COMMUNICATIONS DISPLAY TERMINAL (CDT)

SERIES 2540 DEPENDENT BUFFER SET

DESCRIPTION AND PRINCIPLES OF OPERATION

1. GENERAL

1.01 This section provides the description and principles of operation for the 2540 Dependent Buffer Set (Figure 1). This section is being reissued to delete all information pertaining to the 2541 Independent Buffer Set. The deleted information will be placed in Section 578-141-100.

1.02 The buffer set is a solid state unit which receives, stores, and retransmits data from external devices.

2. DESCRIPTION

BASIC UNIT

2.01 The 2540 Dependent Buffer Set consists of one or two buffer modules, a power supply, operational control cluster, and a cabinet. A typical buffer set is shown in Figures 1 and 2.

2.02 The buffer sets utilize 8-level parallel signals which are compatible with ASCII (American National Standard Code for Information Interchange) code, and operates on a First-In-First-Out (FIFO) basis at speeds up to 3000 words per minute.

2.03 Since the buffer sets are dynamic storage devices, a loss of power will result in the loss of any information in the buffer.

TECHNICAL DATA

A. Physical Characteristics

Weight . . . . 195 pounds
Height . . . . .31 inches
Width . . . . .27 inches
Depth . . . . .24 inches

Accessibility . . . . . Top, front, rear, and sides

B. Power Requirements and Consumption

Input voltage . . . . .115 v ac $\pm$10%, 60 Hz $\pm$0.5 Hz

Power Consumption
Reflects maximum character storage for one buffer module . . . . 275 watts with a 10 ampere surge

