

TELEPHONE SETS

502, 503, 510, 511, 558, AND 1510 TYPES

IDENTIFICATION AND ASSEMBLY OF PARTS

1. GENERAL

1.01 This section is reissued to:

- Include information on the 1510F TOUCH-TONE telephone set.
- Include changes in the 425 network.

1.02 The 502-, 503-, 510-, 511-, and 1510-type sets are the same size and shape as the 500-type set. The 558-type set is the same size and shape as the 554-type set.

1.03 These sets have the transmission and signaling features of 500-type sets plus keys for transfer, signal, and exclusion features.

1.04 Code numbers such as 502AR/BR cover both manual and dial versions of each type telephone set. This permits converting from one to the other without changing the code number stamped on the base. The letter R has been added to indicate that the sets are equipped with spring handset cords.

1.05 Table A shows feature combinations most often used.

2. IDENTIFICATION

2.01 The 502-type set (Fig. 1) replaces 402A and B telephone sets. Lift the left plunger to operate the exclusion switch. Replace the handset to restore exclusion switch to normal. A set of switchhook contacts are provided for A lead control on 1A1 and 1A2 key telephone systems. The 502-type set can also be used on 101-type key equipment. The 502BR-61 (equipped with a D6AC-61 cord) can be modified for use with 401B and D data sets.



Fig. 1 — 502-Type Telephone Set

2.02 The 503B-61 telephone set is designed for use with the 402-type DATA-PHONE, and is identical in appearance to the 502BR-61 telephone set. A data key is located on the telephone set switchhook assembly in the same position as an exclusion key and operates in the same manner. Application of this key is shown in the section covering data sets used with 503B-61 telephone sets. The set is equipped with a 6-conductor (D6AA-61) mounting cord.

2.03 The 510-type set (Fig. 2) replaces the 410A and B telephone sets. The 510AR/BR set is equipped with a 4-conductor mounting cord. It replaces 410AA and AC sets. The 510ER/FR set is equipped with a 6-conductor mounting cord. It replaces 410BA and BC sets. Turning the turn-button-pushbutton key on the 510-type set transfers the talking circuit of the set to either of two lines. This key can also be used to cut off or transfer lines, extension stations, ringers, etc. Depressing the key button closes a pair of contacts to provide signaling.

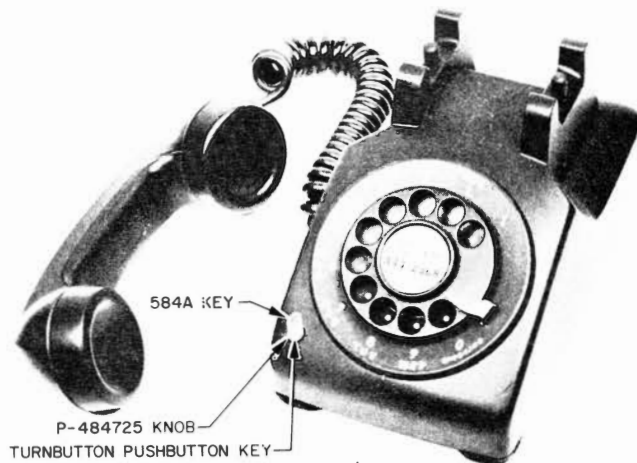


Fig. 2 — 510-Type Telephone Set

2.04 The 1510F set (Fig. 3) is the TOUCH-TONE version of the 510F set. The housing and dial mounting bracket are modified to accommodate a 25A3 TOUCH-TONE dial. Depressing a pushbutton actuates a line-powered oscillator to generate two frequencies. These frequencies are transmitted to the central office where a converter unit translates them into a 2-out-of-5-code (for crossbar offices), or dial pulses (for step-by-step offices). The faceplate is removable to allow changes of number card.

