

REPLACING PAGE ADDENDUM
Filing Instructions:

1. REMOVE FROM THE SECTION THE PAGES NUMBERED THE SAME AS THOSE ATTACHED TO THIS PINK SHEET.
2. INSERT THE ATTACHED PAGES INTO THE SECTION IN THEIR PLACE.
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DATA AUXILIARY SET 811B-TYPE INSTALLATION

1. GENERAL

1.001 This addendum supplements Section 598-049-200, Issue 2. The attached page must be inserted in the section in accordance with the filing instructions above.

1.002 This addendum is issued to add information on the equipment arrangement of the 1A Data Coupler, provide information on installing the X option in Data Auxiliary Sets 811B3 and 811B4 and to update the installation drawings.

2. EQUIPMENT ARRANGEMENTS AND CONNECTIONS

The following changes apply to Part 2 of this section.

- (a) Note added to paragraph 2.02
- (b) Additional information added to paragraph 2.03
- (c) Figures 6, 7, 8, and 9 Revised

Attached

- Page 3 dated November 1969—Revised
- Page 4 dated November 1969—Reissued
- Page 5 dated November 1969—Revised
- Page 6 dated November 1969—Reissued
- Page 13 dated November 1969—Revised
- Page 14 dated November 1969—Reissued
- Page 17 dated November 1969—Revised
- Page 23 dated November 1969—Revised
- Page 24 dated November 1969—Reissued
- Page 27 dated November 1969—Revised

DATA AUXILIARY SET 811B-TYPE

INSTALLATION

1. GENERAL

1.01 This section contains instructions for the installation of the Data Auxiliary Set 811B-type. This section does not cover the installation of any other equipment that is used in conjunction with the data auxiliary set. Modifications that are required to condition other units for operation with the data auxiliary set are included in this section.

1.02 This section is reissued to include coverage on the Data Auxiliary Set 811B3 and Data Auxiliary Set 811B4 and to update the information provided on the Data Auxiliary Set 811B1 and Data Auxiliary Set 811B2. Due to extensive changes, marginal arrows have been omitted. The Data Auxiliary Set 811B-type will be referred to in this section as a DAS 811B-type (or appropriate model number).

1.03 Installation procedures are identical for all models of the DAS 811B-type. All connector designations are the same, therefore physical and functional differences do not require separate installation procedures for each model. Where physical differences exist, eg, location of terminal blocks, figures showing these differences are provided. For additional information on the differences among models, refer to the practice

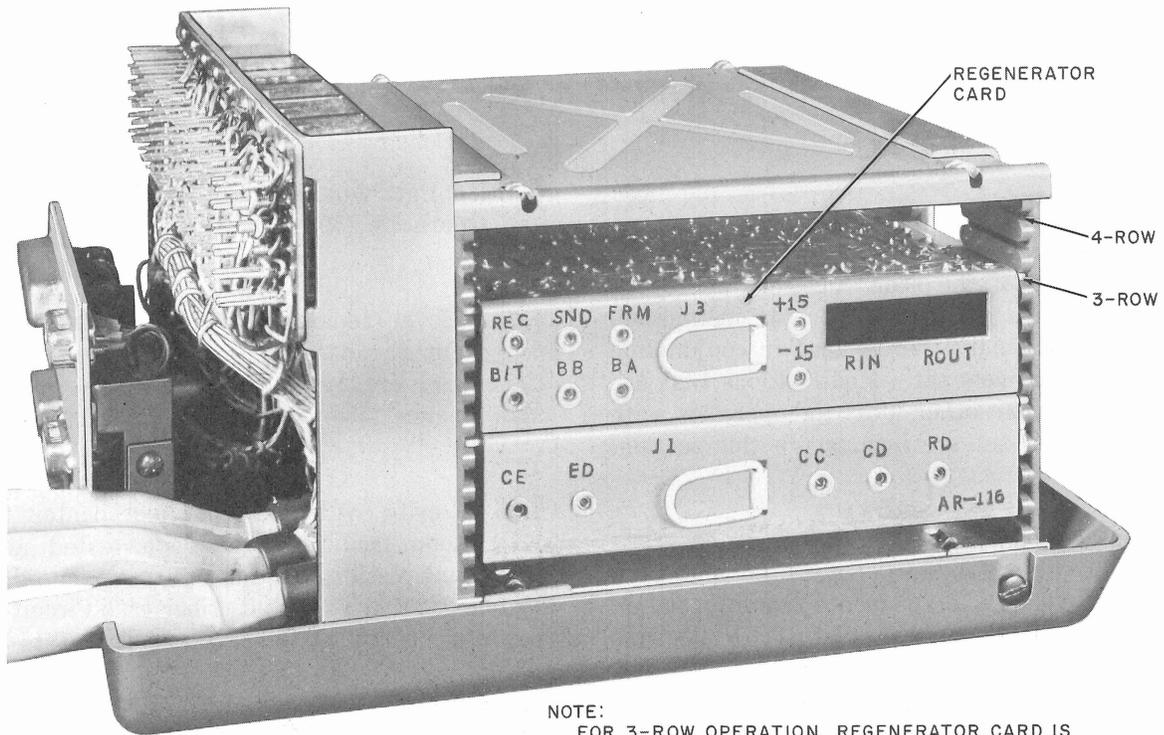
entitled Data Auxiliary Set 811B-Type—Description and Operation (598-049-100).

1.04 Cover removal and replacement procedures for the data auxiliary set are described in the section entitled Data Auxiliary Set 811B-Type—Maintenance (598-049-300).

1.05 Verify with the local test center that the loop facilities have been tested and meet the transmission requirements specified in the section entitled TWX Subscriber Line Circuit Order—Routing and Trouble Investigation Tests (314-300-300).

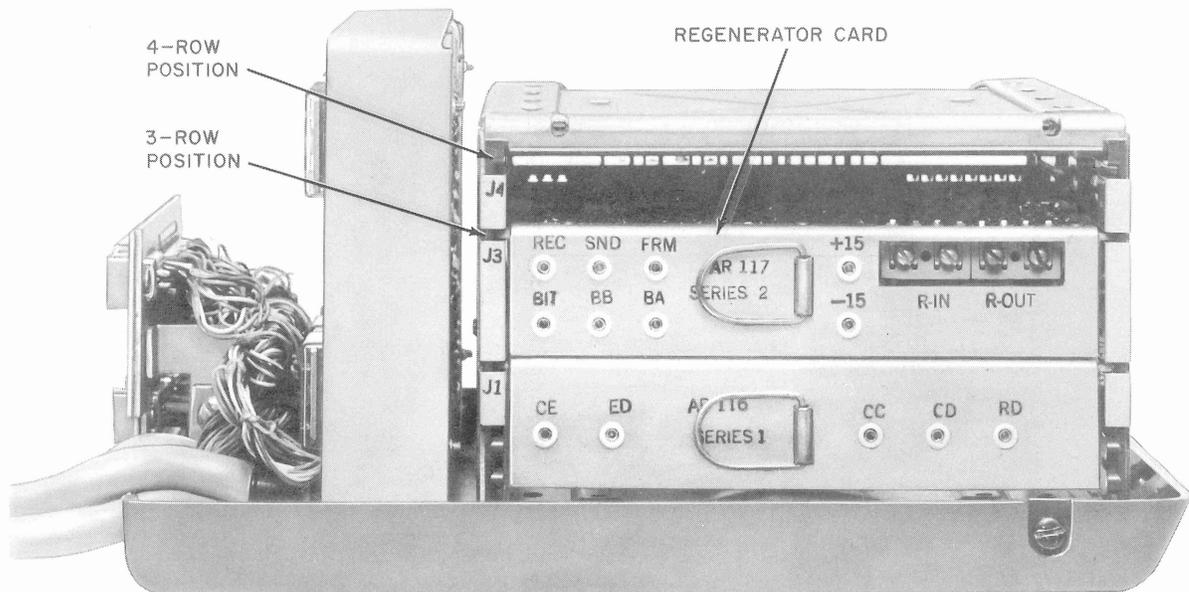
2. EQUIPMENT ARRANGEMENTS AND CONNECTIONS

2.01 The DAS 811B-type is designed for use in either 3-row or 4-row TWX service. This flexibility is achieved by inserting the CP AR117 signal regenerator card in the appropriate connector. The 3-row and 4-row positions of the signal regenerator card are shown by Fig. 1 and Fig. 2. The regenerator card positions for the DAS 811B1 and DAS 811B2 are shown by Fig. 1. The regenerator card positions for the DAS 811B3 and DAS 811B4 are shown in Fig. 2. The card positions for 3-row service and 4-row service are marked, on DAS 811B3 and DAS 811B4 models only, J3 for 3-row service and J4 for 4-row service.



NOTE:
FOR 3-ROW OPERATION, REGENERATOR CARD IS
POSITIONED AS SHOWN. FOR 4-ROW OPERATION,
REGENERATOR CARD IS PLACED IN 4-ROW
POSITION.

Fig. 1—Data Auxiliary Set 811B1 or 811B2 Regenerator Card Positions



NOTE:
 FOR 3-ROW OPERATION, REGENERATOR CARD IS POSITIONED
 AS SHOWN FOR 4-ROW OPERATION, REGENERATOR CARD IS
 INSERTED IN J4 (4-ROW) POSITION.

Fig. 2—Data Auxiliary Set 811B3 or 811B4 Regenerator Card Positions

2.02 Before starting installation of the DAS 811B-type, determine if an automatic calling unit (ACU) is to be provided as part of the installation. Refer to Fig. 3, Fig. 4, and the associated text (2.03) for information on arranging the DAS 811B-type for operation with or without an ACU. Also check to make sure that all components have the necessary option straps installed as given in 2.05 through 2.12.

