

## SINGLE-LINE, PUSHBUTTON DIAL, DESK TELEPHONES

### GENERAL DESCRIPTION

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#### 1. GENERAL DESCRIPTION

**1.01** This document covers the single-line, pushbutton dial, desk telephones. (See Figure 1.) A general description as well as information that is peculiar to single-line, pushbutton dial, desk telephones is included.

**1.02** This section is reissued for the following reasons:

- (a) Issue 3 adds feature codes 50 (data port) and 57 (data port and message waiting) to the modular (M) version of the single-line, pushbutton dial, desk telephone. The feature code 20F and 27F



Figure 1: Single-Line, Pushbutton Dial, Desk Telephone

telephones have been equipped with a centered faceplate. Quarter-modular (Q) and full-modular (F) versions of the single-line, pushbutton dial, desk telephones have been manufacturing discontinued as well as the following:

- (1) Tel-Pulse (T) dial and regular (R) dial telephones.
  - (2) Less ringer (LR) telephones.
  - (3) Hold (H) feature telephones.
  - (4) Color code 05, 12, 43, and 46 telephones.
  - (5) Feature code 28 and 39 telephones.
- (b) Issue 2 added the Model 2500\*\* ( ) 20H, the Model 2500\*\* ( ) 20F, and the Model 2500\*\* ( ) 27F telephones.

*Note:* Ordering information for manufacturing discontinued telephones has been removed; however, descriptive information has been retained as a reference for telephones still in service.

## SECTION 50-500-103, ISS 3

**1.03** A replacement parts list and an exploded-view drawing for the telephones are contained in Section 50-500-104. The circuit labels appear in Section 50-500-105. Related documents of the CORTELCO Telephone Apparatus Practices Manual provide information on components.

**1.04** The Model 2500 desk telephones are single-line, pushbutton dial, anti-sidetone type units that operate efficiently over a wide range of loop resistances and line impedances.

**1.05** The Model 2500 desk telephones are identified by a coded label affixed to the bottom of the base plate. Refer to ordering information in Table A for an explanation of each code number and a list of available versions and features.

**1.06** The Model 2500 desk telephones are nonmodular, quarter-modular, or full-modular versions. These versions are designated by a code letter in the telephone code number. (Refer to Table A.)

**1.07** Nonmodular version telephones include a hard-wired handset cord and a hard-wired line cord. This version is designated by the code letter O.

**1.08** Quarter-modular version telephones (no longer available) include a hard-wired handset cord and a line cord. The line cord is hard-wired on one end to the telephone base. The line cord is terminated on the other end with a modular plug that can be inserted into a modular wall jack. This version is designated by the code letter Q.

**1.09** Full-modular version telephones are available with or without a modular handset cord and a modular line cord. However, all full-modular version telephones are equipped with jacks to accept the plugs of a modular handset cord and a modular line cord. The full-modular version of the telephone with both a modular handset cord and a modular line cord, terminated on each end with modular plugs, is designated by the code letter M. The full-modular version without a modular handset cord and a modular line cord (no longer available) is designated by the code letter F.

**1.10** The Model 2500 desk telephones are described in the following paragraphs. The circuit labels for these telephones are contained in Section 50-500-105.

### MODEL 2500\*\* ( ) 20

**1.11** The Model 2500\*\* ( ) 20 is a single-line, pushbutton dial, desk telephone. It provides no special features.

### MODEL 2500\*\* ( ) 20H (HOLD)

**1.12** The Model 2500\*\* ( ) 20H (no longer available) is the same as the Model 2500\*\* ( ) 20 except for the added hold feature. The hold feature allows the station to place a CO/PABX (Central Office/Private Automatic Branch Exchange) line on hold.

**1.13** The hold feature is activated when the station user goes on-hook while pressing the HOLD button. The call is placed on hold and the hold indicator flashes. The hold feature is released and the hold indicator stops flashing when the station user goes off-hook and returns to the call on hold. More than one Model 2500\*\* ( ) 20H telephone can be used as an extension on the same CO/PABX line. The hold indicator flashes only at the extension with the activated hold feature. The hold feature is released and the hold indicator stops flashing when any of the connected extensions go off-hook.

### MODEL 2500\*\* ( ) 20F (TEL-FLASH)

**1.14** The Model 2500\*\* ( ) 20F is the same as the Model 2500\*\* ( ) 20 except for the added Tel-Flash feature. The Tel-Flash feature can be used with PABX/Centrex applications to provide a precise time line disconnect (interrupt) for custom call service. The hookswitch provides a positive line disconnect.