TABLE A

FEATURE COMBINATIONS

Code	Number of Lines Picked Up	Signaling Circuit	Line Ringer	Common or Private Line Ringer or Buzzer	Exclusion	Ringer or Buzzer Cutoff by Exclusion Key	Cutoff by Key		
							Ringer or Buzzer in Set	Extension Station or Ringer	Head Receiver Listening in Station
502AR/BR	1		•		•				
	1			•		•			
510AR/BR	2		•						
	1	•	•						
	1	•	•				•		
	1		•					•	
	1		•						•
510ER/FR 1510F 558AR/BR	2	•	•						
	2			•					
	1	•	•				•		
	1	•	•					•	
	1	•	•						•
511AR/BR 511CR/DR* 558CR/DR*	2	•	•		•				
	2	•		•	•				
	2	•		•		•			
	1	•	•		•		•		
	1	•	•		•			•	
	1	•	•		•				•

*Wired for speakerphone systems



Fig. 3 — 1510F Telephone Set

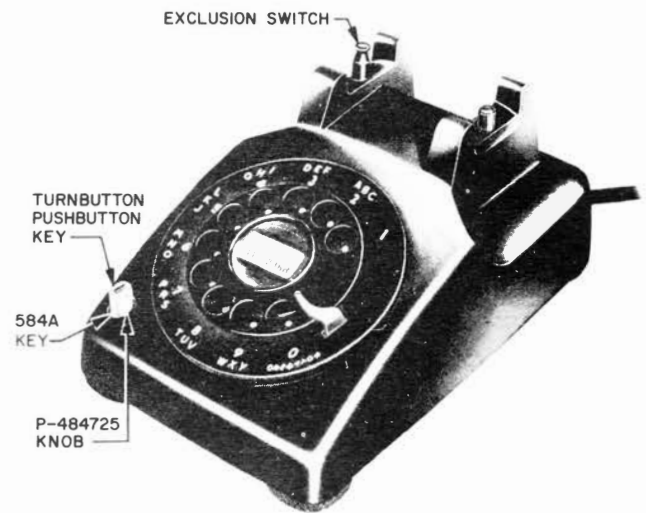


Fig. 4 — 511-Type Telephone Set

2.05 The 511 CR/DR telephone set (Fig. 4) is equipped with a turnbutton-pushbutton key, an exclusion switch, connections for speakerphone, and a 16-conductor mounting cord. It replaces the 511 AR/BR set.

2.06 The 558CR/DR set replaces the 558AR/BR set and is equipped with an exclusion key and a 548B turnbutton-pushbutton key (Fig. 5). Holes are provided in the baseplate for mounting a 659A transmitter. The set may be arranged for use in speakerphone systems or home communication systems by rearranging ringer, exclusion key, and switchhook connections. The exclusion key and turnbutton-pushbutton key provide the following services:

- (a) The exclusion key provides means for disconnecting an extension station by raising the plunger which projects through the top of the housing. Key returns to normal when handset is replaced.
- (b) When used in home communication systems, the exclusion key may be used to place a hold on the central office line while using the intercommunication line.
- (c) The turnbutton-pushbutton key may be used for switching and signaling.

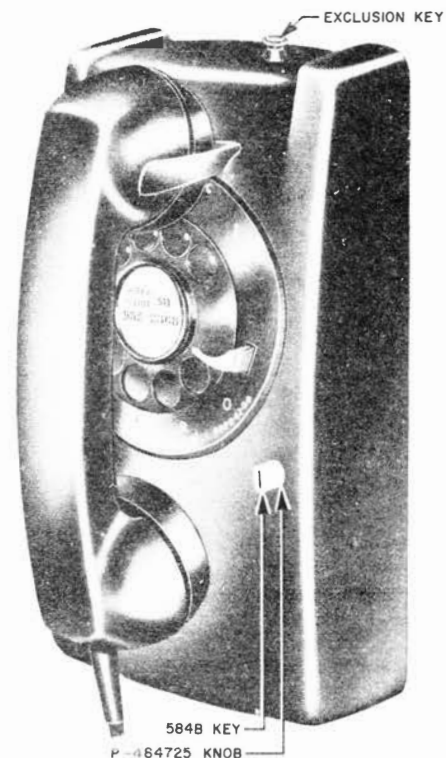


Fig. 5 — 558-Type Telephone Set

3. ASSEMBLY OF PARTS

3.01 Only the assembly of parts which differs from the other 500-type sets is shown in this section.

3.02 Fig. 6, 7, 8, 9, and 10 show internal parts of 502-, 503-, 510-, 511-, 558-, and 1510-type sets. The buzzer and bracket (Fig. 11) are used in place of the C4A ringer for common or local signal.