◆**Note:** In order to make it possible for the TTY to function in the local mode when it is used with the Data Auxiliary Set 811B-type, the 1A Data Coupler must be arranged as follows:

- (1) Determine if the 1A Data Coupler circuit board contains a resistor designated R22.
- (2) When the coupler contains resistor R22, it must be strapped out by soldering a strap across the resistor leads.
- (3) The modified 1A coupler should be marked to indicate that this coupler has been modified for use with Data Auxiliary Set 811B-type; having resistor R22 short-circuited. If this coupler is reused with some other piece of equipment the short circuit across R22 must be removed.◆

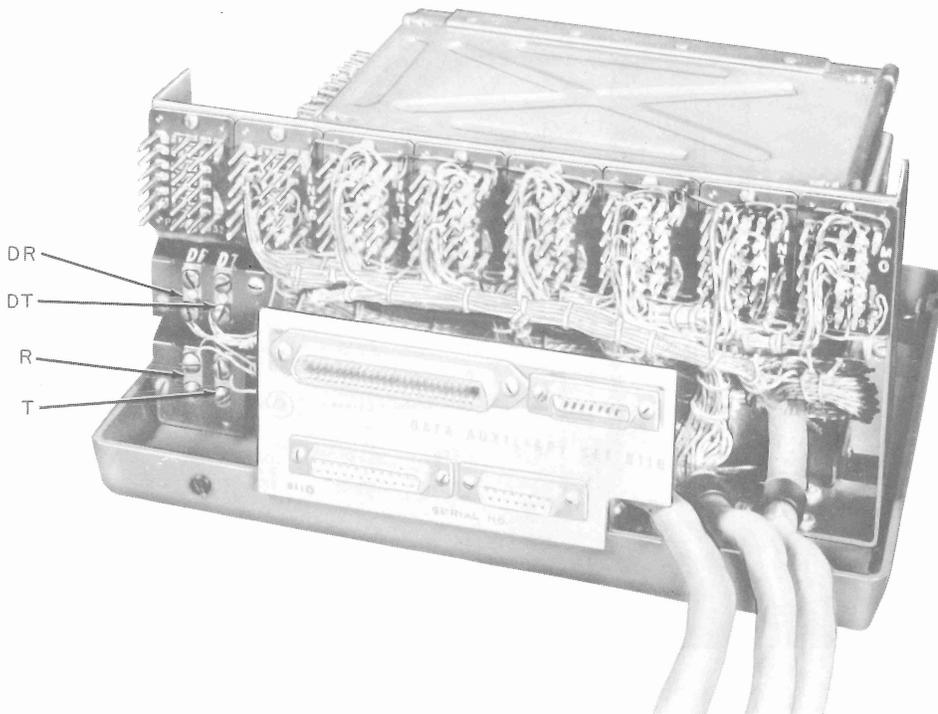


Fig. 3—Data Auxiliary Set 811B1 or 811B2 Terminal Block Location for Automatic Calling Unit Connections

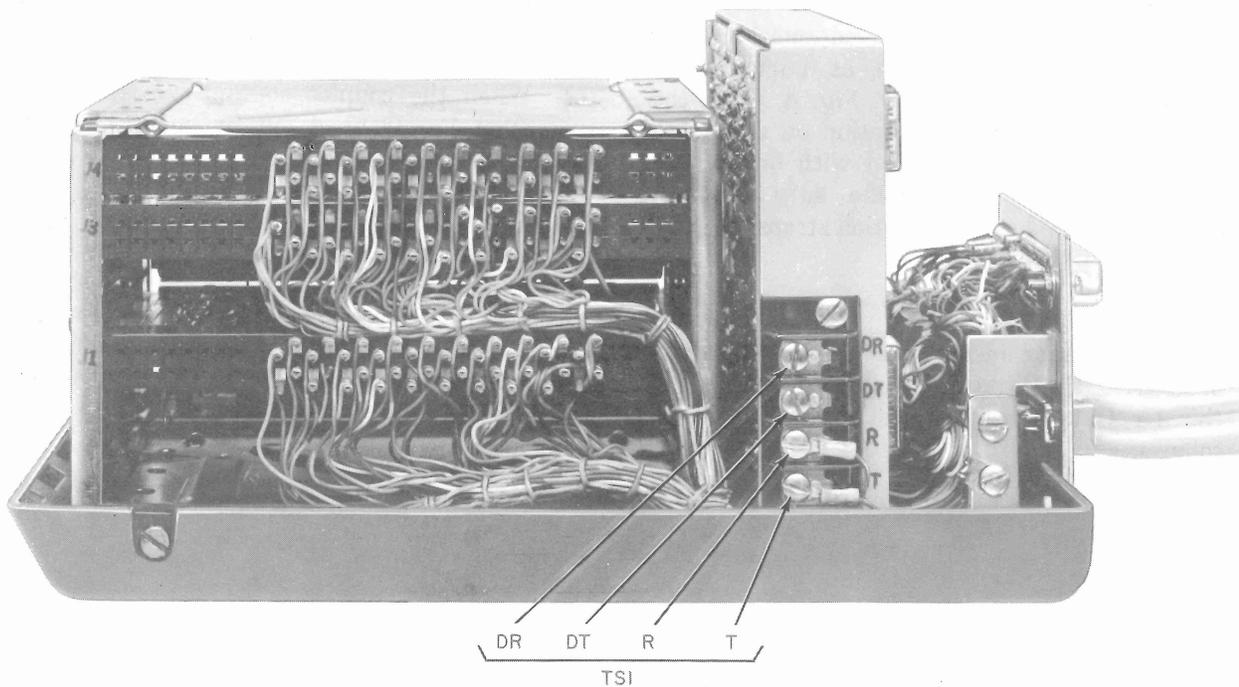


Fig. 4—Data Auxiliary Set 811B3 or 811B4 Terminal Block Location for Automatic Calling Unit Connections

2.03 When automatic calling capabilities are required, a Data Auxiliary Set 801A-type or 801C-type is provided and the factory installed X option is removed from the DAS 811B-type. If the X option has been previously removed, it must be reinstalled before the DAS 811B-type can be operated without an ACU. For information on installing and removing the X option, refer to Fig. 3, Fig. 4, and the following text.

◆Data Auxiliary Set 811B1 or 811B2◆

To install the X option (if previously removed):

- (1) Locate the stored blue wire and connect this wire to terminal TS1-T.
- (2) Remove the white wire on terminal DR and connect this wire to terminal TS1-R.

To remove the X option (when automatic calling capabilities are provided):

- (1) Remove the spade-tipped blue wire on terminal TS1-T. Tape and store this lead.
- (2) Remove the spade-tipped white wire on terminal TS1-R. Store this lead on terminal DR.

◆Data Auxiliary Set 811B3 or 811B4◆

To install the X option (if previously removed):

- (1) ◆Locate the stored green wire and connect◆ this wire to terminal TS1-T.
- (2) ◆Remove the brown wire on terminal DR◆ and connect this wire to terminal TS1-R.

To remove the X option (when automatic calling capabilities are provided):

- (1) ◆Remove the spade-tipped green wire on◆ terminal TS1-T. Tape and store this lead.
- (2) ◆Remove the spade-tipped brown wire on◆ terminal TS1-R. Store this lead on terminal DR.

2.04 A suitable cabinet must be provided to house the Data Sets 101-type and the data auxiliary sets when a multiple line installation is provided.

The DAS 811B-type must be placed in the cabinets in groups so that they can be interconnected by the M30B and M42B cords. For example, the first four data auxiliary sets must be placed in the same cabinet so that the M30B cord can be connected to all four data auxiliary sets. The remaining data auxiliary sets must be housed in groups of six in order to facilitate connections required using the M42B cord. A multiple data set cabinet KS-19643 L2 may be used for mounting this equipment. The KS-19643 L2 is a 66-inch cabinet. This cabinet is equipped with a power strip that provides for connecting the Data Sets 101-type and Data Auxiliary Sets 801-type to the customer furnished power.

Note: The DAS 811B-type must be placed in the cabinets in groups so that they can be interconnected by the M30B and M42B. To make the required connections using the M30B cord the first four 811Bs must be located in the same cabinet. Additional DAS 811Bs are mounted in groups of six to allow connection with the M42B cord. For example, if automatic calling capabilities are not provided, 16 811Bs can be housed in the first KS-19643 L2 cabinet. Refer to Fig. 5 for identification of the cords used to make the required connections. The previously described grouping of the data auxiliary sets is necessitated by the connector cord lengths (Fig. 5).

