

DATA AUXILIARY SET 804L-TYPE INSTALLATION AND CONNECTIONS

1. GENERAL

1.01 This section contains installation and connection information for Data Auxiliary Set 804L-type and the associated 4A-type, 5A-type, and 6A-type Data Mountings.

1.02 This section is reissued to revise the information provided on the KS-20093-L1 cabinet that is used in this installation. Ordering information for the hardware associated with the KS-20093-L1 cabinet has been updated to reflect the changes in the cabinet specification. Since this general revision causes extensive changes in both text and figures, change arrows have been omitted.

1.03 Data Auxiliary Set 804L-type (Fig. 1) is a control panel used in conjunction with the data mountings. The panel is used to provide control over a maximum of 48 switched access or private line data sets.

1.04 Data Auxiliary Set 804L-type is initially intended for use in the KS-20093-L1 cabinet which also contains the 4A-type Data Mounting. The 5A-type and/or 6A-type Data Mountings and their associated data sets are also mounted in the cabinet as space allows.

1.05 The installation procedures contained in Parts 2 and 3 of this section are to be used in the event that the KS-20093-L1 cabinet is not equipped with the data auxiliary set and data mountings when it is received from the distributing house.

1.06 This section provides installation information for Data Auxiliary Set 804L-type and associated data mountings only. Information on the business machine or data sets associated with the data mountings is not included in this section.

1.07 The equipment arrangement depends almost entirely on the customer's application and the customer's facilities; therefore, detailed instructions on equipment placement, etc. are not included.

For general installation information, refer to the section entitled Data Sets, Multiple Installation Information (590-010-201). Fig. 2 shows a typical multiple data set equipment arrangement.

2. INSTALLATION

2.01 This part outlines the procedure for making the physical installation of the components. The electrical connections required when making an installation are given in Part 3 of this section.

2.02 In addition to the regular installation tools, installation of the data mountings and associated data auxiliary sets will require the following special tools:

- KS-19053-L1 screwdriver or equivalent
- Screw Starter, Kedman Co. No. 1736 or equivalent.

2.03 Data Auxiliary Set 804L-type is mounted in the center front door of the KS-20093-L1 cabinet. Refer to Fig. 3 for information on mounting the 804L panel in the cabinet door. Do not make any cable or electrical connections to the 804L panel at this time. Connection information is contained in Part 3 of this section.

2.04 The 4A-type Data Mounting is installed in the rear of the KS-20093-L1 cabinet. The data mounting may be located at either the top or the bottom of the cabinet as required by the cable entrance.



The installation of the 4A-type Data Mounting is determined by the entrance of the cables. When the cable entrance is from the floor, the 4A is mounted at the bottom rear of the cabinet. When an overhead cable entrance is used, the 4A is mounted at the top rear of the cabinet.

