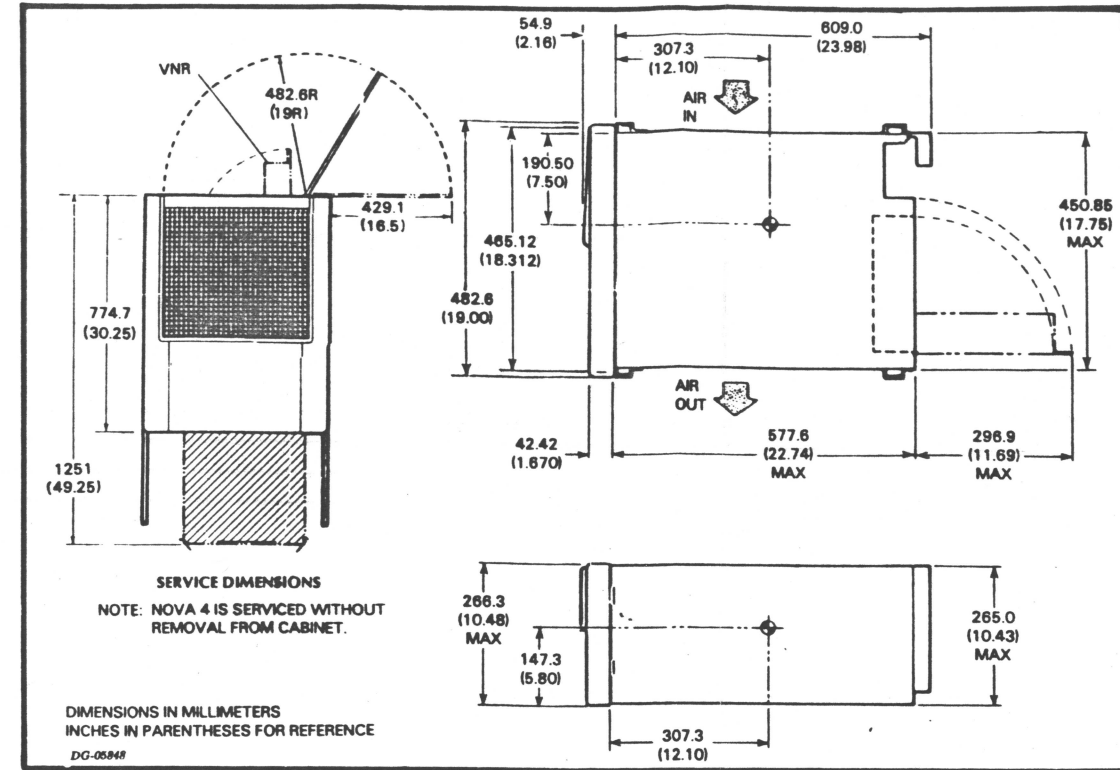
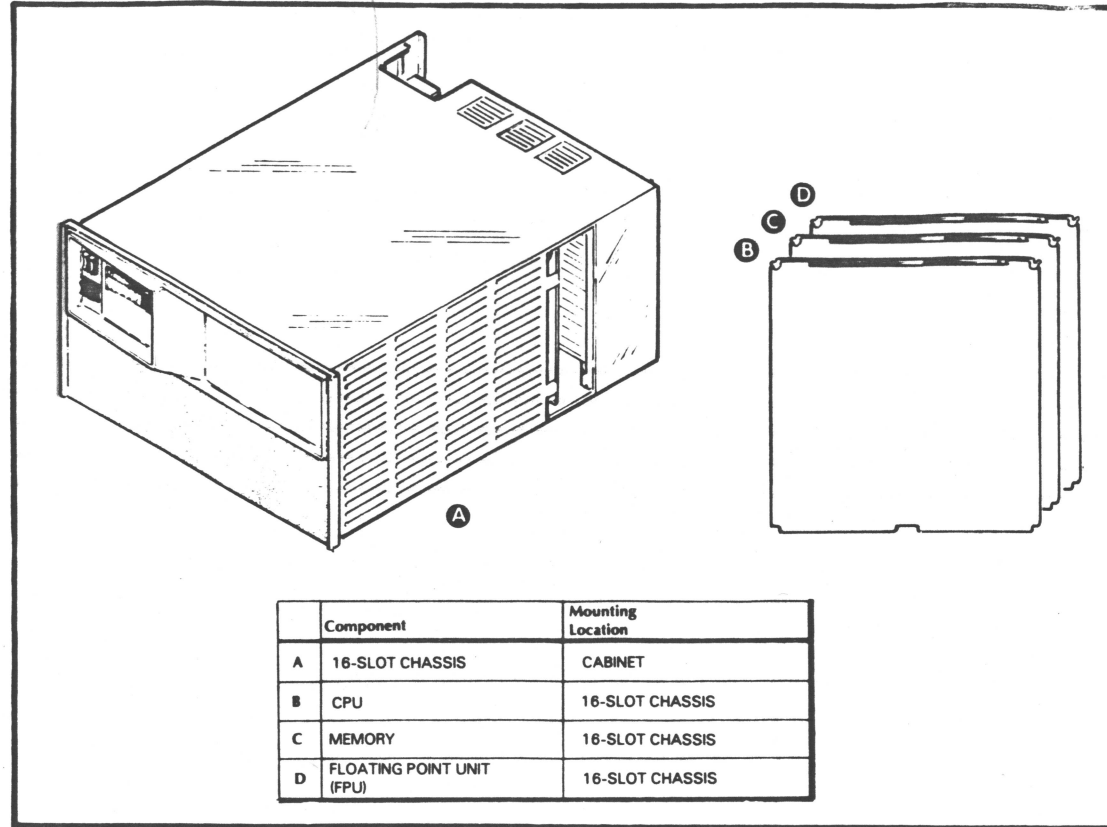


