

ORDERING AND INSTALLATION INFORMATION
FOR PRIVATE LINE DATA SETS

1. GENERAL

1.01 This appendix provides current information on ordering and installation connections for various data sets used in private line service.

1.02 This appendix is reissued:

- (a) To delete repetitive information and show common voice hardware/connection information in a single figure (A1)
- (b) To add information on data sets 202T (Fig. A7) and 209A-L1 (Fig. A10)
- (c) To add information for station bridging applications (Fig. A12 through A15).

FIGURE DESCRIPTION		TABLE	FIG. NO.	PAGE	
Voice Conn for DAS 828A			A1	2	
Single Station Installations	DS 103F	AA	A2	3, 4	
	DS 201A or B	AB	A3	5, 6	
	DS 201C	AC	A4	7, 8	
	DS 202D	AD	A5	9, 10	
	DS 202R	AE	A6	11, 12	
	DS 202T	AF	A7	13, 14	
	DS 203	AG	A8	15, 16	
	DS 208A	AH	A9	17, 18	
	DS 209A-L1	AH	A10	17, 19	
	CP Modem	AI	A11	20, 21	
	4-Wire Station Bridging Installations	DS 201B	Without Not-in-Data Indication	AB	A12
DS 201C		AC		A12	7, 22
DS 202D		AD		A13	9, 23
DS 202R		AE		A13	11, 23
DS 202T		AF		A12	13, 22
DS 203A		AG		A12	15, 22
DS 208A		AH		A12	17, 22
DS 209A		AH		A12	17, 22
DS 201C		With Not-in-Data Indication	AC	A14	7, 24
DS 202T			AF	A14	13, 24
DS 208A			AH	A14	17, 24
DS 209A			AH	A14	17, 24
CP Modem		AI	A15	20, 25	

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

SECTION 598-080-200
Appendix 1

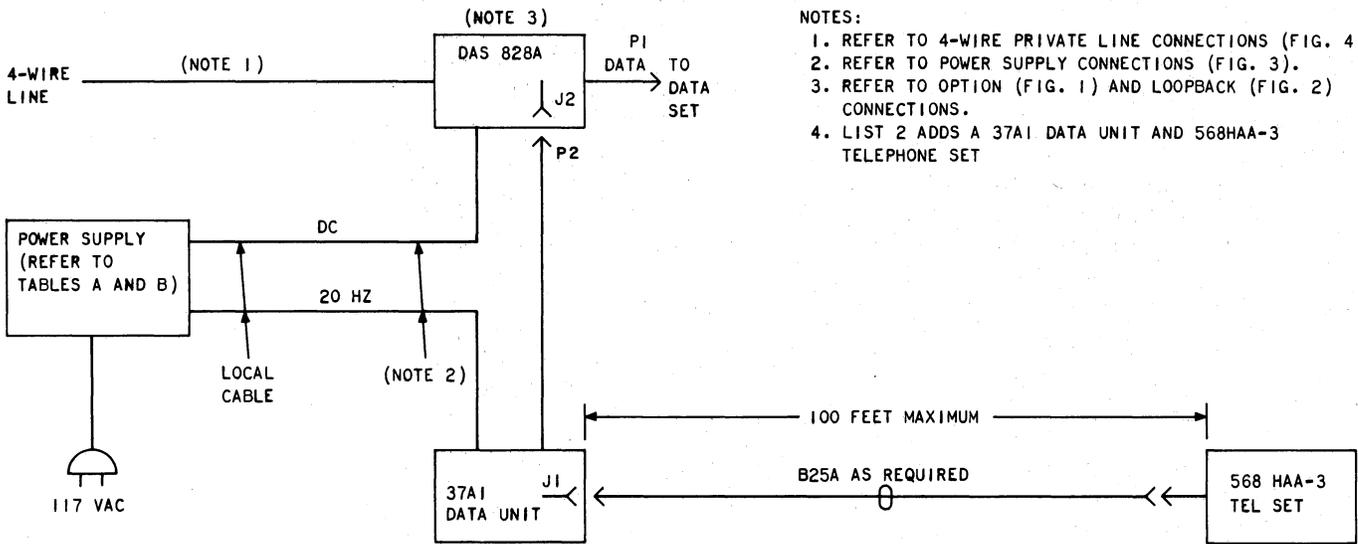


Fig. A1 — Block Diagram — Voice Connections for DAS 828A

TABLE AA

ORDERING AND INSTALLATION INFORMATION FOR DATA SET 103F
DATA ONLY OR DATA/VOICE, 2-WIRE ONLY

A. Items to be Ordered

ITEM		CODE		QUANTITY PER LINE	NOTES
Data Auxiliary Set	Rack Mount	Data Only — DAS 828A-L1	Data/Voice DAS 828A-L1/2	1	1
	Wall Mount	Data Only — DAS 828A-L1A	Data/Voice DAS 828A-L1A/2		2
Connector Cables		—	Data/Voice — B25A	As Required	3
Data Set Connection		153B or D Adapter and 42A Connecting Block		1	4
89-Type Resistors	T	89AN		1	
	LB	89A		1	
	R	—	Data/Voice — 89BN	1	5
24V4B Plug-Ins	EQL	359-type Equalizer		1	5
	RAMPL	227D Amplifier or 849-Type Network with 89-type Resistor		1	5
	TAMPL	227D Amplifier or 849-Type Network with 89-type Resistor		1	5
	TERM SET	1A Terminating Set		1	5
Power Supply				As Required	6
Loop-Back Operation	Local DC Operation	Data Only — 6017B Key or KS-19504-L1 Switch	Data/Voice — Key Set controls loop-back. Nothing to order	1	7
	Remote DC Operation	Data Only — Nothing to Order	Not Provided		
	Remote AC (Tone) Operation	44A1 Data Unit Plus J98615() Mounting			8

Note 1: Order mounting bars or brackets as required. Refer to Section 463-140-100.

Note 2: Order mounting hardware and mount in accordance with Section 463-130-100.

Note 3: Order when required to extend TEL connection.

Note 4: To be used with station wire.

Note 5: Refer to Section AB24.100 for information on selection and used of 24V4B repeater plug-ins.

Note 6: Refer to Tables A and B of Section 598-080-200 for information on power supply selection.

Note 7: Use this method if no other specified.

Note 8: Mount J98615() externally.

J98615AK-L1—19-inch rack, 3 sockets

J98615AN-L1—23-inch rack, 4 sockets

J98615AT-L1—23-inch rack, 8 sockets

B. DAS Option for 2-Wire Data Sets

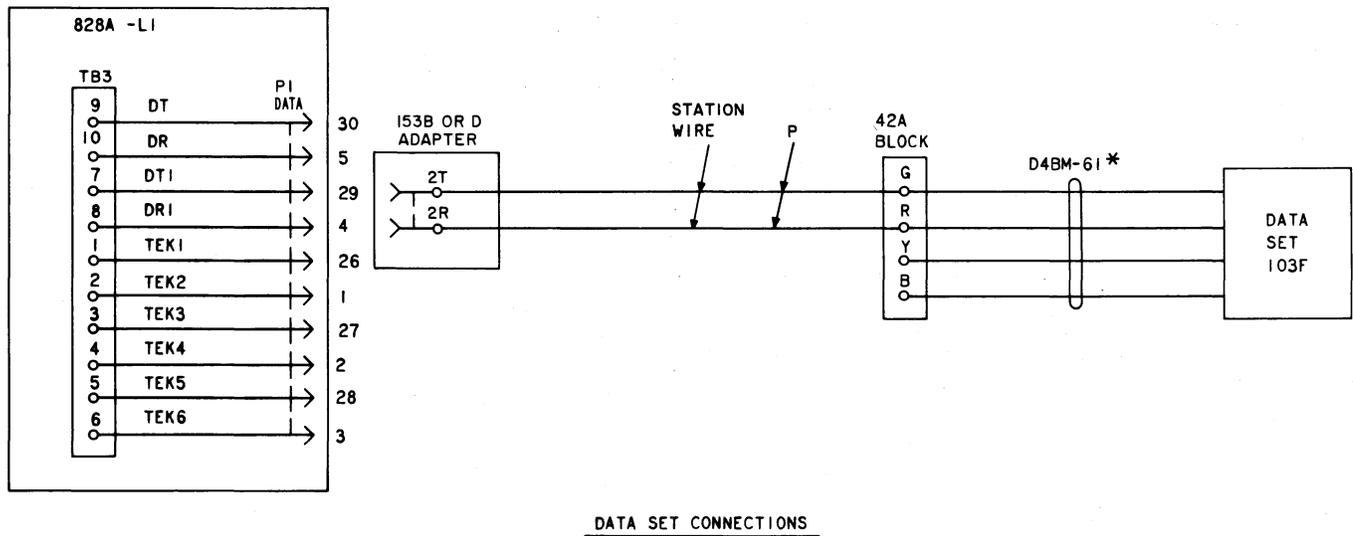
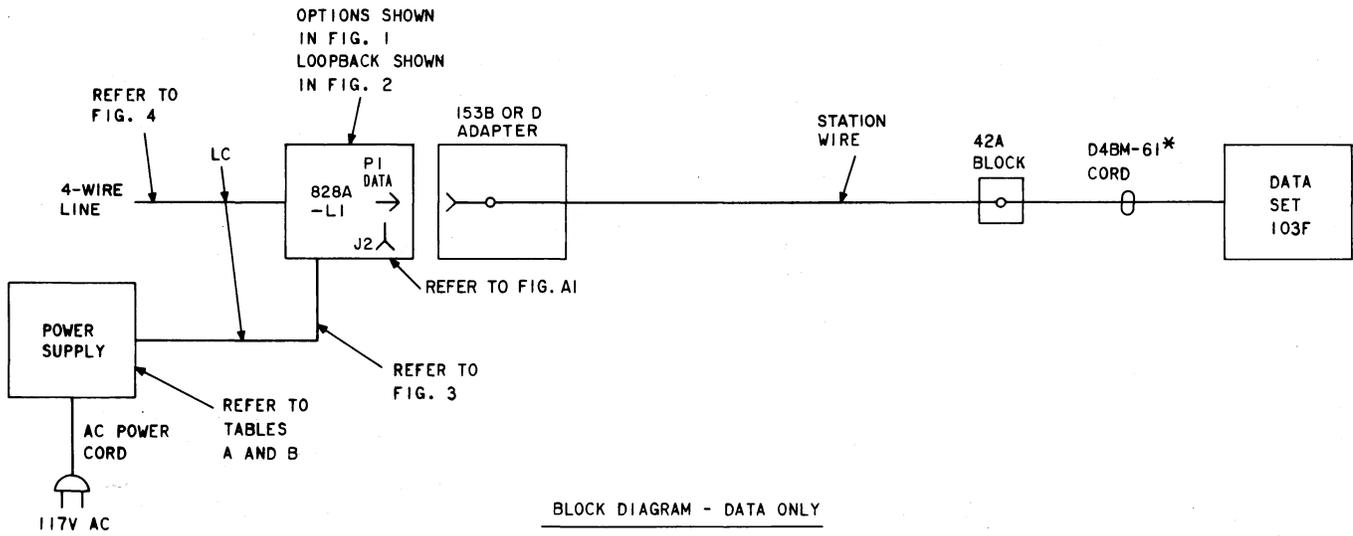
Option X — Refer to Fig. 1 of Section 598-080-200 for connections.

C. Repeater Screw Settings per Section AB24.100

D. Options for Data Set 103F

For 0-dBm transmit level (both channels), refer to BSP on data set 103F.

