113-TYPE DATA STATION
DESCRIPTION AND OPERATION

CONTENTS PAGE

1. GENERAL

1.01 This section covers the physical and functional descriptions as well as the operating procedures of the 113-type data station (Fig. 1).

1.02 The purpose of the 113-type data station is to provide a multiple data set arrangement that will be centrally located near Bell System-provided or customer-provided terminals (ie, time shared computers), hereafter referred to as the computer. The 113-type data station provides multiple access to low-speed DATA-PHONE® stations over the switched telephone network.

1.03 The 113-type data station consists of 32A1 Data Mounting(s), Data Sets 113B-L1, and a telephone arrangement which may be either an optional Data Auxiliary Set (DAS) 804T-type or a 500-type telephone set.

1.04 Data Set 113B-L1 provides low speed (up to 300 bauds), frequency-shift-keying (FSK), full-duplex (FDX), answer-only, serial data communications.

1.05 The 113-type data station may be located at any location that is convenient for the customer and should be within 50 feet of the computer.

1.06 The 113-type data station will normally be installed in either a KS-20018-L4 cabinet or a KS-20093-L1 cabinet. The KS-20018-L4 cabinet will house one 32A1 Data Mounting (up to 20 Data Sets 113B-L1); the KS-20093-L1 cabinet will house up to six 32A1 Data Mountings (up to 120 Data Sets 113B-L1). In either case, one service line is used to provide voice communications and testing capabilities for each group of 60 Data Sets 113B-L1 and is accessed either at the DAS 804T-type or 500-type telephone set.

1.07 The plugs and cables for connecting the computer to the data sets are provided by the customer and should not exceed the Electronic Industries Association (EIA) limitation of 50 feet in length. The cables for connecting the data mounting(s) to the access lines must be terminated (at the data mounting end) in a 50-pin connector such as that used with the A25D-type connector cable.

1.08 An incoming data call to the 113-type data station is connected to an idle data set via a central office (CO) line hunting arrangement. The data set associated with the selected line automatically answers the call, handshakes, and connects in the data mode.

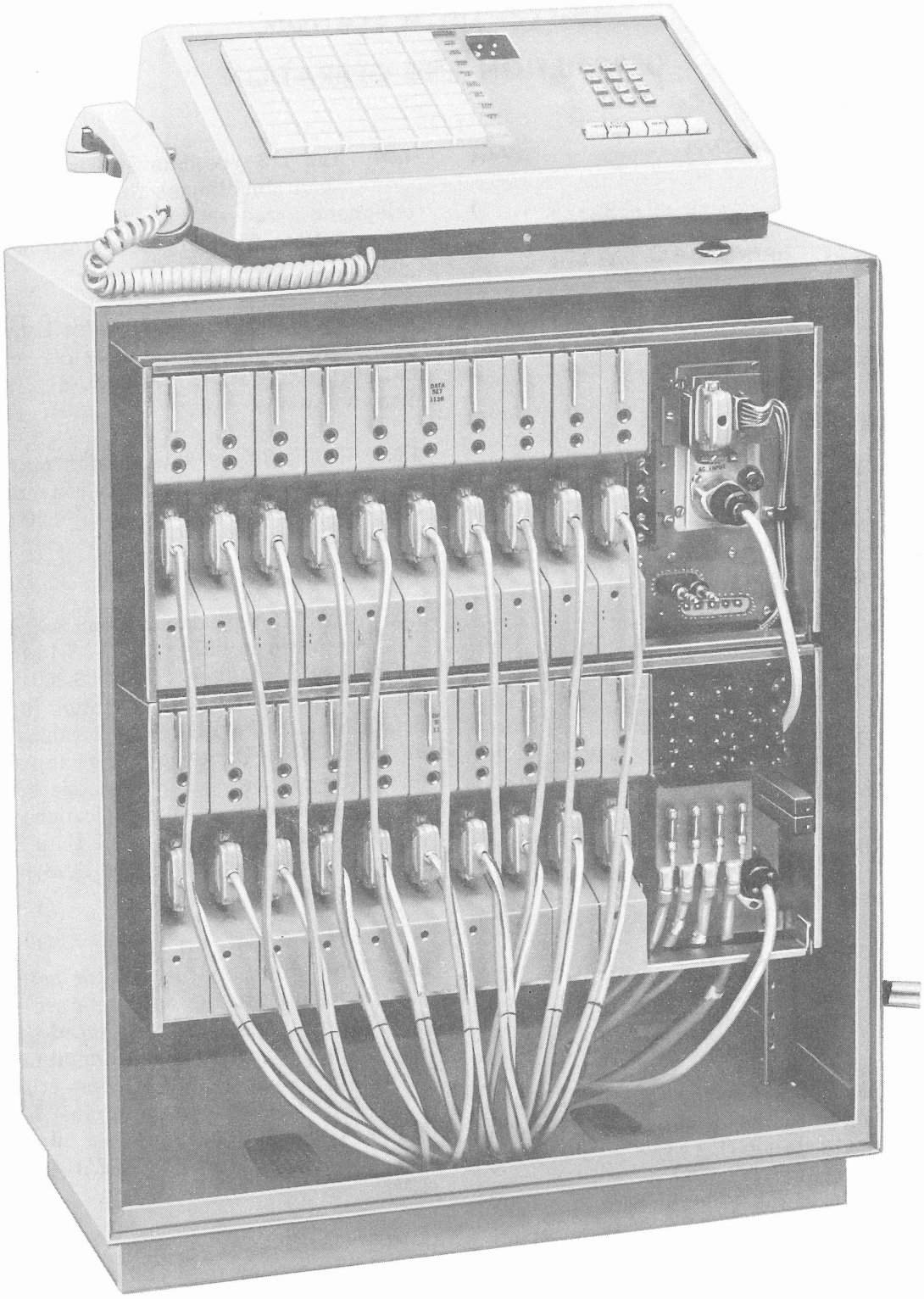

Fig. 1—113-Type Data Station Mounted in a KS-20018-L4 Cabinet—Panel Removed

2. PHYSICAL DESCRIPTION

A. General

2.01 This part covers a general description of the physical appearance along with the power requirements of components which make up the 113-type data station.

