DATA STATION USING DATA SET 202T
DESCRIPTION AND OPERATION

CONTENTS PAGE

1. GENERAL

1.01 This section contains a physical and functional description of the data station used with data set 202T. Operating procedures for normal use and for testing are also provided.

1.02 This section is reissued to correct Fig. 4 and 7.

1.03 The purpose of the data station is to provide a multiple arrangement of data sets 202T. For a description of data set 202T, refer to Section 592-031-100. Three typical station arrangements are described:

- Up to 8 data sets with reverse channel (or 16 data sets without reverse channel) in a 39A1 data mounting for installation in a 19- or 23-inch relay rack (Fig. 1), or in a 40B1 data mounting in a KS-20018-L12A cabinet
- Up to 16 data sets with reverse channel (or 32 data sets without reverse channel) in two 40B1 data mountings in a KS-20018-L12A cabinet
- Up to 24 data sets with reverse channel (or 48 data sets without reverse channel) in three 40B1 data mountings in a KS-20018-L11A cabinet.

2. PHYSICAL DESCRIPTION

2.01 This part contains a physical description of the data mountings and cabinets which make up the data station. Power requirements and fusing information are also provided.

A. 39A1 Data Mounting

2.02 The 39A1 data mounting includes the necessary framework, wiring, and hardware to mount up to 8 data sets with reverse channel, or up to 16 data sets without reverse channel. All connections to the data sets (except power) must be made on wire-wrap terminals at the rear of the data mounting (Fig. 2). Each data set is inserted through guides in the top and bottom of the mounting into a 908C connector. The data sets are secured in the mounting by a retaining bar assembly which also serves as a labeling strip.

2.03 The 39A1 data mounting can be installed in 19-inch or 23-inch relay racks where it is desired to permanently wire input-output connections rather than provide plug-in connections. It measures 22.9 inches wide, 11-1/2 inches deep, and 7 inches high. The width may be shortened 4 inches by rotating the right-hand mounting bracket. The weight is approximately 14.3 pounds without data sets installed.

B. 40B1 Data Mounting

2.04 The 40B1 data mounting (Fig. 3) has the same data set capacity as the 39A1; however, Electronic Industries Association (EIA) interface connection to the data sets is made on 25-pin KS-19087-L6 connectors. The customer must provide a cable terminated in a Cinch or Cannon DB-19604-432 plug equipped with a DB-51226-1 hood. Connections to telephone lines are made on 50-pin connectors labeled J1 and J2 on the backplane. Each data set is inserted through guides in the top and bottom of the mounting into a 908L connector. The data