# INSTALLATION SPECIFICATIONS



### SLOT ASSIGNMENTS

Slot	Data Channel Speeds Available		+5V Current Draw
	Allowed (Slot Chart)	Standard or High Speed	
16	I/O		
15	I/O		
14	I/O		
13	I/O		
12	I/O		
11	MEMORY or I/O		
10	MEMORY or I/O		
9	MEMORY or I/O		
8	MEMORY or I/O		
7	MEMORY or I/O		
6	MEMORY or I/O		
5	MEMORY or I/O		
4	MEMORY or I/O		
3	MEMORY or I/O		
2	MEMORY or FPU	NOTE 2,3	
1	CPU	NOTE 1	
0	POWER SUPPLY		

Total +5V Current draw  
Max +5V Current Available  
+5V Current Surplus 100A

**NOTES:**

- NOVA 4/S and NOVA 4/X 17A  
NOVA 4/C 8A
- MEMORY (NOVA 4/S & 4/X only)  
w/BATTERY BACKUP OPTION PRESENT 4.4A  
w/o BATTERY BACKUP OPTION PRESENT 5.6A
- FLOATING POINT UNIT 15A
- MAXIMUM 4 MEMORY BOARDS PER SYSTEM.
- MAXIMUM 10 I/O BOARDS CONNECTED TO I/O BUS W/O A BUS REPEATER.
- PUSH-ON TERMINATORS ON TOP MEMORY SLOT FOR NOVA 4/S & 4/X.
- PUSH ON TERMINATORS ON SLOT 2 FOR NOVA 4/C
- SEE PAGE 10 FOR +12V LOAD RESTRICTIONS.

SPECIFICATIONS	NOVA 4 16 slot		
<b>DIMENSIONS:</b>	Width	Depth	Height
	Millimeters 483.1	663.9	266.3
	Inches 19.02	26.14	10.48
<b>SERVICE CLEARANCES:</b>	Front	Rear	
	Millimeters 508.0	269.9	
	Inches 20.0	11.69	
<b>WEIGHT:</b>	Empty	Fully Loaded	
	Kilograms 35.38	49.9	
	Pounds 78.0	110.0	
<b>OPERATING ENVIRONMENT:</b>	Temperature (max)	55°C(131°F) 60Hz, 45°C(113°F) 50Hz	
	Relative Humidity (max)	90%	
	Altitude (max)	3084m(10,000')	
<b>CABLES:</b>	Primary Power	Length	Conn Mating Conn
	Domestic	1.8m(6')	5-15P 5-15R
	Export	1.8m(6')	6-15P 6-15R
	External I/O Bus Cable	15.3m(50')	max
<b>HEAT OUTPUT:</b>	1100 watts (3750 BTU/hr)		
<b>POWER REQUIREMENTS:</b>	(Domestic)		
	Voltage	102-132	
	Hz	47-63	
	Max Amp per Phase	12.0	
	Phase	1	
	Startup Surge per Phase	20A (max) for 0.25 seconds	
	(Export)		
	Voltage	187-264	
	Hz	47-63	
	Max Amp per Phase	7.0	
	Phase	1	
	Startup Surge per Phase	40A (max) for 0.12 seconds	
<b>LINE CORDS:</b>	Supply	Part No.	
	120V	109 000455	
	220/240	109 000456	