B. Cabinets

2.02 For a detailed description of the KS-20018-L4 cabinet and the KS-20093-L1 cabinet, refer to the section entitled Data Sets—Multiple Installation Information (590-010-201).

C. 32A1 Data Mounting

2.03 The 32A1 Data Mounting (Fig. 2) is approximately 20 inches high, 23 or 25 inches wide, 11 inches deep, and without data sets, weighs 50 pounds. Each 32A1 Data Mounting provides mounting space, power, and common equipment for up to 20 Data Sets 113B-L1.

2.04 The 32A1 Data Mounting requires an individually fused line power source capable of providing 125 watts of 105 to 130 volts, 57 Hz to 63 Hz.

2.05 For further information on the 32A1 Data Mounting, refer to the section entitled 32A1 Data Mounting—Identification (590-102-128).

D. Data Set 113B-L1

2.06 Data Set 113B-L1 (Fig. 3) is a single printed wiring circuit card. It is approximately 9-1/3 inches high, 1-1/2 inches wide, 9-3/4 inches deep, and weighs 2-1/4 pounds.

2.07 The interface connector, which conforms to EIA Standards, is mounted on the faceplate of the data set. Directly above the EIA connector is the service line twin jack which is used to provide access for the service line twin plug.

2.08 The power requirements for the data set are approximately 1.8 watts of +17.5V dc to +20.5V dc, 1.1 watts of −17.5V dc to −20.5V dc and 0.4 watts of +4.4V dc to +4.6V dc. The voltages are delivered to the data set via the 32A1 Data Mounting.

2.09 For further information on Data Set 113B-L1, refer to the section entitled Data Set 113B-L1—Identification (591-034-100).

E. Optional Equipment

DAS 804T-Type

2.10 The DAS 804T-type (Fig. 4) is approximately 7 inches high, 20 inches wide, 12 inches deep, and weighs 20 pounds.

2.11 From two to six 652D4 keys, comprised of ten buttons each, make up the status field. The status field is used to monitor up to 60 Data Sets 113B-L1.

2.12 A 635A5 key located beneath the dial contains five buttons of which three are used to control the TALK-CLEAR, DATA, and MON (monitor) functions of the DAS 804T-type. This is designated as the control field.

2.13 The DATA SET SELECTOR switch is used to select the interface leads of a particular data set. When used in conjunction with the MON button in the control field, the condition of the interface leads of the selected data set will be displayed by the INTERFACE MONITOR lamps.

2.14 The power requirements for the DAS 804T-type are approximately 10 watts of +10V dc to +12V dc lamp power from each 32A1 Data Mounting. An additional 0.7 watt of +17.5V dc to +20.5V dc, and 0.1 watt of +4.4V dc to +4.6V dc are delivered from the first 32A1 Data Mounting (data sets 1 through 20).

2.15 For further information on the DAS 804T-type, refer to the section entitled Data Auxiliary Set 804T-Type—Identification (598-076-100).

500-Type Telephone Set

2.16 A 113-type data station not equipped with the optional DAS 804T-type will provide normal voice communications over the service line by means of one of four telephone sets. Selection of the telephone set should be made as follows:

When Located at the 32A1 Mounting (See 3.43 and 3.44):

(a) 500DR telephone set (Rotary dial)