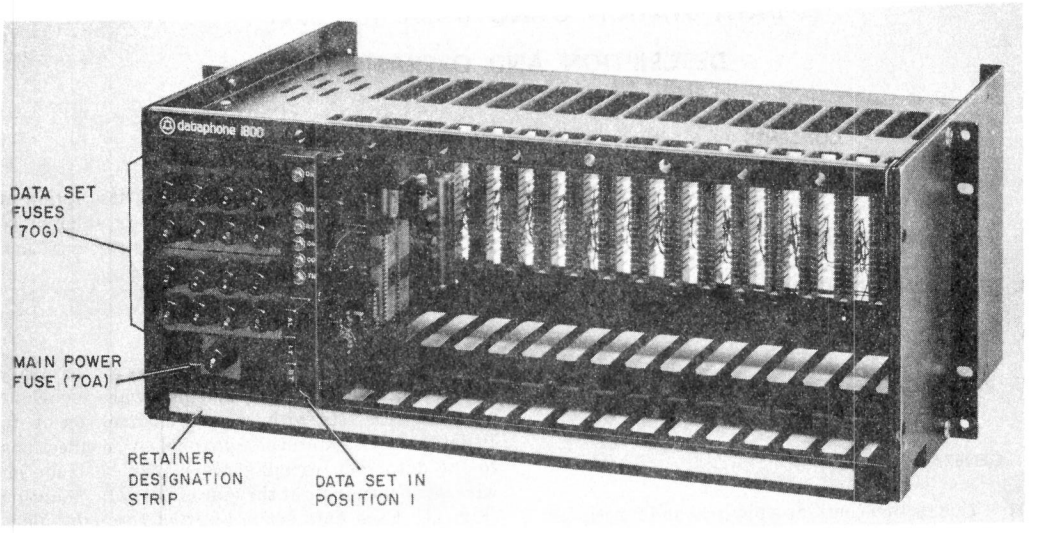


Fig. 1—Front View of 39A1 Data Mounting

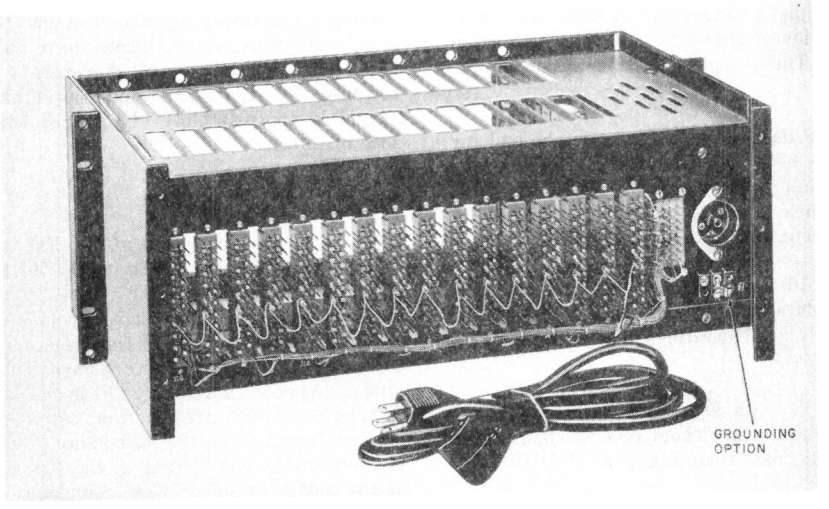


Fig. 2—Rear View of 39A1 Data Mounting

sets are secured in the mounting by a retaining bar assembly which also serves as a labeling strip.

2.05 The 40B1 data mounting measures approximately 22.9 inches wide, 13.5 inches deep, and 7 inches high. The width may be shortened 4 inches by rotating the right-hand mounting bracket. The weight is approximately 20 pounds without data sets. As part of this data station, the 40B1 mounting is installed in a KS-20018-L11A or -L12A cabinet.

C. Power Supply

2.06 The power supply provided as part of the 39A1 or 40B1 data mounting converts 117 Vac into 24 Vac for use by the data sets. The ac power to each pair of data sets is separately fused, as is the line side of the power supply. The fuses are accessible from the front of the mounting, and spare fuses are provided beneath the main power fuse. The power requirement of a data mounting containing 16 data sets is approximately 80 watts at 105 to 129 volts ac. This is equivalent to approximately 270 BTUs per hour.

2.07 The 39A1 data mounting is furnished with a 4-foot 117-Vac power cord which terminates in a Twist-lock connector. The cord may be readily replaced with one of a different length as required. The power cord provided with the 40B1 data mounting also terminates in a Twist-lock connector; however, it is more difficult to remove, since the backplane panels must be moved out of the way before the cord can be disconnected.

D. Cabinets

2.08 The cabinet intended for this data station is a KS-20018-L11A or -L12A. The KS-20018 cabinet is made of aluminum with a sandblasted finish and a rear cover of perforated black anodized aluminum. The front panel is tinted plastic, which allows the light emitting diode display on the data sets to be visible from the outside.

2.09 The KS-20018-L11A cabinet has a 2-inch louvered skirt which runs completely around the base of the cabinet. A 13-inch opening at the rear of the base allows cable to be run into or out of the cabinet. Four leveling bolts are provided with the skirt. The -L12A cabinet has four tapered circular legs equipped with rubber feet to prevent