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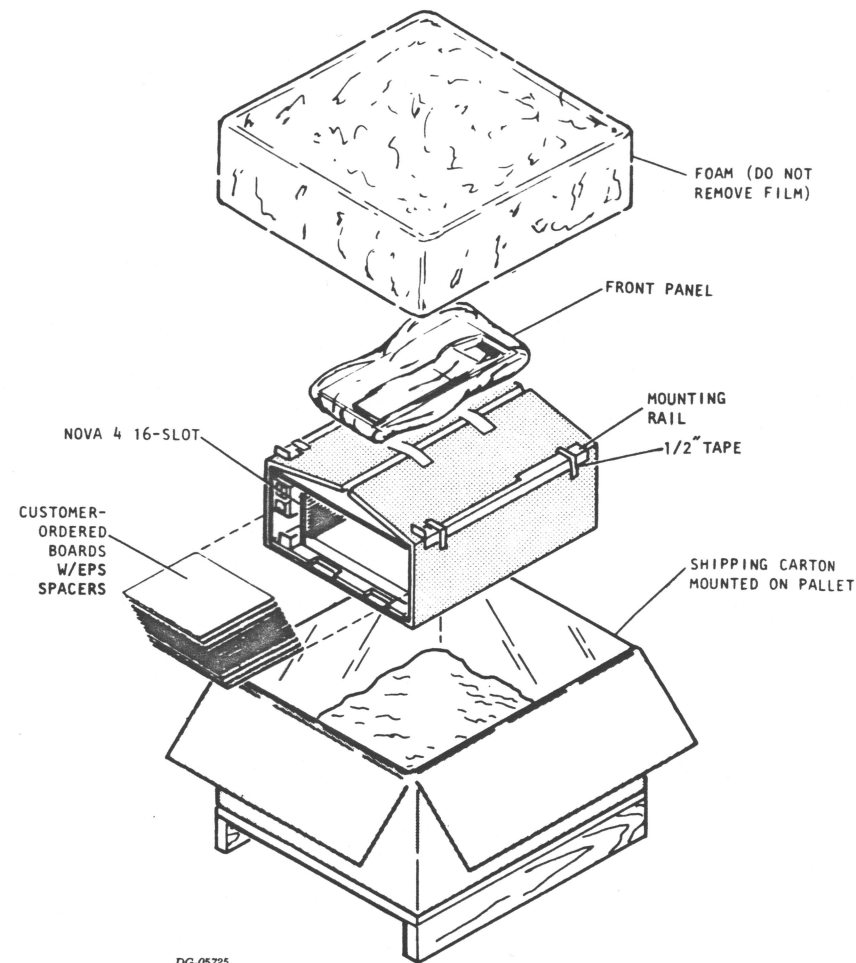
REV	00	01	02
ECO	F802	F870	G748
APP	✓		
DATE	2-6-79		

DRAWN <i>F.B. 3/9/6</i>	APPROVED <i>[Signature] 2/6/79</i>
CHECKED	FIRST USED ON
ENGINEER	CODE IDENT 34984

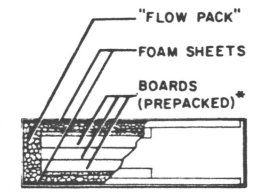
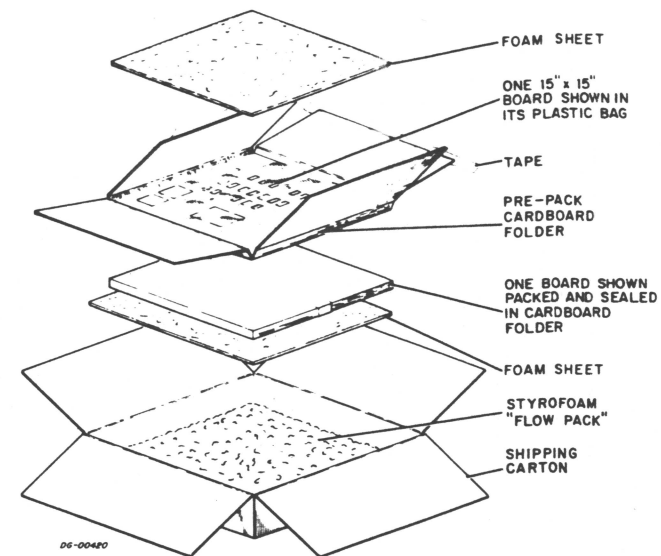
TITLE  
**INSTALLATION DATA SHEET**  
NOVA 4 16-SLOT