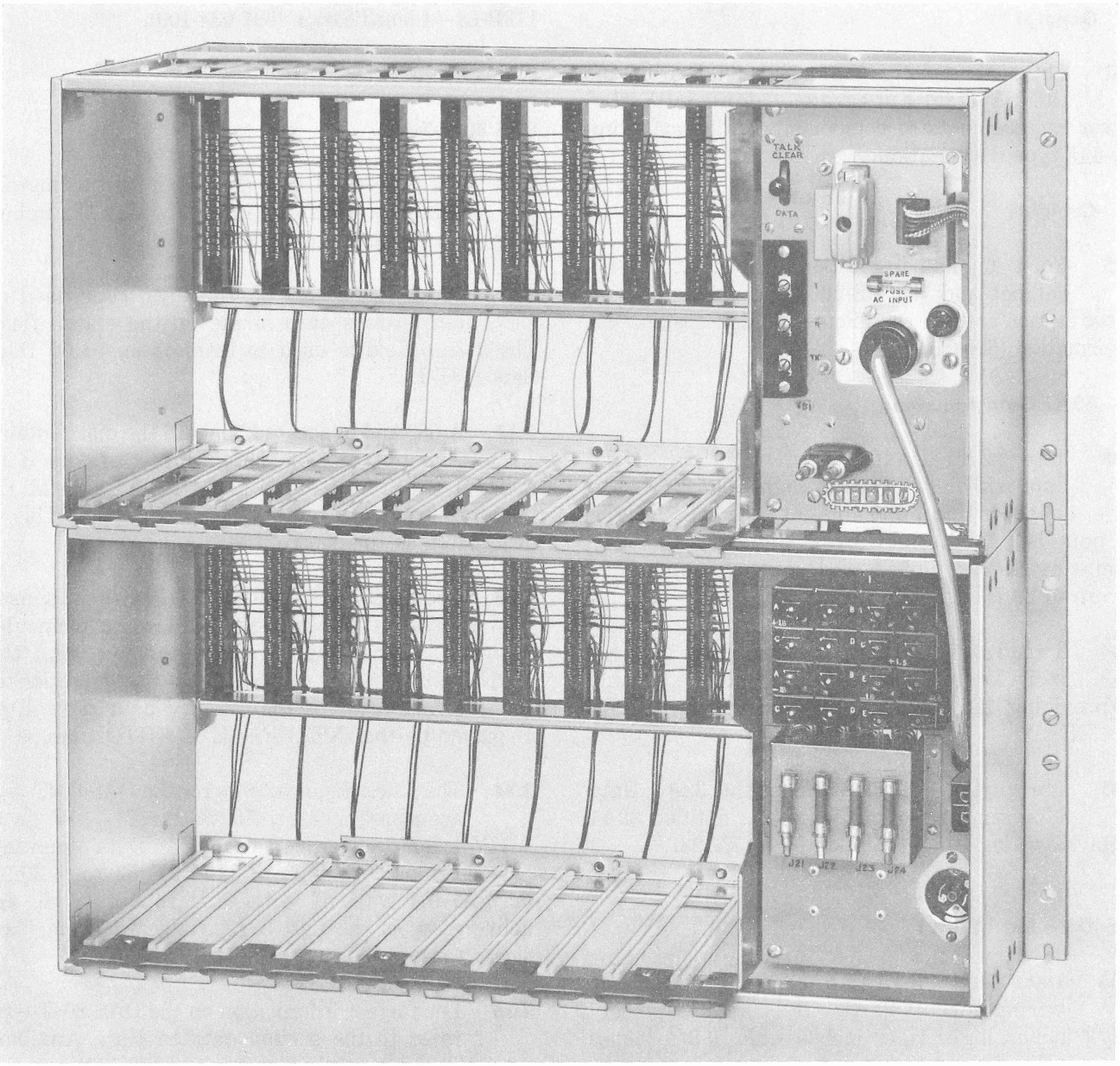

Fig. 2—32A1 Data Mounting

(b) 2500D telephone set (TOUCH-TONE® dial).

When Located Remotely From 32A1 Data Mounting (see 3.41 and 3.42):

(a) 565HK key telephone set (Rotary dial)

(b) 2565HK key telephone set (TOUCH-TONE dial).

3. FUNCTIONAL DESCRIPTION

A. General

3.01 This part covers the functions of Data Set 113B-L1, 32A1 Data Mounting, and optional equipment when used in the 113-type data station.

