

## 28-TYPE DATA MOUNTING IDENTIFICATION

### 1. GENERAL

1.01 This section describes in general terms the physical dimensions, weight, major components, and use of the 28-type data mounting used to provide multiple data set arrangements.

1.02 This section is reissued to add information on the 28D1 data mounting.

1.03 The 28-type data mountings identified in this section are as follows:

- 28A1 Data Mounting—provides housing for multiple data set arrangements (see Part 2 for the description).
- 28A2 Data Mounting—replaces the 28A1 data mounting to provide housing for multiple data set arrangements (see Part 3 for the description).
- 28C Data Mounting—provides interconnections for multipoint arrangements for private line data sets when equipped with the 27B data unit and the KS-20575 power supply (see Part 4 for the description).
- 28D1 data mounting—is a combination of the 28A data mounting and the 27B data unit arrangement for a multiple private line data system (see Part 5 for the description).

### 2. 28A1 DATA MOUNTING

2.01 The 28A1 data mounting (Fig. 1) is 6 inches high, 25 inches wide, 10 inches deep, and weighs 15 pounds. It mounts in either 23- or 25-inch racks.

2.02 The 28A1 data mounting consists of one 59C apparatus mounting, two KS-16786,L4 connectors, one KS-16671,L1 plug, sixteen 927D connectors, and one terminal block.

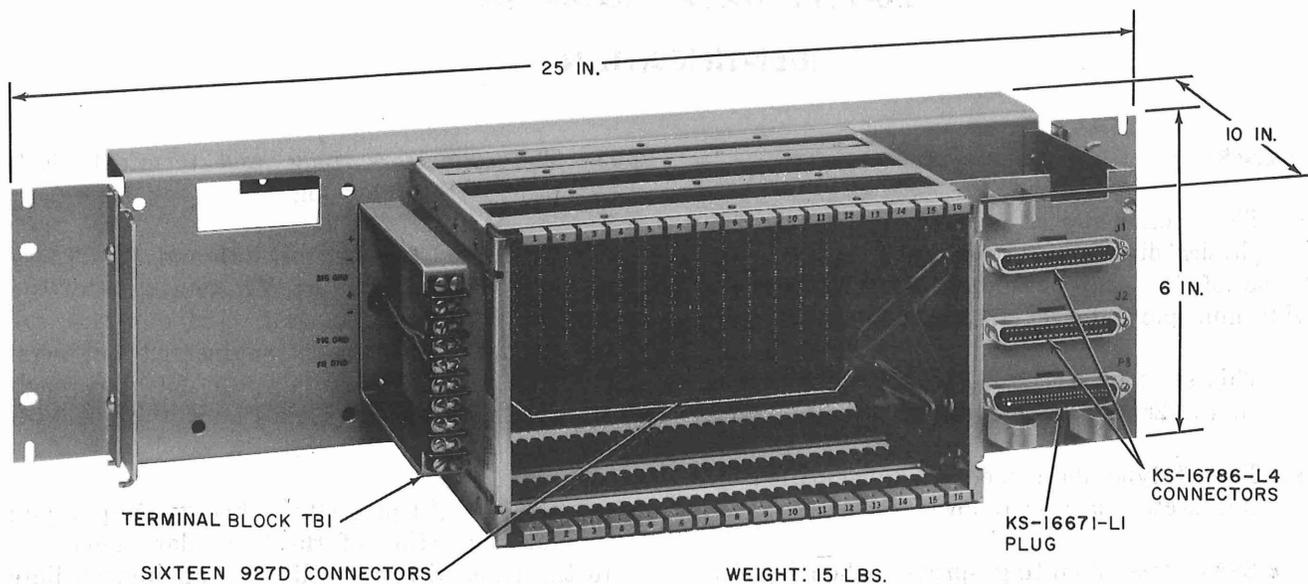
2.03 The connectors, plug, and terminal block provide the following:

- (a) KS-16786,L4 connectors (J1 and J2)—These are 50-pin connectors for connection of the 28A1 to the 27A1 data unit, 27B1 data unit, or to standard and locally engineered adapters. Connector J1 is associated with slots 1 through 8 and connector J2 is associated with slots 9 through 16.
- (b) KS-16671,L1 plug (P3)—this is a 50-pin plug for connection of the 28A1 data mounting to the transmission facility via an intermediate distribution frame or terminal block.
- (c) Terminal block (TB1)—for connection of the 28A1 data mounting to +24 volts dc, -24 volts dc, frame ground, and signal ground.

