

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 SET 203-TYPE
INSTALLATION AND CONNECTIONS**

1. GENERAL

1.001 This addendum supplements Section 592-019-200, Issue 4.

1.002 This addendum is issued to add DAS 828A information to illustrations and tables for clarification.

2. INSTALLATION

The following corrections apply to Part 2 of the section:

- (a) Fig. 7—revised
- (b) Table F—revised

3. CONNECTIONS

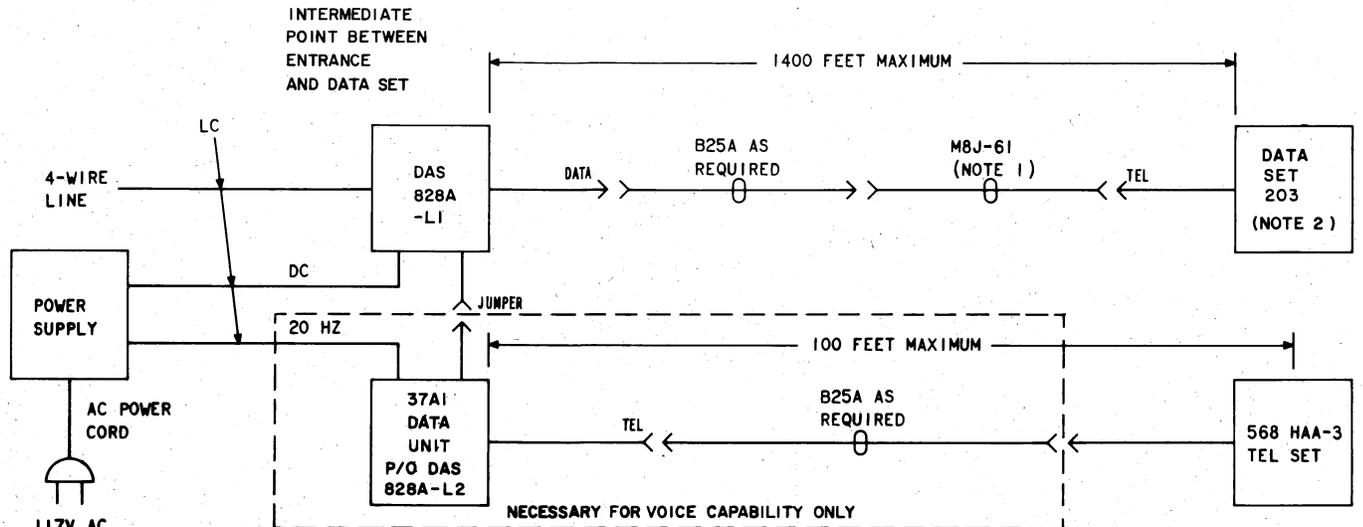
The following corrections apply to Part 3 of the section:

- (a) Table K—revised
- (b) Table L—revised
- (c) Fig. 9—revised

Attached:

Pages 11, 13/14, 23, 25, and 26 dated July 1974—revised

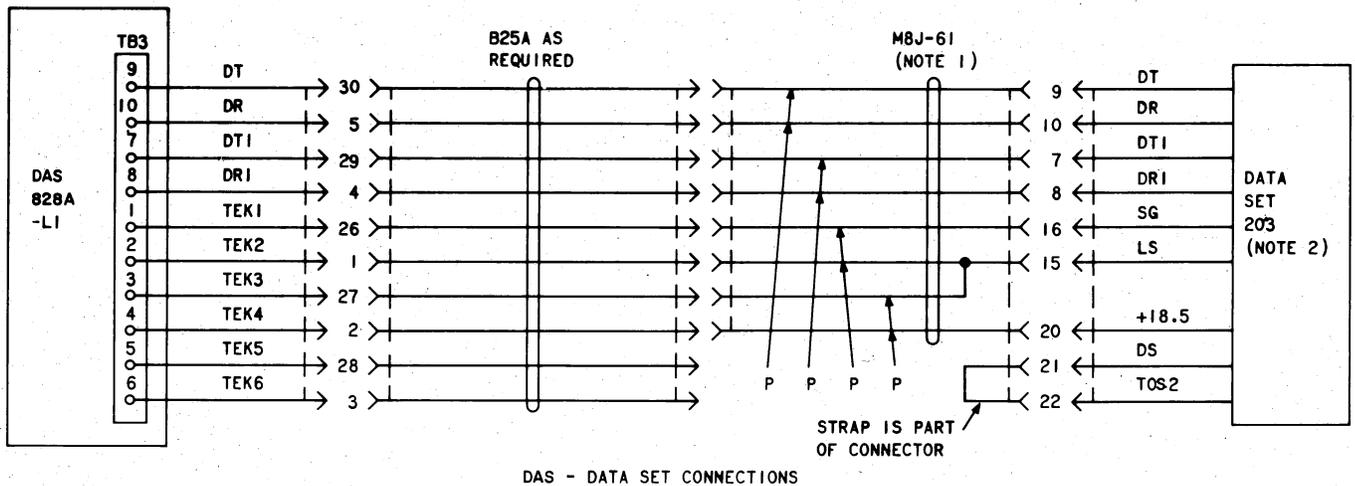
Pages 12 and 24, dated July 1974—reissued



BLOCK DIAGRAM - DATA/VOICE

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 DS 203.
2. DS 203 SHOULD BE PROVIDED WITH OPTION YA.



DAS - DATA SET CONNECTIONS

Fig. 7—Block and Connection Diagram Using DAS 828A Data/Voice for Data Set 203-Type

2.10 Fill in the required information on the data set labels. Cabinet-mounted data sets have the labels secured to the inside of the front cover. Rack-mounted data sets supply the labels loose in the bag with the shorting clips. The labels should be completed as instructed in 1.08 for each respective data unit.

2.11 Obtain and set up the necessary test equipment to perform the installation tests

as required in Section 592-019-500. When the installation, loop-back, and end-to-end tests are completed, replace and secure all hardware (such as circuit pack retaining bars) before replacing the data set covers. If the data set is rack-mounted, place the data set labels in a convenient location for future maintenance calls.