3.02 A block diagram of a typical 113-type data station shown in Fig. 5 consists of sixty

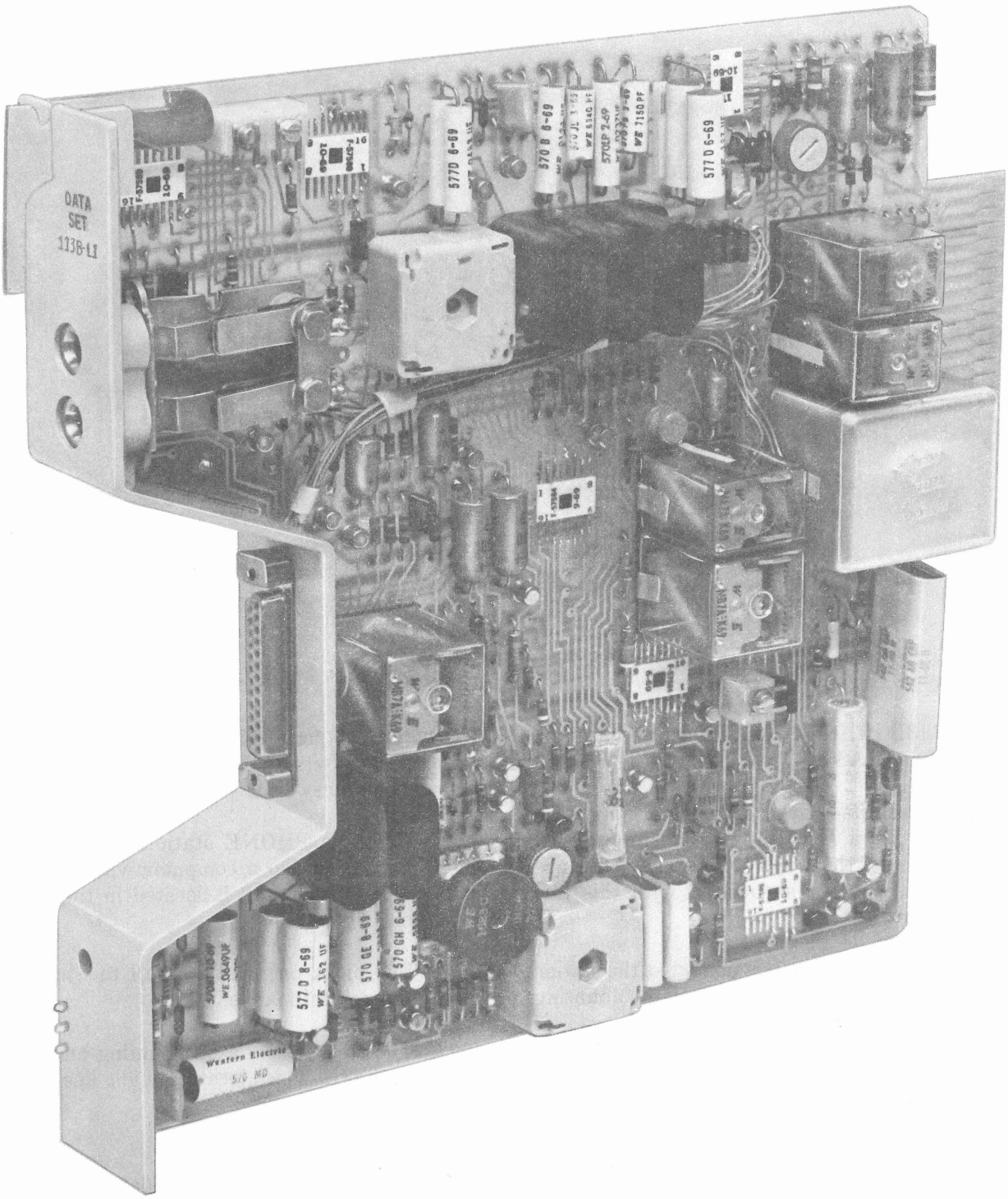

Fig. 3—Data Set 113B-L1

Fig. 4—DAS 804T-Type

Data Sets 113B-L1, three 32A1 Data Mountings, and one optional DAS 804T-type.

3.03 The access lines are normally terminated in the CO at a line hunting arrangement. Incoming calls to the 113-type data station are directed to an idle line associated with this line hunting arrangement.

3.04 The access lines are terminated at the station and connected to the 32A1 Data Mounting via a 50-pin connector.

3.05 The computer is connected to each data set interface connector via the customer-provided interface cable.

3.06 Power for the 113-type data station is connected to the 32A1 Data Mounting where it is rectified and sent to the data sets and DAS 804T-type of the data station.

3.07 Incoming calls from the access lines are automatically answered by the associated Data Set 113B-L1 in the same manner as a single data set station conditioned for automatic answering. Therefore, a typical 113-type data station equipped with 60 Data Sets 113B-L1 would be equivalent to 60 individual answer-only data stations.

3.08 A DATA-PHONE station (Station A) may gain access to a computer where a 113-type data station (Station B) is located in the following manner:

(1) Station A originates a call to Station B in the normal manner.

(2) The call goes to a line hunting arrangement in the CO which locates an idle line to Station B.

(3) The call is routed to the data set associated with the idle line causing that data set to go off hook.

(4) The data set at Station B transmits f_2 MARK back to Station A, disabling any echo suppressors that may be present in the transmission facilities.

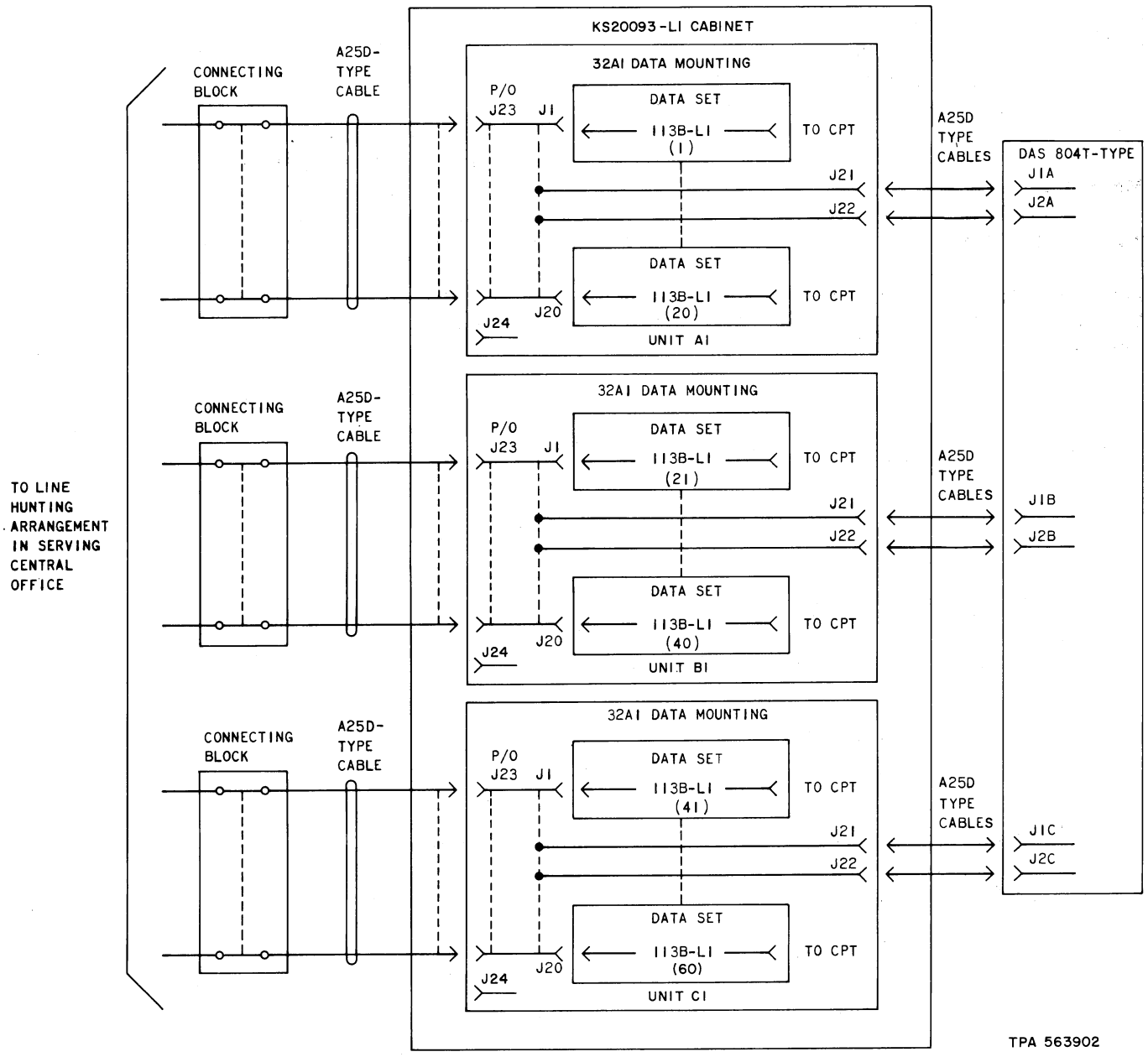

Fig. 5—113-Type Data Station—Block Diagram

(5) Station A receives the f_2 MARK and then transmits f_1 MARK to Station B.