<b>DATA GENERAL CORPORATION</b> WESTBORO, MASSACHUSETTS 01581			
SIZE C	CODE 010	DRAWING NUMBER 000213	REV 02

# SHIPPING



DG-05725



**\* MULTIPLE PACKING**  
Up to three (3) 15" x 15" boards, enclosed in plastic bags and sealed in pre-pack folders as shown, can be put in shipping carton number 129-00062. For four (4) to seven (7) boards, use shipping carton number 129 00012.

SHIPPING AND PACKAGE DATA					
Outside Dimensions			Weight (Gross)	Volume	Density
Length	Width	Depth			
in.	in.	in.	lbs.	cu ft.	lbs/cu ft.
cm	cm	cm	kg	cu m	kg/cu m
36	28	24.5	135	14.29	
91.4	71.12	62.2	61.22	.4287	
SHIPPING SPECIFICATIONS			STORAGE SPECIFICATIONS		
Temperature Range	Relative Humidity (Non-condensing)	Maximum Altitude	Temperature Range	Relative Humidity (Non-condensing)	Maximum Period
°F °C			°F °C		
-40to+160 -40to+71	0%/90%	50,000ft. 15,200m	-40to+160 -40to+71	0%/90%	90 days

DG-03224

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REV	ECO	APP	DATE	DRAWN	CHECKED	ENGINEER

APPROVED	FIRST USED ON	CODE IDENT
		34984

TITLE  
**INSTALLATION DATASHEET**  
**NOVA 4 16-SLOT**

<b>DATA GENERAL CORPORATION</b> WESTBORO, MASSACHUSETTS 01581			
SIZE	CODE	DRAWING NUMBER	REV
C	OIO	000213	02

# TAILORING CPU JUMPERING NOVA 4/C

DEVICE CODE JUMPERS FOR FRONT PANEL AUTOMATIC PROGRAM LOAD

SELECT THE PROGRAM LOAD DEVICE CODE BY INSTALLING JUMPERS W11, W8, W6, W7, W9, W10, AS FOLLOWS:

JUMPER OUT = 1 JUMPER IN = 0

EXAMPLE JUMPERING FOR DEVICE CODE 27g:

W11	W8	W6	W7	W9	W10
IN	OUT	IN	OUT	OUT	OUT

W4 IS NOT INSERTED IF THE PROGRAM LOAD DEVICE IS A HIGH SPEED DEVICE, OTHERWISE IT IS INSERTED.

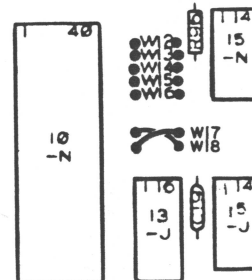
TYPE OF TRANSMISSION JUMPERS

TYPE OF TRANSMISSION	JUMPERS INSERTED*
20MA CURRENT LOOP EIA RS232-C	W1, W3 W2

\* JUMPER 25 IS INSERTED IF THE SYSTEM TERMINAL IS A TELETYPE, OTHERWISE IT IS NOT INSERTED.

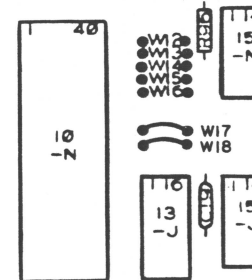
\* JUMPERS W17 AND W18 MUST ALSO BE INSERTED AS SHOWN BELOW.

20MA CURRENT LOOP

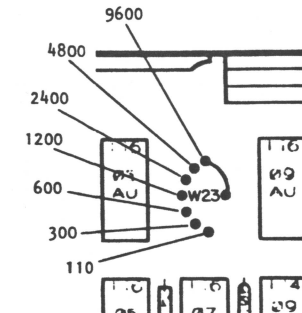


JUMPERS W17 AND W18  
MUST NOT TOUCH!