SECTION 598-080-200
Appendix 1



* CONNECT D4BM-61 CORD DIRECTLY TO 153-TYPE ADAPTER WHEREVER POSSIBLE. Y AND B MAY BE CONNECTED TO IT AND IR OF 153-TYPE ADAPTER

Fig. A2 — Block and Connection Diagram for Data Set 103F

TABLE AB

ORDERING AND INSTALLATION INFORMATION FOR DATA SET 201A OR B
DATA ONLY OR DATA/VOICE

A. Items to be Ordered

ITEM		DATA SET OPERATION		QUANTITY PER LINE	NOTES	
		4-WIRE	2-WIRE			
Data Auxiliary Set	Rack Mount	Data Only -- DAS 828A-L1; Data/Voice -- DAS 828A-L1/2		1	1	
	Wall Mount	Data Only -- DAS 828A-L1A; Data/Voice -- DAS 828A-L1A/2			2	
Connector Cables		B25A		As Required	3	
Data Set Connecting Cord		M8K or M6AK-61		1	4	
89-Type Resistors	T	89BG	89AJ	1		
	LB	89N	89A	1		
	R	89BG	89BN	1	5	
24V4B Plug-Ins	EQL	359-Type Equalizer		1	6	
	RAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TERM SET	—	1B Terminating Set	1	6, 7	
Power Supply				As Required	8	
Loop-Back Operation	Local DC Operation	Data Only -- 6017B Key or KS-19504-L1 Switch. Data/Voice -- Key Set controls loop-back. Nothing to order.		1	9	
	Remote DC Operation	Data Only -- Nothing to Order			10	
	Remote AC (Tone) Operation	44A1 Data Unit	—		11	
		—	44A1 Data Unit Plus J98615() Mounting			

Note 1: Order mounting bars or brackets as required. Refer to Section 463-140-100.

Note 2: Order mounting hardware and mount in accordance with Section 463-130-100.

Note 3: Order when required to extend DATA and TEL connectors of DAS.

Note 4: To be used in place of any other cord supplied with data set.

Note 5: Only used in data/voice installations.

Note 6: Refer to Section AB24.100 for information on selection and use of 24V4B repeater plug-ins.

Note 7: Only required for 2-wire data sets. Data set must be 600 ohms impedance. TERM SET must not be installed if a 4-wire data set is used.

Note 8: Refer to Tables A and B of Section 598-080-200 for information on power supply selection.

Note 9: Use this method of operation if no other is specified.

Note 10: Mount data unit in TERM SET socket.

Note 11: Mount J98615() externally.

J98615AK-L1 -- 19-inch rack, 3 sockets

J98615AN-L1 -- 23-inch rack, 4 sockets

J98615AT-L1 -- 23-inch rack, 8 sockets

B. DAS Option for 2-Wire or 4-Wire Data Sets

4-Wire (Factory-Shipped)	Z	Refer to Fig. 1 of Section 598-080-200 for connections.
2-Wire	X	

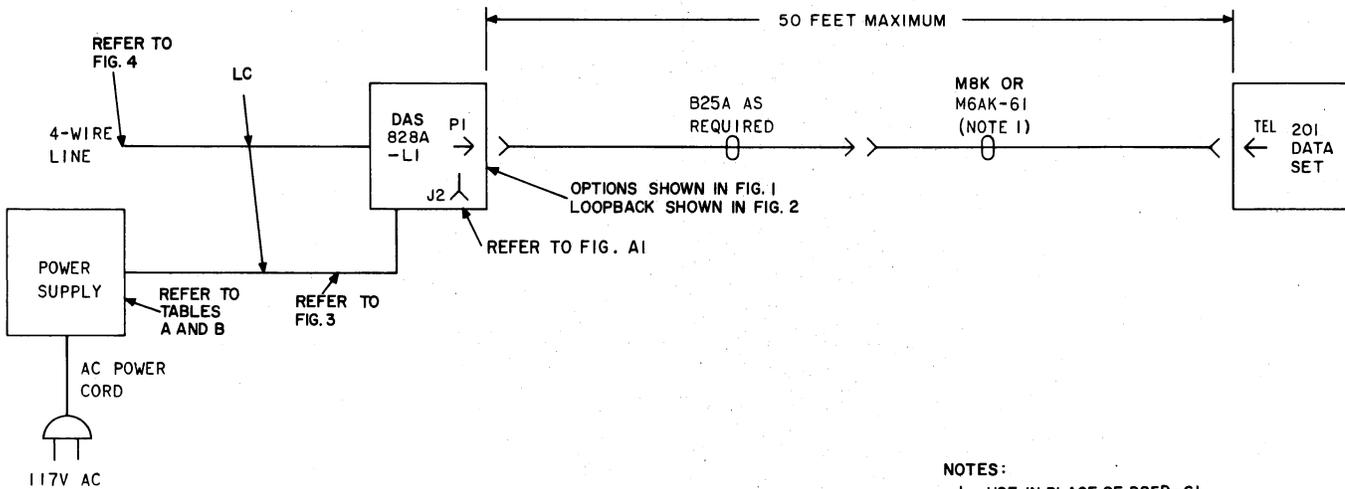
C. Repeater Screw Settings per Section AB24.100

D. Options for Data Sets 201A or B

FUNCTION	SD-1D186 (LIST CODE)	DATA SET OPTION SD-1D070 LIST A3, B3, A4, B4	SD-1D015 LIST A1, B1, A2, B2
600 ohms impedance	ZJ	Y	G
0-dBm transmit level	X	G, ZJ	ZI
-16 dBm receive level	ZD	N	ZD
Enable DAS to control data set ready	None	None	None
4-Wire Operation	E or B	ZA or ZB	ZN or ZO
2-Wire Operation	Z	ZC	ZP

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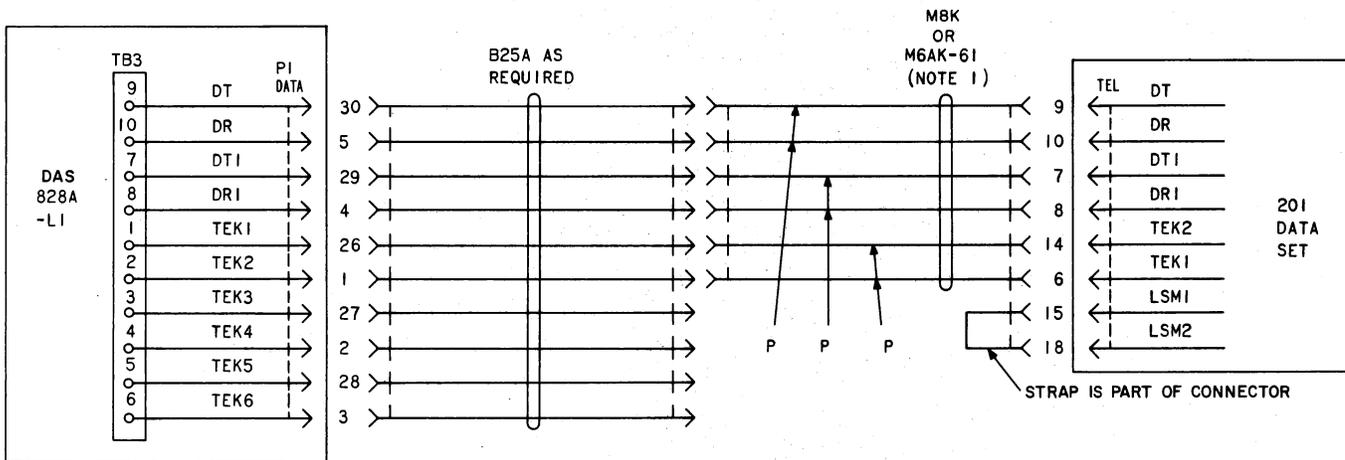
Appendix 1



BLOCK DIAGRAM - DATA ONLY

NOTES:

- 1. USE IN PLACE OF D25D-61 CORD IF SUPPLIED WITH 201. M6AK-61 IS SHOWN



DATA SET CONNECTIONS

Fig. A3 — Block and Connection Diagram for Data Set 201A or 201B

TABLE AC
ORDERING AND INSTALLATION INFORMATION FOR DATA SET 201C
DATA ONLY OR DATA/VOICE

A. Items to be Ordered

ITEM		DATA SET OPERATION		QUANTITY PER LINE	NOTES	
		4-WIRE	2-WIRE			
Data Auxiliary Set	Rack Mount	Data Only — DAS 828A-L1; Data/Voice — DAS 828A-L1/2		1	1	
	Wall Mount	Data Only — DAS 828A-L1A; Data/Voice — DAS 828A-L1A/2			2	
Connector Cables		B25A		As Required	3	
Data Set Connecting Cord		M8K		1	4	
89-Type Resistors	T	89BG	89AJ	1		
	LB	89N	89A	1		
	R	89BG	89BN	1	5	
24V4B Plug-Ins	EQL	359-Type Equalizer		1	6	
	RAMP	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TERM SET	—	1B Terminating Set	1	6, 7	
Power Supply				As Required	8	
Loop-Back Operation	Local DC Operation	Data Only — 6017B Key or KS-19504-L1 Switch. Data/Voice — Key Set controls loop-back. Nothing to order.		1	9	
	Remote DC Operation	Data Only — Nothing to Order			10	
	Remote AC (Tone) Operation	44A1 Data Unit	—			11
		—	44A1 Data Unit Plus J98615() Mounting			

- Note 1: Order mounting bars or brackets as required. Refer to Section 463-140-100.
- Note 2: Order mounting hardware and mount in accordance with Section 463-130-100.
- Note 3: Order when required to extend DATA and TEL connectors of DAS.
- Note 4: To be used in place of any other cord supplied with data set.
- Note 5: Only used in data/voice installations.
- Note 6: Refer to Section AB24.100 for information on selection and use of 24V4B repeater plug-ins.
- Note 7: Only required for 2-wire data sets. Data set must be 600 ohms impedance. TERM SET must not be installed if a 4-wire data set is used.
- Note 8: Refer to Tables A and B of Section 598-080-200 for information on power supply selection.
- Note 9: Use this method of operation if no other is specified.
- Note 10: Mount data unit in TERM SET socket.
- Note 11: Mount J98615() externally.
 J98615AK-L1 — 19-inch rack, 3 sockets
 J98616AN-L1 — 23-inch rack, 4 sockets
 J98615AT-L1 — 23-inch rack, 8 sockets.

B. DAS Option for 2-Wire or 4-Wire Data Sets

4-Wire (Factory-Shipped)	Z	Refer to Fig. 1 of Section 598-080-200 for connections.
2-Wire	X	

C. Repeater Screw Settings per Section AB24.100

D. Options for Data Sets 201C

FUNCTION	DATA SET OPTION
600 ohms impedance	ZQ
0-dBm transmit level	ZA
-16 dBm receive level	ZU
Enable DAS to control data set ready	YI
4-wire operation	XA or XB or XC
2-wire operation	XE

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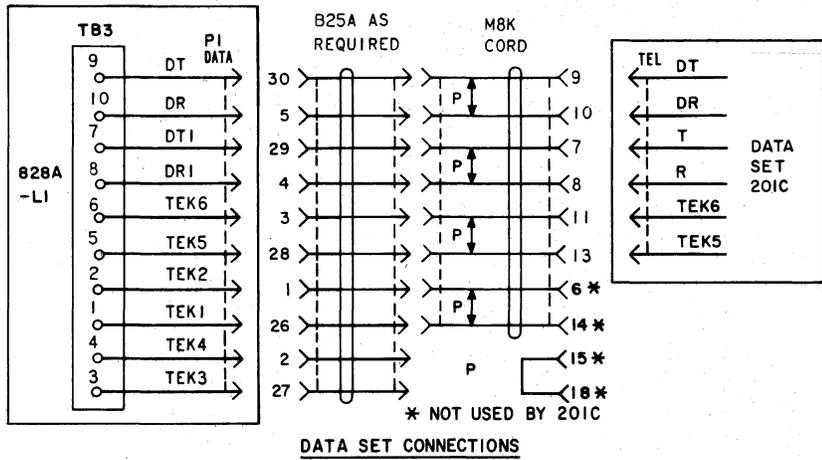
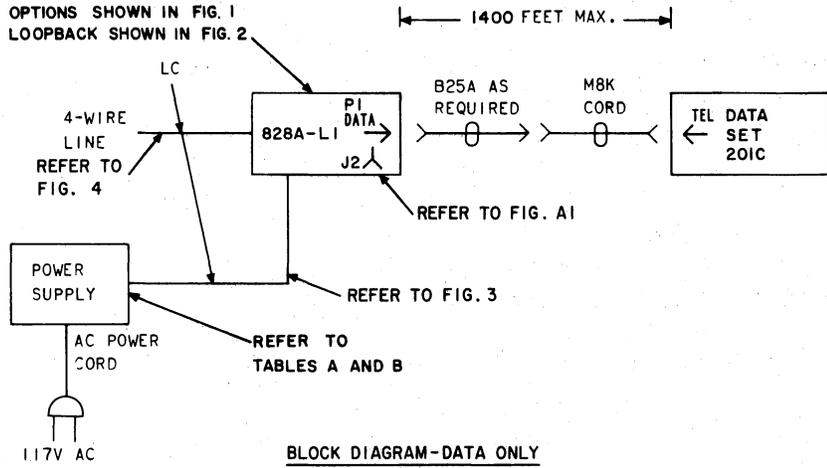


