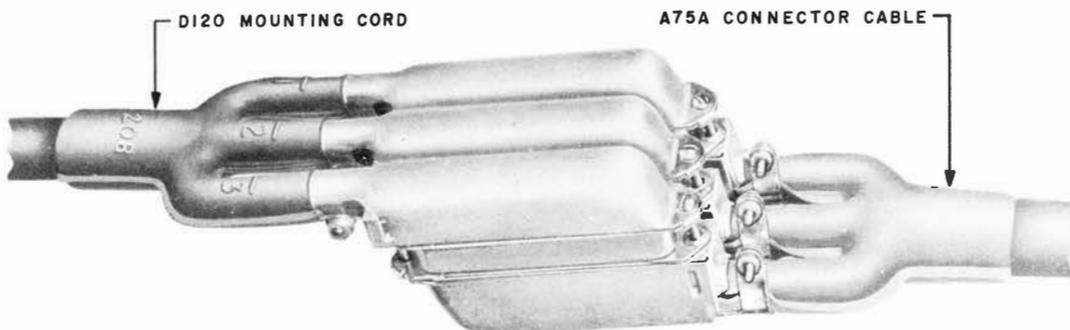


Fig. 4 - Mounting Cord and Connector Cable, Mated

2.09 All line pickup keys are mechanically interlocked within a 598A, 599A, or 599B key. These, in turn, are mechanically interlocked by a common pivot bar. Operation of any pickup button releases any other operated button, as does the hold button on its upstroke.

2.10 One locking-type button may be depressed simultaneously in each row of keys, but only the one nearest the telephone circuit will be electrically connected to associated line equipment. This is because all pickup key units are interconnected electrically by means of a chaining switch per key unit. Operation of the chaining switch disconnects subsequently positioned and simultaneously operated pickup buttons in other key units. These arrangements prevent connection to more than one line at a time.

2.11 The 636- and 638-type (18 button) sets and the 637- and 639-type (30-button) sets accommodate three or five plug-in 6-button key units, respectively, or other comparable width feature units. A number of telephone set codes have been

established for ordering sets in differing feature key module combinations. These are covered in the section entitled Telephone Sets, The Call Director, Code Changes and Proposed Additions.

2.12 Modular plug-in units are covered in the section entitled Telephone Sets, The Call Director, Module Units, Identification and Assembly of Parts.

3.00 ASSEMBLY OF PARTS

3.01 Access to designation strips (E-4646) or (E-4832) can be obtained by removing the stainless steel bezel from the housing. Lift the bezel from the top of the housing first, raise upward, and lift out. (See Fig. 5.)



Care should be taken to prevent bending bezel clips or damaging the housing.



Fig. 5 — 639-Type Telephone Set Showing Removal of Bezel and Faceplate Assembly

3.02 To Remove 51A Lamp:

1. With bezel and light shield removed, press down on base of lamp with a KS-6320 orange stick to tip up lamp capsule.
2. Insert tip of orange stick beneath the raised lamp capsule and lift lamp from its socket. (See Fig. 6.)

3.03 To Remove housing:

1. Loosen screws at rear of telephone set base.
2. Lift rear of housing.
3. Move housing forward to disengage front housing mounting hooks.

3.04 When appropriate, use a P-12A858 blocking ring to prevent operation of any unused pickup key. A packet of two blocking rings is supplied with each telephone set. To install, remove lamp block assembly and place ring over plunger to be blocked.

3.05 To Remove Dial:

1. Remove faceplate assembly and housing.
2. Loosen screws on dial mounting plate.
3. Move dial mounting to the left and lift out.
4. Disconnect spade-tipped dial cord leads from terminals.
5. Loosen screws on each side of dial mounting plate and remove the dial. (See Fig. 7.)