2.04 The dc voltages required for operation of the 28A1 data mounting must be supplied either externally or from a KS-20575 rectifier. The 28A1 data mounting can house one KS-20575 rectifier which must be ordered separately. The power bus for slots 1 through 8 of the 28A1 data mounting is separate from the power bus for slots 9 through 16. This allows each half of a particular 28A1 data mounting to be powered from separate power sources. In normal installations, both halves of a 28A1 data mounting will be powered by one source. This requires the strapping of terminals 1, 2, and 3 of TB1 on the data mounting to terminals 4, 5, and 6, respectively. If the load requirements of a 28A1 data mounting does not exceed the capacity of the power source (for example, a KS-20575 rectifier), other data mounting halves may be powered from the same source by strapping between the TB1 terminals of the data mountings involved. In this way, as many data mounting halves as desired may be powered from one source as long as the total source drain does not exceed the power source limits.

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**Fig. 1—28A1 Data Mounting**

**2.05** The 28A1 data mounting is a general purpose mounting that can accommodate any thickness AR-type circuit pack having power pin assignments to pins 1, 8, and 20 and requiring external connections only to pins 3, 5, 7, 10, 14, 15, 16, 17, 18, and 19. Some typical applications of the 28A1 data mounting are as follows:

(a) All data sets—in this application, the 28A1 data mounting can accommodate sixteen data sets 109D- or 109E-type, eight data sets 108D- or 108E-type, or five data sets 108A-, 108C-, or 109A-type. When fully equipped with data set 109D- or 109E-type, the 28A1 data mounting provides for connection of sixteen transmission facilities to sixteen customer-provided terminals via two 27A1 data units. When fully equipped with data sets 108D- or 108E-type, the 28A1 data mounting provides for connection of eight transmission facilities to eight customer-provided terminals via one 27B1 or two 27A1 data units. If the 28A1 data mounting is equipped with four 108A- or 108C-type data sets, the 27B1 data unit provides for connection to four transmission facilities.

(b) Information covering the use of the 208A, 208B, and 209A adapters for use in data line concentrator systems is given in Sections

591-811-102, 591-811-103, and 591-811-104, respectively.

### 3. 28A2 DATA MOUNTING

**3.01** The 28A2 data mounting is the same as the 28A1 data mounting except that it is equipped with eight 927D connectors instead of sixteen. The 28A2 data mounting can accommodate eight data sets 108D-, 108E-, 109D-, or 109E-type, or four data sets 108A-, 108C-, or 109A-type.

### 4. 28C DATA MOUNTING

**4.01** The 28C data mounting is used with the 28A1 or 28A2 data mounting and the 27B1 data unit to provide a multiport arrangement for private line data systems. The 28C data mounting provides alarm fuses for data sets and additional mounting space for KS-20575 power supplies and relays for alarm circuitry. Customer access is provided by 27B1 data units mounted on the front of the 28C data mounting.

**4.02** The 28C data mounting (Fig. 2) is 6 inches high, 25 inches wide, 6 inches deep, and weighs 15 pounds. It mounts in either 23-, or 25-inch racks.

