DATA STATION 201C

DESCRIPTION AND OPERATION

CONTENTS PAGE

1. GENERAL

1.01 This section contains the physical and functional descriptions of the data station using data set 201C. Operating procedures for normal use are also provided.

1.02 This section is reissued to add information on KS-20018-L15A and -L17A cabinets and to update Fig. 2 to show the latest configuration of the 42A-type data mounting. Since this reissue constitutes a general revision, arrows normally used to indicate changes have been omitted.

1.03 The data station provides a multiple arrangement of data sets 201C in a single cabinet (Fig. 1). For a description of data set 201C, refer to Section 592-029-100. The three types of station arrangements for data set 201C are listed below.

- Up to six data sets in a 42A-type data mounting in a KS-20018-L12A cabinet
- Up to twelve data sets in two 42A-type data mountings in a KS-20018-L11A cabinet
- Up to twenty-four data sets in four 42A-type data mountings in a KS-20018-L15A or -L17A cabinet.

2. PHYSICAL DESCRIPTION

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

A. 42A-Type Data Mounting

2.02 The 42A-type data mounting includes a power cord and the necessary framework and hardware to mount up to six data sets 201C. The data mounting itself contains no wiring or connectors. Telephone company (telco) line and customer interface connections are made through KS-19088-L2 and KS-19087-L2 connectors at the rear of the data set.

2.03 The 42A-type data mounting can be installed on 23-inch framework in equipment bays or cabinets. The data mounting measures approximately 23 inches wide, 15 inches deep, and 11-1/4 inches high. The weight of the data mounting is approximately 13 pounds with no data sets installed. A front view of the 42A-type data mounting is shown in Fig. 2.

2.04 The 42A-type data mounting consists of the 42A1 and 42A2 data mountings. The 42A1 data mounting is identical to the 42A2 data mounting