2.12 If possible, before turning the facility over, have the customer contact the far-end station

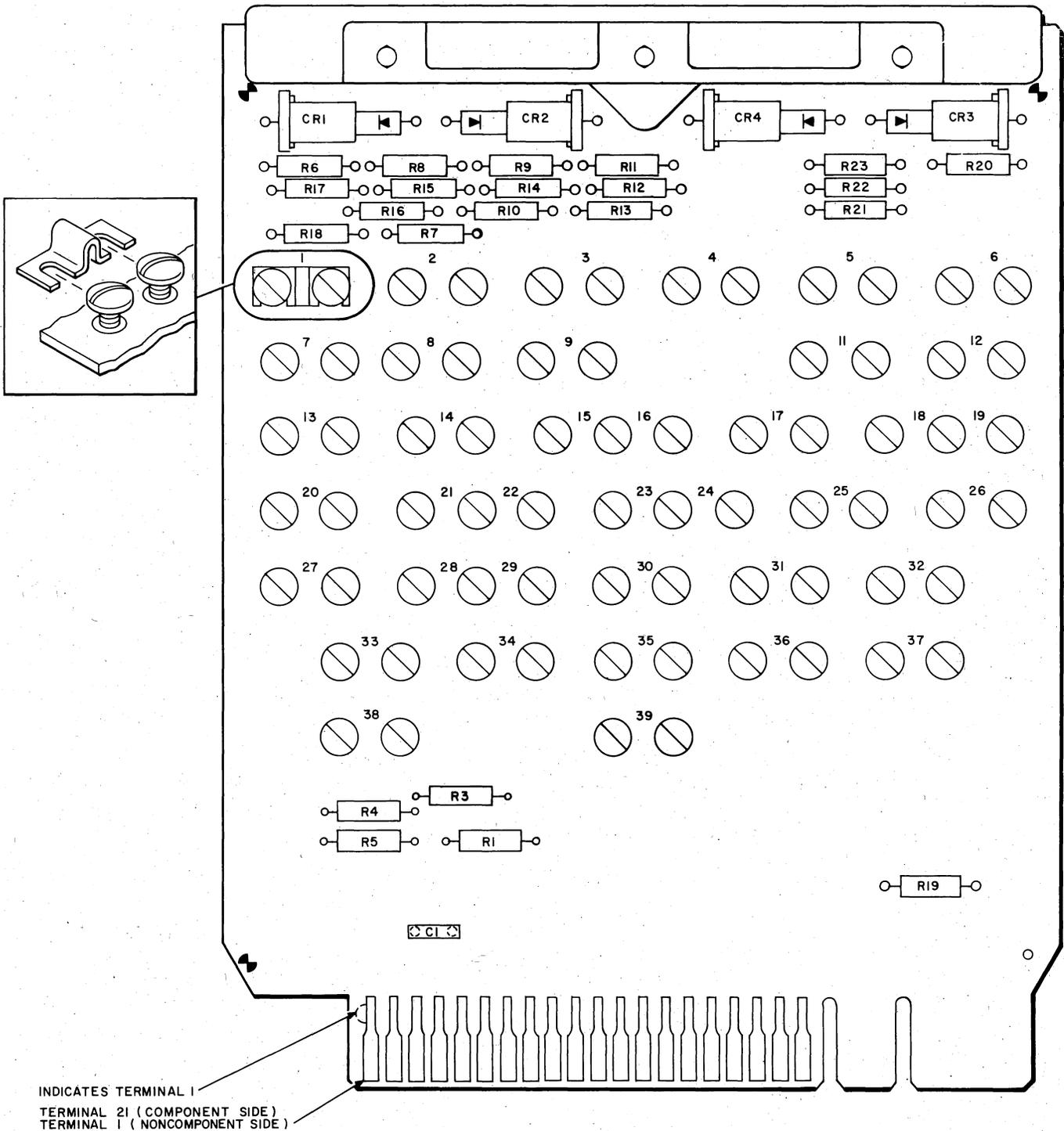


Fig. 8—Option Board AR335

TABLE F
DATA SET STRAPPING OPTIONS

OPTION		FEATURE	STRAPPING ON AR335	PROVIDE
Z	MODE OF OPERATION	4-wire without secondary channel	Install 7, 12, 15, 17, 27, 34	One per station
Y		4-wire with secondary channel or with ARAC channel	Install 15, 17, 18, 26, 27	
X		2-wire (secondary channel required)	Install 16, 19	
W	CONTROL OF SECONDARY CHANNEL	By request to send only (for switched network or 2-wire private lines)	Install 29, 30	One per station
V		By secondary request to send only (for independent control on 2- or 4-wire private lines)	Install 28	
T		By request to send and secondary request to send (for nonsimultaneous transmission on 2- or 4-wire private lines)	Install 29	
YD		0- to 150-bps secondary channel not provided or ARAC channel is provided	Install 28, 30	
S		LINE IMPEDANCE	600 ohms	
R	900 ohms		Install 22, 23	
ZA	TRANSMIT LINE SIGNAL LEVEL AND 2-WIRE RECEIVER PAD	-15 dBm/15 dB	Install 8, 9, 13, 14	One per station
ZB		-14 dBm/14 dB	Install 1, 9, 13, 14	
ZC		-13 dBm/13 dB	Install 2, 8, 9, 13	
ZD		-12 dBm/12 dB	Install 1, 2, 9, 13	
ZE		-11 dBm/11 dB	Install 3, 8, 13, 14	
ZF		-10 dBm/10 dB	Install 1, 3, 13, 14	
ZG		-9 dBm/9 dB	Install 2, 3, 8, 13	
ZH		-8 dBm/8 dB	Install 1, 2, 3, 13	
ZI		-7 dBm/7 dB	Install 4, 8, 9, 14	
ZJ		-6 dBm/6 dB	Install 1, 4, 9, 14	
ZK		-5 dBm/5 dB	Install 2, 4, 8, 9	
ZL		-4 dBm/4 dB	Install 1, 2, 4, 9	
ZM		-3 dBm/3 dB	Install 3, 4, 8, 14	
ZN		-2 dBm/2 dB	Install 1, 3, 4, 14	
ZO		-1 dBm/1 dB	Install 2, 3, 4, 8	
ZP	0 dBm/0 dB	Install 1, 2, 3, 4		