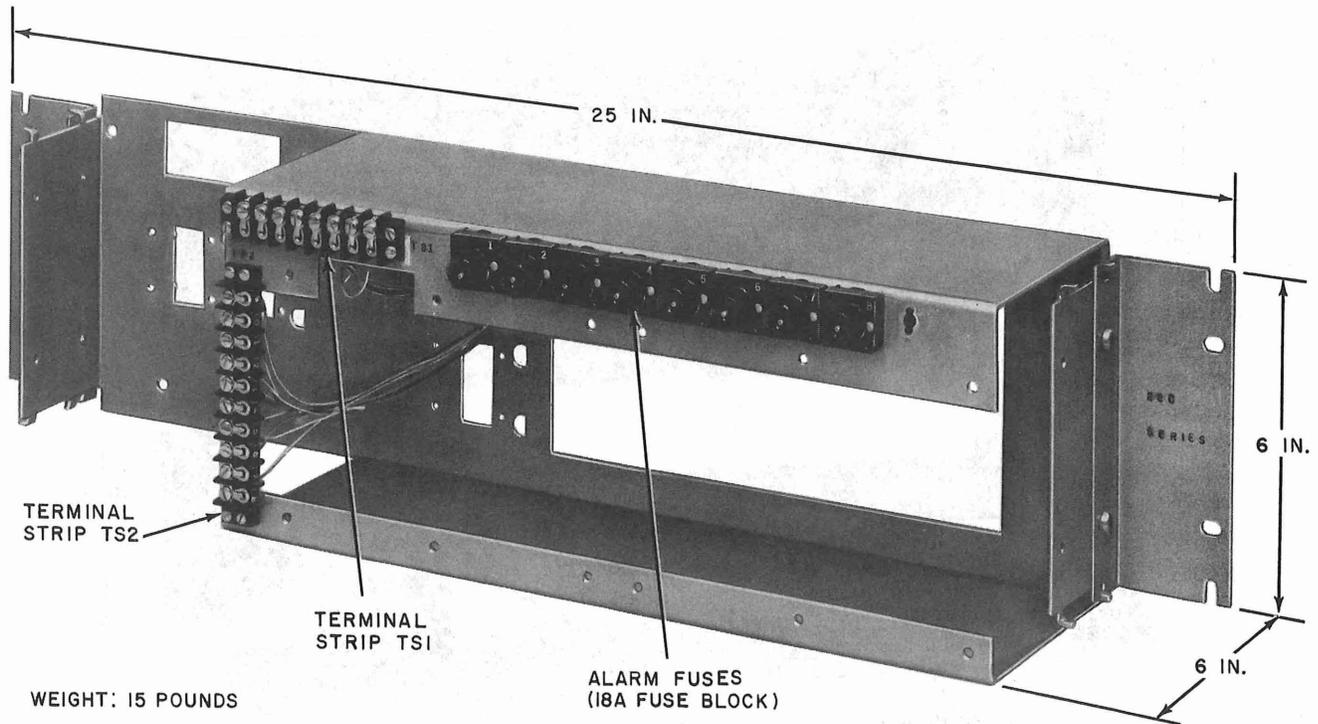


Fig. 2—28C Data Mounting

**4.03** Eight alarm fuses are furnished and are wired to terminal strip TS2. Terminal strip TS1 provides connections to the alarm fuses, fuse alarm relays, and power supplies. One or two 27B data units can be mounted on the front of the 28C data mounting.

**4.04** The 28C data mounting, used with TSPS No. 1 hotel/motel applications, incorporates the following features:

- Terminal strips (TS1 and TS2) for connection of power, alarm fuse leads, and fuse alarm relays
- Eight alarm fuses
- Mounting holes for alarm relays and resistors
- Mounting holes for two 27B data units.

## 5. ▸28D1 DATA MOUNTING

**5.01** The 28D1 data mounting (Fig. 3) is a redesign of the 28A-type data mounting and the 27B1 data unit combination for use in multiple private