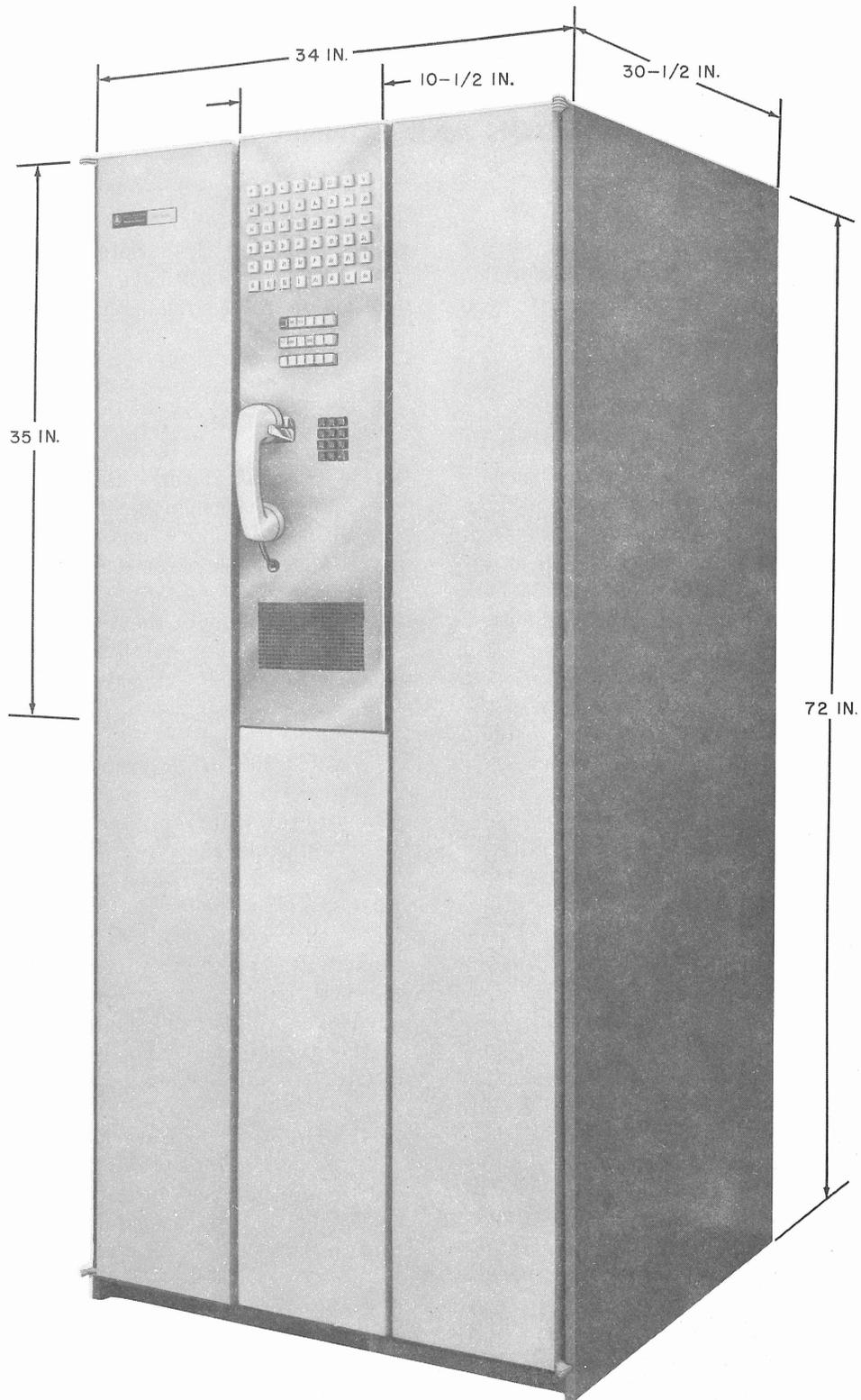


Fig. 1—Data Auxiliary Set 804L-Type Mounted in a KS-20093-L1 Cabinet

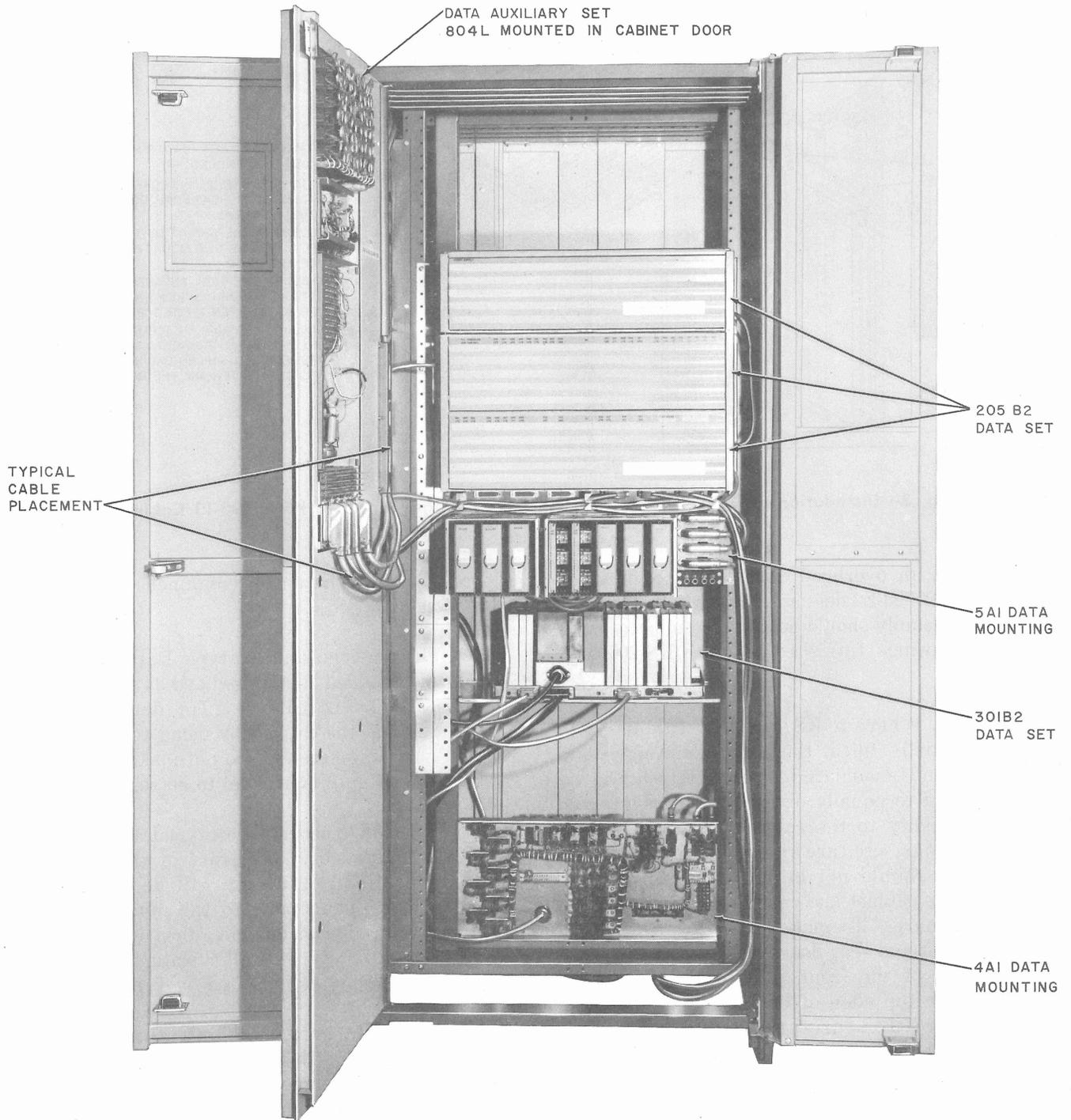
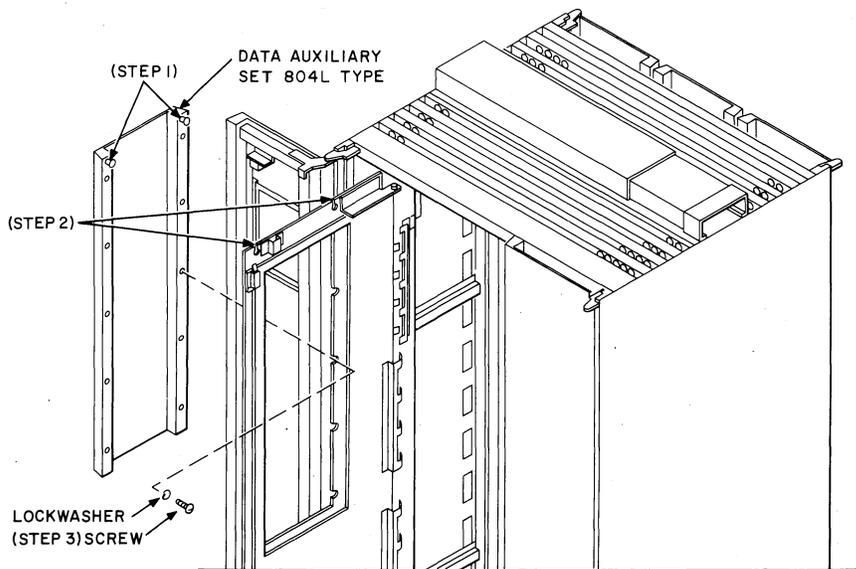