EIA RS232-C



W23 IS INSERTED TO DETERMINE THE BAUD RATE AS SHOWN BELOW: (9600 SHOWN)



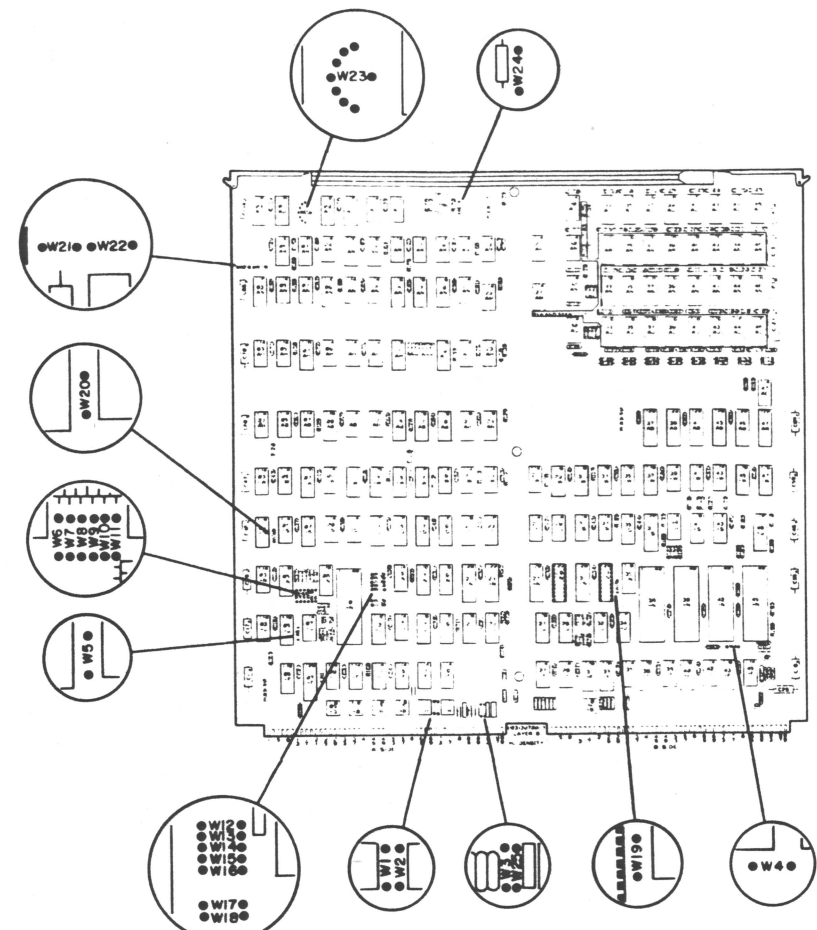
W22 IS NEVER INSERTED.

THE FOLLOWING JUMPERS ARE ALWAYS INSERTED:

- W5
- W19
- W20
- W21
- W24

CPU/MEMORY LOADS

VOLTAGE	DESCRIPTION	CURRENT DRAW
+5V	SYSTEM WITHOUT BATTERY BACKUP	8.0A
+5V	SYSTEM WITH BATTERY BACKUP	7.5A
+5V MEM		0.5A
+12V MEM		0.7A
+15V		0.04A