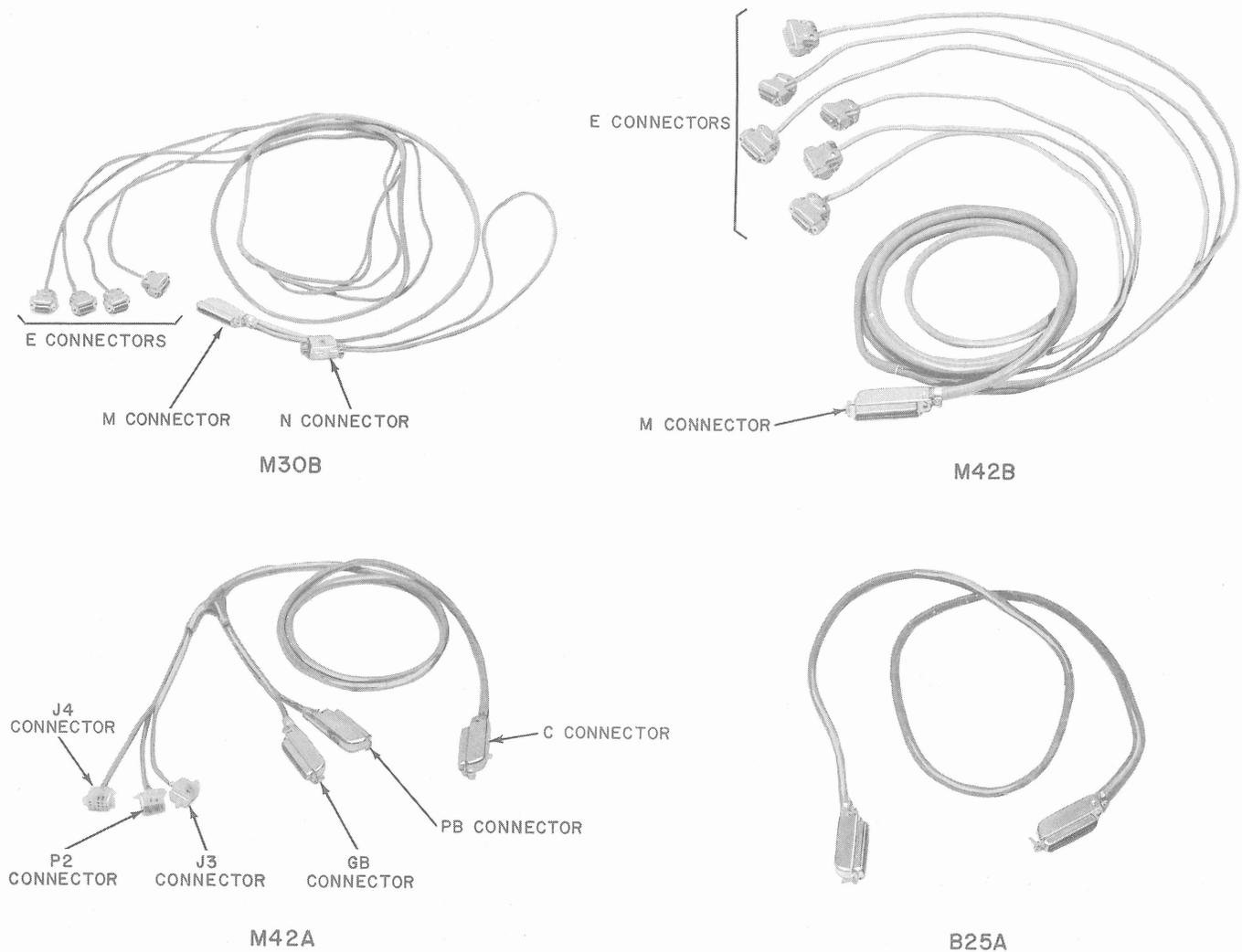


Fig. 5—Connecting Cables—Identification

3-ROW EQUIPMENT ARRANGEMENTS

2.05 The Data Set 101A or B is strapped for 3-row service as indicated in the following:

(1) Remove the link between terminals D67 and D68 and install a link to connect D66 to D67. This removes the N option and installs the M option. Option S or T may be used as required.

(2) When the Data Set 101A is used, the terminals must be strapped as follows:

- (a) Strap terminal D46 to terminal D26.
- (b) Strap terminal D12 to terminal D74.
- (c) Strap terminal D49 to terminal D58.
- (d) Strap terminal D47 to terminal D49.

(3) When using the Data Set 101A with the K option (K option can be recognized by the presence of a terminal strip containing terminals D76 through D85), strap the data set as follows:

- (a) D78 to D21
- (b) D77 to D17
- (c) D76 to D18.

(4) When using the Data Set 101A with the J option installed (J option can be recognized by the absence of the terminal strip containing terminals D76 through D85), make the following connections:

- (a) Move the spade lug on terminal D18 to terminal D45.
- (b) Strap D45 to D32.
- (c) Strap D18 to D21.

(5) When using the Data Set 101B, make the following connections:

- (a) Two spade lugs are stored on terminal D47. Remove these lugs from D47 and connect one to D49 and the other to D45.
- (b) Strap terminal D45 to terminal D26.
- (c) Strap terminal D49 to terminal D58.
- (d) Strap terminal D12 to terminal D74.
- (e) Remove and insulate the spade lug on D22. Label the removed lug.

2.06 Perform the following operations on the select magnet driver in the teletypewriter:

(1) Remove or add the following straps in the electrical service unit of the TTY as indicated. The "A" terminals are located on the selector magnet terminal block.

- (a) Remove the strap between A3 and A5.
- (b) Remove the strap between A4 and A6.
- (c) Remove the strap between A5 and C8.

(d) Remove the strap between A6 and C7.

(e) Connect a strap between A5 and C13.

(f) Connect a strap between A6 and C14.

(2) Arrange the select magnet driver for the 20 ma option operation.

(3) Mount the select magnet driver in the electrical service unit of the TTY.

(4) Connect the select magnet driver spade lugs attached to the TP points of the select magnet driver as follows:

- (a) Connect TP1 (GN) to terminal A5.
- (b) Connect TP6 (Y) to terminal A6.
- (c) Connect TP4 (BR) to terminal A3.
- (d) Connect TP5 (OR) to terminal A4.
- (e) Connect the two AC leads (BK) to terminal E2 and E9, respectively.

2.07 Provide 52A lamps under each LINE key and under the TTY-RLS key of the supplementary attendant set. All buttons should be labeled according to the lines they control.

2.08 When automatic calling capabilities are provided, the Data Auxiliary Set 801-type will have to be arranged for operation with the DAS 811B-type and the associated equipment as indicated in the following text. Several different models of the Data Auxiliary Set 801-type are available. The strapping and arrangements required for proper operation will therefore differ between models. Refer to the applicable sections of the following text and perform the indicated steps.

Note: For information on the location of the terminal boards in this practice, refer to the section entitled Data Auxiliary Set 801A-Type—Description and Operation (598-010-100) or the section entitled Data Auxiliary Set 801C-Type—Description and Operation (598-012-100 or 101).

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Data Auxiliary Set 801A1

(1) The Data Auxiliary Set 801A1 should be used only when a CPT cannot provide an end-of-number (EON) signal and when a Data Auxiliary Set 801A5 is not available. The Data Auxiliary Set 801A1 provides ACU answer detection and therefore does not require an EON signal. When this data auxiliary set is used, it shall be arranged as follows. The straps listed in (a) through (k) correspond to the installation of the Y, T, V, X, and Z options.

(a) Remove the D1OH, D1OP, or M14C cord, if the unit is equipped with one of these cords, and install a M14D cord. This cord has spade lugs on one end and a 15-pin connector (designated A) on the other end. Connect the cord to the data auxiliary set as indicated in Table A.

- (b) Strap terminal TB1-14 to terminal TB1-15.
- (c) Strap terminal TB1-35 to terminal TB1-36.
- (d) Strap terminal TB1-31 to terminal TB1-32.
- (e) Strap terminal TB1-28 to terminal TB1-29.
- (f) Strap terminal TB1-21 to terminal TB1-22.
- (g) Strap terminal TB1-17 to terminal TB1-18.
- (h) Strap terminal TB1-1 to terminal TB1-2.
- (i) Strap terminal TB1-5 to terminal TB1-6.
- (j) Strap terminal TB1-10 to terminal TB1-11.
- (k) Remove the Q option on the 811B by removing the strap between terminal TB2-DT and terminal TB2-D2.

TABLE A

CONNECTION OF M14D CORD TO DATA AUXILIARY SET 801 TYPE

CONDUCTOR COLOR	TERMINAL STRIP POSITION NUMBER	A PLUG TERM NUMBER	TERMINAL DESIGNATION IN ACU
BL-WH	P11	3	R
WH-BL	P13	12	T
OR-WH		9	G
WH-OR	P2	2	3
GN-WH	P8	1	DR
WH-GN	P10	10	DT
BR-WH	P6	7	D2
WH-BR	P7	13	D1
SL-WH	P4	4	SH1
WH-SL	P3	14	SH2
BL-RD		6	TK*
RD-BL	P12	11	C
OR-RD	P1	5	1
RD-OR	P9	8	2

*If the Data Auxiliary Set used is the 801A1, 801A4, 801C1 or 801C2 type, do not connect the BL-RD lead to the TK terminal. This lead must be insulated and left unused.

Data Auxiliary Set 801A4

(2) When a Data Auxiliary Set 801A4 is used, it must be arranged as indicated in (a) through (k). The Data Auxiliary Set 801A4 should be used only when the 801A5 is not available as the 801A4 requires the CPT to provide an EON signal. The straps installed in steps (b) through (j) correspond to installing the V, T, X, Y, and Z options.

(a) Remove the D10H, D10P, or M14C cord, if the unit is equipped with one of these cords, and install a M14D cord. This cord has spade lugs on one end and a 15-pin connector (designated A) on the other end. Connect the cord to the data auxiliary set as indicated in Table A.

(b) Strap terminal TB1-1 to terminal TB1-2.

(c) Strap terminal TB1-5 to terminal TB1-6.

(d) Strap terminal TB1-10 to terminal TB1-11.

(e) Strap terminal TB1-14 to terminal TB1-15.

(f) Strap terminal TB1-17 to terminal TB1-18.

(g) Strap terminal TB1-21 to terminal TB1-22.

(h) Strap terminal TB1-28 to terminal TB1-29.

(i) Strap terminal TB1-31 to terminal TB1-32.

(j) Strap terminal TB1-35 to terminal TB1-36.

(k) Remove the Q option by removing the strap connected between terminal TB2-DT and terminal TB2-D2.

Data Auxiliary Set 801A5

(3) The Data Auxiliary Set 801A5 is generally the most suitable of the dial pulsing ACUs for use with the DAS 811B-type. The 801A5 provides for data set answer without EON signaling by the CPT. When the Data Auxiliary Set 801A5 is used, it shall be arranged as follows. The straps installed in steps (b) through (m) correspond to installing the E, F, R, ZC, and ZD options.

(a) Remove the D10H, D10P, or M14C cord, if the unit is equipped with one of these cords, and install a M14D cord. This cord has spade lugs on one end and a 15-pin connector (designated A) on the other end. Connect the cord to the data auxiliary set as indicated in Table A.

(b) Strap terminal TB1-42 to terminal TB1-43.

(c) Strap terminal TB1-55 to terminal TB1-56.

(d) Strap terminal TB1-1 to terminal TB1-2.