Fig. 2—Typical Multiple Data Set Installation, Equipment Arrangement



DATA AUXILIARY SET (DAS) 804L
INSTALLATION PROCEDURE

1. START TWO MOUNTING SCREWS IN THE TOP HOLES OF THE DAS 804L. DO NOT TIGHTEN THESE SCREWS.
2. SUPPORT THE WEIGHT OF THE 804L BY PLACING THE TWO MOUNTING SCREWS IN HOLES OF THE DOOR.
3. SECURE THE 804L FROM THE BACK SIDE WITH TEN ADDITIONAL SCREWS AND LOCKWASHERS. DO NOT TIGHTEN THESE SCREWS SECURELY.
4. ADJUST THE 804L PLACEMENT ON THE DOOR BY SHIFTING THE 804L TO THE RIGHT OR LEFT AS REQUIRED. WHILE HOLDING THE 804L IN PLACE, TIGHTEN ALL THE MOUNTING SCREWS.

Fig. 3—Installation of Data Auxiliary Set 804L-Type in the Door of a KS-20093-L1 Cabinet

2.05 When an overhead cable entrance is used, a KS-20093-L2 duct assembly will be required. The duct assembly should be installed in accordance with the drawings furnished with the KS-20093-L1 cabinet.

Note: Where a KS-20093-L1 cabinet is to be partially filled, the data mountings, data sets, and associated equipment should be mounted to equally distribute the weight and add rigidity to the cabinet. When the data mountings, etc. are installed, the mounting screws should not be completely tightened until the cabinet and cabinet doors are aligned and square. To make this alignment, close the front and rear doors of the cabinet. Align the top of the front and rear cabinet doors with the top edge of the cabinet by applying sideward pressure at the top. When the cabinet is aligned, open the doors and completely tighten *all* mounting screws by using a KS-19053-L1 screwdriver or equivalent.

2.06 Before starting the installation of the 4A-type Data Mounting, the rear mounting post must be located in the correct position to provide a nominal 23-inch mounting surface. Refer to Fig. 4 for information on positioning the mounting post which is installed by using four No. 12-24 by 3/8 mounting screws. Do not make any cable or electrical connections to the 4A at this time.

Connection information is contained in Part 3 of this section.

2.07 The 5A-type and 6A-type Data Mountings are installed as required and as space permits in the KS-20093-L1 cabinet. The data mountings are installed in the cabinet by using four No. 12-24 by 3/8 mounting screws. Do not make connections to these units until instructed to do so.

2.08 When 5A-type and/or 6A-type Data Mountings are installed in the front of the KS-20093-L1 cabinet, adapter plates will be required to reduce the 25-inch frame to the nominal 23-inch distance required when installing the data mountings. The KS-20093-L15 type adapter plates are available in the various lengths indicated by Table A.

2.09 The data sets and data auxiliary sets associated with the data mountings are also mounted in the cabinet as space will permit. A KS-20093-L14 shelf can be mounted in the cabinet to provide a space to install data sets and data auxiliary sets. Refer to Fig. 5 for information on mounting the KS-20093-L14 shelf.

3. CONNECTIONS

3.01 This section does not contain information on the options that are provided by the data sets or data auxiliary sets associated with this