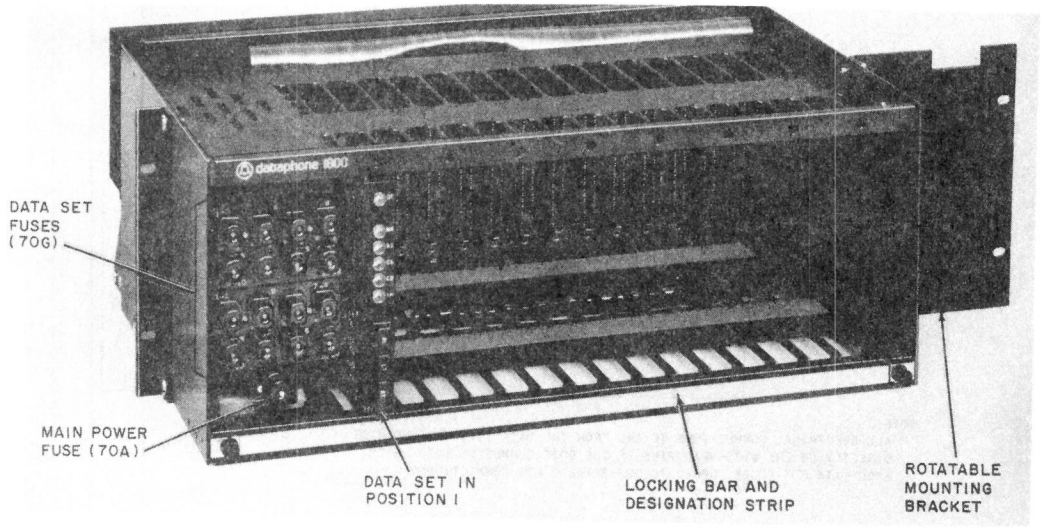


Fig. 3—Front View of 40B1 Data Mounting

slippage. Either cabinet may be secured to the floor by replacing the leveling bolts or legs with 1/4-20 bolts.

2.10 The front and rear panels are each held in place by spring-loaded latches. Either panel may be removed by pulling outward at the top until the latches disengage. Lift the panel up and away from the brackets holding the bottom in position.

2.11 The dimensions of the KS-20018-L11A and -L12A cabinets are as follows:

- L11A—30 inches high, 24 inches wide, and 19 inches deep
- L12A—24 inches high, 24 inches wide, and 19 inches deep.

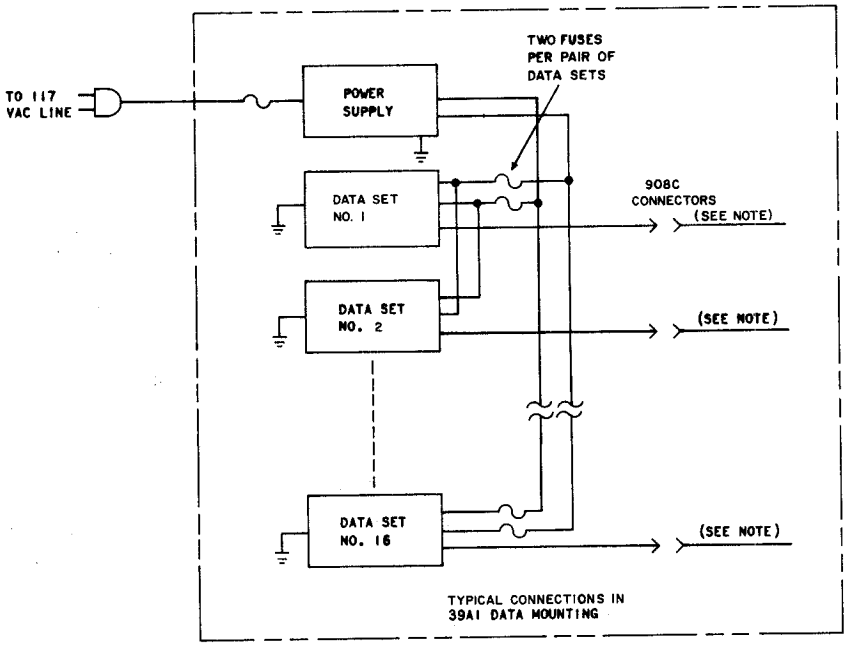
Refer to Section 590-010-201 for more information on KS-20018 cabinets.

3. FUNCTIONAL DESCRIPTION

3.01 This part covers the functions of the data mountings and the data station as a whole.

A. 39A1 Data Mounting

3.02 A block diagram of the 39A1 data mounting is shown in Fig. 4. The data sets plug into 908C connectors in the data mounting. Power from the 24-Vac supply is wired to each connector. All other electrical connections to and from the data sets must be made directly on the wire-wrap pins of the 908C connector. Refer to Section 592-861-200 for connection information.



NOTE:
ALL ELECTRICAL CONNECTIONS TO AND FROM THE DATA SETS MUST BE MADE DIRECTLY ON THE WIRE-WRAP PINS OF THE 908C CONNECTOR INTO WHICH EACH DATA SET PLUGS. REFER TO 592-861-200 FOR CONNECTIONS.