This completes what is commonly referred to as the "handshaking sequence" and the data link is now established. Data can now be transmitted or received by either, or both, stations simultaneously.

3.09 Incoming data signals are in the form of voice frequency tones which are converted in the data set to voltage signals conforming to EIA Standards RS-232-B and -C. These voltage signals pass through the EIA interface to the computer. The interface leads which have designations beginning with A (ie, AA) are ground leads. The interface leads which have designations beginning with B (ie, BA) are data leads. The data leads are positive for spacing signals and negative for marking signals. The interface leads which have designations beginning with C (ie, CB) are control

leads. A positive voltage on a control lead means it is on and a negative voltage means it is off. The interface leads are listed, by designation, in Table A along with the name and purpose of each lead.

Make-Busy Feature

3.10 The 113-type data station is provided with a make-busy feature that can be used to make the telephone line associated with any of the data sets appear busy. The line may be made busy by any of the five following methods.

(a) DAS 804T-type—By operating the make-busy button in the status field of the DAS 804T-type, the Data Set 113B-L1 associated with the operated button will be made busy. The lamp in the operated button will wink, indicating that the normal telephone line of the data set has been made busy.

(b) Service line—When the service line twin plug is plugged into the twin jack on the faceplate of a data set, that data set will be made busy. When a DAS 804T-type is provided, the lamp in the status field associated with that data set will wink, indicating that the normal telephone line of the data set has been made busy.

(c) 258C plug—When a 258C plug is plugged into the lower half of the twin jack on the faceplate of the data set, that set will be made

TABLE A
DATA SET INTERFACE LEADS

DESIG	NAME	PURPOSE
AA	Protective Ground	To connect ac power service gnd to equipment chassis.
AB	Signal Ground	To provide gnd for all electronic circuits. (May be connected to AA by installer screw switch option.)
BA	Transmitted Data	To present customer data to data set
BB	Received Data	To present data output from the data set to customer data terminal
CB	Clear to Send	To inform customer that data set is ready to transmit any data presented on lead BA
CC	Data Set Ready	To inform customer that data set is connected to the transmission facility
CD	Data Terminal Ready	To inform the data set that the data terminal is ready to answer calls
CE	Ring Indicator	To indicate to the customer that ringing current is being received
CF	Carrier Detector	To indicate to the customer that carrier is being received
CN	Terminal Busy	To inform the data set to make itself appear busy to the transmission facility

busy. This is especially advantageous when the data station is not equipped with a DAS 804T-type or when the DAS 804T-type is remotely located.

(d) CN control—When the X option (ignore data terminal make-busy control) is ***not*** installed in the data set, the data set will be made busy upon proper signaling from the computer and when the EIA interface connector is disconnected.

(e) Loss of power—Whenever a data set loses power (ie, power cord pulled loose, blown fuse, etc) all those data sets that are experiencing the loss of power will be made busy.

3.11 The optional DAS 804T-type is used to provide the monitoring and control functions of the 113-type data station. It also provides access to the service line for normal voice communications.

3.12 When the optional DAS 804T-type is not provided, access to the service line is provided by a 500-type telephone set.

3.13 The following options are provided with the 113-type data station.

Data Set 113B-L1 Options:

(a) ***Z Option*** (Data Terminal Control of Disconnect)—With option Z installed, the line control (LC) relay is placed under the control of the computer CD interface lead. Therefore, the data set will only disconnect and go on hook when the computer turns off lead CD. When the option is ***not*** installed, the LC relay is also under the control of the carrier detector. In this case the data set will disconnect when a carrier fail occurs.

(b) ***Y Option*** (Make-Busy Implementation)—With this option installed, the make-busy function is implemented by placing a dummy load between tip and ring of the normal line of the data set. When the Y option is ***not*** installed, the make-busy function is accomplished via a third wire designated as the sleeve lead.

Note: When Y option is installed, ***do not*** connect the sleeve leads to J24 on the 32A1 Data Mounting.

(c) ***X Option*** (Ignore Data Terminal Make-Busy Control)—When this option is installed, the data set cannot be made busy by the computer. When the option is ***not*** installed, either a positive (ON) voltage or no signal on the CN lead will cause the data set to be made busy.

(d) ***W Option*** (Common CB-CF Indication)—When this option is installed, the clear-to-send (CB) and carrier detector (CF) interface leads signal the computer at the same time. When the option ***is not*** installed, the CB signal will remain on in the presence of carrier fail until the data set disconnects.

32A1 Data Mounting Options:

(a) ***V Option*** (Common Grounds)—With this option installed, all the data set signal grounds are connected to frame ground. When this option is ***not*** installed, the data set signal grounds are still connected together but are not connected to frame ground.

(b) ***U Option*** (32A1 Data Mounting Equipped With Less Than Ten Data Sets)—This option must be installed in 32A1 Data Mountings with less than ten data sets to provide a dummy load for the 41D power unit. This ensures that the proper power unit voltages are supplied to the data sets.

Options Z, X, W, and V should be installed or removed in accordance with customer requirements, while options Y and U should be installed or removed in accordance with telephone company requirements.