STOP BIT JUMPERS

NUMBER OF STOP BITS	W15 JUMPER POSITION
1	IN
2	OUT

PARITY JUMPERS

TYPE OF PARITY	JUMPER POSITION	
	W12	W16
EVEN	OUT	IN
ODD	IN	IN
NONE	OUT	OUT

CHARACTER LENGTH JUMPERS

CHARACTER LENGTH	JUMPER POSITION	
	W13	W14
5 BITS	IN	IN
6 BITS	OUT	IN
7 BITS	IN	OUT
8 BITS	OUT	OUT

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REV	ECO	APP	DATE

DRAWN	APPROVED
CHECKED	FIRST USED ON
ENGINEER	CODE IDENT 34984

TITLE  
**INSTALLATION DATA SHEET**  
**NOVA 4 16-SLOT**

<b>DATA GENERAL CORPORATION</b> WESTBORO, MASSACHUSETTS 01581			
SIZE C	CODE 010	DRAWING NUMBER 000213	REV 02

**TAILORING (CONT)**  
**CPU JUMPERING**  
**NOVA 4/S OR 4/X**

BAUD RATE JUMPERS

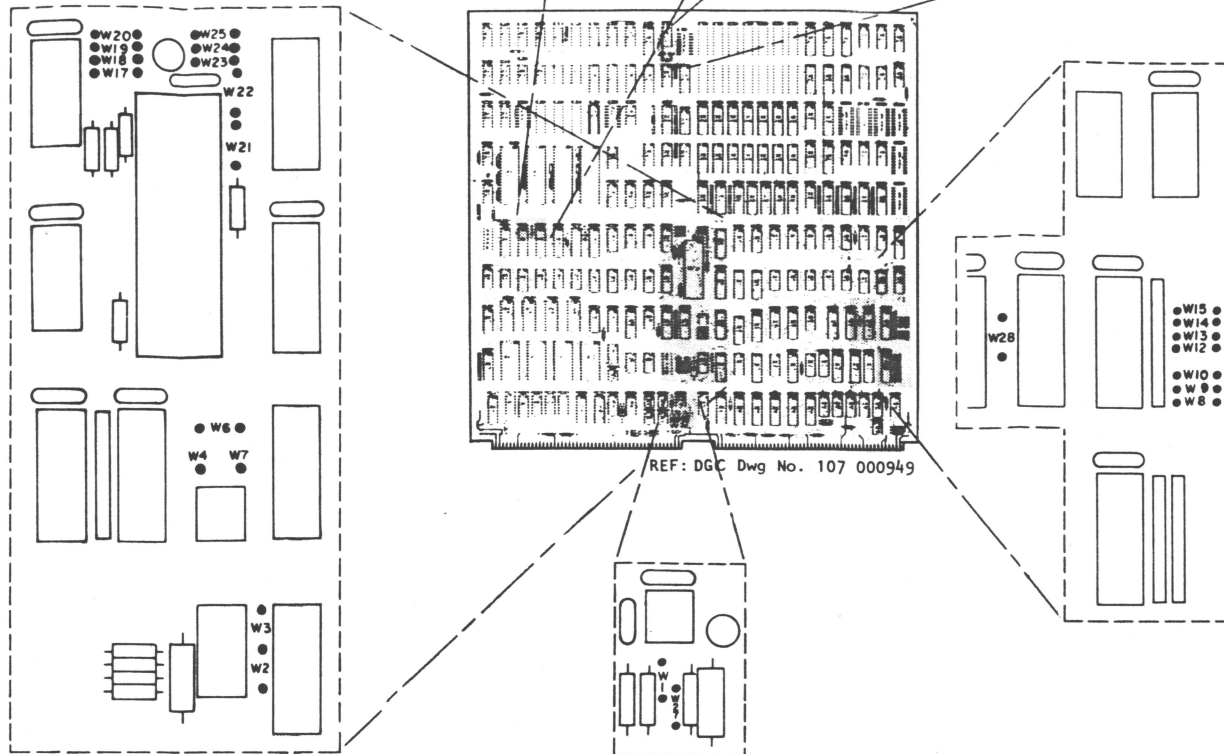
BAUD RATE	JUMPER POSITION				
	W17	W18	W19	W20	W27
50	IN	IN	OUT	IN	OUT
75	IN	IN	OUT	OUT	OUT
110	OUT	OUT	OUT	OUT	IN
134.5	IN	OUT	IN	IN	OUT
150	OUT	OUT	OUT	IN	OUT
200	IN	OUT	IN	OUT	OUT
300	OUT	OUT	IN	OUT	OUT
600	IN	OUT	OUT	IN	OUT
1200	OUT	IN	OUT	OUT	OUT
1600	OUT	IN	OUT	IN	OUT
2400	OUT	OUT	IN	IN	OUT
4800	OUT	IN	IN	OUT	OUT
9600	OUT	IN	IN	IN	OUT
19200	IN	IN	IN	OUT	OUT