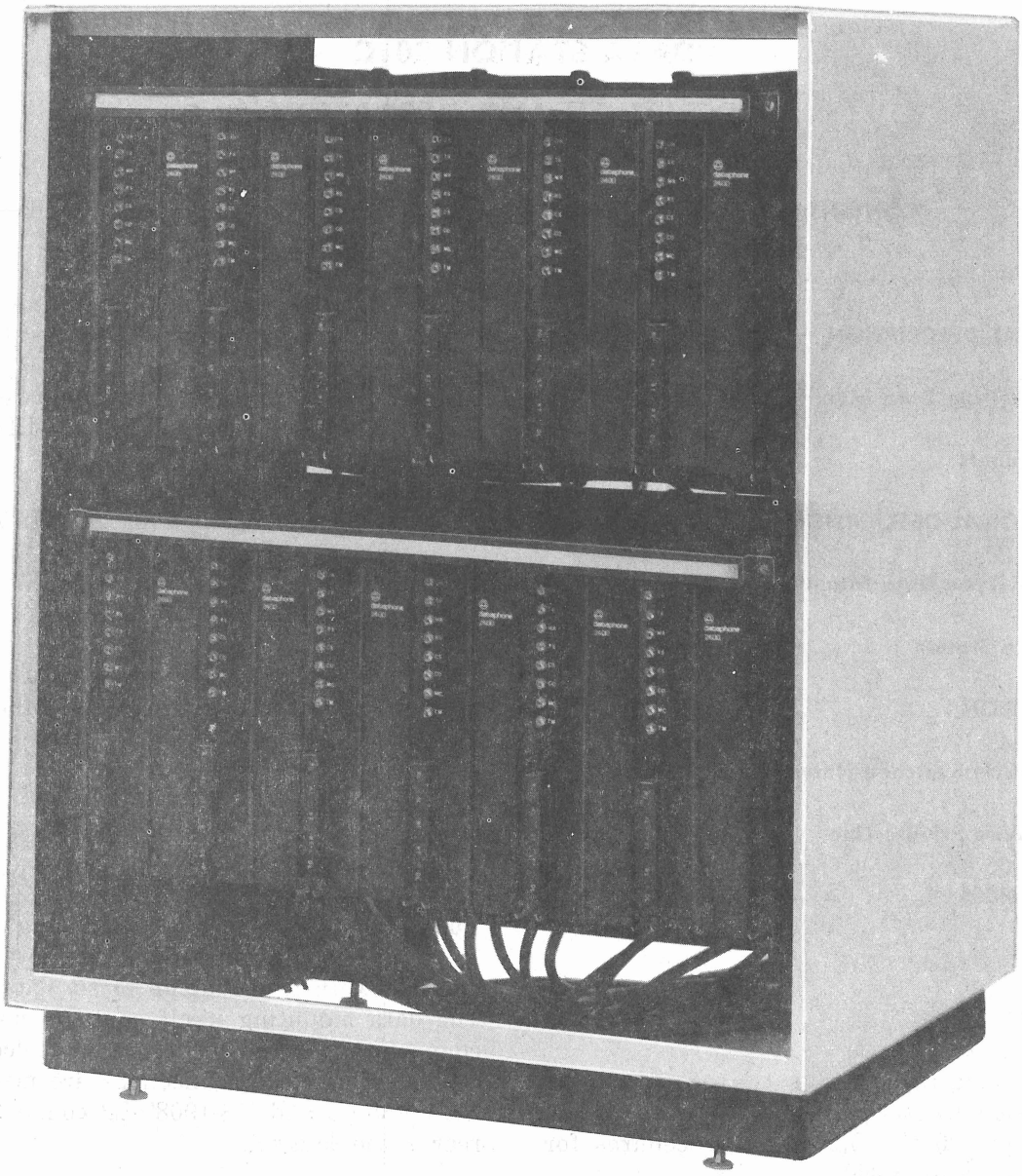

Fig. 1—Front View of KS-20018-L11 Cabinet With 12 Data Sets 201C Installed

except for the length of the separate power cord: the 42A1 comes equipped with a 4-foot power cord and the 42A2 comes equipped with a 10-foot power cord. Each power cord delivers 117 volts ac to up to six data sets 201C.

2.05 The power cord terminates in six twist-lock connectors for connection directly to the twist-lock connectors on the data sets. The total power required is approximately 156 watts (532 BTU/hr) at 117 Vac with six data sets installed. No power unit is included on the data mounting since each data set 201C has its own power unit.

B. Cabinets

2.06 The cabinets used for data station arrangements described in this section are KS-20018-L11A, -L12A, -L15A, and -L17A. The KS-20018-type cabinet is made of aluminum with a clear anodized finish and a perforated rear panel of black anodized aluminum. The front panel is tinted plastic, which

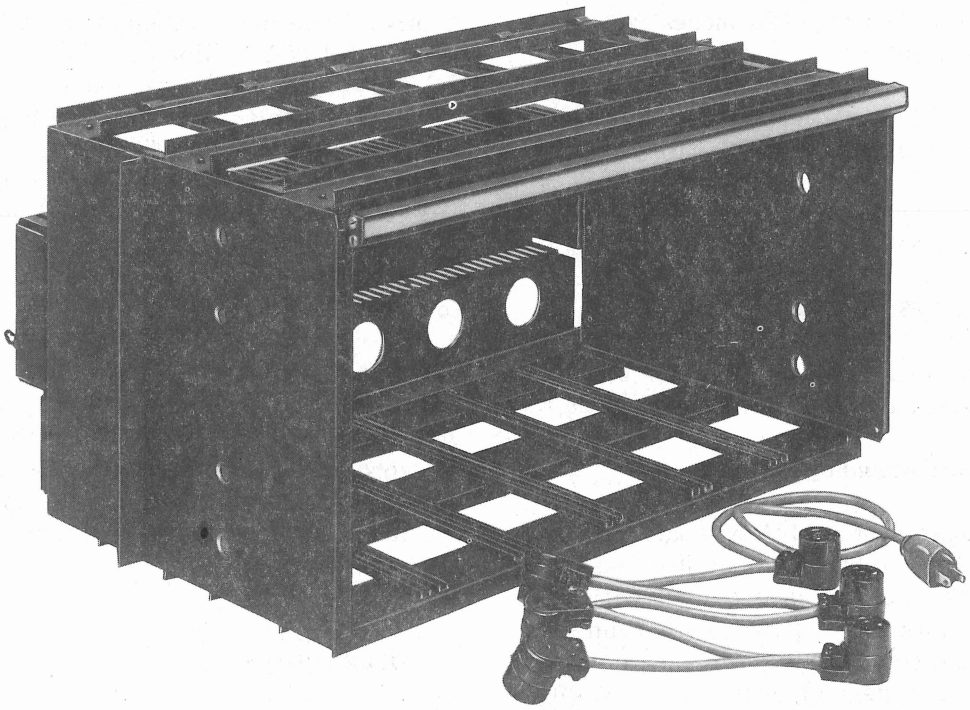

Fig. 2—Front View of 42A-Type Data Mounting

allows the illuminated status indicator lamps on the data sets to be visible from the outside of the cabinet.

