

## 500 SERIES TELEPHONE SETS (502, 510, AND 511 TYPES) INSTALLATION

### 1. GENERAL

1.01 This section covers installation procedures for the 502-, 510-, and 511-type key telephone sets.

1.02 This section contains information peculiar to the above sets. Reference should also be made to the Sections C32.537 "500 Series Telephone Sets (500 and 501 Types), Installation" and C31.145 "Subscriber and Telephone Sets For Indoor Locations, Installation."

### 2. SERVICE ORDERS AND WORK SHEETS

2.01 The service order issued for each installation, addition, or rearrangement should list the services to be provided. Where required this service order will be accompanied by a work sheet showing the operating features for each station and the type of apparatus involved.

### 3. LOCATING AND MOUNTING

3.01 In locating these key telephone sets be guided by the subscribers' wishes and the general requirements for mounting all telephone sets. Telephone set cords should not be exposed to moisture, and therefore should be kept off the floor if at all possible.

3.02 A 42- or 44-type connecting block should be used for connecting the wire or cable to the telephone set cord. The proper method of terminating wires or cables and cord conductors at connecting blocks is covered in the Section C33.545 "Connecting Blocks, Installation."

### 4. LINE STATION AND RINGER LIMITATIONS

4.01 It is desirable that the number of stations that can be connected to one line be limited so as to reduce the possibility of interference with dial pulsing or poor transmission due to the use of the line for listening-in or conference purposes. In general, not more than ~~six~~ stations should be connected directly or by key operation to ~~one~~ central office line, unless visual line and busy signals are provided.

4.02 Ringers and line signals used with these sets are subject to the same ringer connection limitations as covered in the Section C63.251, "Ringer Connection Limitations, Non-polarized Ringing Lines."

4.03 The arrangement should be such that at least ~~one~~ audible or visual signal is connected to the central office or PBX line at all times. Exception to this may be made at PBX stations in special cases where for one reason or another a ringer or signal is not needed by the subscriber.

### 5. NUMBER CARDS AND MASKS

5.01 The standard number card for the particular central office area should be used with these sets. On the 510- and 511-type sets a mask for the particular features at the station should also be used as covered in the Section C37.321, "Designation Strips and Cards, Description and Use."

### 6. STATION RINGERS AND SIGNALS

6.01 These sets contain C4A ringers and the biasing spring should be in the high tension notch except where three or more ringers are bridged across one line. In this case all ringers on that line should be in the low-tension notch.

6.02 The C4A ringer in these sets may be replaced with a 7-type buzzer mounted on a 44A bracket, for local signaling or where a common audible signal is used in a key system.

### 7. WIRING

7.01 Wire or cable shall be selected, placed, and fastened in accordance with the following Sections that cover this work.

- (a) C24.041 "Selection of Wire and Cable."
- (b) C24.061 "Placing Wire and Cable in Buildings."
- (c) C24.062 "Wiring of Desks and Tables."
- (d) C24.081 "Fastening Wire and Cable in Buildings."

### 8. FINAL TESTS

8.01 Upon completion of a key telephone set installation make certain that all features of the sets are functioning properly. The tests should consist principally of operating the keys to see that all pickup, cutoff, exclusion, and signaling features, ringers, buzzers, and lamps are operating properly. Check the operation of ringers with the keys in the various positions for stations having ringer cutoff.

8.02 The subscriber or his representative should be instructed as to proper operation of these sets.

8.03 Accurately report all apparatus and service features installed or disconnected as required by local practices.