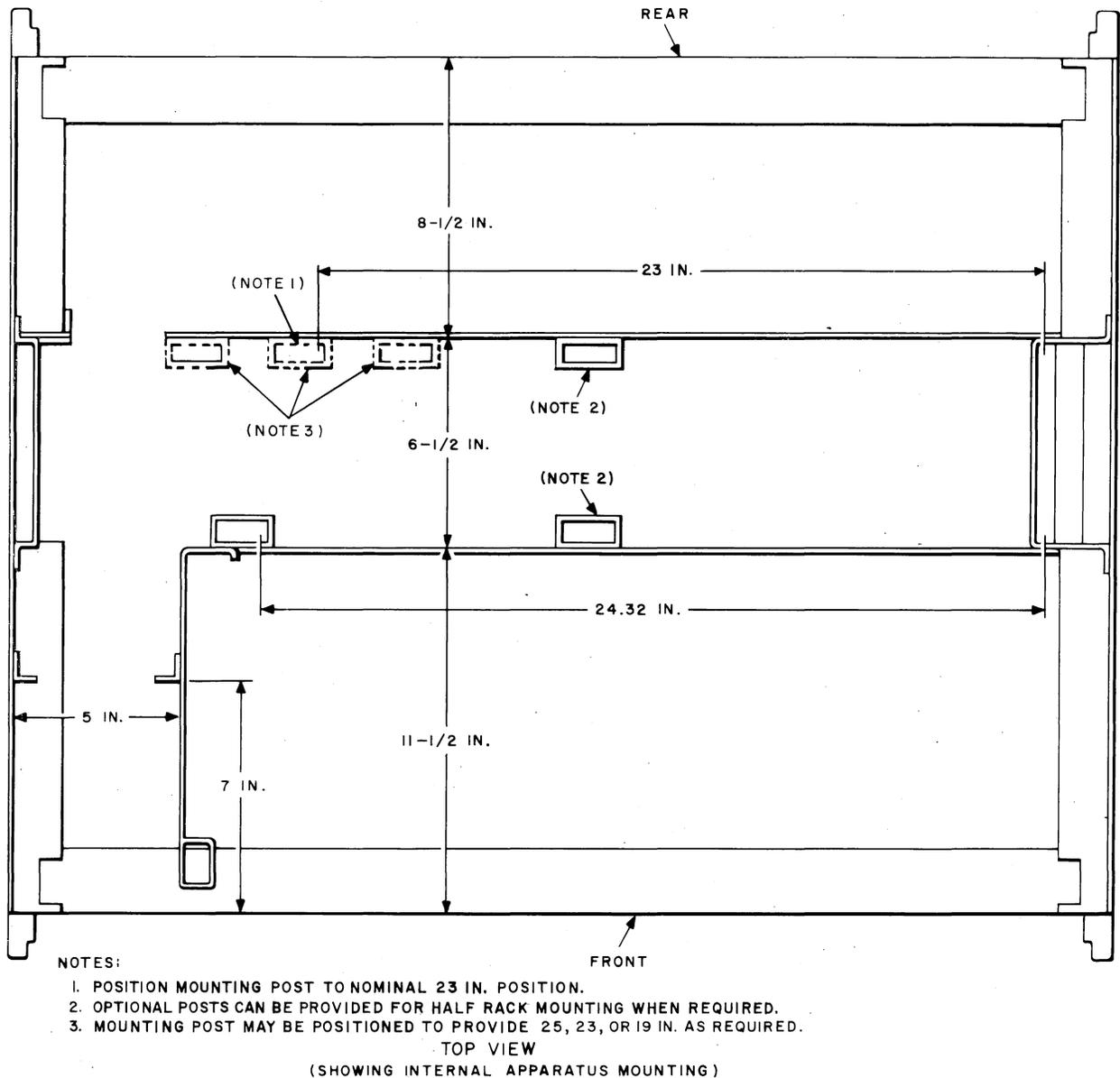


Fig. 4—Mounting Post Position for Mounting the 4A-Type Data Mounting

equipment. For information on the options provided by the associated equipment, consult the applicable BSP sections on the associated data sets and data auxiliary sets.

3.02 The data set field of Data Auxiliary Set 804L-type is made up of eight columns of six keys each. Each of the eight columns is individually conditioned for either private line or switched access operation by inserting a printed wiring board into the correct jack (J1-J8). Option Z is used for switched access data sets, and option

Y is used for private line data sets. The desired option is obtained by inserting the printed board in jack (J1-J8) associated with the column of keys being conditioned. If option Z is being provided, insert the printed board in the jack with the side marked Z at the top. When option Y is required, the printed board should be inserted with the side marked Y at the top of the connector.

3.03 The customer must furnish ac power that is not under the control of a switch. A

TABLE A

KS-20093 LIST	LENGTH IN INCHES
15A	68
15B	30
15C	18
15D	12
15E	10
15F	9
15G	8
15H	6
15J	3

3-wire grounding-type power receptacle should be provided.

3.04 To avoid the possibility of data errors due to a potential difference between the data equipment ground and the business machine ground, the power supplied to the data equipment should be supplied from the same ac distribution panel as the power supplied to the business machine. If the same ac distribution panel is not used, it may be necessary to bond the data equipment ground and the business machine ground together.



The method of providing this bond should be in accordance with local instructions.