Fig. A4 — Block and Connection Diagram for Data Set 201C

TABLE AD
ORDERING AND INSTALLATION INFORMATION FOR DATA SET 202D
DATA ONLY OR DATA/VOICE

A. Items to be Ordered

ITEM		DATA SET OPERATION		QUANTITY PER LINE	NOTES	
		4-WIRE	2-WIRE			
Data Auxiliary Set	Rack Mount	Data Only — DAS 828A-L1; Data/Voice — DAS 828A-L1/2		1	1	
	Wall Mount	Data Only — DAS 828A-L1A; Data/Voice — DAS 828A-L1A/2			2	
Connector Cables		B25A		As Required	3	
Data Set Connecting Cord		D50AA-3		1	4	
89-Type Resistors	T	0 dBm	89BG	89AJ	1	5
		-8 dBm	89AA	89A		
	LB	89N	89A	1		
	R	89BG	89BN	1	6	
24V4B Plug-Ins	EQL	359-Type Equalizer		1	7	
	RAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	7	
	TAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	7	
	TERM SET	—	1B Terminating Set	1	7,8	
Power Supply				As Required	9	
Loop-Back Operation	Local DC Operation	Data Only — 6017B Key or KS-19504-L1 Switch. Data/Voice — Key Set controls loop-back. Nothing to order.		1	10	
	Remote DC Operation	Data Only — Nothing to Order				
	Remote AC (Tone) Operation	44A1 Data Unit	—			11
		—	44A1 Data Unit Plus J98615() Mounting			12

- Note 1: Order mounting bars or brackets as required. Refer to Section 463-140-100.
- Note 2: Order mounting hardware and mount in accordance with Section 463-130-100.
- Note 3: Order when required to extend DATA and TEL connectors.
- Note 4: To be used in place of any cord supplied with data set.
- Note 5: If data set is not capable of 0-dBm transmit level, set for -8 dBm.
- Note 6: Only used in data/voice installations.
- Note 7: Refer to Section AB24.100 for information on selection and use of 24V4B repeater plug-ins.
- Note 8: Only required for 2-wire data sets. Data set must be 600 ohms impedance. TERM SET must not be installed if a 4-wire data set is used.
- Note 9: Refer to Tables A and B of Section 598-080-200 for information on power supply selection.
- Note 10: Use this method if no other is specified.
- Note 11: Mount data unit in TERM SET socket.
- Note 12: Mount J98615() externally.
 J98615AK-L1 — 19-inch rack, 3 sockets
 J98615AN-L1 — 23-inch rack, 4 sockets
 J98615AT-L1 — 23-inch rack, 8 sockets.

B. DAS Option for 2-Wire or 4-Wire Data Sets

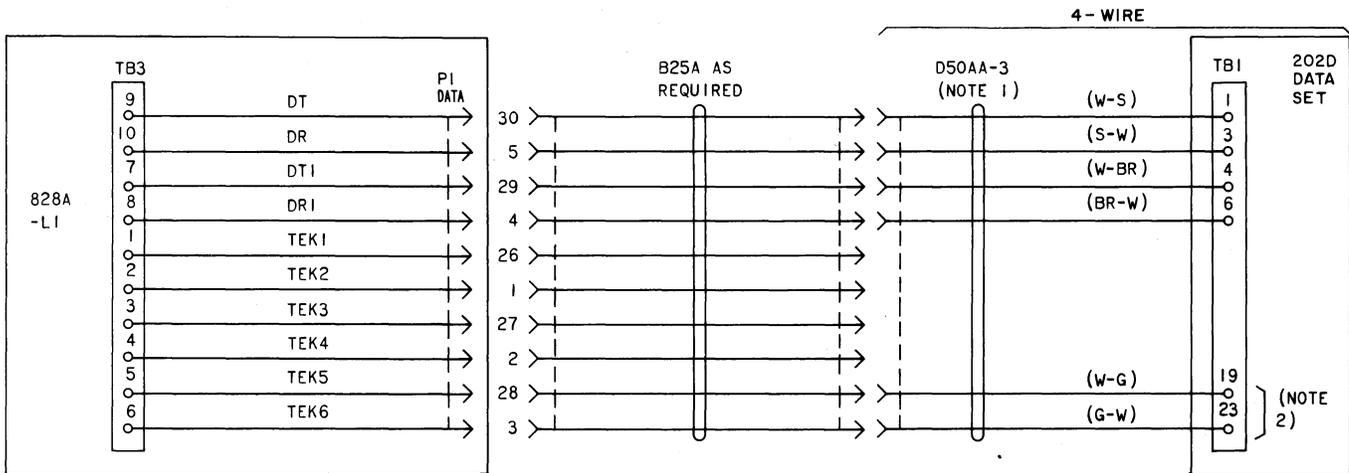
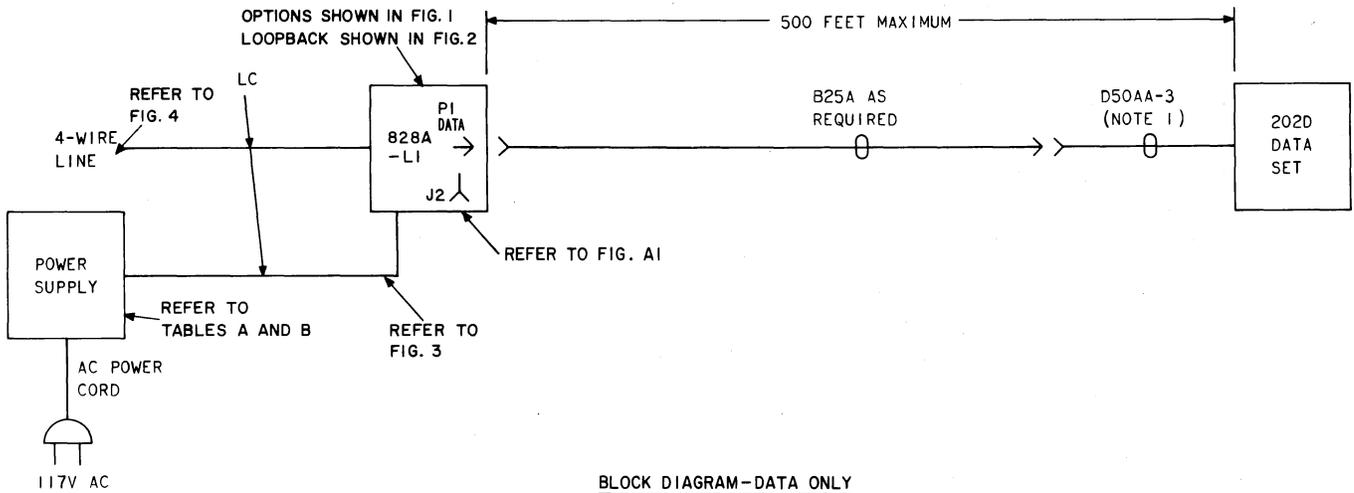
4-Wire (Factory-Shipped)	Z	Refer to Fig. 1 of Section 598-080-200 for connections.
2-Wire	X	

C. Repeater Screw Settings per Section AB24.100

D. Options for Data Set 202D

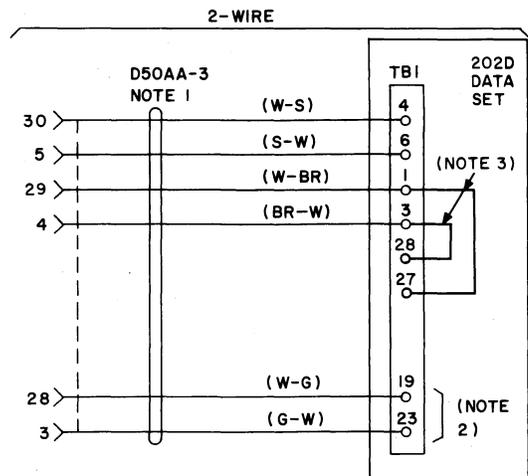
FUNCTION	DATA SET OPTION
600 ohms impedance	X
0-dBm transmit level	K
-16 dBm receive level	None
Enable DAS to control data set ready	Install ZJ, remove ZJ strap from TB1, 19 to 23
4-wire operation	Y, ZH
2-wire operation	Z

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NOTES:

1. USE D50AA-3 IN PLACE OF D6AA-61 SUPPLIED WITH 202D.
2. REMOVE ZJ OPTION STRAP (TBI, 19 TO 23) IN 202D. LEAVE OTHER ZJ STRAPS INSTALLED
3. INSTALL STRAPS IF REVERSE CHANNEL OPERATION IS REQUIRED



DATA SET CONNECTIONS

Fig. A5 — Block and Connection Diagram for Data Set 202D

TABLE AE
ORDERING AND INSTALLATION INFORMATION FOR DATA SET 202R
DATA ONLY OR DATA/VOICE

A. Items to be Ordered

ITEM		DATA SET OPERATION		QUANTITY PER LINE	NOTES	
		4-WIRE	2-WIRE			
Data Auxiliary Set	Rack Mount	Data Only — DAS 828A-L1; Data/Voice — DAS 828A-L1/2		1	1	
	Wall Mount	Data Only — DAS 828A-L1A; Data/Voice — DAS 828A-L1A/2			2	
Connector Cables		B25A		As Required	3	
Data Set Connection		153D Adapter		1	4	
89-Type Resistors	T	89BG	89AJ	1		
	LB	89N	89A	1		
	R	89BG	89BN	1	5	
24V4B Plug-Ins	EQL	359-Type Equalizer		1	6	
	RAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TERM SET	—	1B Terminating Set	1	6, 7	
Power Supply				As Required	8	
Loop-Back Operation	Local DC Operation	Data Only — 6017B Key or KS-19504-L1 Switch. Data/Voice — Key Set controls loop-back. Nothing to order.		1	9	
	Remote DC Operation	Data Only — Nothing to Order				
	Remote AC (Tone) Operation	44A1 Data Unit	—			10
		—	44A1 Data Unit Plus J98615() Mounting			11

Note 1: Order mounting bars or brackets as required. Refer to Section 463-140-100.

Note 2: Order mounting hardware and mount in accordance with Section 463-130-100.

Note 3: Order when required to extend DATA and TEL connectors of DAS.

Note 4: To be used in place of any other cord supplied with data set.

Note 5: Only used in data/voice installations.

Note 6: Refer to Section AB24.100 for information on selection and use of 24V4B repeater plug-ins.

Note 7: Only required for 2-wire data sets. Data set must be 600 ohms impedance. TERM SET must not be installed if a 4-wire data set is used.

Note 8: Refer to Tables A and B of Section 598-080-200 for information on power supply selection.

Note 9: Use this method of operation if no other is specified.

Note 10: Mount data unit in TERM SET socket.