(e) Strap terminal TB1-14 to terminal TB1-15.

(f) Strap terminal TB1-50 to terminal TB1-51.

(g) Strap terminal TB1-60 to terminal TB1-61.

(h) Strap terminal TB1-64 to terminal TB1-65.

(i) Strap terminal TB1-36 to terminal TB1-37.

(j) Strap terminal TB1-38 to terminal TB1-39.

(k) Strap terminal TB1-47 to terminal TB1-48.

(l) Strap terminal TB1-27 to terminal TB1-28.

(m) On the data auxiliary set circuit pack CP AS14, turn terminals 14 through 18 fully counterclockwise. Turn terminals 1 through 4 and terminals 6 through 12 fully clockwise. This corresponds to installing the ZF option.

(4) The following variations in the options provided by the data auxiliary set may be made by performing the following steps. If it is necessary to terminate a call via the CRO lead (call request being turned off) instead of using the CD (data terminal ready) lead the ZD option must be removed and the A option provided. This is accomplished by performing steps (a) and (b).

(a) Remove the strap connecting terminal TB1-60 to terminal TB1-61.

(b) Strap terminal TB1-61 to terminal TB1-62.

Data Auxiliary Set 801C1

(5) The Data Auxiliary Set 801C1 is the TOUCH-TONE® equivalent of the dial pulsing 801A4. This set should be used only when the preferred 801C3 model is not available, as the 801C1 requires the CPT to provide an EON signal. The straps installed in steps (b) through (h) correspond to installing the V and R options.

- (a) Remove the D10H, D10P, or M14C cord, if the unit is equipped with one of these cords, and install a M14D cord. This cord has spade lugs on one end and a 15-pin connector (designated A) on the other end. Connect the cord to the data auxiliary set as indicated in Table A.
- (b) Strap terminal TB1-7 to terminal TB1-8.
- (c) Strap terminal TB1-18 to terminal TB1-19.
- (d) Strap terminal TB1-20 to terminal TB1-21.
- (e) Strap terminal TB1-44 to terminal TB1-45.
- (f) Strap terminal TB1-24 to terminal TB1-25.
- (g) Strap terminal TB1-1 to terminal TB1-2.
- (h) Strap terminal TB1-46 to terminal TB1-47.
- (i) Remove the Q option by removing the strap connecting terminal TB1-9 and terminal TB1-10.
- (j) Remove the Z option by removing the strap connecting terminal TB1-11 and terminal TB1-12.
- (k) To terminate a call via CRQ, install the Z option by strapping TB1-11 to TB1-12.

Data Auxiliary Set 801C2

(6) The Data Auxiliary Set 801C2 is the TOUCH-TONE equivalent of the dial pulsing 801A1. It should be used only when a CPT cannot provide an EON signal and when the 801C3 model is not available. The 801C2 provides ACU answer detection and therefore does not require an EON signal. When this model of the data auxiliary set is used it should be arranged

as indicated by the following steps. The straps installed in steps (b) through (h) correspond to installing the V, R, T, and X options.

- (a) Remove the D10H, D10P, or M14C cord, if the unit is equipped with one of these cords, and install a M14D cord. This cord has spade lugs on one end and a 15-pin connector (designated A) on the other end. Connect the cord to the data auxiliary set as indicated in Table A.
 - (b) Strap terminal TB1-7 to terminal TB1-8.
 - (c) Strap terminal TB1-18 to terminal TB1-19.
 - (d) Strap terminal TB1-20 to terminal TB1-21.
 - (e) Strap terminal TB1-44 to terminal TB1-45.
 - (f) Strap terminal TB1-24 to terminal TB1-25.
 - (g) Strap terminal TB1-46 to terminal TB1-47.
 - (h) Strap terminal TB1-1 to terminal TB1-2.
 - (i) Remove the Q option by removing the strap connecting terminal TB1-9 and terminal TB1-10.
 - (j) Remove the Z option by removing the strap connecting terminal TB1-11 and terminal TB1-12.
- (7) The following variations in the options provided by the data auxiliary set may be made by performing the following applicable steps. If a ground start line cannot be furnished at a CPT, the Data Auxiliary Set 801C2 can be arranged for loop-start operation (dial tone detection) by performing the following steps. The straps removed and installed in steps (a) through (h) correspond to the removal of the V option and the installation of the Y option.
- (a) Remove the strap connecting terminal TB1-7 to terminal TB1-8.
 - (b) Remove the strap connecting terminal TB1-18 to terminal TB1-19.
 - (c) Remove the strap connecting terminal TB1-20 to terminal TB1-21.

- (d) Remove the strap connecting terminal TB1-44 to terminal TB1-45.
- (e) Strap terminal TB1-4 to terminal TB1-5.
- (f) Strap terminal TB1-17 to terminal TB1-18.
- (g) Strap terminal TB1-56 to terminal TB1-57.
- (h) To terminate a call via CRQ, add Z option by strapping TB1-11 to TB1-12.

Data Auxiliary Set 801C3

(8) The Data Auxiliary Set 801C3 is the TOUCH-TONE equivalent of the dial pulsing 801A5 and is generally the most suitable of the TOUCH-TONE automatic calling units. The 801C3 provides for data set answer detection without EON signaling by the CPT. Arrange the data auxiliary set as indicated in the following steps. Refer to options ZM, V, ZH, F, R, E, ZD, and ZC.

- (a) Remove the D10H, D10P, or M14C cord, if the unit is equipped with one of these cords, and install a M14D cord. This cord has spade lugs on one end and a 15-pin connector (designated A) on the other end. Connect the cord to the data auxiliary set as indicated in Table A.
- (b) Strap terminal TB1-6 to terminal TB1-7.
- (c) Strap terminal TB1-19 to terminal TB1-20.
- (d) Strap terminal TB1-32 to terminal TB1-33.
- (e) Strap terminal TB1-11 to terminal TB1-12.
- (f) Strap terminal TB1-45 to terminal TB1-46.
- (g) Strap terminal TB1-58 to terminal TB1-59.
- (h) Strap terminal TB1-22 to terminal TB1-23.
- (i) Strap terminal TB1-10 to terminal TB1-11.
- (j) Strap terminal TB1-24 to terminal TB1-25.
- (k) Strap terminal TB1-34 to terminal TB1-35.

- (l) Strap terminal TB1-1 to terminal TB1-2.
- (m) Strap terminal TB1-3 to terminal TB1-4.
- (n) Strap terminal TB1-16 to terminal TB1-17.
- (o) Strap terminal TB1-29 to terminal TB1-30.
- (p) Strap terminal TB1-53 to terminal TB1-54.
- (q) Strap terminal TB1-64 to terminal TB1-65.
- (r) Strap terminal TB1-51 to terminal TB1-52.
- (s) Strap terminal TB2-DLA to terminal TB2-DLB.
- (t) Remove the Q option by removing the strap connecting terminal TB1-4 to terminal TB1-5.
- (u) Remove the ZG option by removing the strap connecting terminal TB1-27 to terminal TB1-28.

(9) The following variations in the option provided by the data auxiliary set may be made by performing the following applicable steps. If it is necessary to terminate a call via the CRQ lead (call request lead being turned off) instead of the CD lead (data terminal ready) being used, perform step (a). This corresponds to removing the ZD option and installing the A option.

- (a) Strap terminal TB1-40 to terminal TB1-41.

Note: Arrangements for the Data Auxiliary Set 801C4 are not given in this section as the 801C4 can be easily converted to a 801C3 model and arranged as indicated in the preceding text.

4-ROW EQUIPMENT ARRANGEMENTS

2.09 The Data Set 101C is strapped for 4-row service as follows:

- (1) Option S or T may be provided as required.
- (2) Strap terminal D12 to terminal D74.

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2.10 If ground-start operation is required on any of the TWX lines, the teletypewriter attendant set should be arranged as indicated below:

- (1) Add two wires to the unused make contacts of the ORIG key.
- (2) Connect the fixed contact to TS3-10.
- (3) Connect the make contact to TS2-3 (for 33-type machines) or F2 (for 35-type machines). The lead length of the second wire should be sufficient to reach TS3-10. When ground-start is not used at the station, both wires should be stored on terminal TS3-10. On 35 TTY units, the TS3 terminals are designated H.

2.11 Provide a 52A lamp under each line button and under the TTY-RLS button of the supplementary attendant set.

2.12 Check to assure that the automatic calling unit is correctly arranged for operation. Refer to 2.08 for information on the arrangement of automatic calling units.