2.07 The -L11A cabinet has a 2-inch louvered skirt which runs completely around the base of the cabinet. A 13-inch opening at the rear allows cable to be run out of the cabinet. Four leveling bolts are provided with the skirt. The -L12A cabinet is provided with four tapered, circular legs equipped with slip-proof rubber feet. The -L15A and -L17A cabinets are supported on a separate 5-inch high steel base. Each corner of the base is provided with leveling bolts equipped with slip-proof rubber feet. The cabinets that have leveling bolts may be secured to the floor by replacing the leveling bolts with 1/4-20 by 1-1/2 inch long bolts.

2.08 The front and rear panels on the -L11A and -L12A cabinets are held in the closed position by spring-loaded latches. Either panel may be removed by pulling outward at the top until the latches disengage. Then lift the panel up and away from the brackets which hold the bottom in position. The front and rear panels on the -L15A and -L17A cabinets are hinged and are held in the closed position by magnetic latches.

2.09 The -L15A cabinet is essentially a stripped version of the -L17A cabinet. The following items, provided with the -L17A cabinet, are not provided with the -L15A cabinet but are available as options:

- Two KS-20018-L16 clear anodized aluminum side panels
- A 150 cubic feet per minute (CFM) ventilation blower with a grille and filter assembly
- A 77A detector for sensing ambient temperature variation.

2.10 The outside dimensions of the KS-20018-L11A, -L12A, -L15A, and -L17A cabinets are as follows:

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

- L12A—17 inches high, 24 inches wide, and 19 inches deep

- L15A and -L17A—72 inches high, 28.5 inches wide, and 26 inches deep.

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

3. FUNCTIONAL DESCRIPTION

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

A. 42A-Type Data Mounting

3.02 A block diagram of the 42A-type data mounting with six data sets 201C installed is shown in Fig. 3. Each data set is provided with two interface connectors and a power cord connector at the rear of the set. The right 25-pin connector is a KS-19087-L2 type and provides the digital interface leads for interface with the customer provided equipment (CPE), and is labeled CUST INT. The left 25-pin connector is a KS-19088-L2 type and provides the interface connections for the telephone network, and is not labeled. The power cord connector is a twist-lock type to accept the power cord provided with the data mounting. Refer to Section 592-862-200 for connection information.

B. Data Station

3.03 The 42A-type data mounting as used in the 201C data station is shown in Fig. 4 and 5. A private line data station with 24 data sets in a KS-20018-L15A cabinet is shown in Fig. 4. A KS-21253-L1 adapter is used to compress up to eight M8K cables (from the data sets) into one B25A cable. The B25A cable is used if the distance between the data station and the data auxiliary sets (DASs) exceeds the length of the M8K cables. A KS-21253-L2 adapter is then used to expand the B25A cable back into eight cables for connection to eight DAS 828A- or 829-type. A switched network data station with five data sets in a KS-20018-L12A cabinet is shown in Fig. 5. A KS-21253-L3 adapter is used to compress up to five M13F cords (from the data sets) into the telephone set cord for connection to the 565HK telephone set. The equipment required for the data station and assembly instructions are contained in Section 592-862-200.

4. OPERATION

A. 2-Wire Switched Network

4.01 Data set 201C provides the capability for the following:

- Manual call handling

- Automatic answering and disconnect

- Use of telephone line for both voice and data transmission

- Compatibility with DAS 801-type automatic calling unit (ACU).