OPTION		FEATURE	STRAPPING ON AR335	PROVIDE	
B	RECEIVER PAD	10 dB for 4-wire lines	Install 11	One per station	
A		0 dB for 2-wire lines	Install 6		
N	USE OF DAS 804- AND 828A-TYPES	No	Install 5,20	One per station	
YA		Yes	Remove 5, 20		
K	INITIATE START-UP OF HIGH-SPEED CHANNEL	One receipt of secondary channel carrier	Install 33	One per station	
J		4-Wire Auto Retrain	Clear to send inhibited by carrier on delayed		Install 25, 38
ZR			Clear to send independent of carrier on delayed		Install 38
YB		Under customer control or under ARAC control	Remove 33, 25, 38		
Q	Using external serial clock transmitter		Install 35	As required	
F	Received data (RD) never clamped		Install 31	As required	
E	Serial clock receiver (SCR) never clamped		Install 32	As required	
M	Receiver-only data set (203C-type)		Install 37, 39	As required	
ZQ	Transmitter-only data set (203B-type)		Install 6, 11	As required	
YE	Customer control of carrier		On AR604,loosen screw switch.	One per station when L13 is provided.	
YF	Permanent carrier on		On AR604, tighten screw switch.		
YG	Fast startup		On AR582 or AR583: Loosen screw switch S1B and S2C, tighten screw switches S1A and S2D.	One per station when L11 or L12 is provided (See Note 1).	
YH	Slow startup		On AR582 or AR583: Loosen screw switches S1A and S2D, tighten screw switches S1B and S2C.		

Note 1: Opposite options must be installed at each end of a data set to data set link. For example, if the local data set has option YG installed, the distant data set must have option YH installed.

TABLE K
ORDERING AND INSTALLATION INFORMATION FOR DAS 828A – DATA WITH
ALTERNATE VOICE CAPABILITY

A. Items To Be Ordered

ITEM		CODE		QUANTITY PER LINE	NOTES
		4-WIRE	2-WIRE		
Data Service Unit	Rack Mount	DAS 828A-L1/2		1	1
	Wall Mount	DAS 828A-L1A/2			2
Connector Cables		B25A		As required	3
Data Set Connecting Cord		M8J-61		1	4
89-Type Resistors	T	89BG	89AN	1	
	LB	89N	89A	1	
	R	89BG	89BN	1	
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	—	1B terminating set	1	5, 6
Power Supply				As required	7

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 connections of DAS.

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

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

Note 6: Only required for 2-wire data sets. Data set must be 600-ohm impedance. TERM SET must not be installed if a 4-wire data set is used.

Note 7: Refer to Table →A← in Section 598-080-200 for information on power supply selection.

SSD/SBA signals from the customer terminal must be disconnected from pins 4 and 14, respectively, of J12 to enable the ARAC receiver to have control of data set 203A.

3.23 Restore ac power and use the ARAC test procedures provided in Data Set 203-Type, Test Procedures (Section 592-019-500).

D. Digital Loop-Back Switch Field Modification

3.24 The digital loop-back feature can be added to a data set 203A operating on a 4-wire facility. The loop-back feature will allow testing a data set from the opposite end of the 4-wire facility to which it is connected by transmitting a test pattern and comparing the received pattern to the transmitted pattern. The loop-back switch

TABLE K (Cont)

B. Data Auxiliary Set Option for 2-Wire or 4-Wire Data Sets

DAS 828A OPTIONS	CONNECT	
	TB2 TO TB3	
4-Wire (factory-shipped) Z	25	9
	26	10
	27	7
	28	8
2-Wire X	29	7
	30	8

C. Repeater Screw Setting Per Section AB24.100

D. Options for Data Set 203-Type

FUNCTION	DATA SET OPTION
600-ohm 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

allows the data set being tested to operate as a regenerator allowing a customer to test both data sets and the transmission facility simultaneously.