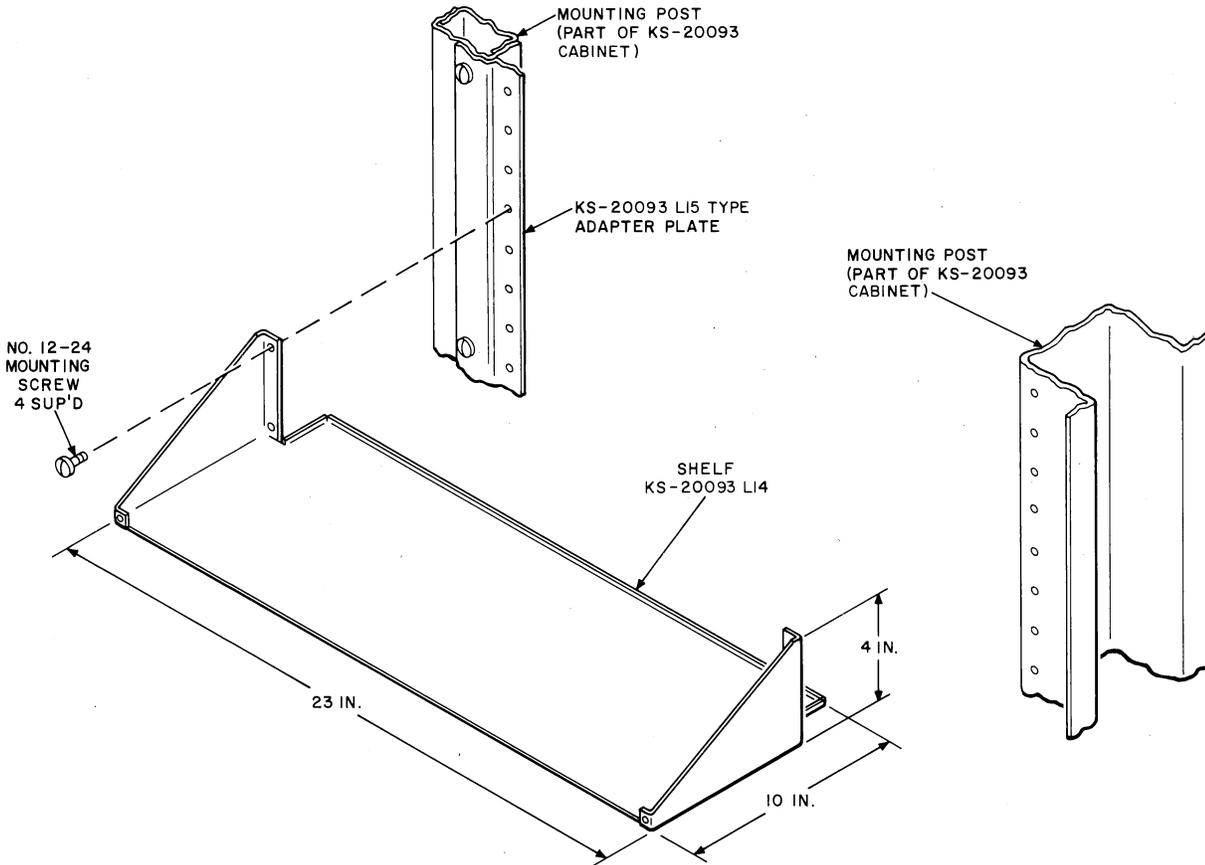


Fig. 5—KS-20093-L14 Shelf Installation Information

3.05 Table B shows the interconnections between Data Auxiliary Set 804L-type, the 4A-type Data Mounting, and a 5A-type and/or 6A-type Data Mounting. When more than 48 data sets are required, additional 804L's and 4A's are provided. The interconnection of these additional units and connections providing for a remote console (when desired) are also indicated by Table B. Fig. 6 through Fig. 9 show the connectors referred to in the table.

Note: Data Auxiliary Set 804L-type and the 4A-, 5A-, and 6A-type Data Mountings are referred to by their respective numerical designations in Table B only.

TELEPHONE LINE CONNECTIONS

3.06 Due to the many different combinations and possible configurations for partially equipped cabinets, specific installation of the incoming telephone lines will not be given in this section.

3.07 The incoming telephone lines are connected to each 5A-type or 6A-type Data Mounting by using one of the following connector cables or cords:

- **A25C connector cable**—Available in any length
- **B25A connector cable**—Available in 5-, 15-, 60-, or 100-foot lengths

- **M50G cord**—Available in 9-foot length only
- **M50H cord**—Available in 6-, 9-, or 12-foot lengths.

3.08 The A25C connector cable is equipped with a KS-16785-L8 plug on one end for connection to a 5A- or 6A-type Data Mounting while the other end is unequipped. The cable is used when crossconnection to a terminal or distribution frame is required. Table C shows the color code and pairs to be used for connecting the data mountings to the telephone line facilities by using an A25C connector cable connected to J2 of the data mounting.

Note: The customer's interface position and data set assignment number should be specified on the service order and/or worksheet.

3.09 Mounting plates are required to mount the customer interface connectors. Refer to Table D for a description of the mounting plates available. Fig. 10 through Fig. 13 show the installation of the mounting plates and a typical installation of an interface plug.

3.10 After completing the installation and connections specified in the preceding text, power may be applied and the test outlined in the section entitled Data Auxiliary Set 804L-Type, Test Procedures (598-056-500) must be performed before the installation is considered completed.

TABLE B

FROM EQUIPMENT CONNECTOR	CORD DESIGNATION	TO EQUIPMENT CONNECTOR	FUNCTION, TYPE OF LEAD, OR REMARKS
804L J1	—	—	The option board jacks condition the equipment for switched or private line operation of the six data sets associated with each of the connectors.
J2	—	—	
J3	—	—	
J4	—	—	
J5	—	—	
J6	—	—	
J7	—	—	
J8	—	—	
804L J9	—	4A J9	Data sets common control circuits

TABLE B (CONT)

FROM EQUIPMENT CONNECTOR	CORD DESIGNATION	TO EQUIPMENT CONNECTOR	FUNCTION, TYPE OF LEAD, OR REMARKS
804L P1 P2 P3 P4 P5 P6 P7 P8	M50F ↓	5A or 6A J3 ↓ ↓	Provides lamp and key control circuits for six switched or private line data sets for the 5A or 6A provided
4A J1 J2 J3 J4 J5 J6 J7 J8	M50H ↓	5A or 6A J1 ↓ ↓	Control cable for the six data sets associated with the 5A or 6A used
4A J9	M50G	804L J9	Data sets common control circuits
4A J10	Use M50F, G, or H and A25C or B25A as required	4A* J1-J8†	Common control circuits for remote console control of the data sets
4A J11	Use M50F, G, or H and A25C or B25A as required	To Tel Lines	Ringdown lines RD1, RD2, and AT
4A J12	M50H	4A‡ J11‡	Ringdown lines RD1, RD2, and AT
4A J13 } J14 } J15 } J16 }	RD1 RD2	Maintenance Handset	These connectors are used for connecting the maintenance handset to ringdown lines.
5A or J1 6A	M50H	4A J1-J8§	Control cable for the six data sets associated with the 5A or 6A

TABLE B (CONT)

FROM EQUIPMENT CONNECTOR	CORD DESIGNATION	TO EQUIPMENT CONNECTOR	FUNCTION, TYPE OF LEAD, OR REMARKS
5A or J2 6A	Use M50F, G, or H and A25C or B25A as required	Tel Lines	Provides for six telephone lines for the 5A or 6A
5A or J3 6A	M50F	804L P1-P8¶	Provides lamp and key control circuits for six switched or private line data sets
5A or J4 6A	Use M50F, G, or H and A25C or B25A as required	Control Console	Provides lamp and key circuits for control when console is provided
5A or J5 6A J6 J7 J8 J9 J10	As required for data set being used in the installation	Data Set No. 1 ↓ No. 2 No. 3 No. 4 No. 5 No. 6	Connects the data set to the 5A or 6A
5A or J11 } 6A J12 } J13 } J14 }	RD1 RD2	Maintenance Headset	These connectors are used for connecting the maintenance headset to ring-down lines.
5A J15 J16 J17 J18 J19 J20	As required for data set being used in the installation	Automatic Calling Unit	Connector provided for connecting an automatic calling unit when required

Note: Connections to the data sets, data auxiliary sets, and customer interface are not given in this table as these connections vary with the equipment and the type of service provided.