3-ROW EQUIPMENT MOUNTING AND SINGLE LINE INSTALLATION

2.13 After completion of the necessary equipment arrangements given in the preceding text, a

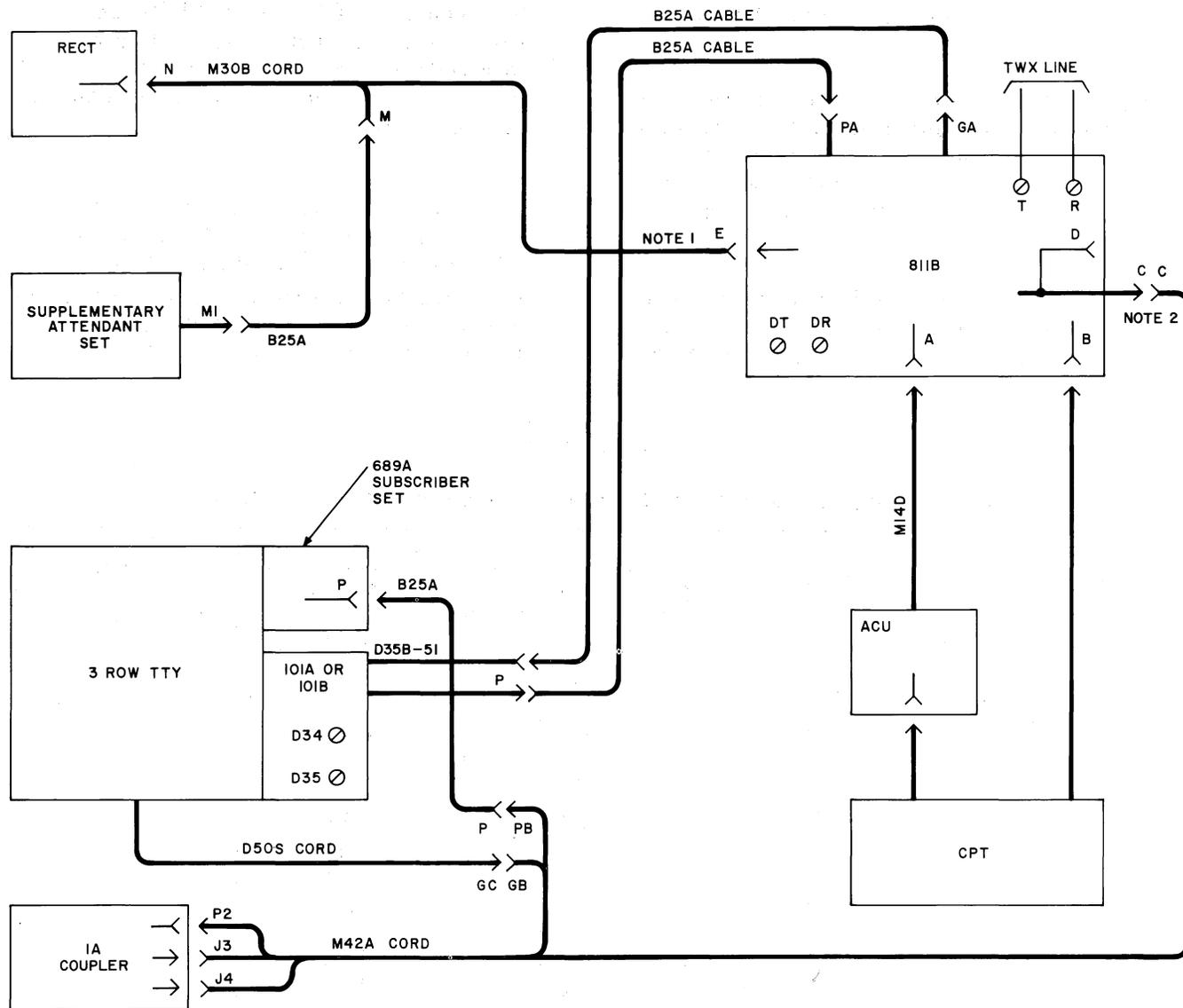
3-row service single line station is installed as follows:

- (1) Mount the Data Set 101A or 101B on the right side of the 28-type TTY together with the 689 subscriber set.
- (2) Place the 1A coupler and the semiconductor rectifier in the space behind the kneewell of the TTY machine.
- (3) The DAS 811B1 or DAS 811B3 is located on a nearby shelf or table.
- (4) The Data Auxiliary Set 801-type is also placed on a nearby shelf or table when it is used to provide automatic calling capabilities.
- (5) The 6040J keyset (supplementary attendant set) is placed in a convenient location which may be on a table or on top of the subscriber set.



No power connections should be made to any equipment or part of the station until specific instructions to do so are given by this text.

- (6) Make the following connections using the cords listed below. Also refer to Fig. 6 for additional information on the connections required when installing the station. The cords listed are required for a single line station providing 3-row service.



NOTES:

1. ON SINGLE LINE INSTALLATIONS ONLY THE E CONNECTOR FOR THE FIRST LINE IS USED. THE OTHER THREE E CONNECTORS ARE NOT USED.
2. A B25A CABLE MAY BE REQUIRED TO MAKE THIS CONNECTION, DEPENDING ON THE PHYSICAL PLACEMENT OF THE UNITS.
3. TO TEST THE STATION AS A TWX FACILITY, CONNECT THE DATA SET TERMINALS D34 AND D35 TO DT AND DR, RESPECTIVELY, ON THE DAS 811B-TYPE.

Fig. 6—3-Row TWX Access for CPT—Connections for a Single Line

(a) **1—M42A Cord:** The connectors of the M42A cord are connected to the equipment as follows: The P2, J3, and J4 connectors are connected to the 1A coupler. The GB connector is connected to the GC connector of the D50S cord from the TTY. The PB connector is connected to the P connector of the subscriber set. The C connector is connected to the DAS 811B-type. One of the B25A

connector cables listed in (f) may be required to make this connection.

(b) **1—M30B Cord:** The connectors of the M30B cord are connected to the equipment as follows: The M connector connects to the supplementary attendant set. The N connector connects to the rectifier. The E connector

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connects to the applicable connector on the DAS 811B-type.

(c) **1—M14D Cord:** This cord is required for stations with automatic calling capabilities for connecting the Data Auxiliary Set 801-type to the DAS 811B-type. Information on installing this cord is given in 2.08 Table A of this practice.

(d) **1—D35B-51 Cord:** This cord and connector provides a 50-pin female connector from the Data Set 101A or 101B to mate with the

GA connector of the DAS 811B-type via a B25A connector cable. Table B gives the connections required for connecting the D35B-51 cord to the D terminal strip of the Data Set 101A or 101B.

(e) **1—D50S Cord:** This cord provides a 50-pin male connector from the 28-type TTY machine to mate with the GB connector of the M42A cord. Table C gives the connections required to connect the D50S cord to the C terminal strip of the 28-type TTY.

TABLE B

CONNECTION OF D35B-51 CORD TO D TERMINAL STRIP OF THE DATA SET 101A OR 101B

CONN. END TERM.	COND. COLOR	DATA SET END		SEE NOTE
		POS. NO.	D TERM STRIP	
1	BL-WH	14	D68	
3	OR-WH	34	D68	
4	WH-OR	17	D69	
6	WH-GN	27	D62	
7	BR-WH	18	D67	
9	SL-WH	19	D71	
23	OR-BK	13	D70	
35	SL-BK	16	D61	1
44	YEL-BL	6	D58	

Add strap between terminals D49 and D58

Note 1: The SL-BK lead is dead-ended. A P-17A227 spade lug type cord tip may be added.

TABLE C

CONNECTION OF D50S CORD TO THE C TERMINAL STRIP OF A 28-TYPE TELETYPEWRITER

CONN. END TERM.	COND. COLOR	TERM. STRIP POS. NO.	GROUP NO.	"C" TERM. STRIP
3	GN-WH	P8	2	C14
4	BR-WH	P16	3	C9
6	BL-RD	P13	3	C32
7	OR-RD	P21	4	C13
9	BR-RD	P18	4	C15
23	GN-VIO		1	C11
35	RD-SL	P25	5	C12
44	YEL-BR		9	Protective Gnd.

(f) Make the cable connections indicated in the following text. The B25A connector cables are used as required to make these connections.

- Connect the C connector of the M42A cord to the C connector of the DAS 811B-type. When the DAS 811B-type is located near the TTY, this cord is not required.
- Connect the GA connector of the DAS 811B-type to the D35B-51 cord from the Data Set 101A or 101B. The D35B-51 connector is designated GC.
- Connect the P connector of the 689A subscriber set to the PB connector of the M42A cord. Swap the hood on the male connector (KS-16689 L3) on this cable for the hood on the male connector (KS-16689 L1) on the D50F-51 cord on the Data Set 101A or 101B. This provides the small hood needed for connection to the 689 subscriber set.
- Connect the P connector of the Data Set 101A or 101B to the PA connector of the DAS 811B-type.

(7) Using the customer-furnished connecting cords connect the CPT as follows:

Note: When automatic calling capabilities are provided, the customer-furnished connectors must be adequately identified so that the correct connector will be used to connect the DAS 811B-type and Data Auxiliary Set 801-type to the CPT. This identification is very important as the connectors are of the same type and polarity.

- (a) Connect the CPT to the B connector of the DAS 811B-type.
 - (b) Connect the CPT to the Data Auxiliary Set 801-type. (The Data Auxiliary Set 801-type is not provided when automatic calling capabilities are not required.)
- (8) Using a twisted pair of wires, connect the D34 and D35 terminals of the Data Set 101A or 101B to the DT and DR terminals, respectively, of the DAS 811B1.
- (9) Connect the TWX line to the T and R terminals of the DAS 811B-type.

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- (10) Connect the power cords of the station units to the power receptacles provided.

3-ROW EQUIPMENT MOUNTING AND MULTIPLE LINE INSTALLATION

2.14 After completion of the necessary equipment arrangements, a 3-row service multiple line station is installed as follows:

- (1) The Data Set 101A or 101B associated with the first line of the station is mounted on the right side of the 28-type TTY together with the 689A subscriber set. The Data Sets 101A or 101B associated with the other lines are mounted in KS-19643 cabinets.
- (2) The DAS 811B2s or DAS 811B4s are also mounted in the KS-19643 cabinets. In a multiple line installation, the DAS 811B2 or DAS 811B4 is used, as no case is required when the data auxiliary sets are cabinet-mounted. The DAS 811B2 or DAS 811B4 should be placed in the cabinet with the printed circuit cards facing outward.

Note: The DAS 811B2s or DAS 811B4s must be placed in the cabinets in groups so that they can be interconnected by the M30B and M42B cords. To make the required connections using the M30B cord, the first four DAS 811B2s or DAS 811B4s must be located in the same cabinet. Additional DAS 811B2s or DAS 811B4s are mounted in groups of six to allow connection with the M42B cord. For example, if automatic calling capabilities are not provided, 16 811Bs can be housed in the first KS-19643 L2 cabinet.

- (3) Place the semiconductor rectifier in the bottom of the cabinet containing the Data Auxiliary Sets 811B2 or DAS 811B4.

- (4) Place the 1A coupler in the space behind the kneewell of the TTY.