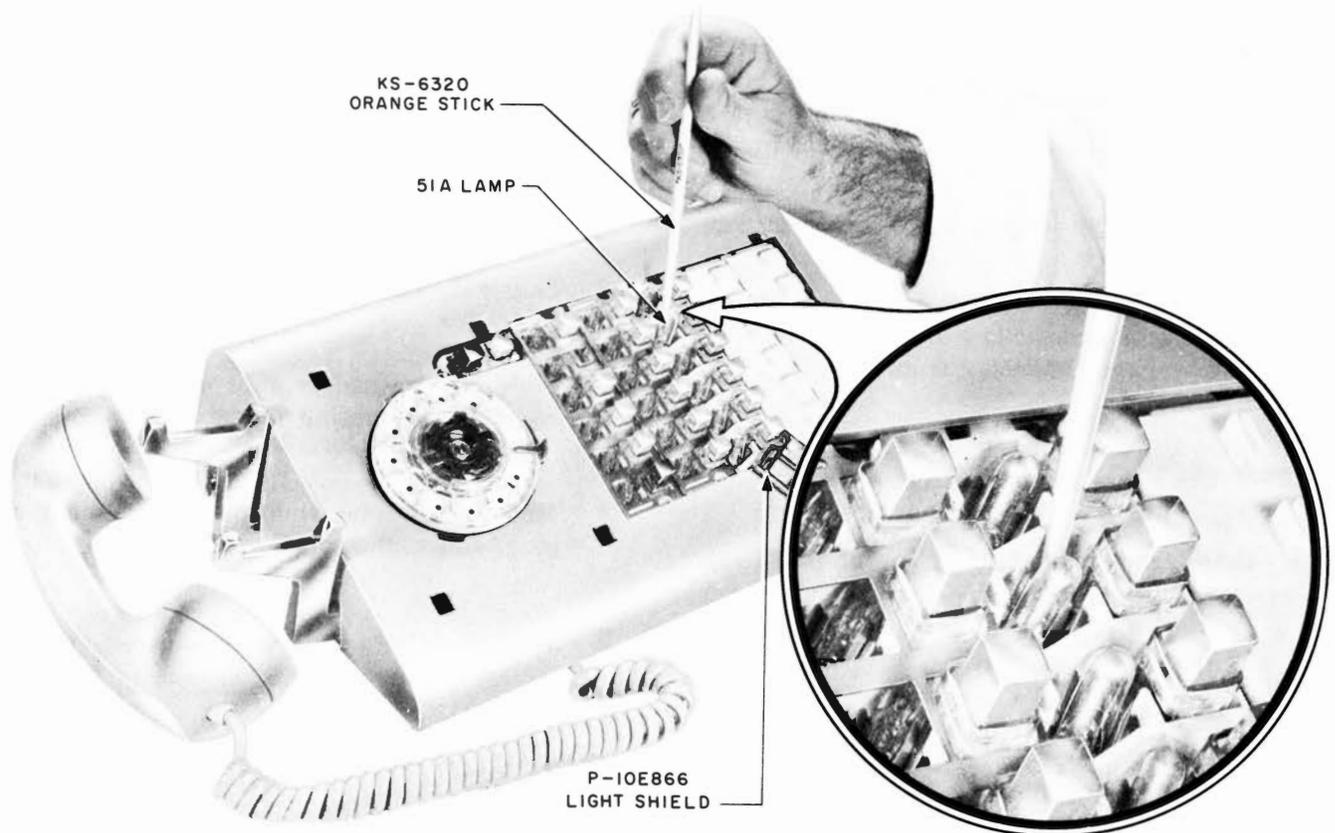


Fig. 6—639-Type Telephone Set Showing Removal of 51A Lamp

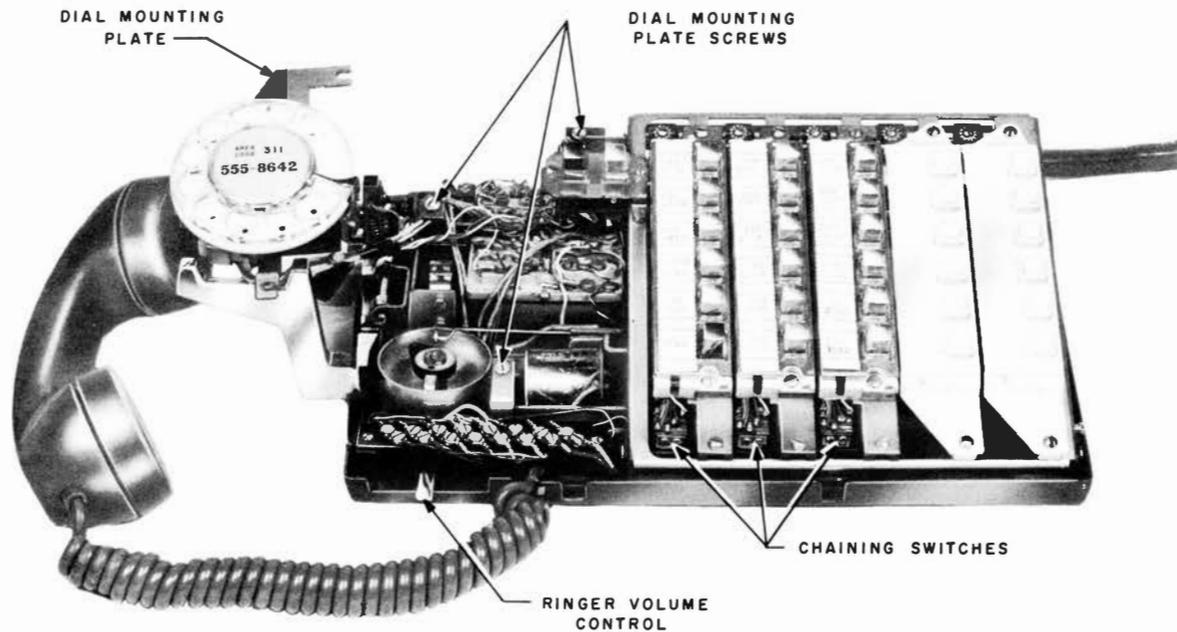


Fig. 7 – 639-Type Telephone Set, Dial Mounting Plate Lifted

3.06 To Remove a Key Unit:

1. Remove faceplate assembly and housing.
2. Loosen screws at top and bottom of key frame.
3. Grasp both ends of key and pull up enough to disengage connector from the plug.
4. Slide key toward back of set until front end of key clears mounting frame.
5. Raise front end of key clear of mounting frame.
6. Slide key forward and up to remove.

3.07 When equipping the set with additional 598A, 599A, or 599B keys, check and remove latch bar spring (if provided) from end of key. This spring is needed only when the unit is used in 6050 series key installations.

3.08 To Replace a Key Unit:

1. Hold key at both ends of its frame.
2. Lower upper end of key into key well.
3. Slide key toward rear of well until front end clears mounting frame.
4. Move key into position to engage latch bar, plug, and connector.
5. Tighten screws at front and rear of key frame.
6. Test key for proper operation, adjusting pivot bar coupling detail as necessary.
7. Reassemble housing and faceplate assembly.

3.09 To remove Mounting Cord Assembly:

1. Remove faceplate assembly and housing.
2. Remove mounting cord clamp.
3. Loosen screws on sides of key frame (Fig. 8).
4. Raise key frame.
5. Remove dial mounting plate.
6. Disconnect mounting cord leads on network, amplifier, and terminal block.
7. Remove screws on right and left sides of key frame (Fig. 8).
8. Remove mounting cord frame by pulling in a downward direction to disengage key unit connectors.

3.10 To replace mounting cord assembly, reverse procedure in 3.09. Check set for proper operation.



If cord is replaced with an even-count color-coded cord, it may be necessary to change termination of associated connector cable at distributing terminal.

3.11 When converting a key to (nonlocking) signaling, remove the screw detail P-12A892 entirely from the plunger at the key position to be converted. Store the removed screws in the base of the telephone set; use friction tape to hold in place. Concentrator type sets require P-11E977 insulating detail to prevent the operation of the concentrator unit when keys are used for signaling. (See Fig. 9.) Slide a P-11E977 insulating detail, squared end first, between the contacts of the spring-pile adjacent to the key plunger. The insulating details are furnished with concentrator-type sets only.