* A 4A-type Data Mounting is required to provide the necessary interconnections when a remote console is provided.

† Connectors J1 through J8 are used to connect to J10 of each of the 4A-type Data Mountings which are associated with a Data Auxiliary Set 804L-type. J1 is used for the first 4A and associated data sets, J2 for the second 4A, etc., up to a maximum of eight

‡ When more than 48 data sets are provided, additional Data Auxiliary Sets 804L-type are required. When this is the case, the ringdown lines of the associated 4A-type Data Mountings can be connected sequentially, i.e., J11 to J12 of the data mountings. Connector J12 is not used when multiple 804L's are not required.

§ Connector J1 is used for the first or number 1 5A or 6A, J2 is used for the second, etc., until a maximum of eight 5A's or 6A's are connected to the 4A1.

¶ The J3 connector of the 5A or 6A is connected to the applicable P connector of the Data Auxiliary Set 804L-type. P1 is used for the 5A or 6A associated with data sets 1 through 6, P2 for 7 through 12, etc.

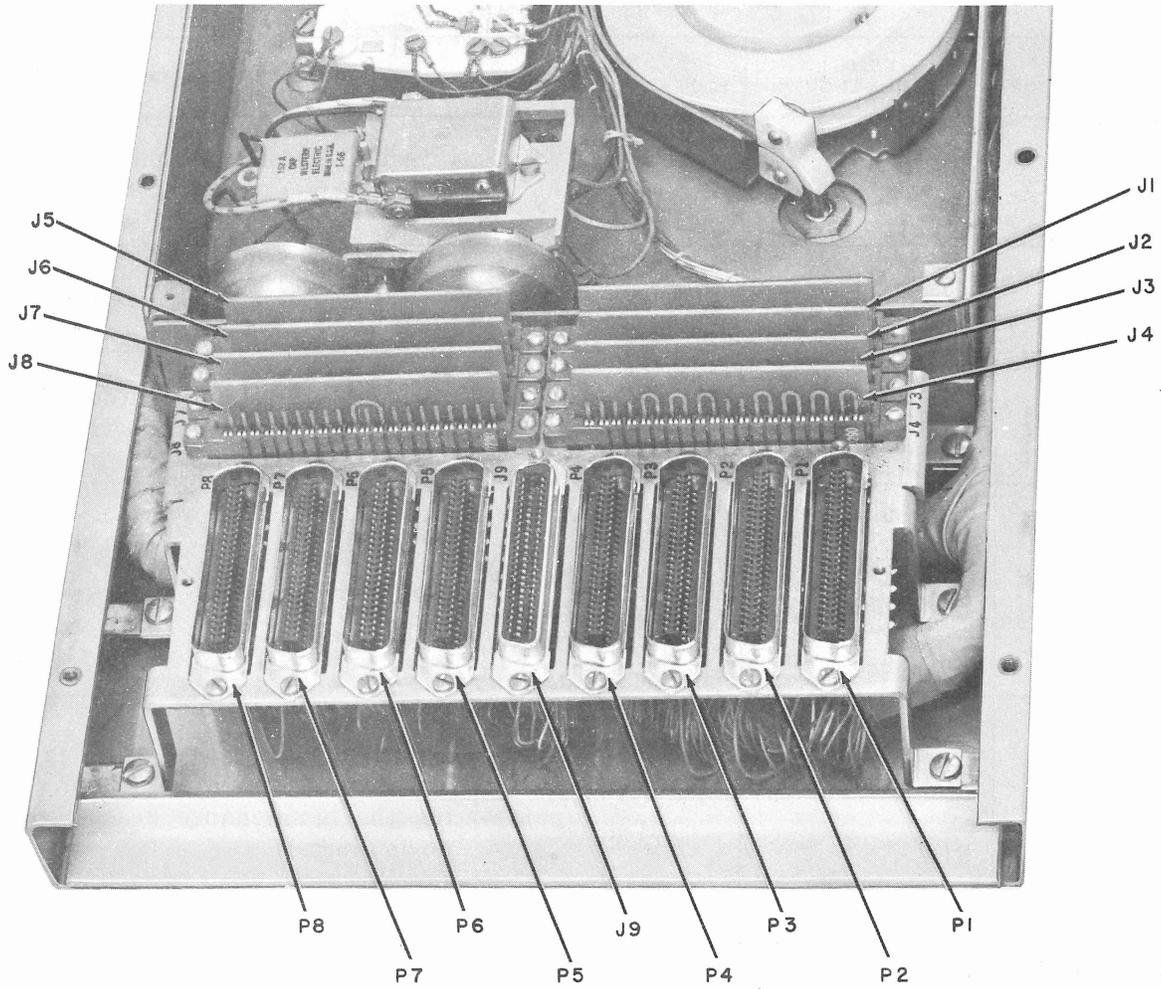


Fig. 6—Data Auxiliary Set 804L-Type, Identification of Connectors

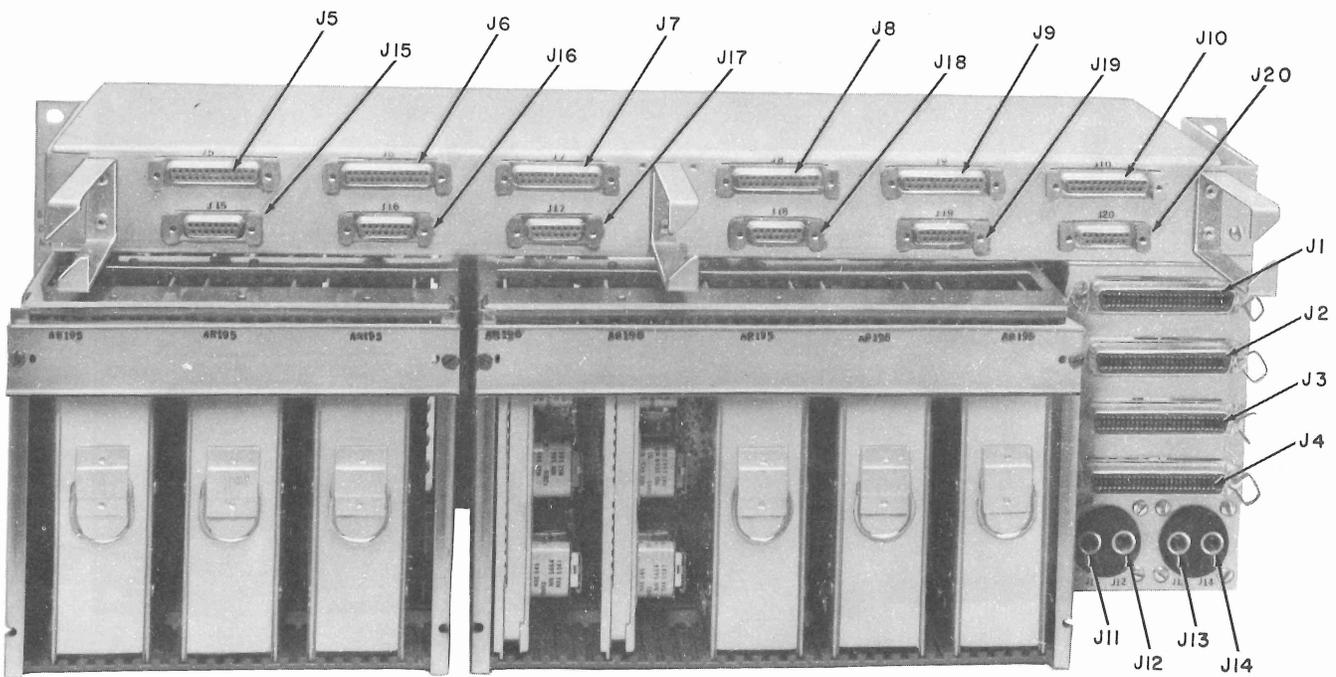


Fig. 8—5A-Type Data Mounting, Identification of Connectors

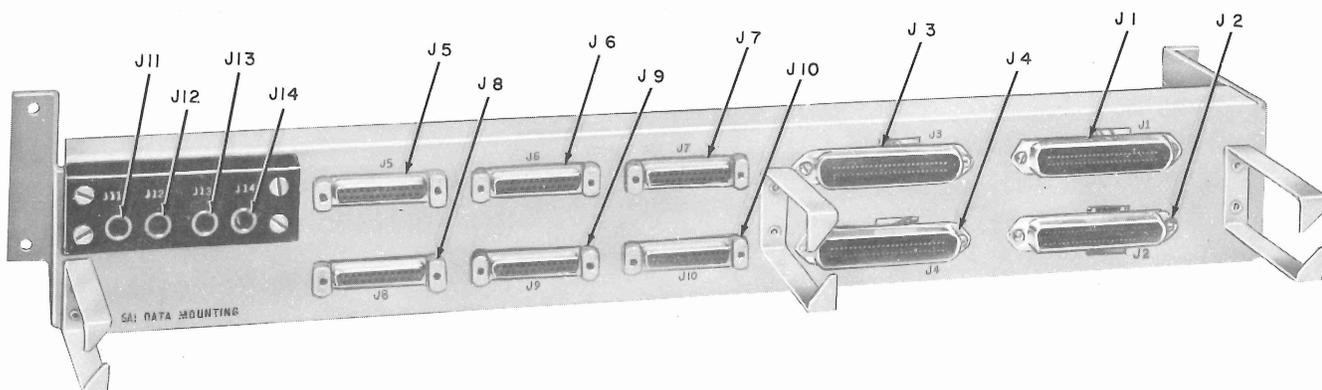


Fig. 9—6A-Type Data Mounting, Identification of Connectors

TABLE C

TERMINAL NUMBER OF J2 PLUG	COLOR CODE	LEAD DESIGNATION	CIRCUIT NUMBER OR LINE	DATA SET CONNECTED TO 5A OR 6A CONNECTOR
26	W-BL	T	1	J5
1	BL-W	R		
27	W-O	T1		
2	O-W	R1		
30	W-S	T	2	J6
5	S-W	R		
31	R-BL	T1		
6	BL-R	R1		
34	R-BR	T	3	J7
9	BR-R	R		
35	R-S	T1		
10	S-R	R1		
38	BK-G	T	4	J8
13	G-BK	R		
39	BK-BR	T1		
14	BR-BK	R1		
42	Y-O	T	5	J9
17	O-Y	R		
43	Y-G	T1		
18	G-Y	R1		
46	V-BL	T	6	J10
21	BL-V	R		
47	V-O	T1		
22	O-V	R1		