- (5) When automatic calling capabilities are required, Data Auxiliary Sets 801-type are provided and are mounted in the KS-19643 type cabinets along with the DAS 811B2 or DAS 811B4. Each Data Auxiliary Set 801-type must be placed in the same cabinet as the DAS 811B2 or DAS 811B4 with which it is associated. This is necessary as the two sets are connected by the M14D cord. The DAS 811B2s or DAS 811B4s should be placed at the bottom of the cabinet and the associated 801s should be placed at the top of the cabinet.

- (6) The supplementary attendant set must be placed in a convenient location near the TTY machine. A nearby shelf or table may be used.



No power connections should be made to any equipment or part of the station until specific instructions to do so are given in this text.

- (7) Make the following connections using the cords listed in the following. Also refer to Fig. 7 for additional information on the connections required when installing a station. The cords listed are required for a multiple line station providing 3-row TWX service.

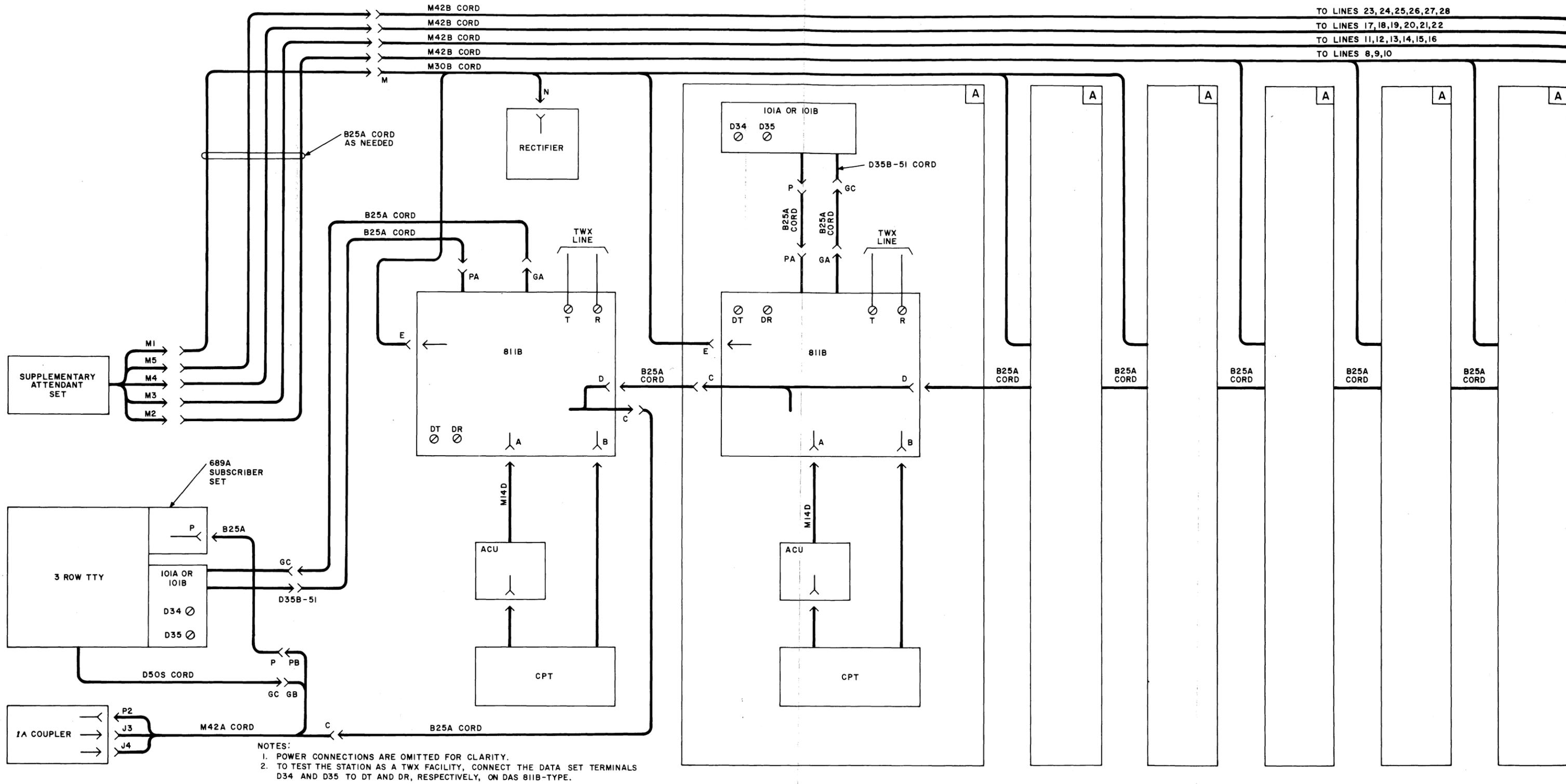


Fig. 7—3-Row TWX Access for CPT—Connections for Multiple Lines

(a) **1—M42A Cord:** The connectors of the M42A cord are connected to the equipment as follows: The P2, J3, and J4 connectors are connected to the 1A coupler. The GB connector is connected to the GC connector of the D50S cord from the TTY. The PB connector is connected to the P connector of the subscriber set. The C connector is connected to the DAS 811B-type. One of the B25A connector cables listed in (g) may be required to make this connection.

(b) **1—M30B Cord:** The connectors of the M30B cord are connected to the equipment as follows: The M connector connects to the

supplementary attendant set. The N connector connects to the rectifier. The E connectors connect to the applicable connectors on the DAS 811B-type.

(c) **M42B Cords:** The connectors of the M42B cord are connected to the equipment as follows: The M connector connects to the applicable connector on the supplementary attendant set. The E connectors connect to the applicable connectors on the DAS 811B2s or DAS 811B4s. The number of cords required depends on the number of TWX lines installed. Refer to Table D for information on the number of cords required.

TABLE D

LINE CAPACITY OF SUPPLEMENTARY ATTENDANT SETS AND CORDS REQUIRED

LINE CAPACITY	KEY UNIT SET	CORDS		SEE NOTE NO.
		NO. REQ.	CODE	
1-4	One 6040J Key	1	M30B	4
1-16	One Graybar Key Mounting	1 2	M30B M42B	1,3,4
1-16	630 D7 Telephone Set	1 2	M30B M42B	2,4,5
1-28	631 D12 Telephone Set	1 4	M30B M42B	2,4,5
5-9	One 6040J Key, One 6040G Key	1 1	M30B M42B	4
10-14	One 6040J Key, Two 6040G Key	1 1	M30B M42B	3
17-33	Two Graybar Key Mountings	1 5	M30B M42B	1,3,4
17-33	One 630 D7 Telephone Set, One Graybar Key Mounting	1 5	M30B M42B	1,2,3,4,5
17-45	One 631 D12 Telephone Set, One Graybar Key Mounting	1 7	M30B M42B	1,2,3,4,5
34-50	Three Graybar Key Mountings	1 8	M30B M42B	1,3,4

Note 1: First set has 599B Key in the first module. Second and third sets have 599A Key in first module. All other keys are 598A type.

Note 2: When 630 or 631 Telephone Sets are specified the handset ringer and dial are not part of the 811B1 setup.

Note 3: When the Graybar key mounting is specified, the following components are required:

Graybar Key Mounting GB-888 D-120C Cord (1 Req.)

P-11E062 Frame, Mounting Assembly (1 Req.)

P-11E061 Spring, Coil (1 Req.)

P-44E080 Bar, Pivot (1 Req.)

P-44E362 Special Flat Fil. H. M. Screw (7 Req.)

P-44E193 Screw F. Fil. Hd. Shld. (2 Req.)

Note 4: See Note 1 for required keys. All lamps are 52A type.

(d) **1—M14D Cord:** This cord is required for stations with automatic calling capabilities for connecting the Data Auxiliary Set 801-type

to the DAS 811B-type. One cord will be required for each line being provided with automatic calling capabilities, ie, for each Data

Auxiliary Set 801-type provided. Information on installing this cord is given in 2.08 Table A of this practice.

(e) **1—D35B-51 Cord:** This cord and connector provide a 50-pin female connector from the Data Set 101A or 101B to mate with the GA connector of the DAS 811B-type via a B25A connector cable. One cable will be required for each Data Set 101A or 101B to connect it to its respective DAS 811B-type. Table B gives the connections required for connecting the D35B-51 cable to the D terminal strip of the Data Set 101A or 101B.

(f) **1—D50S Cord:** This cord provides a 50-pin male connector from the 28-type TTY machine to mate with the GB connector of the M42A cord. Table C gives the connections required to connect the D50S cord to the C terminal strip of the 28-type TTY.

(g) Make the following cable connections. The B25A connector cables are used as required to make these connections. The number of cables required will depend on the number of TWX lines provided and the placement of the equipment.

- Connect the C connector of the M42A cord to the C connector of the DAS 811B2 or DAS 811B4 associated with the first line of the station.
- Connect the P connector of the Data Set 101A or 101B to the PA connector of the associated DAS 811B2 or DAS 811B4. One cord will be required for each line provided.
- Connect the GC connector of the Data Set 101A or 101B to the GA connector of the associated DAS 811B2 or DAS 811B4. One cord will be required for each line provided.
- Connect the P connector of the 689A subscriber set to the PB connector of the M42A cord. Swap the hood on the male connector (KS-16689 L3) on this cable for the hood on the male connector (KS-16689 L1) on the D50F-51 cord on the Data Set 101A or 101B. This provides the small hood needed for connection to the 689A subscriber set.

- Connect the M1 connector of the supplementary attendant set to the M connector of the M30B cord.

- Connect the D connector of the line 1 DAS 811B-type to the C connector of the line 2 DAS 811B-type. Connect the line 2 DAS 811B-type to the line 3 set. Continue connecting the sets in this manner until all the DAS 811B2s or DAS 811B4s are interconnected in the above manner. It will not be necessary to use B25A connector cables when the data auxiliary sets are located close to each other.