3.03 The 425B network and 425E network are identical except the 425E uses additional screw-type terminals. The 425E replaces the 425B network on 500- and 1500-type telephone sets presently being manufactured.

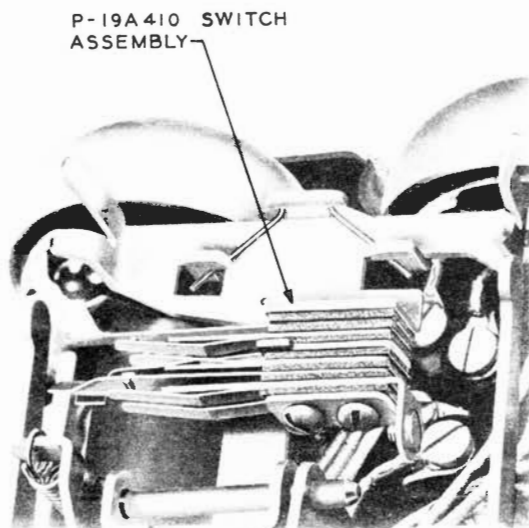


Fig. 6 - Exclusion Switch Assembly

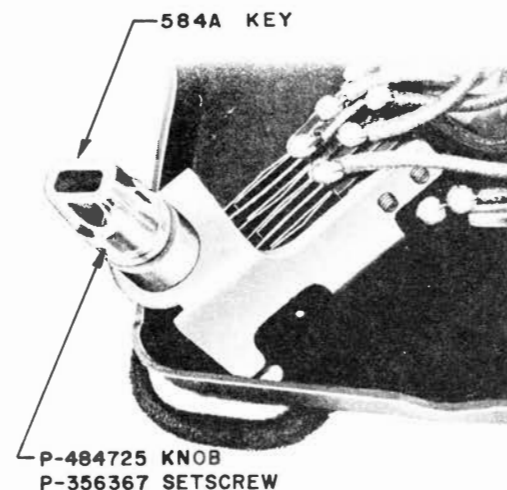


Fig. 7 - Turnbutton-Pushbutton Key

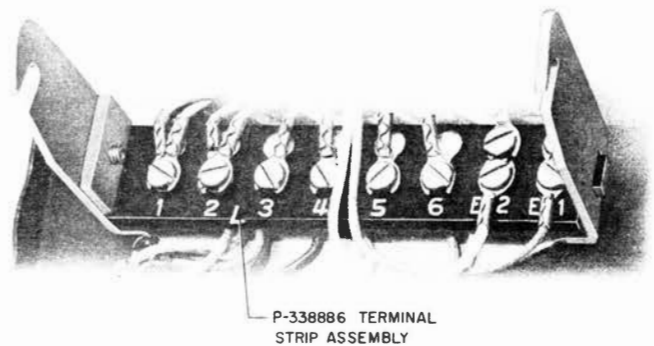


Fig. 8 - Terminal Strip Assembly

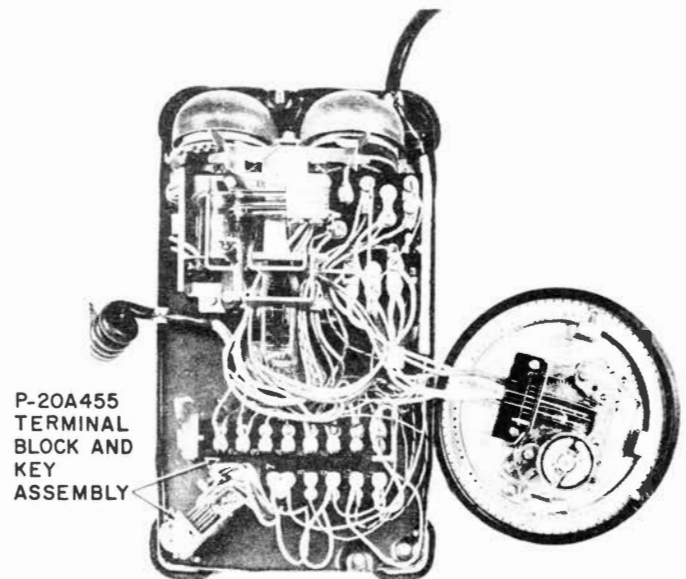


Fig. 9 - 511CR DR Telephone Set, Interior

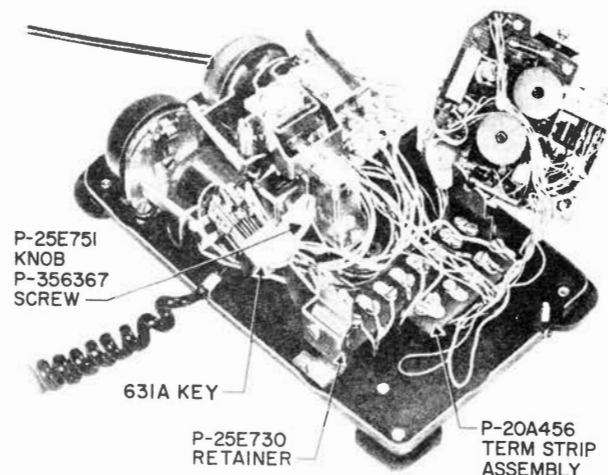


Fig. 10 - 1510F Telephone Set, Interior

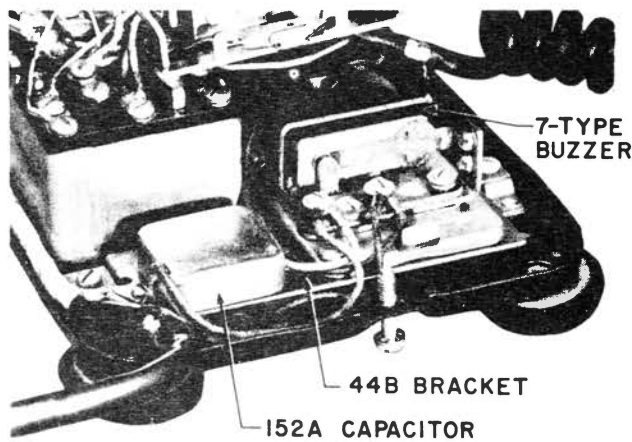