TABLE D

KS-20093 LIST NUMBER	DESCRIPTION	PURPOSE
L10A	Mounting plate for four KS-19087-L2 type interface connectors on the KS-20093-L1 cabinet (supplied with four P-174397 screws)	Used for four voice-band data set interface connectors
L10B	Mounting plate same as L10A except that the plate does not have cutouts for connectors	Blank plate to be removed or replaced as system expands
L10C	Mounting plate for terminating the customer end of two M24E cords on the KS-20093-L1 cabinet (supplied with four P-174397 screws)	Used for two wide-band data set interface connectors

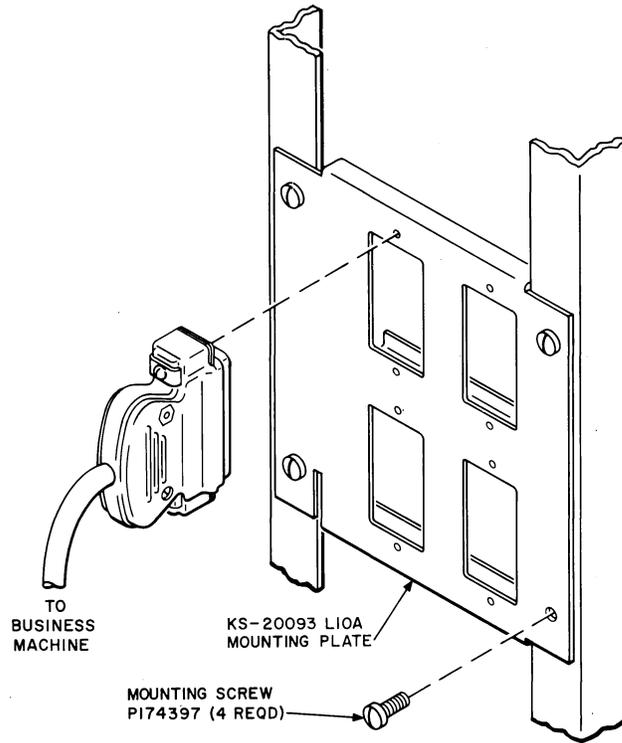


Fig. 10—Installation of an L10A Mounting Plate Showing the Mounting of a Customer Interface Connector

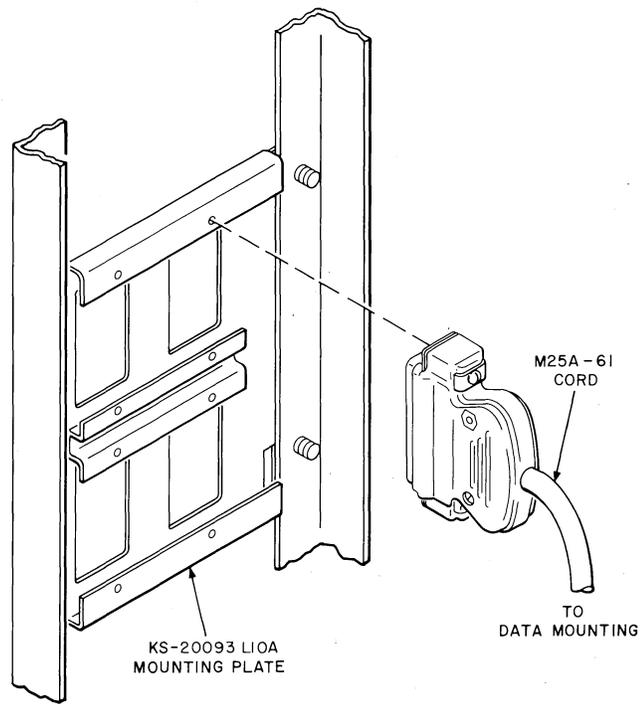


Fig. 11—Typical Installation of an M25A-61 Cord Connected to the Customer Interface Section L10A Mounting Plate, Rear View

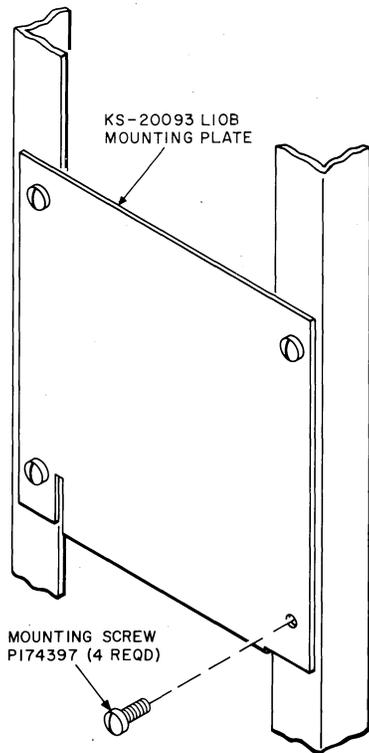


Fig. 12—Installation of the L10B Mounting Plate

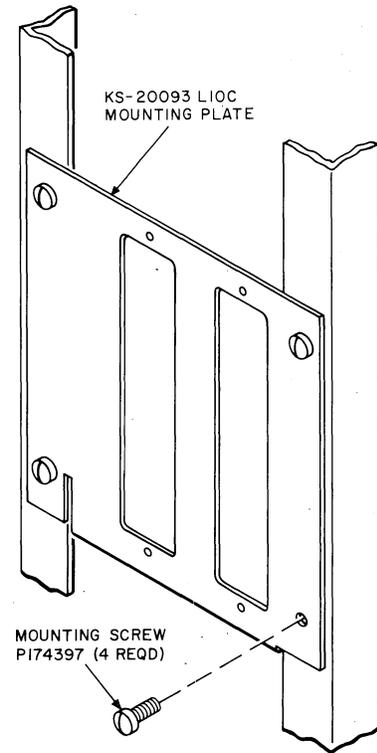


Fig. 13—Installation of the L10C Mounting Plate