Note: The D connector of the DAS 811B-type connected or assigned to the last line will not be used.

- When a multiple line installation requires the use of M42B cords to connect the supplementary attendant set to the DAS 811B2 or DAS 811B4, the M connector of the M42B cord will be connected to the appropriate M connector of the supplementary attendant set by using a B25A cord. The number of these connections required depends on the number of lines provided. Refer to Table D for the number of M42A cords required for the installation.

- (8) Using the customer-furnished connecting cords, connect the CPT as follows:

Note: When automatic calling capabilities are provided, the customer-furnished connectors must be adequately identified so that the correct connector will be used to connect the DAS 811B-type and Data Auxiliary Set 801-type to the CPT. This identification is very important as the connectors are of the same type and polarity.

(a) Connect the CPT to the B connector of the DAS 811B-type.

(b) Connect the CPT to the Data Auxiliary Set 801-type. (The Data Auxiliary Set 801-type is not provided when automatic calling capabilities are not required.)

- (9) Using a twisted pair of wires, connect the D34 and D35 terminals of the Data Set 101A or 101B to the DT and DR terminals, respectively,

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of the DAS 811B2 or DAS 811B4. This operation is repeated for each line of the station.

- (10) Connect a TWX line to the T and R terminals of each DAS 811B2 or DAS 811B4.
- (11) Connect the power cords of the station units to the power receptacles provided.

4-ROW EQUIPMENT MOUNTING AND SINGLE LINE INSTALLATION

2.15 After completion of the necessary equipment arrangements, a 4-row service single line station is installed as follows:

- (1) When the station is equipped with a 33-type TTY, the Data Set 101C is mounted inside the TTY cabinet. When the station is equipped with a 35-type TTY, the Data Set 101C is mounted on a 35-type TTY apparatus mounting rack inside the TTY.
- (2) The semiconductor rectifier and the 1A coupler are mounted inside a Teletype Corporation cabinet No. 183500.

(3) The DAS 811B1 or DAS 811B3 is placed on the top of the cabinet or in a convenient location.

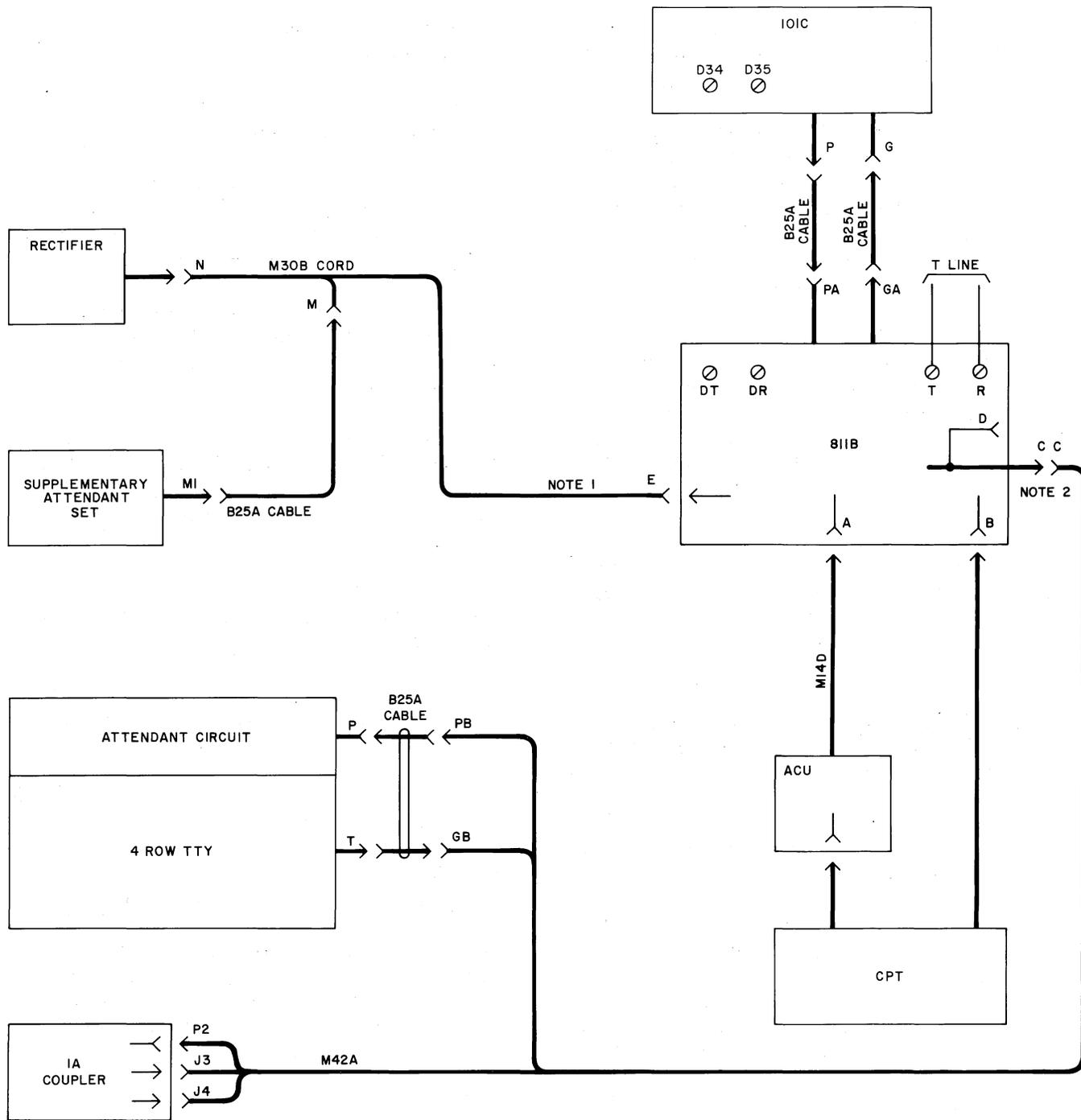
(4) The Data Auxiliary Set 801-type is placed on the top of the cabinet or in a convenient location close to the DAS 811B1 or DAS 811B3.

(5) The 6040J keyset is placed on top of the cabinet or in a convenient location.



No power connections should be made to any equipment or part of the station until specific instructions to do so are given by this text.

(6) Make the following connections using the cords listed. Also refer to Fig. 8 for additional information on the connections required when installing the station. The cords listed are required for a single line station providing 4-row TWX service.



NOTES:

1. ON SINGLE LINE INSTALLATIONS ONLY THE E CONNECTOR FOR THE FIRST LINE IS USED. THE OTHER THREE E CONNECTORS ARE NOT USED.
2. A B25A CABLE MAY BE REQUIRED TO MAKE THIS CONNECTION, DEPENDING ON THE PHYSICAL PLACEMENT OF THE UNITS.
3. TO TEST THE STATION AS A TWX FACILITY, CONNECT THE DATA SET TERMINALS D34 AND D35 TO DT AND DR, RESPECTIVELY, ON DAS 8I1B-TYPE.

▶Fig. 8—4-Row TWX Access for CPT—Connections for a Single Line◀

(a) **1—M42A Cord:** The connectors of the M42A cord are connected to the equipment as follows: The P2, J3, and J4 connectors are connected to the 1A coupler. The PB connector is connected to the cord that comes from the attendant circuit of the TTY. The GB connector is connected to the cord that comes from the TTY. The C connector is connected to the DAS 811B-type. One of the B25A connector cables listed in (d) may be required to make this connection.

(b) **1—M30B Cord:** The connectors of the M30B cord are connected to the equipment as follows: The M connector connects to the supplementary attendant set. The N connector connects to the rectifier. The E connector connects to the applicable connector on the DAS 811B-type.

(c) **1—M14D Cord:** This cord is required for stations with automatic calling capabilities for connecting the Data Auxiliary Set 801-type to the DAS 811B-type. Information on installing this cord is given in 2.08 and Table A of this practice.

(d) Make the following cable connections. The B25A connector cables are used as required to make these connections.

- Connect the P connector on the Data Set 101C to the PA connector on the DAS 811B-type.
- Connect the G connector on the Data Set 101C to the GA connector on the DAS 811B-type.
- Connect the P connector on the TTY machine to the PB connector on the M42A cord.
- Connect the T connector on the TTY machine to the GB connector on the M42A cord.

(7) Using the customer-furnished connecting cords, connect the CPT as follows:

Note: When automatic calling capabilities are provided, the customer-furnished connectors must be adequately identified so that the correct connector will be used to connect the DAS 811B-type and Data Auxiliary Set 801-type to the CPT. This identification is very

important as the connectors are of the same type and polarity.

(a) Connect the CPT to the B connector of the DAS 811B-type.

(b) Connect the CPT to the Data Auxiliary Set 801-type. (The Data Auxiliary Set 801-type is not provided when automatic calling capabilities are not required.)

(8) Using a twisted pair of wires, connect the D34 and D35 terminals of the Data Set 101C to the DT and DR terminals, respectively, of the DAS 811B1 or DAS 811B3.

(9) Connect the TWX line to the T and R terminals of the DAS 811B1 or DAS 811B3.

(10) Connect the power cords of the station units to the power receptacles provided.

4-ROW EQUIPMENT MOUNTING AND MULTIPLE LINE INSTALLATION

2.16 After completion of the necessary equipment arrangements, a 4-row TWX service multiple line station is installed as follows:

- (1) The Data Sets 101C are mounted in KS-19643 cabinets.
- (2) The DAS 811B2s or DAS 811B4s are also mounted in the KS-19643 cabinets. In a multiple line installation, the DAS 811B2 or DAS 811B4 models are used, as no case is required when the data auxiliary sets are cabinet mounted. The data auxiliary sets should be placed in the cabinets with the printed circuit cards facing outward.