B. Data Set 113B-L1

3.14 The frequencies used by Data Set 113B-L1 along with the corresponding MARK and SPACE of each are shown in Table B. Since the data set is permanently in the answer mode, it will always receive data in the f_1 band and transmit data in the f_2 band. A block diagram of Data Set 113B-L1 is shown in Fig. 6.

3.15 In the idle state the computer is required to condition the data-terminal-ready (CD) interface lead with a positive (ON) voltage in order for the data set to respond to an incoming call.

3.16 When the ring detector receives an incoming ringing voltage, it causes a positive (ON) voltage to be presented to the customer-provided ring indicator (CE) interface lead.

TABLE B

FREQUENCY ASSIGNMENTS

BAND	BINARY STATE	FREQUENCY
f_1	Mark	1270 Hz
	Space	1070 Hz
f_2	Mark	2225 Hz
	Space	2025 Hz

3.17 During the silent interval of the ringing cycle, the ring detector signals the line control circuits and returns the CE lead to OFF. The line conrol circuits are composed of the answer timer, abort timer, disconnect timer, and the line control (LC) relay.

3.18 The LC relay causes the data set to go off hook, signals the modulator squelch circuit (composed of the quiet timer), starts the answer timer, and, via the data set ready (CC) lead, presents a positive voltage to the computer.

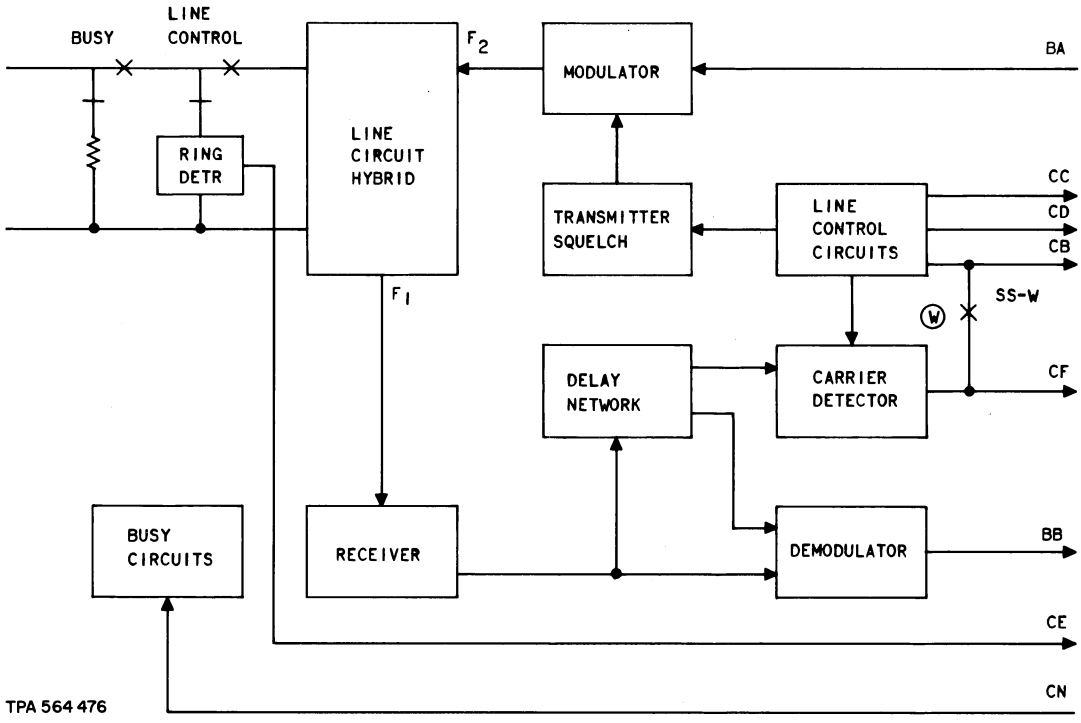

Fig. 6—Data Set 113B-L1—Block Diagram

3.19 The abort timer now takes control of the LC relay. If a data link is not established (ie, the handshaking sequence not completed, etc), within 22 seconds, the abort timer will time out causing the LC relay to release, returning the data set to the idle or on-hook state.

3.20 Approximately 1.3 seconds after the quiet timer has been signaled by the LC relay,it times out, disabling the modulator squelch circuits and allowing the f_2 MARK tone to be transmitted. The 1.3-second delay ensures successful completion of supervisory signaling in the telephone plant and the f_2 MARK answer-tone disables any echo suppressors that may be present in the transmission facilities. The echo suppressors remain disabled as long as the data set frequencies are present on the line.

3.21 Approximately 1/2 second after the originating station receives the f_2 MARK answer-tone, it transmits an f_1 MARK tone to the Data Set 113B-L1. The f_1 MARK tone enters the data set and passes through the line circuit hybrid to the receiver (composed of the input buffer, receive filter, and amplifier limiter). The constant amplitude

output produced in the receiver is then passed on to the demodulator (composed of the differential detector, the baseband filter, and the slicer) and to the delay network.

3.22 The delay network has two outputs: one to the demodulator and the other to the carrier detector.

3.23 The carrier detector monitors the output of the delay network for an acceptable level of carrier. When the carrier detector receives a valid carrier indication for at least 150 ms, it is enabled. Enabling the carrier detector releases the mark-hold clamp on the received data (BB) lead and turns on the CF lead. Releasing the mark-hold clamp on the BB lead allows data signals being received from the line to appear on the BB lead. The ON condition of the CF lead signals the computer that a valid carrier exists and that the data set is ready to receive data. When option W (common CB—CF indication) is installed in the data set, the carrier detector also turns on the CB lead. In either case, an ON indication on the CB lead signals the computer that the data set is ready to transmit data.