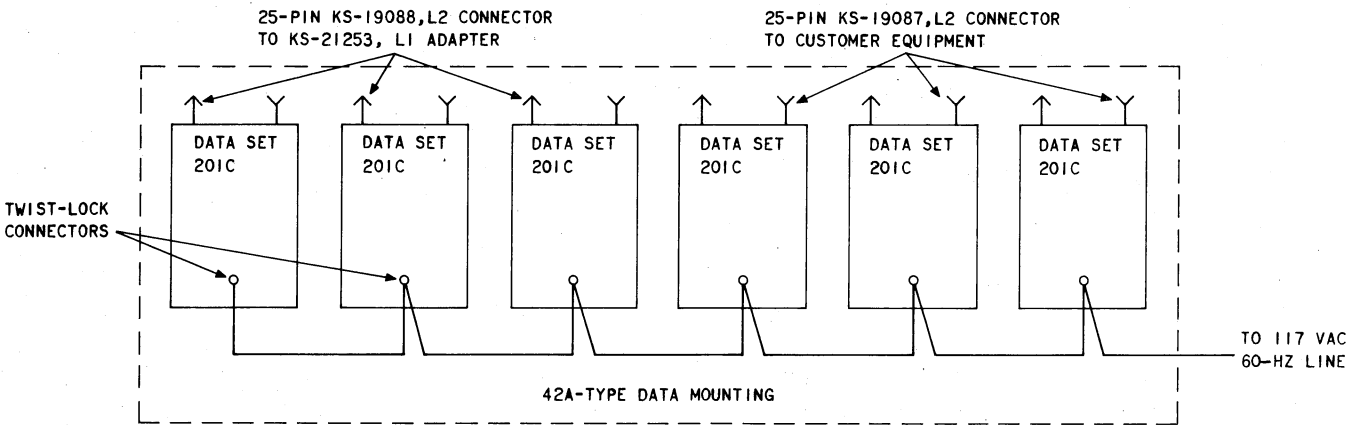

Fig. 3—Block Diagram of 42A-Type Data Mounting Equipped With a Maximum of Six Data Sets 201C