3.25 The loop-back switch in field-modified sets cannot be used in data sets 203A with Lists 7, 11, or 12, or if a 38A1 data unit is installed. If data set 203A contains a 24A2 data unit, series 3 or higher (having a factory-installed loop-back switch), loop-back operation with Lists 7, 11, or 12 is possible if (1) the attendant has control of the RS/CA interface lead during the test, or (2) option J or ZR is installed for the duration of the test. After testing, the option board must be returned to normal.

3.26 Field modification for 24A1 data units, series 1, 2, 3, and 4, and 24A2 data units, series

1, may be done as shown in Fig. 16. After the modification is completed, test the loop-back function as directed in Data Set 203-Type, Test Procedures (Section 592-019-500).

E. Permanent Request-to-Send Features

3.27 To provide a permanent request-to-send service for data set 203-type operation, the special interface cord (M23A-51) may be ordered separately. This cord internally applies +18.5 volts to the request-to-send interface lead by connecting pin 9 to pin 4 at the data set connector end.

3.28 The feature provided by the M23A-51 cord is not recommended for use with a data set using the 38A-type data unit. The cord provides

TABLE L
ORDERING AND INSTALLATION INFORMATION FOR DAS 828C – DATA WITH
ALTERNATE VOICE CAPABILITY

A. Items To Be Ordered

ITEM		CODE 4-WIRE	QUANTITY PER LINE	NOTES
Data Service Unit	Rack Mount	DAS 828C-L1	1	1
	Wall Mount	DAS 828C-L1A		2
Connector Cables		B25A	As required	3
Data Set Connecting Cord		M8J-61	1	4
89-Type Resistor		Determined after installation depending on loop loss.	1	—
Power Supply		—	As required	5