Note: The DAS 811B2s or DAS 811B4s must be placed in the cabinets in groups so that they can be interconnected by the M30B and M42B cords. To make the required connections using the M30B cord, the first four DAS 811B2s or DAS 811B4s must be located in the same cabinet. Additional DAS 811B2s or DAS 811B4s are mounted in groups of six to allow connection with the M42B cord. For example, if automatic calling capabilities are not provided, 16 DAS 811B2s or DAS 811B4s can be housed in the first KS-19643 L2 cabinet.

- (3) Place the semiconductor rectifier in the bottom of the cabinet containing the DAS 811B2 or DAS 811B4.
- (4) The 1A coupler is placed in the pedestal of the TTY.
- (5) When automatic calling capabilities are required, Data Auxiliary Sets 801-type are provided and are mounted in the KS-19643 type cabinets along with the DAS 811B2s or DAS 811B4s. Each Data Auxiliary Set 801-type must be placed in the same cabinet as the DAS 811B2 or DAS 811B4 with which it is associated. This is necessary as the two sets are connected by the M14D cord. The DAS 811B2 or DAS 811B4s should be placed at the bottom of the cabinet

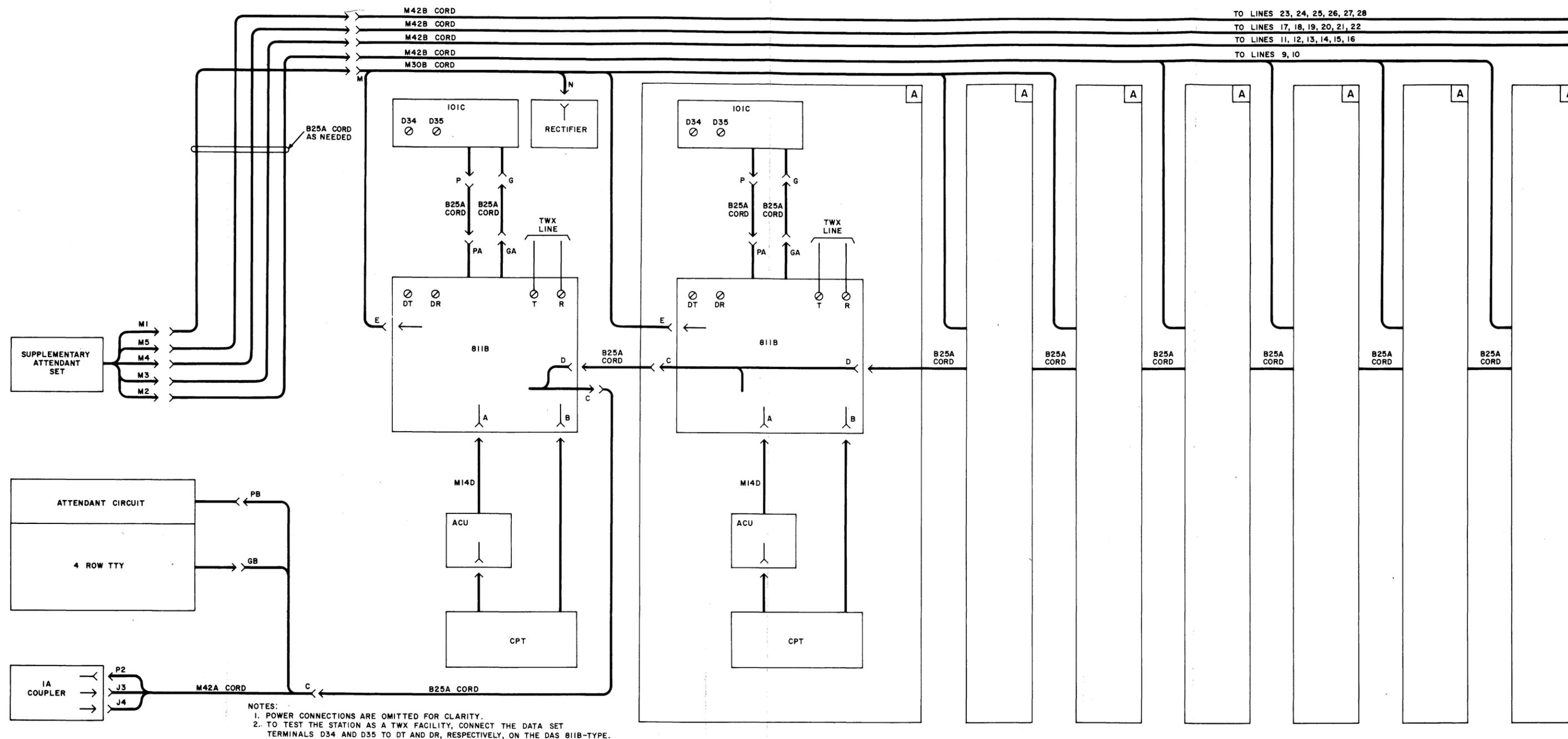
and the associated 801s should be placed at the top of the cabinet.

- (6) The supplementary attendant set must be placed in a convenient location near the TTY machine. A nearby shelf or table may be used.



No power connections should be made to any equipment or part of the station until specific instructions to do so are given in this text.

- (7) Make the following connections by using the cords listed. Also refer to Fig. 9 for additional information on the connections required when installing a station. The cords listed are required for a multiple line station providing 4-row TWX service.



NOTES:
 1. POWER CONNECTIONS ARE OMITTED FOR CLARITY.
 2. TO TEST THE STATION AS A TWX FACILITY, CONNECT THE DATA SET TERMINALS D34 AND D35 TO DT AND DR, RESPECTIVELY, ON THE DAS 811B-TYPE.

Fig. 9—4-Row TWX Access for CPT—Connections for Multiple Lines

(a) **1—M42A Cord:** The connectors of the M42A cord are connected to the equipment as follows: The P2, J3, and J4 connectors are connected to the 1A coupler. The PB connector is connected to the cord that comes from the attendant circuit of the TTY. The GB connector is connected to the cord that comes from the TTY. The C connector is connected to the DAS 811B-type. One of the B25A connector cables listed in (e) may be required to make this connection.

(b) **1—M30B Cord:** The connectors of the M30B cord are connected to the equipment as follows: The M connector connects to the supplementary attendant set. The N connector connects to the rectifier. The E connectors connect to the applicable connectors on the DAS 811B-type.

(c) **M42B Cords:** The connectors of the M42B cord are connected to the equipment as follows: The M connector connects to the applicable connector on the supplementary attendant set. The E connectors connect to the applicable connectors on the DAS 811B2 or DAS 811B4. The number of M42B cords required depends on the number of TWX lines installed. Refer to Table D for information on the number of cords required.

(d) **1—M14D Cord:** This cord is required for stations with automatic calling capabilities for connecting the Data Auxiliary Set 801-type to the DAS 811B-type. One cord will be required for each line being provided with automatic calling capabilities, ie, for each Data Auxiliary Set 801-type provided. Information on installing this cord is given in 2.08 and Table A of this section.

(e) Make the cable connections indicated. The B25A connector cables are used as required to make these connections. The number of cables required will depend on the number of TWX lines provided and the placement of the equipment.

- Connect the C connector of the M42A cord to the C connector of the DAS 811B-type associated with the first line of the station.

- Connect the P connector of the Data Set 101C to the PA connector of the associated

DAS 811B-type. One cord will be required for each line provided.

- Connect the G connector of the Data Set 101C to the GA connector of the associated DAS 811B-type. One cord will be required for each line provided.

- Connect the M1 connector of the supplementary attendant set to the M connector of the M30B cord.

- Connect the D connector of the line 1 DAS 811B-type to the C connector of the line 2 DAS 811B-type. Connect the line 2 DAS 811B-type to the line 3 set. Continue connecting the sets in this manner until all the DAS 811B2s or DAS 811B4s are interconnected in the previous manner. It will not be necessary to use B25A connector cables when the data auxiliary sets are located close to each other.

Note: The D connector of the DAS 811B2 or DAS 811B4 connected or assigned to the last line will not be used.

- When a multiple line installation requires the use of M42B cords to connect the supplementary attendant set to the DAS 811B2 or DAS 811B4, the M connector of the M42B cord will be connected to the appropriate M connector of the supplementary attendant set by using a B25A cord. The number of these connections required depends on the number of lines provided. Refer to Table D for the number of M42A cords required for the installation.

(8) Using the customer-furnished connecting cords connect the CPT as follows:

Note: When automatic calling capabilities are provided, the customer-furnished connectors must be adequately identified so that the correct connector will be used to connect the DAS 811B-type and Data Auxiliary Set 801-type to the CPT. This identification is very important as the connectors are of the same type and polarity.

(a) Connect the CPT to the B connector of the DAS 811B-type.

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- (b) Connect the CPT to the Data Auxiliary Set 801-type. (The Data Auxiliary Set 801-type is not provided when automatic calling capabilities are not required.)
- (9) Using a twisted pair of wires, connect the D34 and D35 terminals of the Data Set 101C to the DT and DR terminals, respectively, of the DAS 811B-type. This operation is repeated for each line of the station.
- (10) Connect a TWX line to the T and R terminals of each DAS 811B-type.
- (11) Connect the power cords of the station units to the power receptacles provided.

GENERAL INSTALLATION CONSIDERATIONS

2.17 The customer must furnish standard 3-wire grounding type power receptacles. The receptacles must be on a circuit that is not controlled by a switch to avoid service interruptions.

2.18 To avoid the possibility of data errors due to potential differences between the ground of the data set, data auxiliary sets, CPTs, etc, these units should be served from the same ac distribution panel. If they are not served from the same panel, a test using the 6A impulse counter should be made to detect excessive noise. This test procedure is described in the section entitled Data Auxiliary Set 811B-Type—Test Procedures (598-049-500). If this test requirement is not met, the grounds must be bonded together.



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

2.19 When automatic calling capabilities are not provided, calls can be originated from the TTY and transferred to the CPT if desired.

2.20 Test the completed installation in accordance with the instructions contained in the section entitled Data Auxiliary Set 811B-Type—Test Procedures (598-049-500).