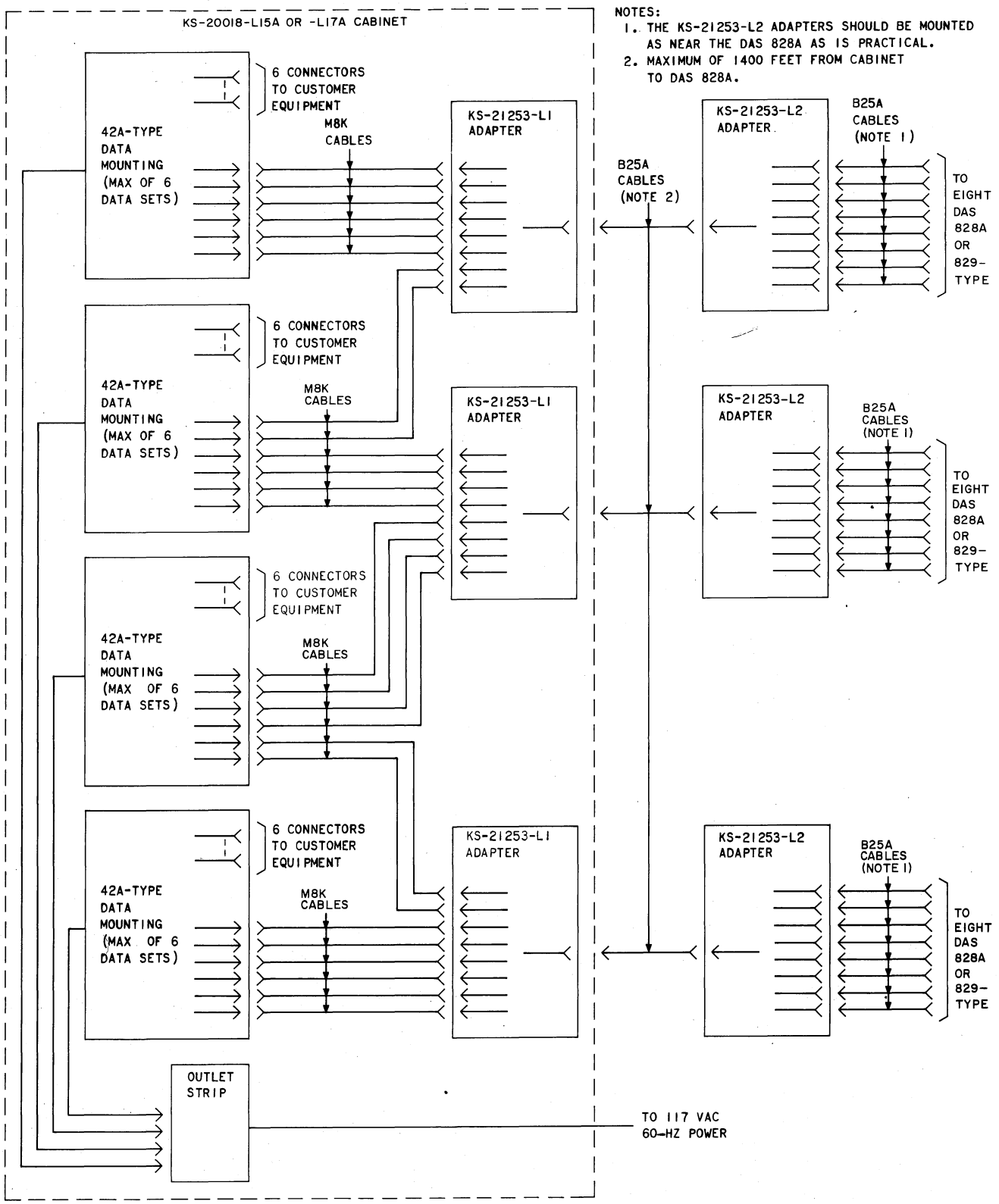

Fig. 4—Block Diagram of a Private Line Data Station 201C Equipped With a Maximum of 24 Data Sets