Note 11: Mount J98615() externally,
J98615AK-L1 — 19-inch rack, 3 sockets
J98615AN-L1 — 23-inch rack, 4 sockets
J98615AT-L1 — 23-inch rack, 8 sockets

B. DAS Option for 2-Wire or 4-Wire Data Sets

4-Wire (Factory-Shipped)	Z	Refer to Fig. 1 of Section 598-080-200 for connections.
2-Wire	X	

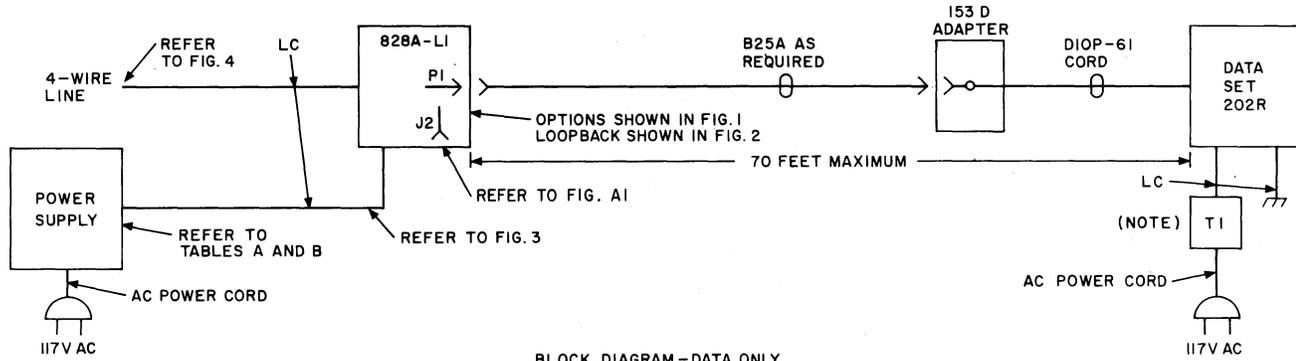
C. Repeater Screw Settings per Section AB24.100

D. Options for Data Set 202R

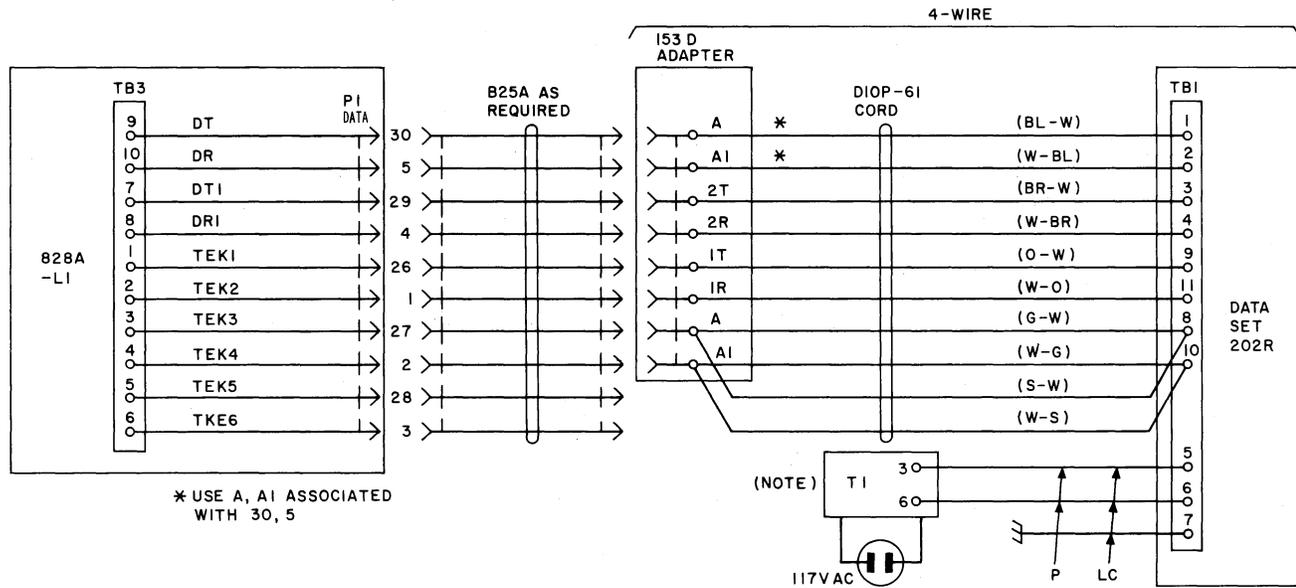
FUNCTION	DATA SET OPTION
600 ohms impedance	None
0-dBm transmit level	Screwdriver Adjust
-16 dBm receive level	None
Enable DAS to control data set ready	None
4-wire operation	Y
2-wire operation	Z

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Appendix 1

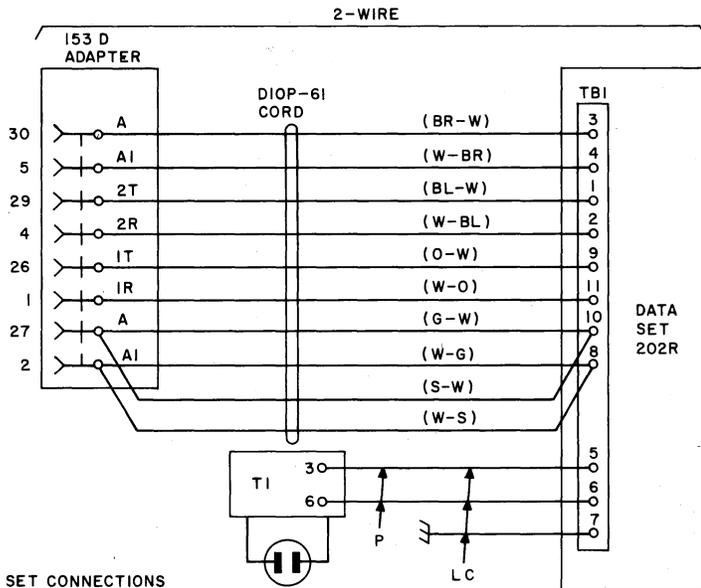


BLOCK DIAGRAM - DATA ONLY



* USE A, A1 ASSOCIATED WITH 30, 5

NOTE:
T1 IS KS-16886, L2 OR EQUIVALENT,
AND IS SUPPLIED WITH 202R-L1/2.



DATA SET CONNECTIONS

Fig. A6 - Block and Connection Diagram for Data Set 202R

TABLE AF
ORDERING AND INSTALLATION INFORMATION FOR DATA SET 202T
DATA ONLY OR DATA/VOICE

A. Items to be Ordered

ITEM		DATA SET OPERATION		QUANTITY PER LINE	NOTES	
		4-WIRE	2-WIRE			
Data Auxiliary Set	Rack Mount	Data Only — DAS 828A-L1; Data/Voice — DAS 828A-L1/2		1	1	
	Wall Mount	Data Only — DAS 828A-L1A; Data/Voice — DAS 828A-L1A/2			2	
Connector Cables		B25A		As Required	3	
Data Set Connecting Cord		M8K		1	4	
89-Type Resistors	T	89BG	89AJ	1		
	LB	89N	89A	1		
	R	89BG	89BN	1	5	
24V4B Plug-Ins	EQL	359-Type Equalizer		1	6	
	RAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TERM SET	—	1B Terminating Set	1	6, 7	
Power Supply				As Required	8	
Loop-Back Operation	Local DC Operation	Data Only — 6017B Key or KS-19504-L1 Switch. Data/Voice — Key Set controls loop-back. Nothing to order.		1	9	
	Remote DC Operation	Data Only — Nothing to Order				
	Remote AC (Tone) Operation	44A1 Data Unit	—			10
		—	44A1 Data Unit Plus J98615() Mounting			11

- Note 1:* Order mounting bars or brackets as required. Refer to Section 463-140-100.
- Note 2:* Order mounting hardware and mount in accordance with Section 463-130-100.
- Note 3:* Order when required to extend DATA and TEL connectors of DAS.
- Note 4:* To be used in place of any other cord supplied with data set.
- Note 5:* Only used in data/voice installations.
- Note 6:* Refer to Section AB24.100 for information on selection and use of 24V4B repeater plug-ins.
- Note 7:* Only required for 2-wire data sets. Data set must be 600 ohms impedance. TERM SET must not be installed if a 4-wire data set is used.
- Note 8:* Refer to Tables A and B of Section 598-080-200 for information on power supply selection.
- Note 9:* Use this method of operation if no other is specified.
- Note 10:* Mount data unit in TERM SET socket.
- Note 11:* Mount J98615() externally.
 J98615AK-L1 — 19-inch rack, 3 sockets
 J98615AN-L1 — 23-inch rack, 4 sockets
 J98615AT-L1 — 23-inch rack, 8 sockets.

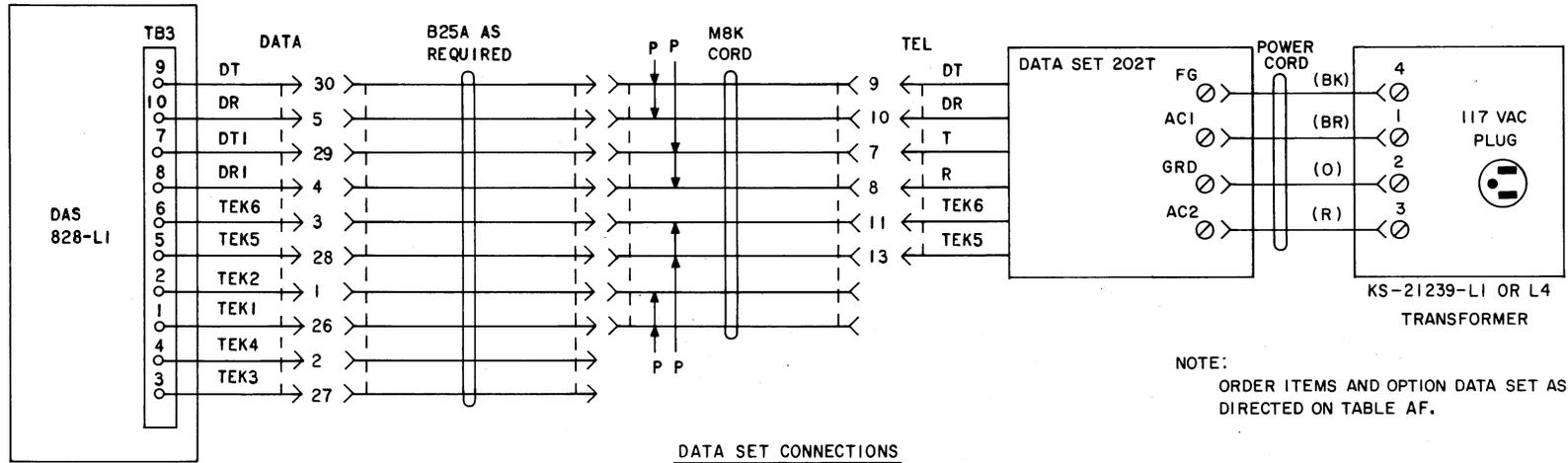
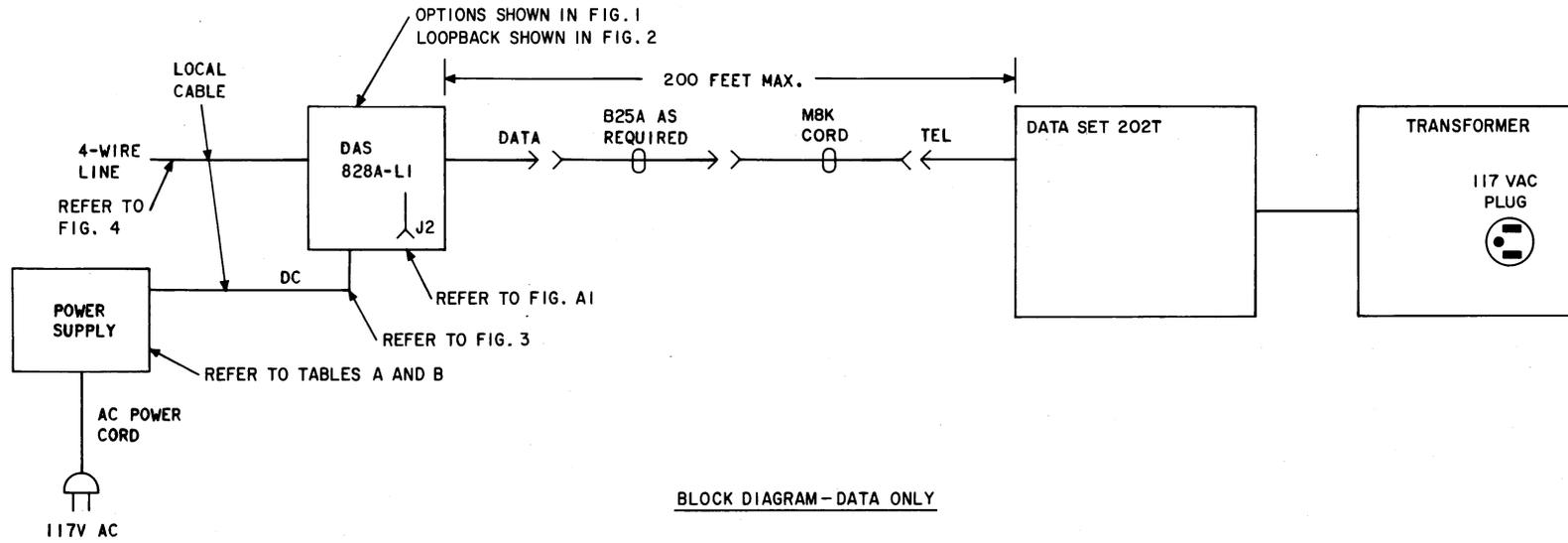
B. DAS Option for 2-Wire or 4-Wire Data Sets

4-Wire (Factory-Shipped)	Z	Refer to Fig. 1 of Section 598-080-200 for connections.
2-Wire	X	

C. Repeater Screw Settings per Section AB24.100

D. Options for Data Set 202T

FUNCTION	DATA SET OPTION
Enable DAS to control data set ready	B
4-Wire operation	ZK
2-Wire operation	ZD or ZC



NOTE:
ORDER ITEMS AND OPTION DATA SET AS DIRECTED ON TABLE AF.