C. Environment

Temperature ranges —
This equipment is intended to be operated in a room environment within the temperature range of 40° F to 110° F. Serious damage to it could result if this range is exceeded. In this connection, particular caution should be exercised in using acoustical or other enclosures.
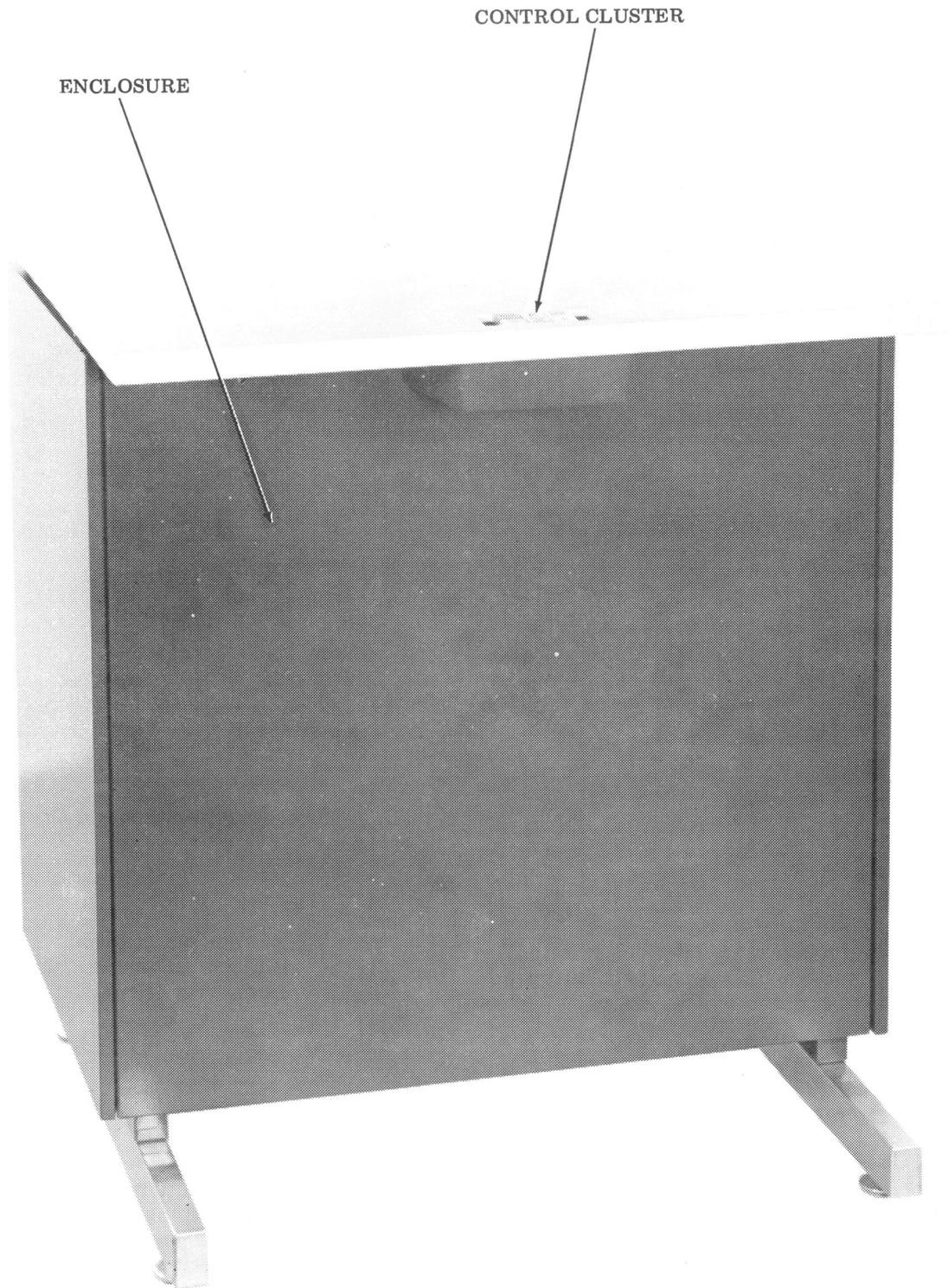
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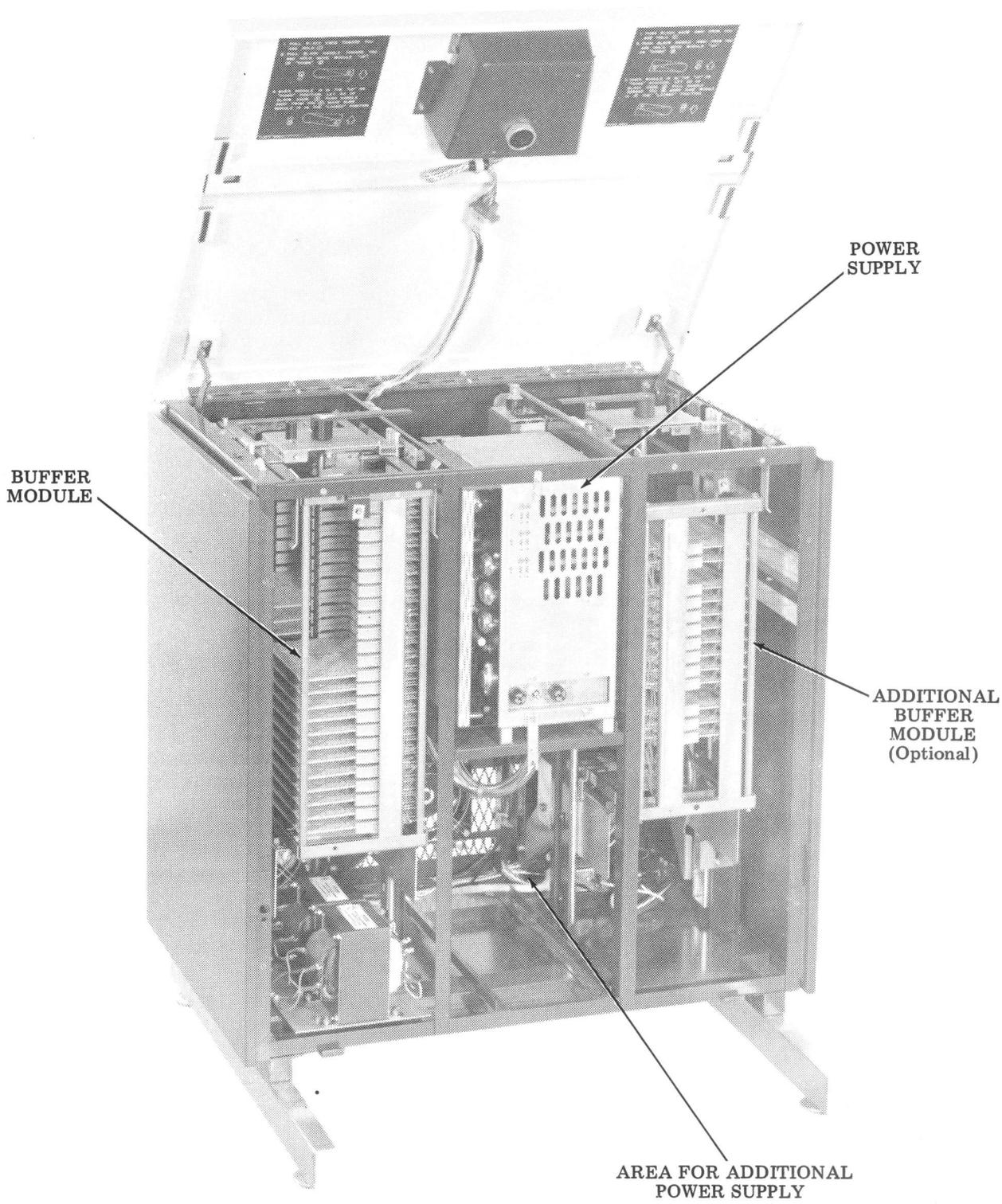
ENCLOSURE