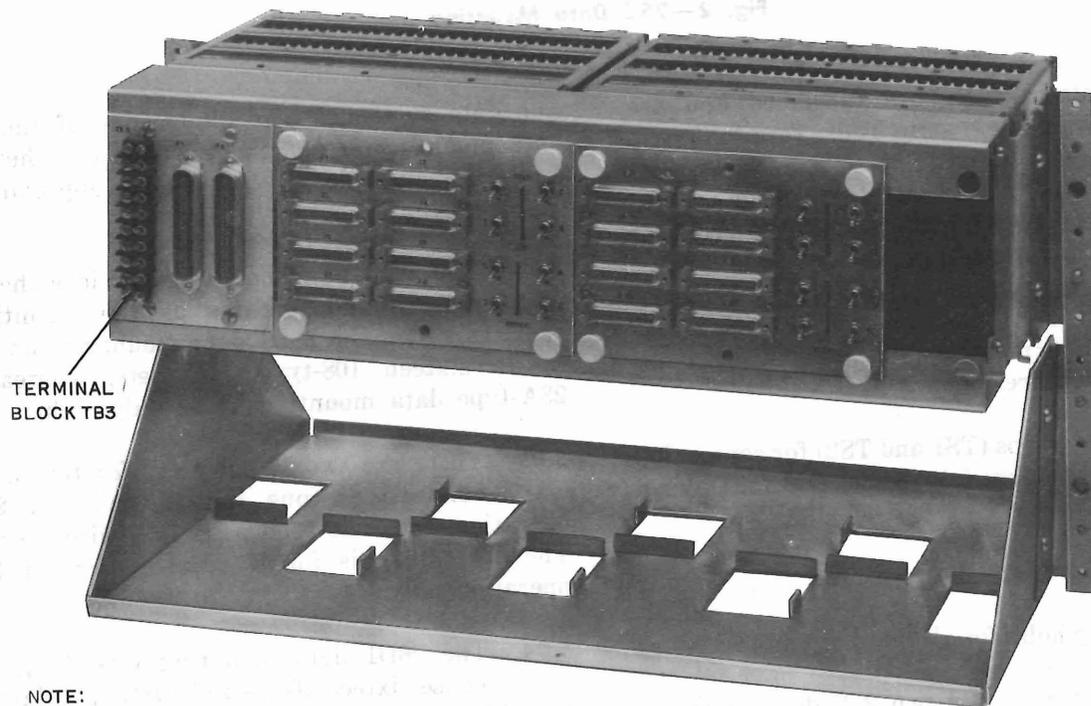
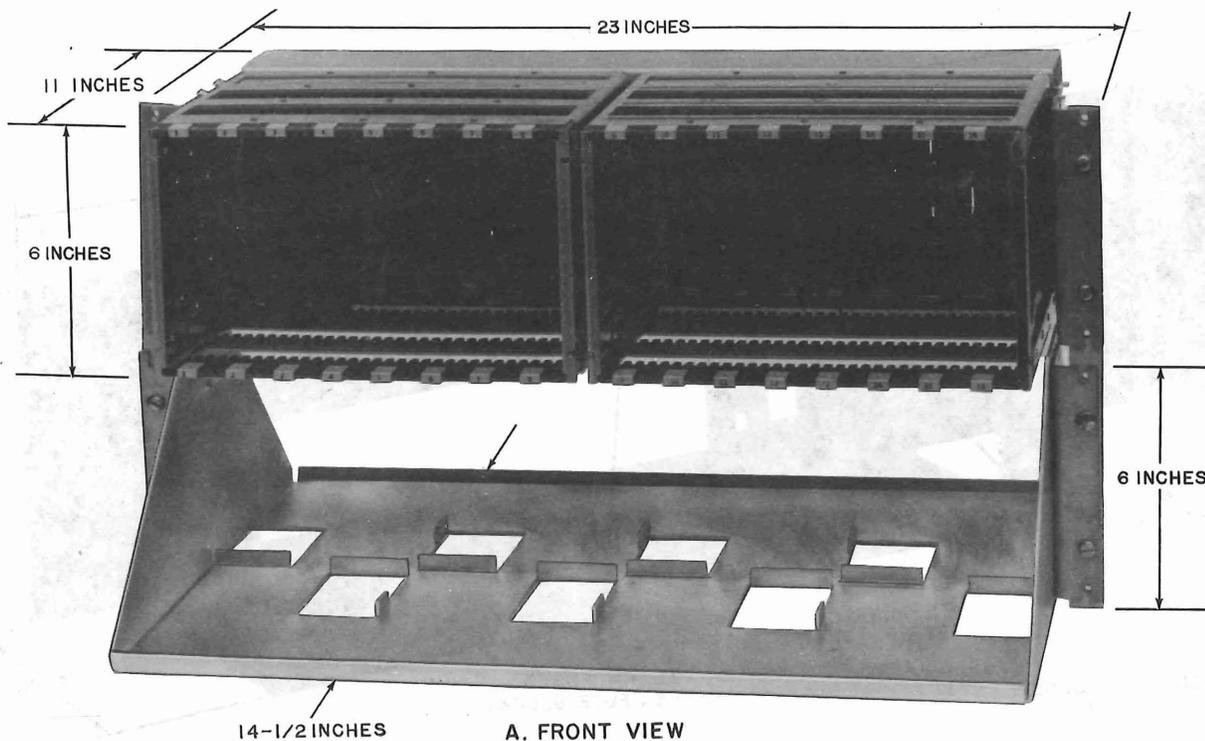
line data systems. The dimensions of the 28D1 data mounting are 23 inches wide, 6 inches high and 11 inches deep. It weighs approximately 17 pounds.