3.24 The output from the delay network to the demodulator couples with the input already provided to the demodulator from the receiver to produce a voltage signal that is proportional to the frequency. The baseband filter and slicer within the demodulator recover the original data signal and square it up into binary form. This signal is presented to the computer on the BB interface lead.

Originating Station Disconnect

3.25 When Data Set 113B-L1 is not equipped with option Z, the originating station may originate a disconnect sequence by returning to the on-hook condition. This removes fl carrier from the line. The carrier detector detects the loss of carrier and, after 10 ms, turns off restoring the mark-hold clamp on the BB interface lead. The carrier detector also signals the computer via the CF lead that a valid carrier is no longer present and, when option W is installed, signals the computer via the CB lead that it is no longer clear to send. The disconnect timer will time out after 200 ms, causing the LC relay to release returning the data set to the on-hook condition.

3.26 When Data Set 113B-L1 is equipped with option Z, the originating station should send a discrete signal to the computer causing it to initiate the disconnect sequence.

Computer-Initiated Disconnect

3.27 The computer may initiate a disconnect sequence by turning off the CD lead which causes the LC relay to release. The release of the LC relay causes the data set to go on hook and turns off the CC lead. When the computer receives the OFF voltage on the CC lead, it will turn the CD lead back on. The data set will then be in the idle mode and ready to receive another call.

Data Set 113B-L1 Options

3.28 The four screw-switch options located on Data Set 113B-L1 are:

(a) ***Z Option***—Data Terminal Control of Disconnect

(b) ***Y Option***—Make-Busy Implementation

(c) ***X Option***—Ignore Data Terminal Make-Busy Control

(d) ***W Option***—Common CB-CF Indication.

For a functional description of the options located on Data Set 113B-L1 see 3.13.

C. 32A1 Data Mounting

3.29 The 32A1 Data Mounting provides a 41D power unit, lamp power supply, and a service line on a cord reel.

Fusing

3.30 Seventeen fuses are used to fuse the wiring to the Data Sets 113B-L1 and the DAS 804T-type. Data Set 113B-L1 fusing arrangement is shown in Table C. DAS 804T-type fusing arrangement is shown in Table D. Lamp power supply fusing arrangement for the DAS 804T-type is shown in Table E.

TABLE C

DATA SET FUSING ARRANGEMENT

VOLTAGE	SLOTS 1-5	SLOTS 6-10	SLOTS 11-15	SLOTS 16-20
+18V	F1	F2	F3	F4
−18V	F5	F6	F7	F8
+4.5V	F9	F10	F11	F12

TABLE D

DAS 804T-TYPE FUSING ARRANGEMENT

VOLTAGE	J21
+18V	F16
−18V	F15
+4.5V	F13
SPARE +4.5V	F14

TABLE E

LAMP POWER SUPPLY FUSING

VOLTAGE	32A1 DATA MOUNTING
117V ac	F17
+11V	F18

Service Line

3.31 The twin plug of the service line may be connected to any one of the Data Sets 113B-L1 within the data mounting.

3.32 When the service line is connected to a data set, the data set access line is made busy and the alternate voice/data feature of the service line is provided.

3.33 Operating the TALK-CLEAR/DATA key to the locking TALK-CLEAR position prevents the LC relay, in the data set to which the service line is connected, from operating.

3.34 Momentarily operating the TALK-CLEAR/DATA key to the nonlocking DATA position causes the LC relay to operate, thereby initiating the handshaking sequence.

D. Optional Equipment

Data Auxiliary Set 804T-Type

3.35 The DAS 804T-type provides a means of monitoring and controlling up to 60 Data Sets 113B-L1 in a 113-type data station.

Monitoring

3.36 The status lamps on the DAS 804T-type indicate to an attendant whether the corresponding data set is in use, idle, or made busy. The lamp indications and their meanings are shown in Table F.

3.37 The EIA interface leads of a particular data set may be monitored at the DAS 804T-type by setting the DATA SET SELECTOR switch to the number of the data set of interest and then operating the monitor (MON) key. The operation of the MON key causes the lamp beneath it to light and the select (SA and SB) relays in the data set to operate, thereby displaying the condition of the interface leads on the INTERFACE MONITOR lamps of the DAS 804T-type. The lamp indications and their meanings are shown in Table G.

Make-Busy Feature

3.38 Any of the Data Sets 113B-L1 associated with the DAS 804T-type may be made busy by operating the make-busy button in the status field associated with the data set of interest. The operation of the make-busy button causes the busy (BY) relay to release, thereby making the associated data set access line busy.

TABLE F
STATUS FIELD LAMP INDICATIONS

LAMP INDICATION	CONDITION OF DATA SET
OFF	Idle
ON	Connected to the normal telephone line and is in the data mode
WINK	Telephone line associated with data set made busy

TABLE G
INTERFACE MONITOR LAMP INDICATIONS

LAMP DESIG	DATA SET LEAD MONITORED	CONDITION OF LAMP	CONDITION OF INTERFACE LEAD
TRMT DATA	BA	ON	BA — SPACE — Data set transmitting SPACE
		OFF	BA — MARK — Data set transmitting MARK
RCV DATA	BB	ON	BB — SPACE — Data set receiving SPACE
		OFF	BB — MARK — Data set receiving MARK
TERM BUSY	CN	ON	CN-POSITIVE — If X option is installed, data set made busy via computer
		OFF	CN-NEGATIVE — Data set not made busy
RING IND	CE	ON	CE-POSITIVE — Ringing is present on the data set tel line
		OFF	CE-NEGATIVE — Ringing not present
CLR SEND	CB	ON	CB-POSITIVE — Data set prepared to transmit data
		OFF	CB-NEGATIVE — Data set is not prepared to transmit data
SET RDY	CC	ON	CC-POSITIVE — Data set is connected across the tel line
		OFF	CC-NEGATIVE — Data set not connected across the tel line
TERM RDY	CD	ON	CD-POSITIVE — Computer is ready to receive and transmit data
		OFF	CD-NEGATIVE — Computer not ready
CARR DET	CF	ON	CF-POSITIVE — Valid carrier present
		OFF	CF-NEGATIVE — No carrier

Service Line

3.39 The service line in the DAS 804T-type provides a means of normal voice communication. When the TALK-CLEAR button is operated, the telephone handset is connected across the service line.