CONTROL CLUSTER

Figure 1 - Typical Buffer Set

Figure 2 - Buffer Set (Top Open and Front Panel Removed)

Humidity: The set should be stored and operated at more than 2% but less than 95% humidity.

Altitude: Operation should be between sea level and 10,000 feet. Shipping altitude can be up to 50,000 feet.

STORAGE CAPABILITIES

2.04   The buffer module used in either the dependent or independent buffer set has a minimum storage capacity of 2000 characters. This amount can be increased in increments of 2000 characters up to a capacity of 12,000 characters, and then in increments of 4000 characters up to a maximum of 20,000 characters. Complete information on the buffer module used in either the dependent or independent buffer set can be found in Sections 578-140-120, 578-140-220, and 578-140-320.

ENCLOSURE

2.05   The enclosure for the 2540 Buffer Set is a free standing unit capable of housing all of the modules, power supplies, and interconnecting cables required for proper operation. The cabinet design permits ease of installation, operation, and maintenance of terminal components.

3.   PRINCIPLES OF OPERATION

3.01   The principles of operation breaks the buffer sets down into their various operations and functions.

POWER SUPPLY

3.02   The power supply used in the 2540 Buffer Set supplies power to one or two buffer modules as long as their combined storage capabilities do not exceed 20,000 characters. A second power supply is necessary when the total buffer storage capacity is greater 20,000 characters up to the maximum of 40,000 characters.

OPERATIONAL CONTROL CLUSTER

3.03   There are two buttons in the operational control cluster of the 2540 Buffer Set (Figure 3) which are used in the following manner.
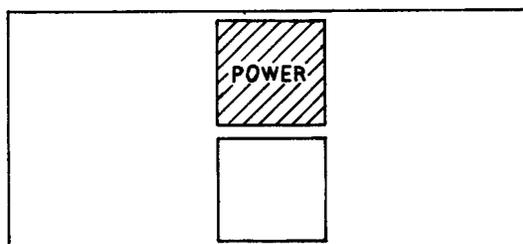

Figure 3 - Operational Control Cluster for 2540 Buffer Set

POWER — Depressing the red power button will turn the set ON and illuminate the button. If the button is depressed again, the set will be OFF and the button will no longer be illuminated.

BLANK — A spare push-ON, push-OFF button that is available for customer or system use.