Fig. A7 - Block and Connection Diagram for Data Set 202T

TABLE AG
ORDERING AND INSTALLATION INFORMATION FOR DATA SET 203-TYPE
DATA ONLY OR DATA/VOICE

A. Items to be Ordered

ITEM		DATA SET OPERATION		QUANTITY PER LINE	NOTES	
		4-WIRE	2-WIRE			
Data Auxiliary Set	Rack Mount	Data Only — DAS 828A-L1; Data/Voice — DAS 828A-L1/2		1	1	
	Wall Mount	Data Only — DAS 828A-L1A; Data/Voice — DAS 828A-L1A/2			2	
Connector Cables		B25A		As Required	3	
Data Set Connecting Cord		M8J-61		1	4	
89-Type Resistors	T	89BG	89AJ	1		
	LB	89N	89A	1		
	R	89BG	89BN	1	5	
24V4B Plug-Ins	EQL	359-Type Equalizer		1	6	
	RAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TAMPL	227D Amplifier or 849-Type Network With 89-Type Resistor		1	6	
	TERM SET	—	1B Terminating Set	1	6, 7	
Power Supply				As Required	8	
Loop-Back Operation	Local DC Operation	Data Only — 6017B Key or KS-19504-L1 Switch. Data/Voice — Key Set controls loop-back. Nothing to order.		1	9	
	Remote DC Operation	Data Only — Nothing to Order				
	Remote AC (Tone) Operation	44A1 Data Unit			—	10
					44A1 Data Unit Plus J98615() Mounting	11

- Note 1:** Order mounting bars or brackets as required. Refer to Section 463-140-100.
- Note 2:** Order mounting hardware and mount in accordance with Section 463-130-100.
- Note 3:** Order when required to extend DATA and TEL connectors of DAS.
- Note 4:** To be used in place of any other cord supplied with data set.
- Note 5:** Only used in data/voice installations.
- Note 6:** Refer to Section AB24.100 for information on selection and use of 24V4B repeater plug-ins.
- Note 7:** Only required for 2-wire data sets. Data set must be 600 ohms impedance. TERM SET must not be installed if a 4-wire data set is used.
- Note 8:** Refer to Tables A and B of Section 598-080-200 for information on power supply selection.
- Note 9:** Use this method of operation if no other is specified.
- Note 10:** Mount data unit in TERM SET socket.
- Note 11:** Mount J98615() externally.
 J98615AK-L1 — 19-inch rack, 3 sockets
 J98615AN-L1 — 23-inch rack, 4 sockets
 J98615AT-L1 — 23-inch rack, 8 sockets.

B. DAS Option for 2-Wire or 4-Wire Data Sets

4-Wire (Factory-Shipped)	Z	Refer to Fig. 1 of Section 598-080-200 for connections.
2-Wire	X	

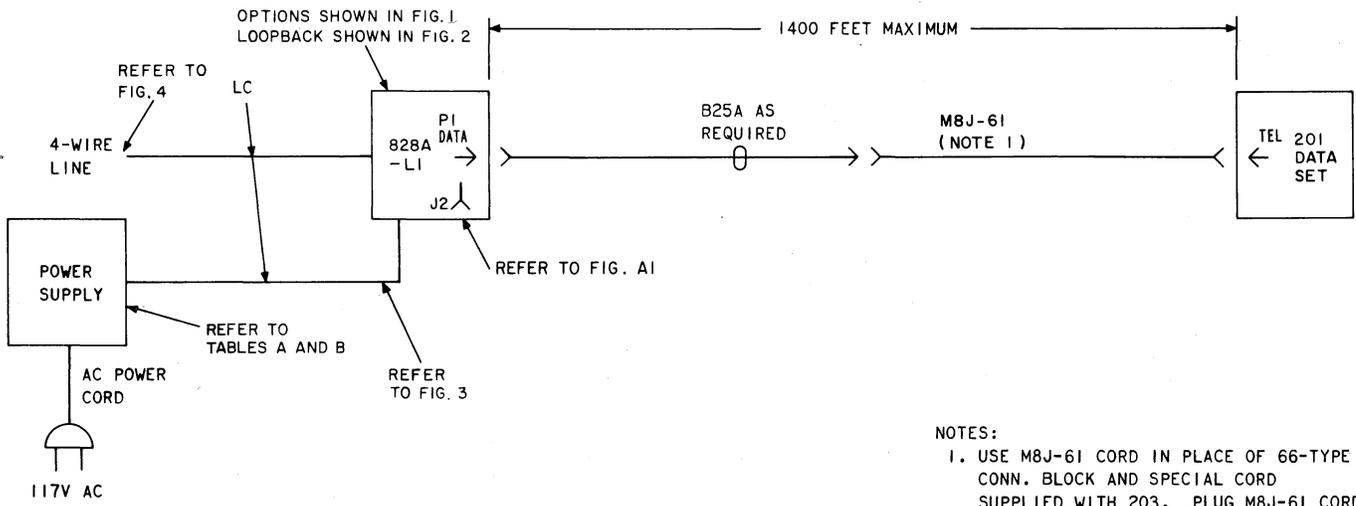
C. Repeater Screw Settings per Section AB24.100

D. Options for Data Set 203-Type

FUNCTION	DATA SET OPTION
600 ohms impedance	S
0-dBm transmit level	ZP
-16 dBm receive level	B
Enable DAS to control data set ready	YA
4-wire operation	Z or Y
2-wire operation	X

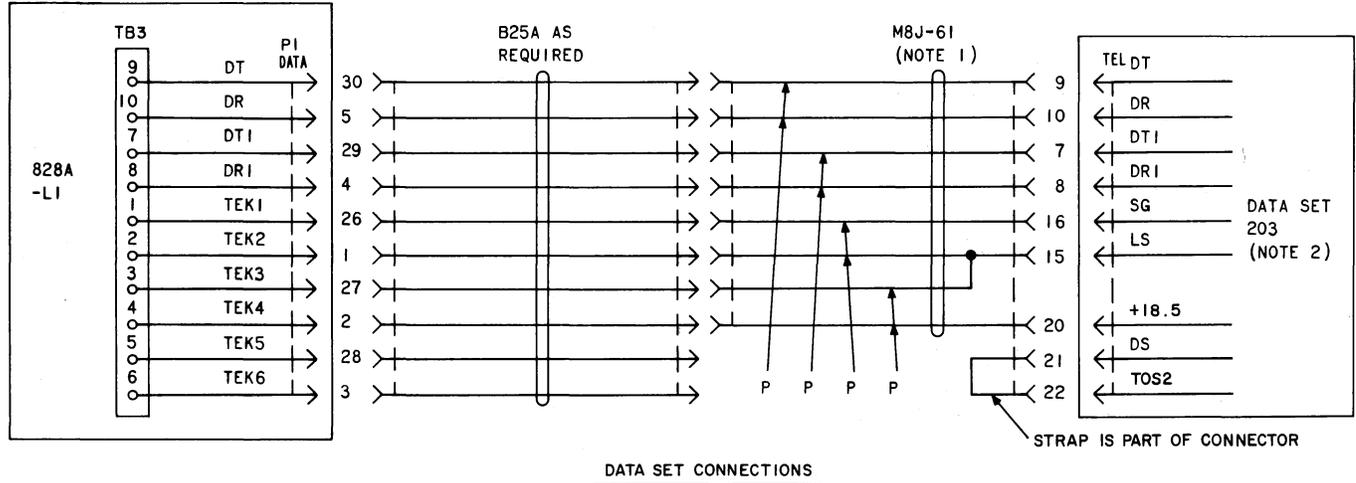
SECTION 598-080-200

Appendix 1



BLOCK DIAGRAM - DATA ONLY

- NOTES:
1. USE M8J-61 CORD IN PLACE OF 66-TYPE CONN. BLOCK AND SPECIAL CORD SUPPLIED WITH 203. PLUG M8J-61 CORD DIRECTLY INTO "TEL"CONNECTOR PI OF 203.
 2. 203 SHOULD BE OPTIONED FOR "804A-TYPE OPERATION", OPTION YA.



DATA SET CONNECTIONS

Fig. A8 - Block and Connection Diagram for Data Set 203

TABLE AH

ORDERING AND INSTALLATION INFORMATION FOR DATA SET 208A OR 209A-L1
DATA ONLY OR DATA/VOICE

A. Items to be Ordered

ITEM		CODE	QUANTITY PER LINE	NOTES
Data Auxiliary Set	Rack Mount	Data Only — DAS 828A-L1; Data/Voice — DAS 828A-L1/2	1	1
	Wall Mount	Data Only — DAS 828A-L1A; Data/Voice — DAS 828A-L1A/2		2
Connector Cables		B25A	As Required	3
Data Set Connecting Cord		M8K	1	4
89-Type Resistors	T	89BG	1	
	LB	89BN	1	
	R	89BG		5
24V4B Plug-Ins	EQL	359-Type Equalizer	1	6
	RAMPL	227D Amplifier or 849-Type Network with 89-Type Resistor	1	6
	TAMPL	227D Amplifier or 849-Type Network with 89-Type Resistor	1	6
Power Supply			As Required	7
Loop-Back Operation	Local DC Operation	Data Only — 6017B Key or KS-19504-L1 Switch	1	8
		Data/Voice — Key Set Controls Loop-Back. Nothing to Order		
	Remote DC Operation	Nothing To Order		
	Remote AC (Tone) Operation	44A1 Data Unit		9

Note 1: Order mounting bars or brackets as required. Refer to Section 463-140-100.

Note 2: Order mounting hardware and mount in accordance with Section 463-130-100.

Note 3: Order when required to extend DATA connector.

Note 4: Cord supplied with data set.

Note 5: Only used in data/voice installations.

Note 6: Refer to Section AB24.100 for information on selection and use of 24V4B repeater plug-ins.

Note 7: Refer to Tables A and B of Section 598-080-200 for information on power supply selection.

Note 8: Use this method if no other specified.

Note 9: Mount data unit in TERM SET socket.

B. DAS Option for 4-Wire Data Sets

Option Z — Refer to Fig. 1 of Section 598-080-200 for connections.