Fig. 4—Block Diagram of 39A1 Data Mounting

B. 40B1 Data Mounting

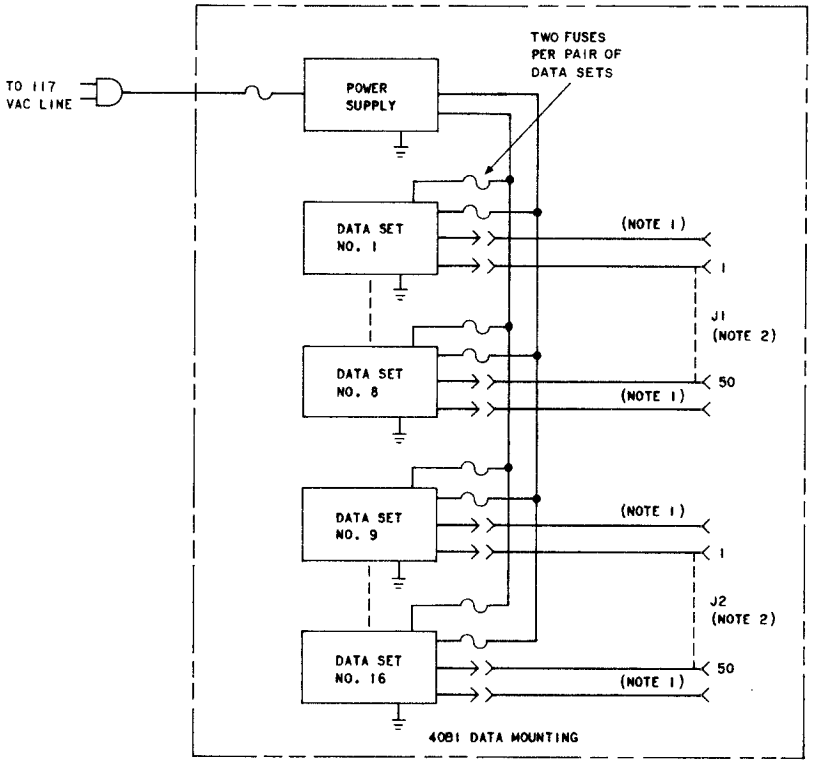
3.03 A block diagram of the 40B1 data mounting is shown in Fig. 5. The data sets plug into 908L connectors in the data mounting. A flexible printed wiring backplane connects the 908L connectors to connectors for telephone and customer equipment. Data sets in positions 1 through 8 appear on connector J1. Data sets in positions 9 through 16 appear on connector J2.

C. Data Station Used With DAS 828A-Type

3.04 The 40B1 data mounting used in a data station is shown in Fig. 6. This shows a data station with 3 data mountings and a maximum of 48 data sets. Each group of 16 data sets requires two B25A cables and two KS-21253-L2 adapters to connect to the data auxiliary set (DAS) 828A-type (if used). This station uses a KS-20018-L11A cabinet. A station composed of 2 data mountings and a maximum of 32 data sets will fit in a KS-20018-L12A cabinet. Refer to Section 592-861-200 for the equipment required for a data station and for instructions on assembling a data station.

D. Data Station Used With DAS 829-Type

3.05 The 40B1 data mounting used with DAS 829-type is shown in Fig. 7. This shows a



NOTES:
1. THIS IS A 25-PIN KS-19087-L6 CONNECTOR AND GOES TO CUSTOMER EQUIPMENT.
2. THIS IS A 50-PIN KS-16672-L13 CONNECTOR FOR CONNECTION TO TELCO EQUIPMENT.