3.40 The alternate voice/data feature of the DAS 804T-type is provided when the service line twin plug in the 32A1 Data Mounting is connected to a data set. The function of this feature is identical to that described in 3.32 through 3.34 with the exception that the TALK-CLEAR and DATA buttons at the DAS 804T-type may be used. The DATA button has a lamp located beneath it and, when operated, the lamp lights.

565HK (Rotary Dial) and 2565HK (TOUCH-TONE Dial) Key Telephone Sets

3.41 The 565HK and 2565HK key telephone sets provide remote access to the service line. When the handset is lifted and the TALK-CLEAR button is operated, the telephone is connected to the service line.

3.42 The alternate voice/data feature of the key telephone set is provided when the service line twin plug in the 32A1 Data Mounting is connected to a data set. The function of this feature is described in 3.32 through 3.34 with the exception that the TALK-CLEAR and DATA buttons at the key telephone set may be used.

500DR (Rotary Dial) and 2500D (TOUCH-TONE Dial) Telephone Sets

3.43 The 500DR and 2500D telephone sets provide local access to the service line.

3.44 The alternate voice/data feature of the telephone set is provided when the service line twin plug in the 32A1 Data Mounting is connected to a data set. This feature is controlled by the TALK-CLEAR/DATA key in the 32A1 Data Mounting and is explained in 3.32 through 3.34.

4. OPERATION

4.01 Since the Data Set 113B-L1 is always in the answer mode, the 113-type data station does not require any operating procedures by an attendant during normal operation. However, the 113-type data station is provided with several features (eg, call origination, etc) that, when used in conjunction with the service line, aid in performing maintenance and testing of the data station. The method of operation for these features is covered in 4.02 through 4.12.

Call Origination

4.02 In order to originate a call, first lift the handset and then operate the TALK-CLEAR button. When dial tone is received, dial the number of the called station.

Talk Mode to Data Mode Transfer

4.03 If it is desired to go to the data mode, and the called station is capable of going into the originate mode, connect the service line twin plug (grooves up) to the data set of interest. Instruct the distant end attendant to listen for tone and when tone is heard, to operate DATA button. At the 32A1 Data Mounting (or DAS 804T-type) momentarily operate the TALK-CLEAR/DATA key (or DATA button) to DATA and replace handset on switchhook.

> ***Note:*** The DATA button must be operated at the same place that the TALK-CLEAR button was operated (ie, if the TALK-CLEAR button was operated at the DAS 804T-type, the DATA button must be operated at the DAS 804T-type, etc).

Call Disconnect

4.04 In order to disconnect a call, it is only necessary to operate the TALK-CLEAR button and place the handset on hook.

Monitoring

4.05 To monitor the EIA interface leads of a particular data set, set the DATA SET SELECTOR switch of the DAS 804T-type to the number of the data set of interest and then operate the MON button.

4.06 To release a data set from the monitor condition, change the switch setting of the DATA SET SELECTOR switch.

Make-Busy Feature

DAS 804T-Type

4.07 To make a data set access line busy, operate the make-busy button associated with the data set of interest in the status field of the DAS 804T-type.

Note: The lamp beneath the operated button(s) will wink indicating that the data set has been made busy.

4.08 To restore the line to service, operate the make-busy button again.

Note: The lamp beneath the restored button(s) will extinguish, indicating that the data set is in the idle mode and ready to receive a call on its access line.

Data Set 113B-L1

4.09 To make the data set access line busy when the 113-type data station is not provided with a DAS 804T-type (or it is not convenient to use the DAS 804T-type), insert a 258C plug into the lower receptacle of the data set twin jack.

4.10 A data set access line will also be made busy when the service line twin plug on the cord reel is plugged into the twin jack on the data set.

CN Control

4.11 When a data set is not equipped with option X (ignore data terminal control), the computer can make a data set busy via the CN lead. In addition, the data set will be made busy when the EIA interface connector is disconnected.

Test Mode

4.12 To place a data set in the test mode, proceed as follows:

(1) Operate the TALK-CLEAR/DATA key on the 32A1 Data Mounting to the mid-position and ensure that the TALK-CLEAR button on the DAS 804T-type or 500-type key telephone set (if provided) is not operated.

(2) Insert the service line twin plug into the twin jack on the data set (grooves up).

(3) Replace the customer-provided interface connector with the test mode (TM) connector.

Note: A remote test from the DTC over the service line can be performed at this time as described in the section entitled 113-Type Data Station—Test Procedures (591-814-500).

5. REFERENCES

5.01 The following schematic drawings, circuit descriptions, and BSPs pertain to the 113-type data station.

SECTION	TITLE
SD- & CD-1D208-01	Data Systems Station—Data Set 113B-L1 and 32A1 Data Mounting—Part of 113-Type Data Station
SD- & CD-1D210-01	Data Systems Station—Data Auxiliary Set 804T-Type—Part of 113-Type Data Station
590-102-128	32A1 Data Mounting—Identification
591-034-100	Data Set 113B-L1—Identification
598-076-100	Data Auxiliary Set 804T-Type—Identification