C. Repeater Screw Settings per Section AB 24.100

D. Options for Data Set

FUNCTION	DATA SET OPTION
600 ohms impedance	None
0-dBm transmit level	None
-16 dBm receive level	None
Enable DAS to control data set ready	YI
4-wire operation	None

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Appendix 1

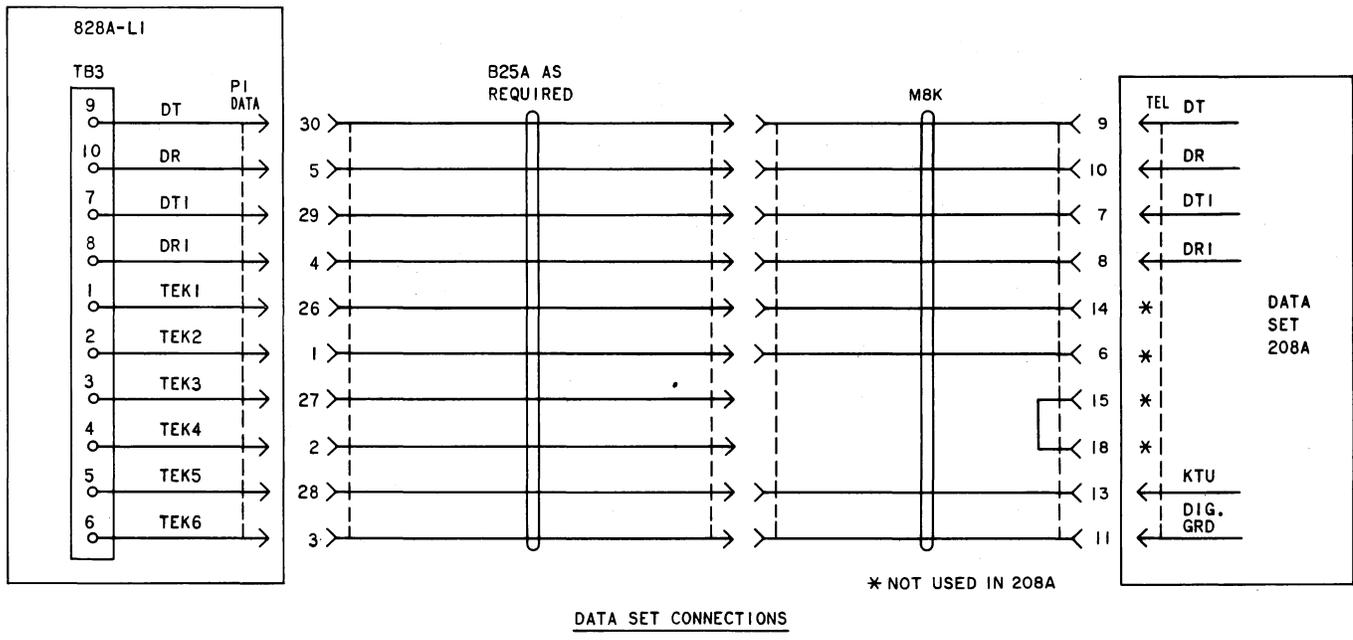
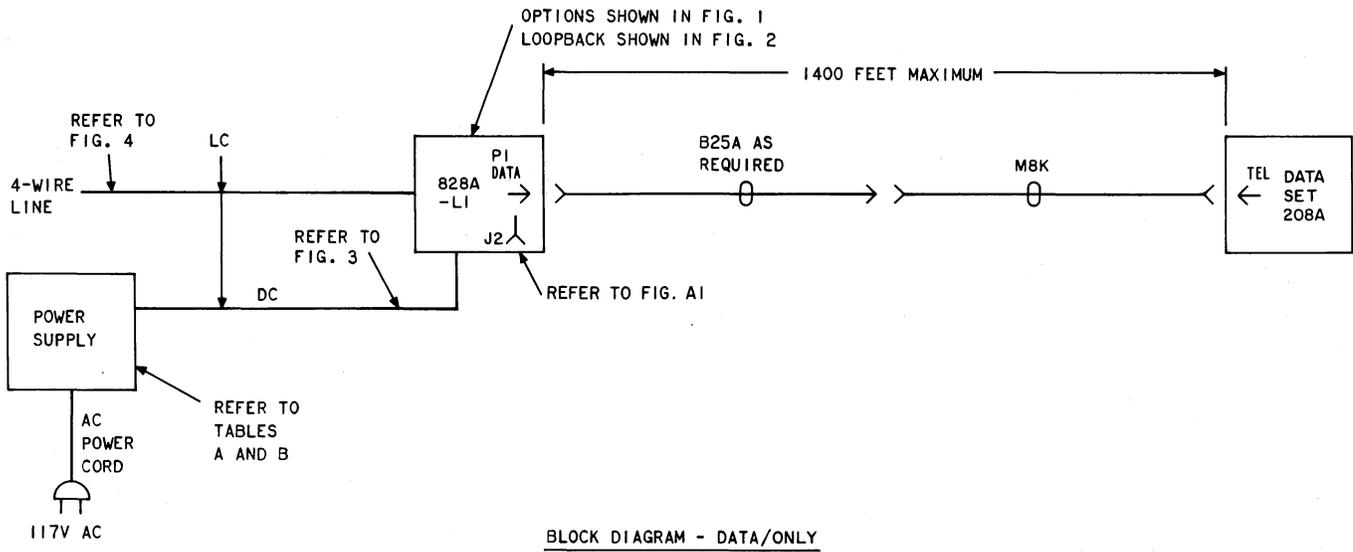


Fig. A9 - Block and Connection Diagram for Data Set 208A

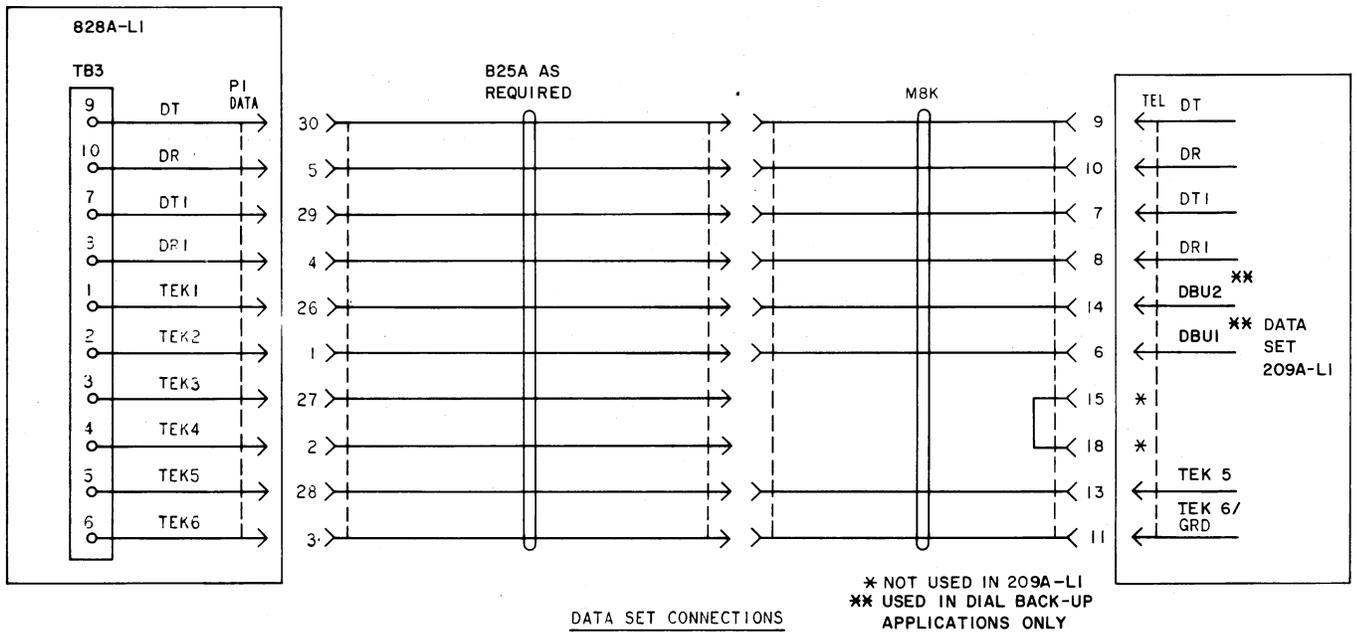
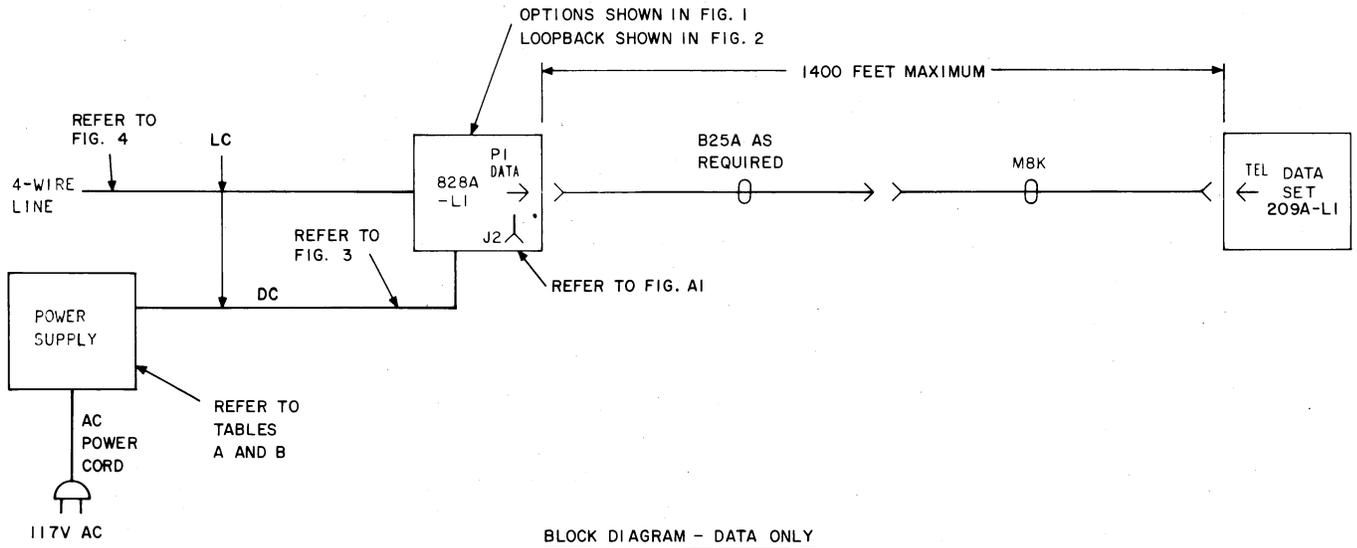


Fig. A10 - Block and Connection Diagram for Data Set 209A-L1

SECTION 598-080-200

Appendix 1

TABLE AI

ORDERING AND INSTALLATION INFORMATION FOR CP MODEM – DATA/VOICE

A. Items to be Ordered

ITEM		DATA SET OPERATION		QUANTITY PER LINE	NOTES
		4-WIRE	2-WIRE		
Data Auxiliary Set	Rack Mount	Data Only – DAS 828A-L1; Data/Voice – DAS 828A-L1/2		1	1
	Wall Mount	Data Only – DAS 828A-L1A; Data/Voice – DAS 828A-L1A/2			2
Connecting Block		42A		1	3
Data Set Connection		153D Adapter	153B' or D Adapter	1	4
89-Type Resistors	T	0 dBm	89BG	1	
		-8 dBm	89AA		
	LB	89N	89A	1	
	R	89BG	89BN	1	5
24V4B Plug-Ins	EQL	359-type Equalizer		1	6
	RAMPL	227D Amplifier or 849-Type Network with 89-Type Resistor		1	6
	TAMPL	227D Amplifier or 849-Type Network with 89-Type Resistor or F-58122 Amplifier		1	6, 7
	TERM SET	—	1B Terminating Set	1	6, 8
Power Supply				As Required	9
Loop-Back Operation	Local DC Operation	Data Only – 6017B Key or KS-19504-L1 Switch		1	10
		Data/Voice – Key Set controls loop-back. Nothing to Order.			10
	Remote DC Operation	Data Only – Nothing to Order.			
	Remote AC (Tone) Operation	44A1 Data Unit	—		11
—		44A1 Data Unit plus J98615() Mounting	12		

Note 1: Order mounting bars or brackets as required. Refer to Section 463-140-100.

Note 2: Order mounting hardware and mount in accordance with Section 463-130-100.

Note 3: Used only with CP modems. Provides demarcation point.

Note 4: To be used in place of any cord supplied with data set.