Fig. 5—Block Diagram of 40B1 Data Mounting

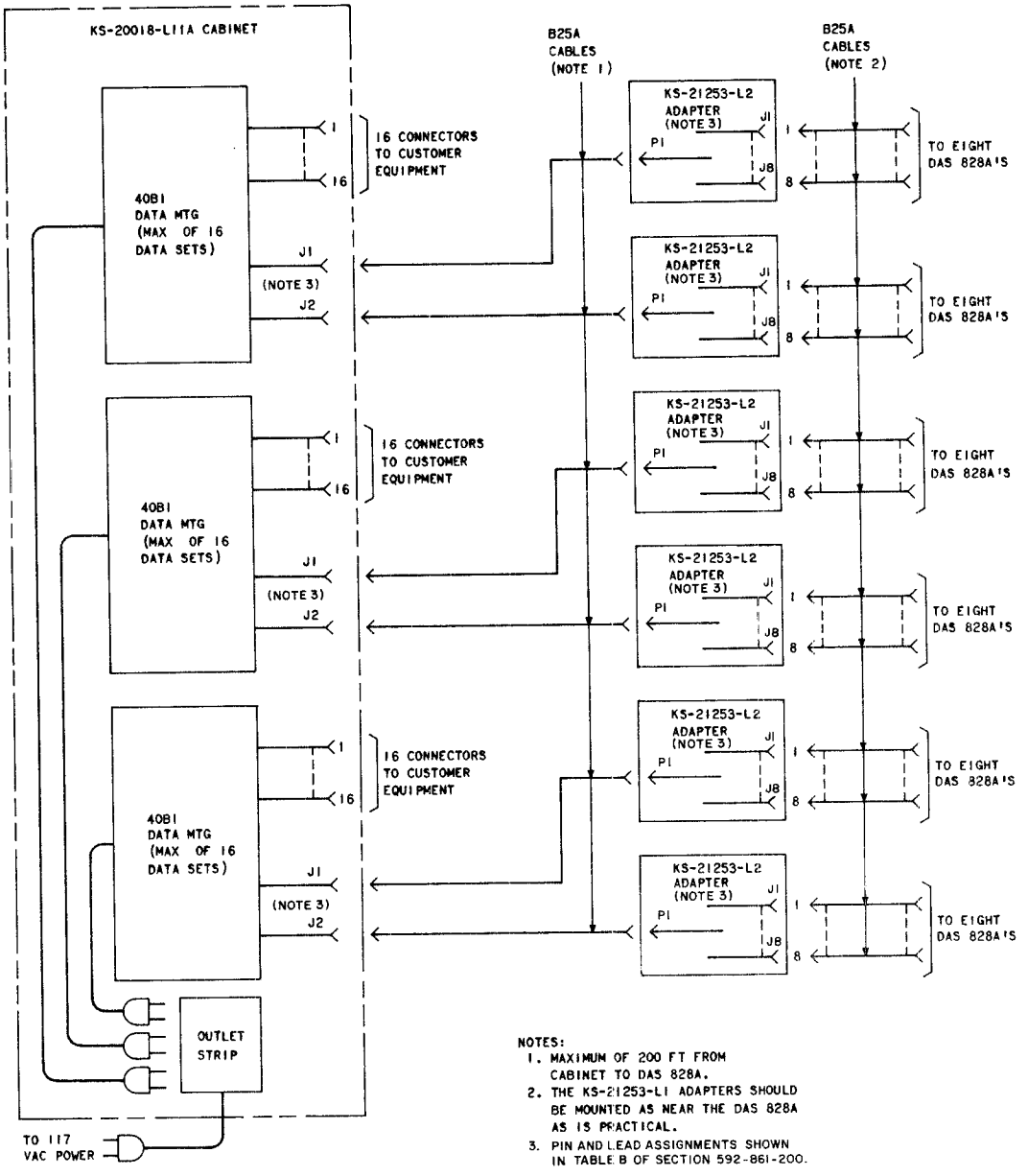


Fig. 6—Data Station Using DAS 828A-Type

data station with one 40B1 data mounting, 16 data sets, two 46A1 data mountings, and 16 DAS 829-type. This station will fit in the KS-20018-L11A cabinet.

4. OPERATION

4.01 In private line operation, the line facilities are dedicated between data set locations. With power applied, the data set is either in the data or test mode (or talk mode if alternate voice service is used). In the data mode, the data-set-ready (CC) circuit will be ***on,*** and transmission is initiated by the business machine by control of the request-to-send lead.

4.02 Data sets in the data station are used with DAS 828A-, 828C-, and 829-types on a one-for-one basis. Bell System Practices providing information on these sets are listed in Part 5.