Fig. 11 — 7-Type Buzzer and 44B Bracket

3.04 To replace 3- or 4- conductor mounting cords with a heavy duty extra length (D3BU or D4BP) cord, remove a ringer mounting screw, insert the cord stay under the ringer frame, and reinsert the mounting screw (Fig. 12). Place the grommet on cord so that cord is protected where it enters the set. D3BU and D4BP

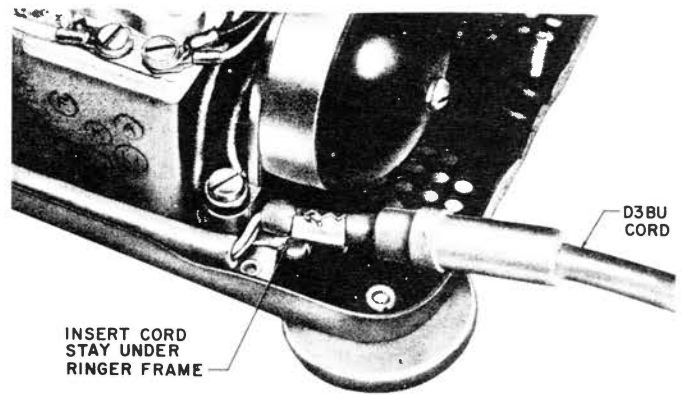


Fig. 12 — Heavy Duty Cord Used in 500-Type Sets

cords are available in 9-, 13- and 25-foot lengths only.

4. COLOR

4.01 The 503B-type telephone set is available in light gray (-61) only. Other telephone sets in this section are available in colors shown in section on color telephone apparatus.