Note 5: Only used in data/voice installations.

Note 6: Refer to Section AB24.100 for information on selection and use of 24V4B repeater plug-ins.

Note 7: F-58122 amplifier is used if transmit level limiting is required.

Note 8: Only required for 2-wire modems. Modem must be 600 ohms impedance. TERM SET must not be installed if a 4-wire modem is used.

Note 9: Refer to Tables A and B of Section 598-080-200 for information on power supply selection.

Note 10: Use this method if no other specified.

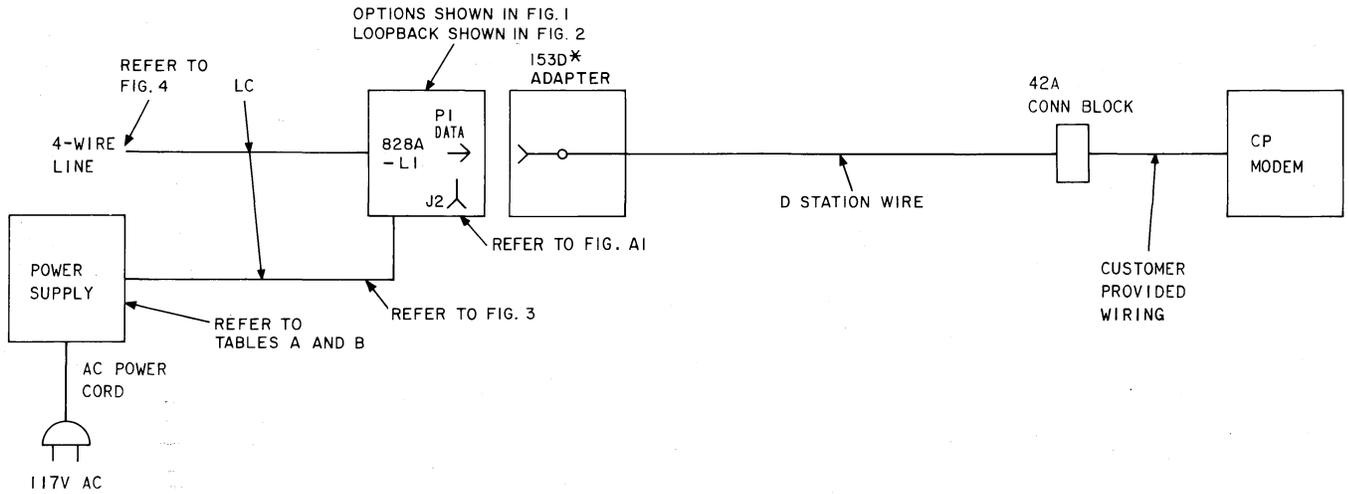
Note 11: Mount data unit in TERM SET socket.

Note 12: Mount J98615() externally.
 J98615AK-L1 – 19-inch rack, 3 sockets
 J98615AN-L1 – 23-inch rack, 4 sockets
 J98615AT-L1 – 23-inch rack, 8 sockets.

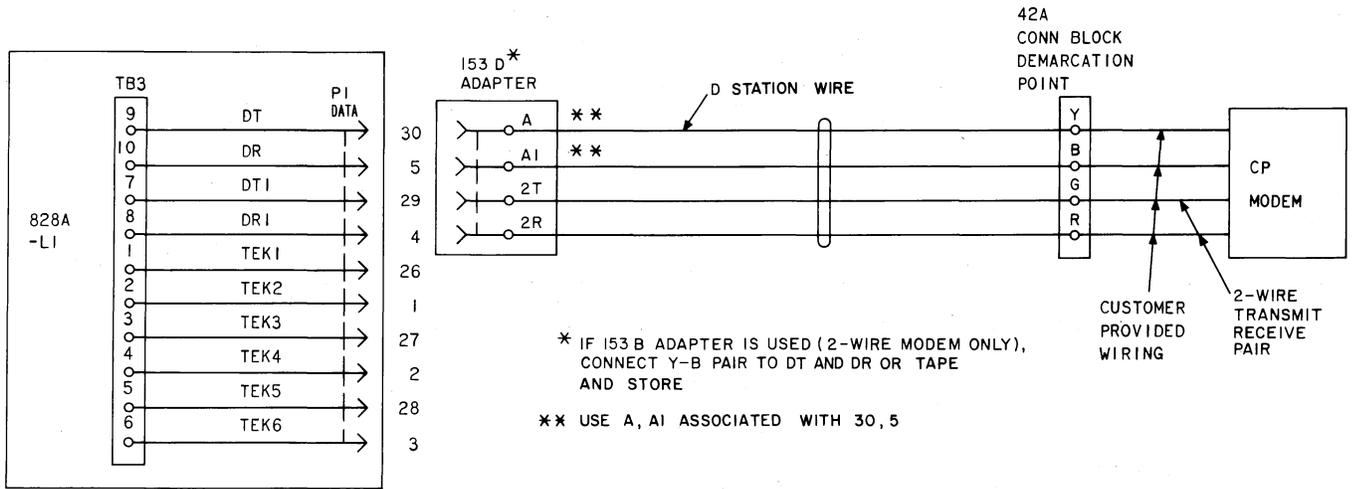
B. DAS Option for 2-Wire or 4-Wire Data Sets

4-Wire (Factory-Shipped)	Z	Refer to Fig. 1 of Section 598-080-200 for connections.
2-Wire	X	

C. Repeater Screw Settings per Section AB24.100.

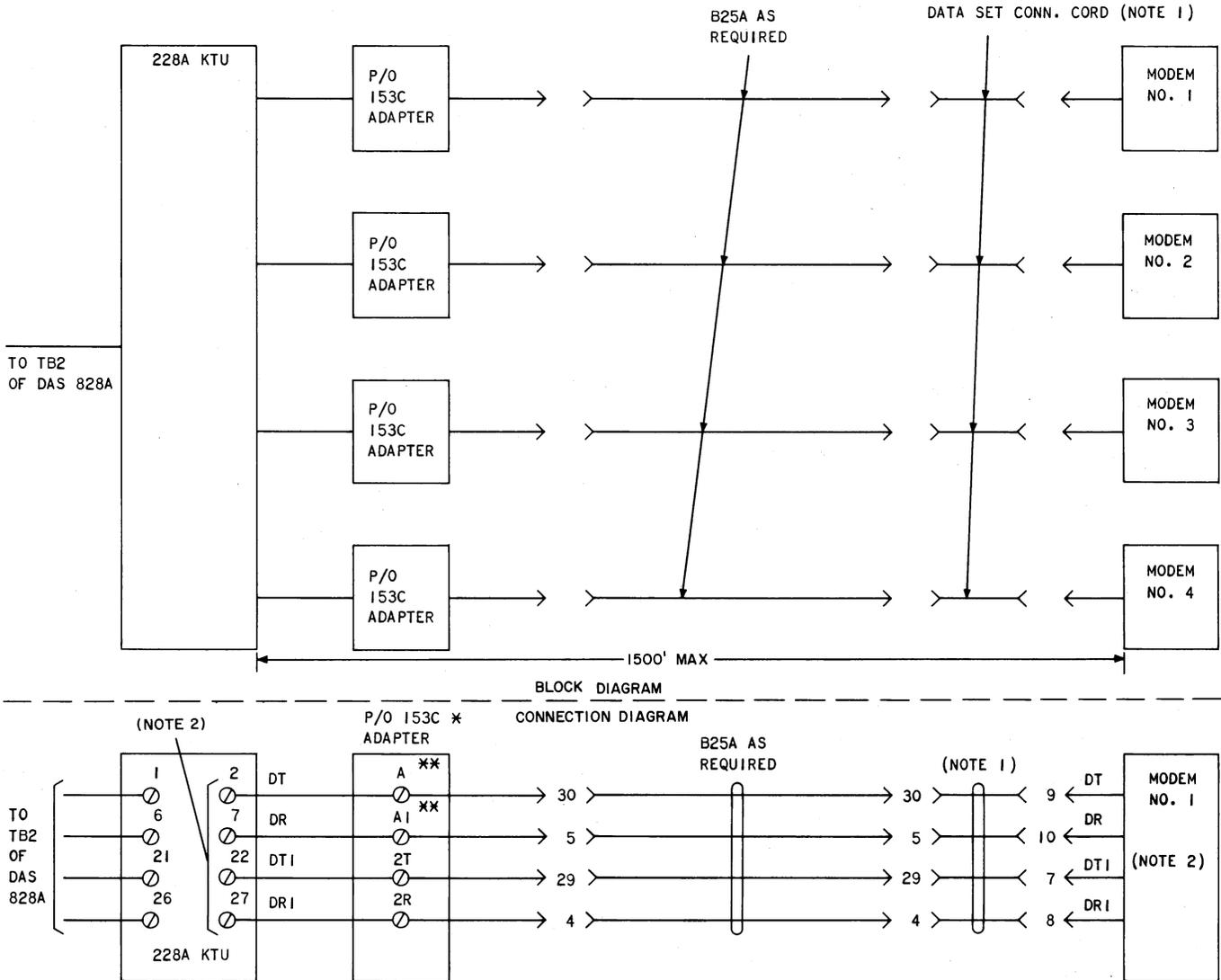


BLOCK DIAGRAM - DATA ONLY



DATA SET CONNECTIONS

Fig. A11 — Block and Connection Diagram for CP Modem



NOTES:

1. DATA SET CONNECTING CORD DEPENDS ON DATA SET TYPE AS FOLLOWS:
201B:M6AK-61, 203A:M8J-61, 201C, 202T, 208A, 209A:M8K
2. ONLY CONNECTIONS FOR MODEM NO. 1 ARE SHOWN. CONNECT MODEMS 2 THRU 4, AS REQUIRED, TO TERMINALS ON THE 228A KTU AS SHOWN IN FIG. 7. TERMINATE UNUSED PORTS IN 600 OHMS.

* ONE PER MODEM

** USE A, AI ASSOCIATED WITH 30, 5

Fig. A12 — 4-Wire Connections for Station Bridging Installation Without Not-in-Data Indication for Data Sets 201B, 201C, 202T, 203A, 208A, and 209A