4.03 DAS 828A provides standard, prewired, pretested arrangements for terminating

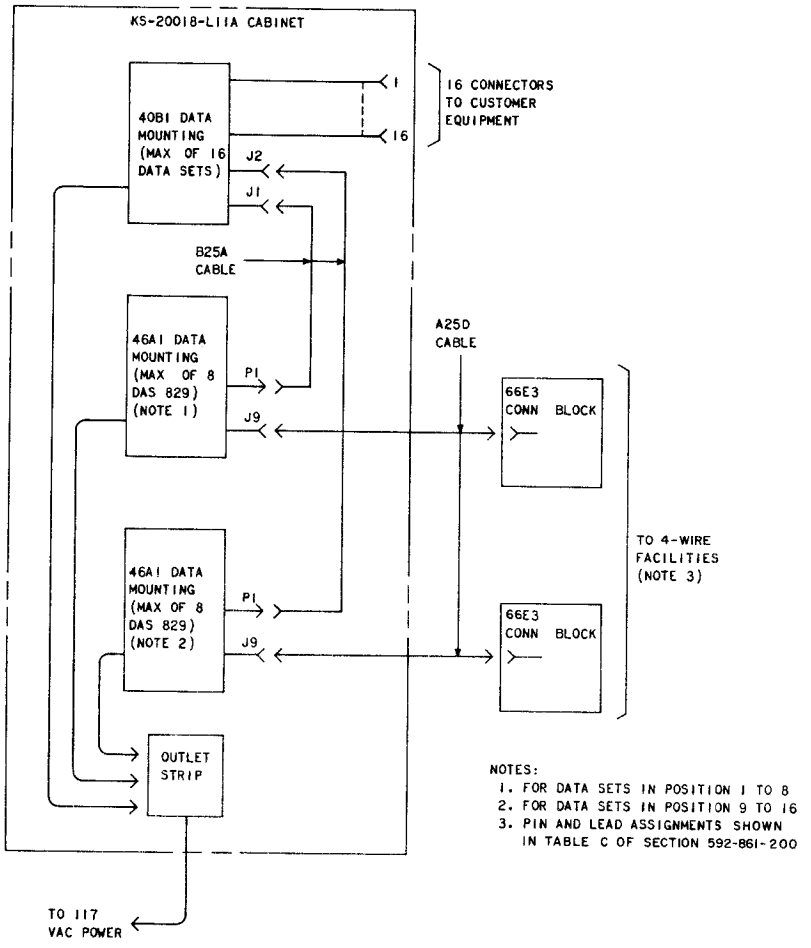


Fig. 7—Data Station Using DAS 829-Type

4-wire private line voiceband channels. DAS 828A is available for data use only or for data with alternate voice. When DAS 828C is used with DAS 828A, the data set can operate on private lines with switched network lines as backup.

4.04 DAS 829-type provides a standard means to terminate 4-wire private line voiceband data channels. With the addition of 48-type data units and 46-type data mountings, DAS 829-type provides private line termination with switched network lines as backup (data only or data/voice). Tone-activated loop-back is also provided. DAS 829-type is smaller in size and more suitable for use in multiple arrangements.

5. REFERENCES

5.01 The following Bell System Practices provide additional information concerning data set 202T and data stations using data set 202T.

SECTION	TITLE
590-010-201	Data Sets—Multiple Installation Information
590-102-114	Data Set 202T—Reference Guide
590-102-130	39A1 Data Mounting—Identification
590-102-131	40-Type Data Mounting—Identification
592-031-100	Data Set 202T Transmitter-Receiver—Description and Operation
592-031-180	Data Set 202T Transmitter-Receiver—Summarizing Specification
592-031-200	Data Set 202T Transmitter-Receiver—Installation and Connections
592-031-300	Data Set 202T Transmitter-Receiver—Maintenance
592-031-500	Data Set 202T Transmitter-Receiver—Test Procedures
592-861-200	Data Station Using Data Set 202T—Installation
592-861-300	Data Station Using Data Set 202T — Maintenance
598-080-100	Data Auxiliary Set 828A—Description and Operation
598-082-100	Data Auxiliary Set 829-Type—Channel Interface Units—Voiceband Private Line Channels—Data Only—Description
598-082-101	Supplementary Functions for Voiceband Private Line Channels (Alternate Voice and Dial Backup)—Description
598-082-102	Multiple Channel Arrangements (Switched Dial Backup)—Description
666-511-502	Test of Data Services Provided by Data Set 202T From a Private Line Data Testroom