**1.15** The timed flash is activated when the station user presses the FLASH button. The line is momentarily disconnected for 500 to 700 milliseconds. The hookswitch line disconnect is activated when the station user presses and releases the telephone hookswitch. The line is disconnected for 1.5 to 2.5 seconds.

**1.16** Model 2500\*\* ( ) 20F telephones equipped with the centered faceplate can be modified for the A-lead control feature. With A-lead control, the telephone will provide connections through the hookswitch that allow ground on the A-1 lead to be applied to key equipment by way of the A lead. Refer to the appropriate circuit label in Section 50-500-105.



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### MODEL 2500\*\* ( ) 21

1.17 The Model 2500\*\* ( ) 21 is the same as the Model 2500\*\* ( ) 20 except it is equipped with a 9-foot handset cord.

### MODEL 2500\*\* ( ) 24

1.18 The Model 2500\*\* ( ) 24 is the same as the Model 2500\*\* ( ) 20 with the addition of a grounding pushbutton required in some PABX applications for transferring calls, originating calls during a power failure, and other special functions.

### MODEL 2500\*\* ( ) 27F (TEL-FLASH)

1.19 The Model 2500\*\* ( ) 27F is the same as the Model 2500\*\* ( ) 20F with the addition of a 90-volt message waiting lamp. The lamp is for use in PABX applications to indicate a waiting message for the station user. It also flashes for an incoming call.

1.20 Model 2500\*\* ( ) 27F telephones equipped with the centered faceplate are shipped with the message waiting lamp circuit connected across the Tip and Ring (RD/GN) pair. In this configuration the message waiting lamp is off when the handset is off-hook.

1.21 Wiring inside the telephone can be changed to connect the message waiting lamp across the alternate BK/YL pair. In this configuration the message waiting lamp is controlled on and off by the connected equipment. Refer to the appropriate circuit label in Section 50-500-105.

### MODEL 2500\*\* ( ) 27/28

1.22 The Model 2500\*\* ( ) 27/28 is the same as the Model 2500\*\* ( ) 20 with the addition of a message waiting lamp. The lamp is for use in PABX applications to indicate a waiting message for the station user. It also flashes for an incoming call. The Model 2500\*\* ( ) 27 is equipped with a 90-volt lamp; the Model 2500\*\* ( ) 28 is equipped with a 125-volt lamp.

### MODEL 2500\*\* ( ) 39

1.23 The Model 2500\*\* ( ) 39 is a specially-modified Model 2500\*\* ( ) 20 arranged for handsfree application. It is equipped with a special

dial assembly (type 0046\*\*-0PG) that mutes the speaker during dialing.

### MODEL 2500\*\* ( ) 44

1.24 The Model 2500\*\* ( ) 44 is a Model 2500\*\* ( ) 20 arranged for A-lead control. This telephone provides connections through the hookswitch that allow ground on the A1 lead to be applied to key equipment by way of the A lead. The Model 2500\*\* ( ) 20 may be converted to a Model 2500\*\* ( ) 44. Refer to the appropriate circuit label in Section 50-500-105.

### MODEL 2500\*\* ( ) 50

1.25 The Model 2500\*\* ( ) 50 is the same as the Model 2500\*\* ( ) 20 with the addition of a parallel modular jack. The parallel modular jack is connected in parallel with the modular line cord jack for use as a data port.

### MODEL 2500\*\* ( ) 57

1.26 Model 2500\*\* ( ) 57 is the same as Model 2500\*\* ( ) 50 with the addition of a 90-volt message waiting lamp. The lamp is for use in PABX applications to indicate a waiting message for the station user. It also flashes for an incoming call.

### MODEL 2502\*\* ( ) 30

1.27 The Model 2502\*\* ( ) 30 is a single-line, pushbutton dial, desk telephone equipped with a manual exclusion switch. This exclusion switch disconnects any other telephone on the same line to permit confidential conversation. This is a non-modular version of the telephone with no special features.

## 2. INSTALLATION

2.01 Installation of the full-modular versions of these telephones consists of inserting the modular line cord plug into an available modular wall jack. Refer to the appropriate circuit label for installation wiring of nonmodular version telephones.

## 3. MAINTENANCE

3.01 For replacement parts information and for an exploded-view drawing of major assembly groups, refer to Section 50-500-104.