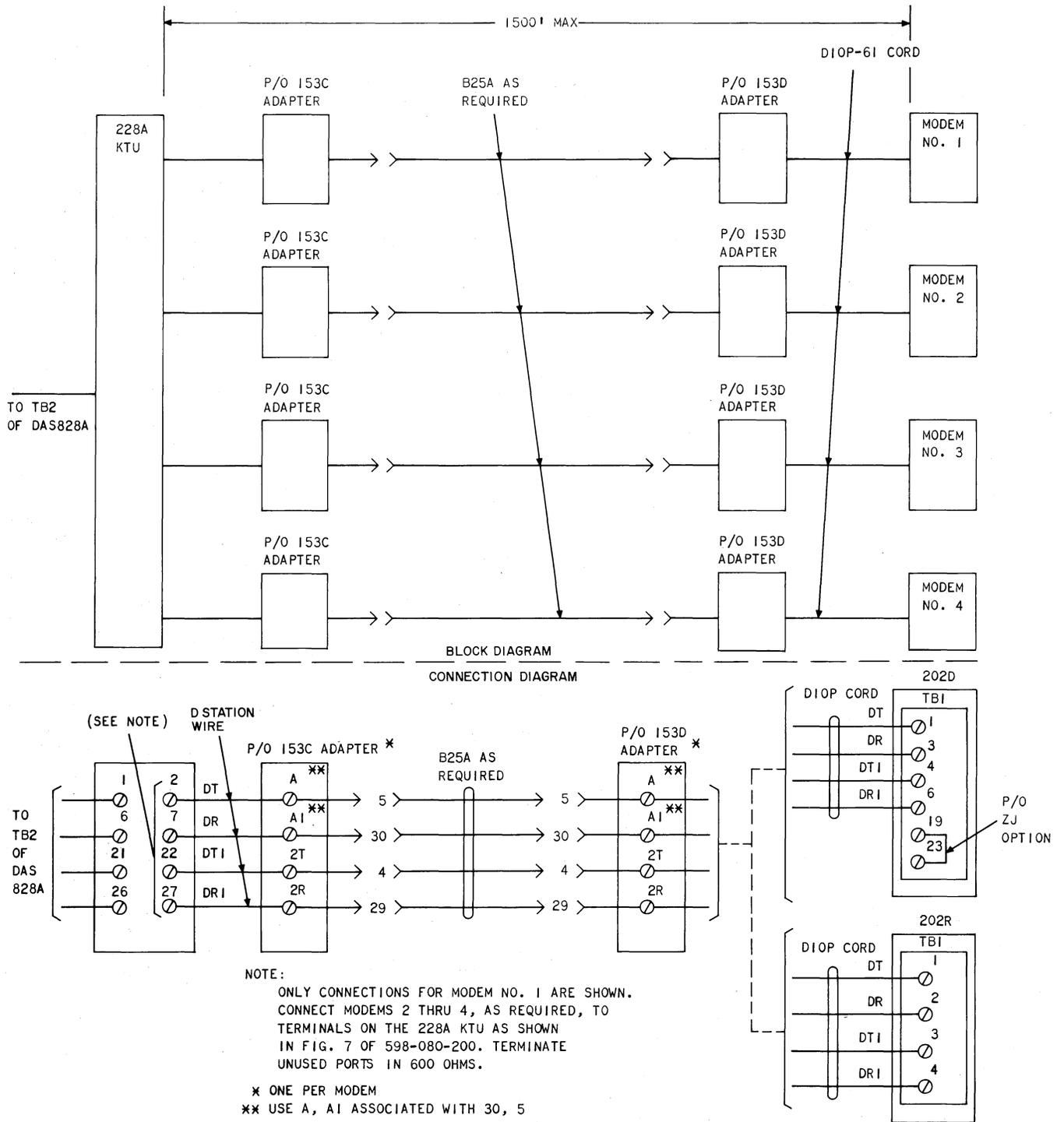
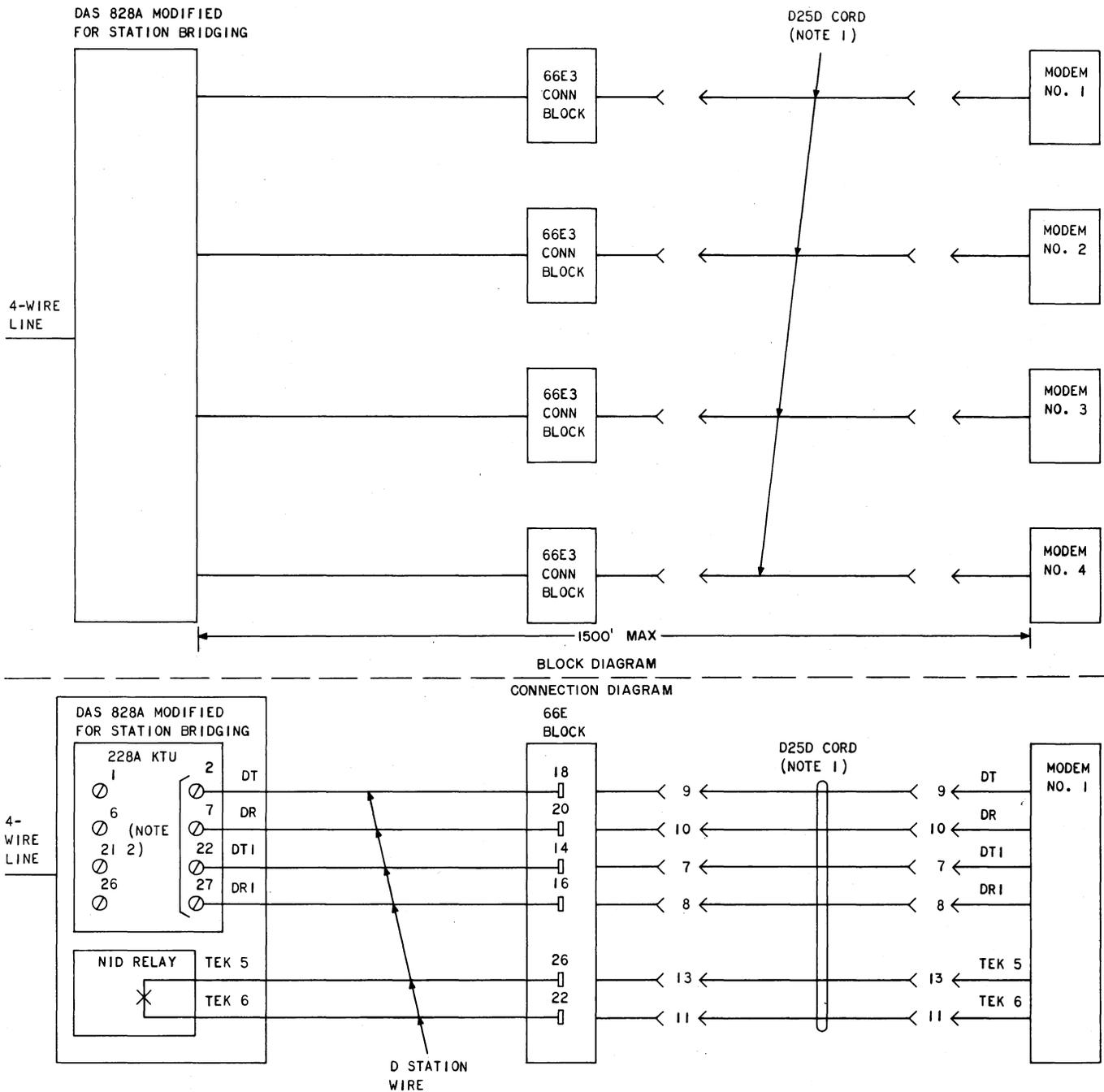


Fig. A13 — 4-Wire Connections for Station Bridging Installation Without Not-in-Data Indication for Data Sets 202D and 202R

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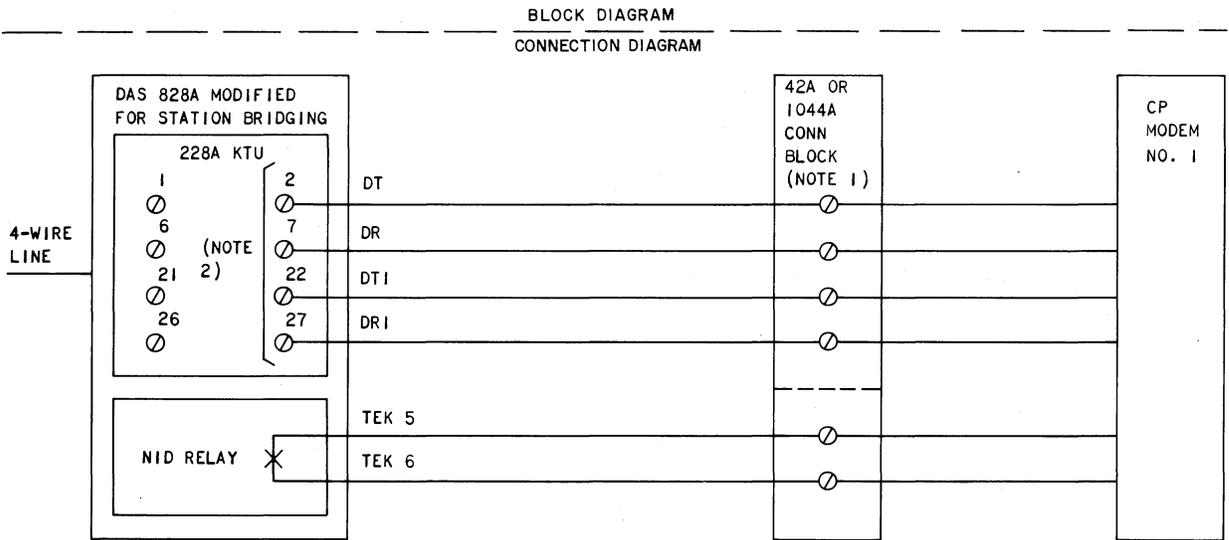
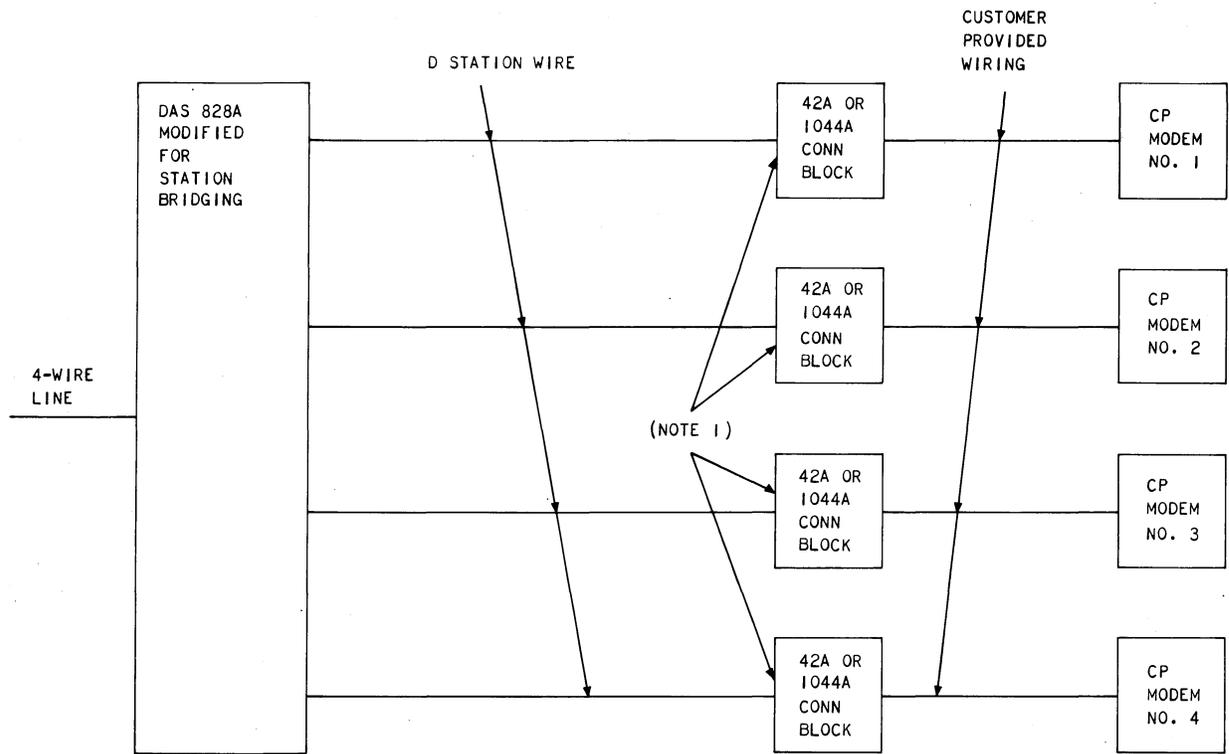
Appendix 1



NOTES:

1. USE D25D CORD IN PLACE OF CORD SUPPLIED WITH DATA SET.
2. ONLY CONNECTIONS FOR MODEM NO. 1 ARE SHOWN. CONNECT MODEMS 2 THRU 4, AS REQUIRED, TO TERMINALS ON THE 228A KTU AS SHOWN IN FIG. 7 OF 598-080-200. TERMINATE UNUSED PARTS IN 600 OHMS.

Fig. A14 — 4-Wire Connections for Station Bridging Installation With Not-in-Data Indication for Data Sets 201C, 202T, 208A, and 209A



- NOTES:
1. WHEN NOT-IN-DATA INDICATION IS NOT REQUIRED, USE 42A CONN BLOCK AND DO NOT CONNECT TO TEK 5 OR TEK 6.
 2. ONLY CONNECTIONS FOR MODEM NO. 1 ARE SHOWN. CONNECT MODEMS 2 THRU 4, AS REQUIRED, TO TERMINALS ON THE 228A KTU AS SHOWN IN FIG. 7 OF 598-080-200. TERMINATE UNUSED PORTS IN 600 OHMS.

Fig. A15 — 4-Wire Connections for Station Bridging Installation With or Without Not-in-Data Indication for CP Modem