

## TELEPHONE SETS

### 540 AND 560 TYPES

#### DESCRIPTION AND USE

#### 1.00 GENERAL

1.01 This section gives general information relating to the description and use of 540- and 560-type telephone sets.

1.02 It is reissued to bring the information up-to-date. Due to extensive changes, marginal arrows have been omitted.

#### 2.00 DESCRIPTION

2.01 The 540- and 560-type sets are similar in appearance to other sets in the 500 series; however, they are proportionately larger and have clear plastic buttons and a designation strip along the front of the set below the dial. Except for the 540B set, these sets are arranged for pickup key button illumination. The various feature combinations obtainable are indicated in Table A.

2.02 Key button illumination is obtained by the use of a clear plastic collar, which extends over the end of a 51A lamp mounted within the set and around the clear plastic button. Since the light is transmitted through the collar as well as the lucite button, better illumination is provided than that afforded by the older 400 series key telephone sets.

**Note:** The 51A lamps for button illumination are not supplied with the 540- and 560-type key telephone sets and should be furnished by the installer.

2.03 The buttons and collars extend through the plastic window strip assembly. The removable window strip assembly is held in place by two spring clips, which fit into mating holes in the set housing. These clips are also designed to retain the designation card in place above the buttons. Figs. 1, 2, and 3 show external views of typical 540- and 560-type telephone sets.



FIG. 1 — 540-TYPE TELEPHONE SET



FIG. 2 — 560-TYPE TELEPHONE SET



FIG. 3—565LB TELEPHONE SET

**2.04** These sets contain a number of components found in other 500 series telephone sets; such as a C4A ringer and its volume adjustment control, a 425B network, 7D, E, or G-type dial (or a 95B apparatus blank for manual service), a G1A-type handset, etc. In addition they feature control keys, which have a mechanical interlock preventing more than one pickup button from being operated at a time. Certain pickup keys are designed to be converted to signal keys. This conversion consists of removing a special screw from the pickup key plunger and changing a lead on the terminal strip, which can be made in the field by the plant craftsman. In sets of recent manufacture, provisions are made for storing the special screw, so removed, in a slot along the edge of the key terminal strip.

**2.05** The mounting cords have moisture-resistant jackets and are furnished in a number of colors. Individual cord conductors are plastic covered and are distinguishable by a specific color coding arrangement utilizing solid colors to identify up to eight cord conductors. Thereafter, additional conductors are identified by stripping combinations of one or two different colors on white insulation. Generally, individual conductors of the same identifying color have the same circuit function in each type set.

**2.06** A number of the conductors are spade tip ended and terminate in the telephone set individually. Individual cord tips are provided only on those conductors which require repositioning for service feature reasons and on lamp lead conductors. The remaining majority of conductors are physically attached to one or more special terminal strips (see Fig. 4). The terminal strip is of insulating material, and the cord conductors permanently fastened thereto are treated as a unit instead of individual

conductors. On sets of early manufacture, the terminal strip is fastened to the key terminal strip by screws through each cord tip. Later cords feature a slotted terminal strip, which allows the strip to be slid under the screws after they have been backed off a few turns. Certain balance (DD) and spare conductors have the spade tip of the conductor taped. These conductors are not connected in the set unless required. The loose ends are dressed under the terminal plate.

**2.07** A designation card, form E-4227, is available for use with 540- and 560-type telephone sets. This form is printed in the 6-button size, and when

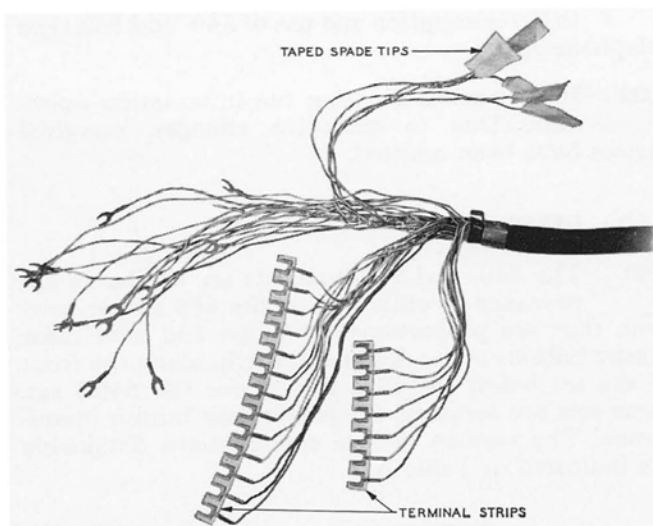


FIG. 4—TELEPHONE SET END OF MOUNTING CORD

used with 4-button sets, is trimmed as needed to fit the window strip assembly. A directory card, form E-4097, is obtainable for use with stations of key telephone systems having the dial selective intercommunicating line circuit feature. See section covering designation strips and cards.

**2.08** The 540- and 560-type telephone sets are available in eight full colors and eight two-tone colors, in addition to black. These colors are black, ivory, green, gray, brown, beige, yellow, and blue. See the section covering supply and ordering information.

**2.09** The 540- and 560-type telephone sets may be obtained from the manufacturer, equipped with a spring cord of appropriate color when necessary.

### 3.00 USE

The 540- and 560-type telephone sets are designed to be used with either the 1A or the 1A1 key telephone systems. They are furnished by the manufacturer, wired for use with 1A key telephone systems. The wiring may be changed for use with 1A1 key telephone systems by reconnecting certain spade tip conductors.

TABLE A

Feature Combinations Provided, 540- and 560-Type Telephone Sets

Key Button Arrangements	Features				Coding		Rating
	Excl Key	Illuminated Key Buttons	Station Busy Lamp Control	Speakerphone Control	Manual	Dial	
HPPP					540BA	540BB	MD
		X			544BA	544BB	
HPPPS	X	X	X		545BA	545BB	
PPPPS		X			544AA	544AB	MD
HPPPPP		X			564BA	564BB	MD
HPPPPS		X			564CA	564CB	MD
HPPSS		X			564DA	564DB	MD
HPPPS <sup>S</sup> P <sup>S</sup> P <sup>S</sup>		X	X		564HA	564HB	
HPPPS <sup>S</sup> P <sup>S</sup> P <sup>S</sup>	X	X	X		565BA	565BB	MD
HPPPS <sup>S</sup> P <sup>S</sup> P <sup>S</sup>	X	X	X	X	565HA	565HB	
PPPPS <sup>S</sup> P <sup>S</sup> P <sup>S</sup>	X	X	X		565AA	565AB	MD
PPPPS <sup>S</sup> P <sup>S</sup> P <sup>S</sup>	X	X	X	X	565GA	565GB	
HPPPPC	X	X	X		565EA	565EB	MD
HPPPS <sup>S</sup> C	X	X	X	X	565LA	565LB	

H = Hold (Nonlocking)  
P = Pickup (Locking)

S = Signal (Nonlocking)  
C = Cutoff (Turn Button)

P<sup>S</sup> = Convertible, either pickup (locking) or signaling (non-locking)

**Notes:**

1. The exclusion feature is actuated by raising the left-hand switchhook plunger. The leads from this switch are equipped with spade tips and can be connected to any one line appearing in the set.
2. The 51A lamps for illuminating key buttons are to be furnished by the installer.
3. Manual sets are obtained by replacing the dial with a 95B apparatus blank.
4. A No. 7-type buzzer may be mounted on a 44B bracket in place of the ringer, when desired.