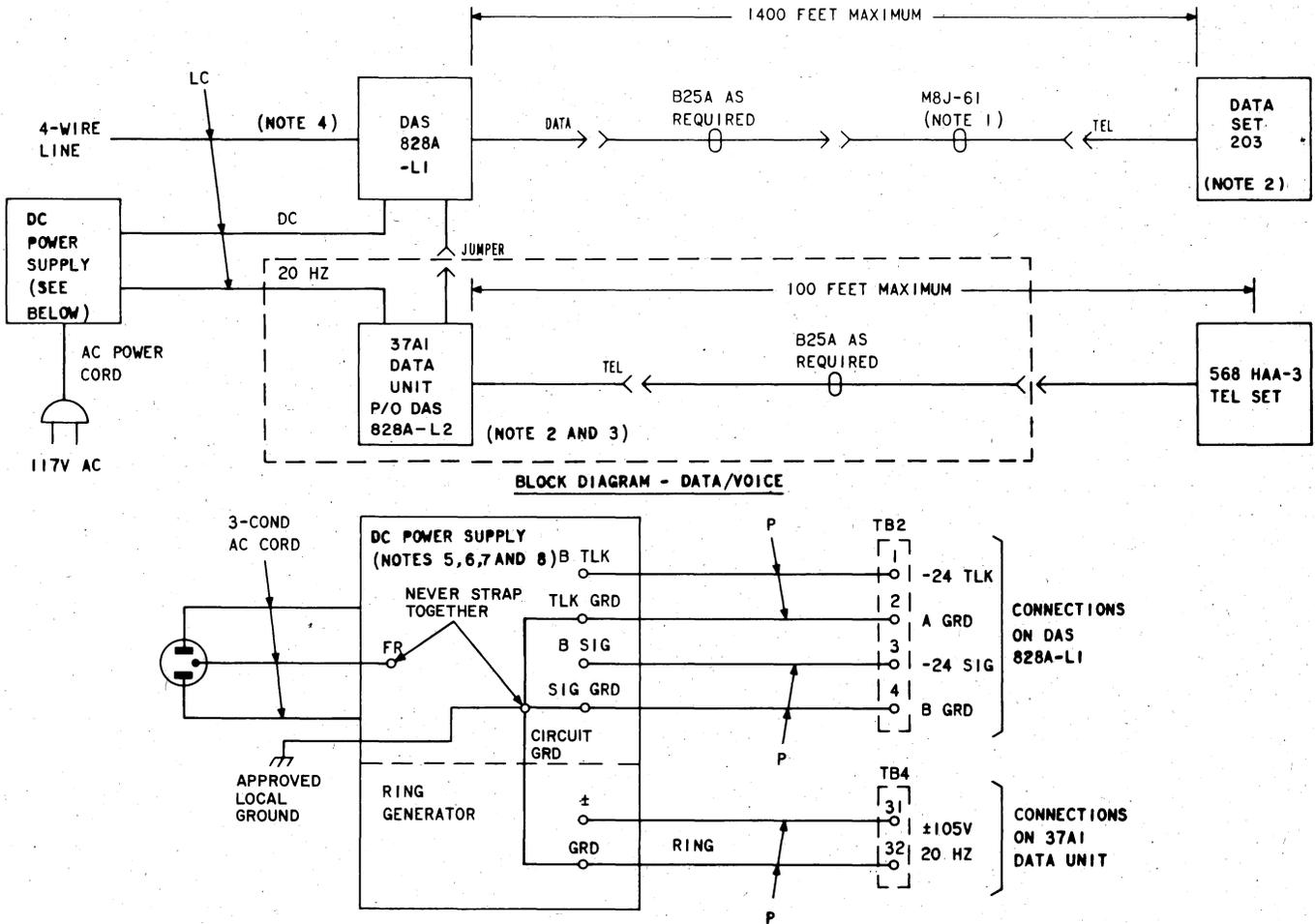
- Note 1:* Order mounting bars or brackets as required. Refer to Section 463-140-100.
- Note 2:* Order mounting hardware and mount in accordance with Section 463-130-100.
- Note 3:* Order when required to extend DATA and TEL connections of DAS.
- Note 4:* To be used in place of any cord supplied with data set.
- Note 5:* Refer to Table →A← in Section 598-080-200 for information on power supply selection.

B. Data Auxiliary Set Option for Data Set 203

Not-in-Data Indication During Setup of Call	Y	On TB1, strap terminal 43 to terminal 44
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C. Options for Data Set 203-Type

FUNCTION	DATA SET OPTION
600-ohm impedance	S
0-dBm transmit level	ZP
-16 dBm receive level	B
Enable DSU to control data set ready	YA
4-Wire operation	Z or Y
2-Wire operation	(Not recommended)



NOTES:

1. USE M8J-61 CORD IN PLACE OF 66-TYPE COMM. BLOCK AND SPECIAL CORD SUPPLIED WITH 203. PLUG M8J-61 CORD DIRECTLY INTO "TEL" CONNECTOR PI OF DS 203.
2. DS 203 SHOULD BE PROVIDED WITH OPTION YA.
3. COMPONENTS WITHIN THE DASHED LINES ARE PART OF DAS 828A-L2 WHICH IS USED WHEN VOICE CAPABILITY IS REQUIRED.
4. TERMINATE THE 4-WIRE LINE AT THE DAS 828A TERMINAL BLOCK AS FOLLOWS:
 T - TB2-13
 R - TB2-14
 T1 - TB2-15
 R1 - TB2-16
5. RUN RING GENERATOR LEADS SEPARATE FROM ALL OTHER LEADS.
6. CONNECT ALL GROUNDS TO LOCAL GROUND AS SHOWN TO MINIMIZE 20-HZ PICKUP.
7. STRAP POWER SUPPLY FOR 117 VOLTS AC INPUT (FACTORY SHIPPED).
8. NOT ALL DAS'S REQUIRE TALK-SIGNALING AND RING VOLTAGES. CONNECT ONLY THOSE REQUIRED.

Fig. 9—Connection Block Diagram for DAS 828A and Data Set 203-Type Providing Data Only or Data/Voice Capability Over Four-Wire Private Line