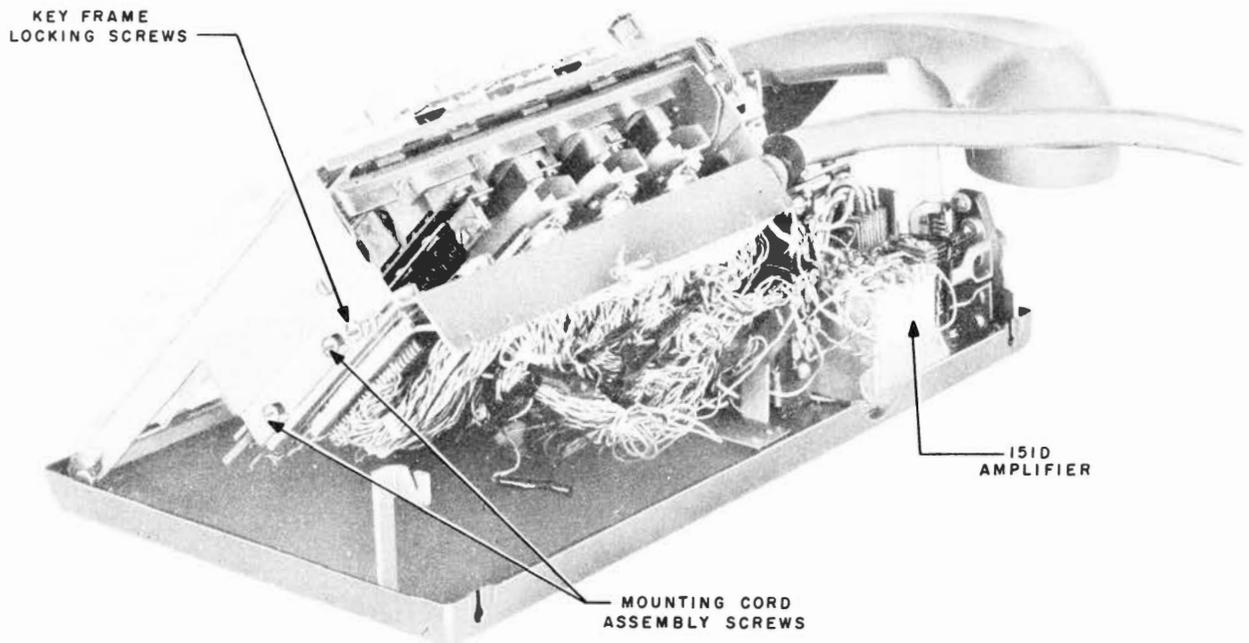


Fig. 8 — 639-Type Telephone Set, Key Frame Lifted, Rear View

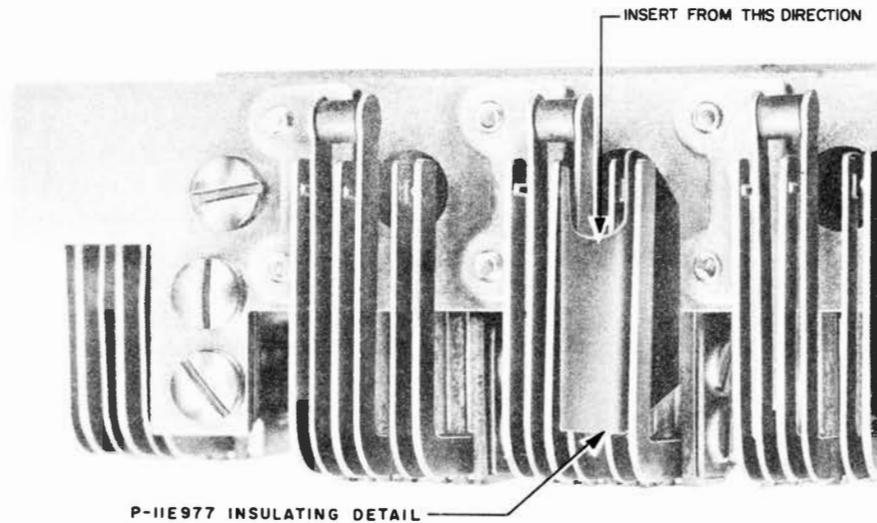


Fig. 9 — Part of 590 Series Key with P-11E977 Insulating Detail When Converted for Signaling

3.12 To Remove Ringer:

1. Remove faceplate assembly and housing.
2. Remove dial mounting plate and raise the key frame assembly.
3. Loosen the three screws in the ringer base.
4. Disconnect ringer leads on the network and terminal block; remove ringer.

3.13 To replace a ringer, reverse procedure in 3.12. Test for proper operation.