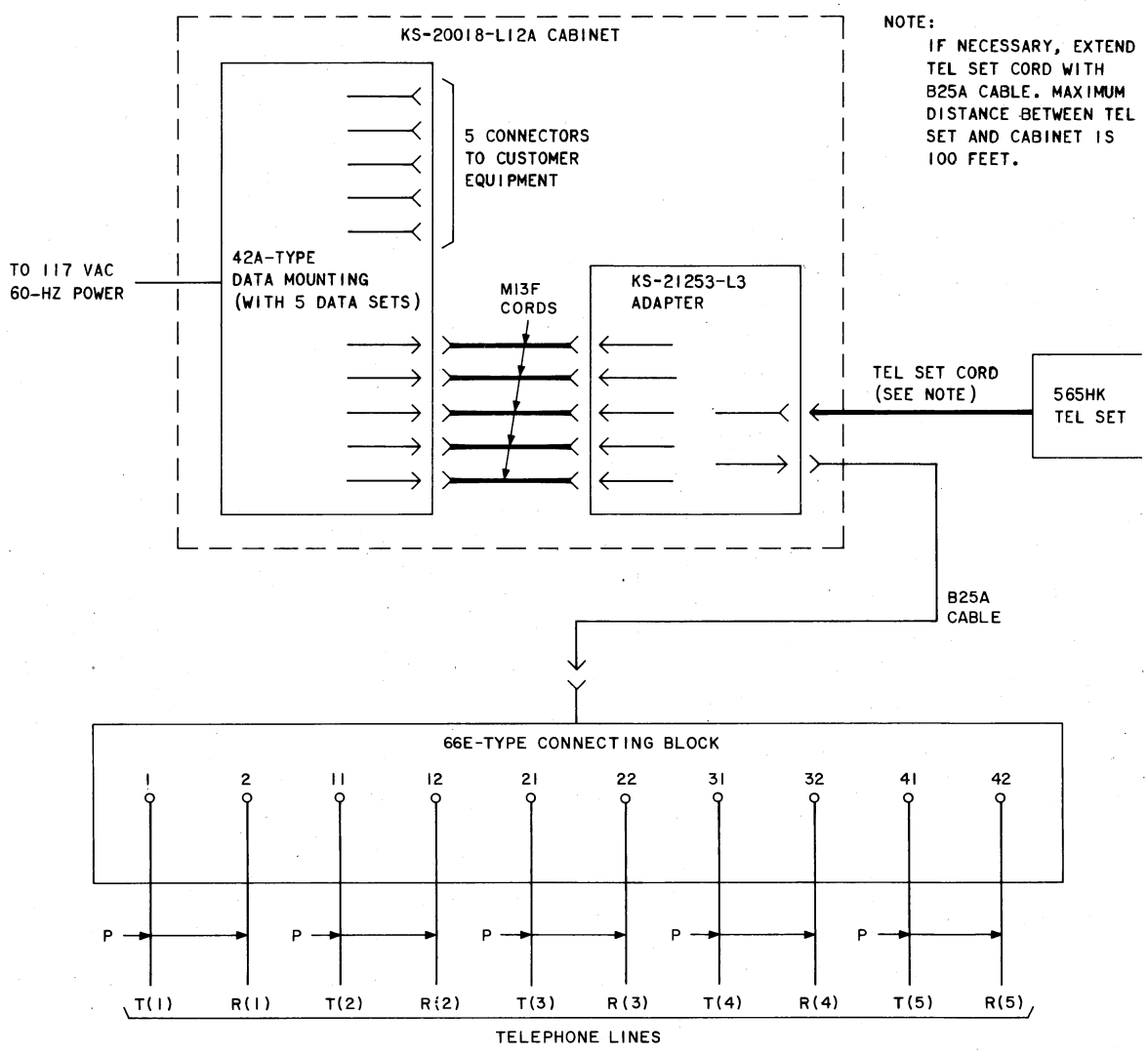

Fig. 5—Block Diagram of a Two-Wire Switched Network Data Station 201C

4.02 The 565HK telephone set serves up to five data sets on five switched network lines (Fig. 5). Included in the 565HK telephone set are six buttons. The red button is the DATA button and the remaining five are line buttons. Common ringing can be provided. This means that when a call is received on any of the five lines, a buzzer will sound. The appropriate line is then determined by a flashing line button.

4.03 ***Manual Answering:*** A call is perceived as a flashing line button and sounding buzzer. Lift the telephone handset from the cradle and depress the flashing line button. The line is in the talk mode and allows the customer to talk with the calling party. To put the data set into the data mode, depress the DATA button on the telephone. The data-terminal-ready interface lead from the CPE must be ***on*** for the data set to enter the data mode. The line button will be illuminated while in the data mode, although data cannot be heard through the telephone handset.

4.04 ***Automatic Answering:*** The data set will answer the incoming call automatically if the data-terminal-ready interface lead is ***on*** and the automatic answer option is installed.

4.05 ***Manual Calling:*** Depress the line button of the line to be used and call in the normal manner. To enter the data mode, both ends should

depress the DATA button at about the same time. The data-terminal-ready interface lead must be ***on*** for the data set to enter the data mode. The line button will be illuminated while in the data mode, although data cannot be heard through the telephone handset.

4.06 ***Automatic Calling:*** The ACU originates the call under control of the CPE. The called end transmits a 2025-Hz tone when the call is received. The calling ACU responds to the 2025-Hz tone and puts the data set into the data mode.

4.07 ***Hang up:*** During the data mode, the call is terminated when the data-terminal-ready interface lead goes ***off.*** The call may be terminated manually by pressing the appropriate line button, lifting the handset off-hook, and replacing the handset on-hook.

4.08 Data set 201C is compatible for use with DAS 801-type ACU. For further information concerning DAS 801A and DAS 801C, refer to Sections 598-010-ZZZ series and 598-012-ZZZ series, respectively.

B. 4-Wire Private Line

4.09 Data set 201C is compatible for use with DAS 828- and 829-type channel interface units (CIUs). DAS 828A provides a standard termination for 4-wire private lines with data only or alternate data/voice. DAS 828C provides switched network backup. DAS 829-type provides a standard termination for 4-wire private lines with data only or alternate data/voice. DAS 829-type also provides switched network backup. For further information concerning DAS 828- and 829-type, refer to Sections 598-080-ZZZ series and 598-082-ZZZ series, respectively.

5. REFERENCES

5.01 The following publications provide additional information concerning data set 201C and data stations using data set 201C.

SECTION	TITLE
314-205-501	Data Systems—DATA-PHONE® Service and Data Access Arrangements on Direct Distance Dialing Network—Tests Requirements for Subscriber, Foreign Exchange, and Remote Exchange Lines
314-410-500	Voice Bandwidth Private Line Data Circuits—Tests and Requirements
590-002-100	Data Services—2000 and 2400 BPS Provided by Data Set 201-Type—Reference Guide
500-008-100	Daa Auxiliary Set 801A-Type—Reference Guide
590-008-101	Data Auxiliary Set 801C-Type—Reference Guide
590-010-200	Data Sets and Data Access Arrangements—General Installation and Connection Information
590-010-201	Data Sets—Multiple Installation Information
590-102-133	42A-Type Data Mounting—Identification
592-029-100	Data Set 201C—Transmitter-Receiver—Description and Operation
592-029-200	Data Set 201C—Transmitter-Receiver—Installation and Connections
592-029-300	Data Set 201C—Transmitter-Receiver—Maintenance
592-029-500	Data Set 201C—Transmitter-Receiver—Test Procedures
592-862-200	Data Station 201C—Installation and Connections
598-010-101	Data Auxiliary Sets 801A5 and 801A6 for Automatic Calling—Description and Operation
598-010-151	Data Auxiliary Sets 801A5 and 801A6 for Automatic Calling—Theory of Operation and Supplementary Information