**5.02** The 28D1 data mounting provides the same options and features as the mounting it replaces. Also the 28D1 data mounting can house up to sixteen 108-type data sets, whereas the 28A-type data mounting house only eight.

**5.03** There are two 50-pin plugs for tip and ring connections, one for 16 pairs in 2-wire operation, or for 16 send pairs in 4-wire operation. The other plug is for 16 receive pairs in 4-wire operation only.

**5.04** The 28D1 data mounting was designed to house sixteen 108D- and 108E-type data sets. It will also accept the following manufacture discontinued (MD) data sets: 108A and 108C (using two slots per data set), 109D and 109E.

**5.05** The 28D1 data mounting has no mounting space for the KS-20575 rectifiers. A new



NOTE:  
THE WIDTH OF THE 71C  
APPARATUS MOUNTING IS  
ALSO 23 INCHES.

B. BACK VIEW

Fig. 3—28D1 Data Mounting With 71C Apparatus Mounting Installed

shelf coded 71C apparatus mounting is provided for that purpose with a capacity of eight rectifiers.

**5.06** The 71C apparatus mounting is 23 inches wide, 6 inches high, and 14-1/2 inches deep, and weighs 10 pounds. The 28D1 data mounting and the 71C apparatus mounting are provided with brackets to mount in either 23- or 25-inch racks.♦

## 6. REFERENCES

**6.01** Detailed information for the 28-type data mounting is contained in the following Bell System Practices.

SECTION	TITLE
591-028-102	Data Set 108D- and E-Types—Multiple Private Line Station Arrangement Using 28A1 Data Mounting and 27B1 Data Unit—Description
591-029-101	Data Set 109D-Type—Multiple Data Set Arrangement Using 28A1 Data Mounting and 27A1 Data Unit—Description
591-036-101	Data Set 109E-Type—Multiple Data Set Arrangement Using 28A1 Data Mounting and 27-Type Data Unit—Description

SECTION	TITLE
591-810-ZZZ	10-Type Data Line Concentrator System (DLCS)
591-811-ZZZ	10A and 10B Data Line Concentrator Systems
591-811-102	Private Line Interconnection Arrangement for Line Side of 10-Type Data Line Concentrator—Description
591-811-103	DATAPHONE® Interconnection Arrangement for Line Side of 10-Type Data Line Concentrator—Description
591-811-104	DATAPHONE® Interconnection Arrangement for Trunk Side of 10B Data Line Concentrator (DLCS*)—Description and Operation

**6.02** The following schematic drawings and circuit descriptions include information on the 28-type data mounting.

NUMBER	TITLE
SD- & CD-1D176-01	28-Type Data Mounting
SD- & CD-1D183-01	27-Type Data Unit