PARITY JUMPERS

TYPE OF PARITY	JUMPER POSITION	
	W22	W21
EVEN	OUT	IN
ODD	IN	IN
NONE	OUT	OUT

CHARACTER LENGTH JUMPERS

CHARACTER LENGTH	JUMPER POSITION	
	W25	W24
5 BITS	IN	IN
6 BITS	OUT	IN
7 BITS	IN	OUT
8 BITS	OUT	OUT



TYPE OF TRANSMISSION JUMPERS

TYPE OF TRANSMISSION	JUMPERS INSERTED
20MA CURRENT LOOP	W4, W7, W2, W1
EIA RS232-C	W6, W3

STOP BIT JUMPERS

NUMBER OF STOP BITS	W23 JUMPER POSITION
1	IN
2	OUT

REAL TIME CLOCK JUMPER

	W28
RTC ENABLED	IN
RTC DISABLED	OUT

DEVICE CODE JUMPERS FOR FRONT PANEL AUTOMATIC PROGRAM LOAD

SELECT THE PROGRAM LOAD DEVICE CODE BY INSTALLING JUMPERS W13, W15, W14, W12, W10, W8 AS FOLLOWS:

JUMPER IN = 1      JUMPER OUT = 0

EXAMPLE JUMPERING FOR DEVICE CODE 27 :  
8

W13	W15	W14	W12	W10	W8
OUT	IN	OUT	IN	IN	IN

W9 IS INSERTED IF THE PROGRAM LOAD DEVICE IS A HIGH SPEED DEVICE, OTHERWISE, IT IS REMOVED.

NOTE: JUMPERS W16 AND W26 ARE ALWAYS INSERTED. JUMPERS W5 AND W11 DO NOT EXIST.

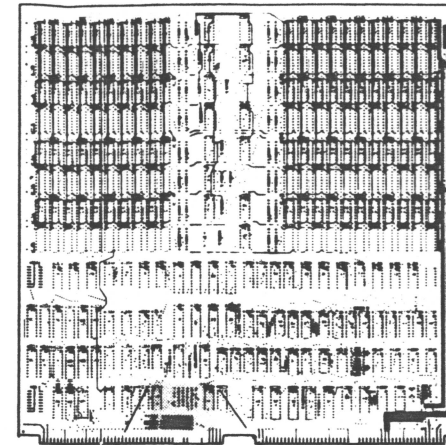
+5V CURRENT DRAW = 17A

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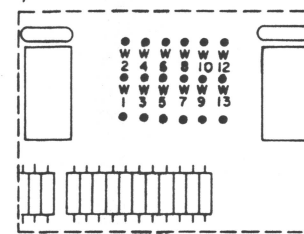
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CODE IDENT	34984																																
SIZE	CODE	DRAWING NUMBER	REV																														
C	010	000213	02																														

# TAILORING (CONT)

## MEMORY JUMPERING NOVA 4/S AND 4/X



REF: DGC, Dwg No. 107 000813



NOVA 4/X MEMORY BOARD SELECT JUMPERS

ADDRESS RANGE	JUMPERS INSERTED*		
	BOARD SIZE		
	256KBYTES	128KBYTES	64KBYTES
0377777-	NONE	W8	W8 W10
0300000-			W8 W9
0277777-	W7	W7	W7 W10
0200000-			W7 W9
0177777-			W7 W9
0100000-			W7 W9
0077777-			
0000000-			

\*NOTE: JUMPERS W1, W3, AND W5 ARE ALWAYS INSERTED.  
JUMPERS W2, W4, AND W6 ARE NEVER INSERTED.

NOVA 4/S MEMORY BOARD SELECT JUMPERS

ADDRESS RANGE	JUMPERS INSERTED*	
	BOARD SIZE	
	64 KBYTES	32KBYTES
0077777-	W7 W9	W7 W9 W12
0040000-		W7 W9 W11
0037777-		W7 W9 W11
0000000-		

NOTE: JUMPERS W1, W3, AND W5 ARE ALWAYS INSERTED;  
JUMPERS W2, W4, AND W6 ARE NEVER INSERTED.

SYSTEMS SHOULD BE CONFIGURED WITH THE LARGER BOARDS OCCUPYING THE LOWER MEMORY ADDRESS RANGES.

MEMORY LOADS

VOLTAGE	DESCRIPTION	CURRENT DRAW
+5V	SYSTEM WITH BATTERY BACKUP	4.4 A
+5V	SYSTEM WITHOUT BATTERY BACKUP	5.6 A
+5V MEM		1.2 A
+12V MEM	FIRST BOARD IN CHASSIS	2.3 A
+12V MEM	EACH ADDITIONAL BOARD	0.3 A

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REV	ECO	APP	DATE

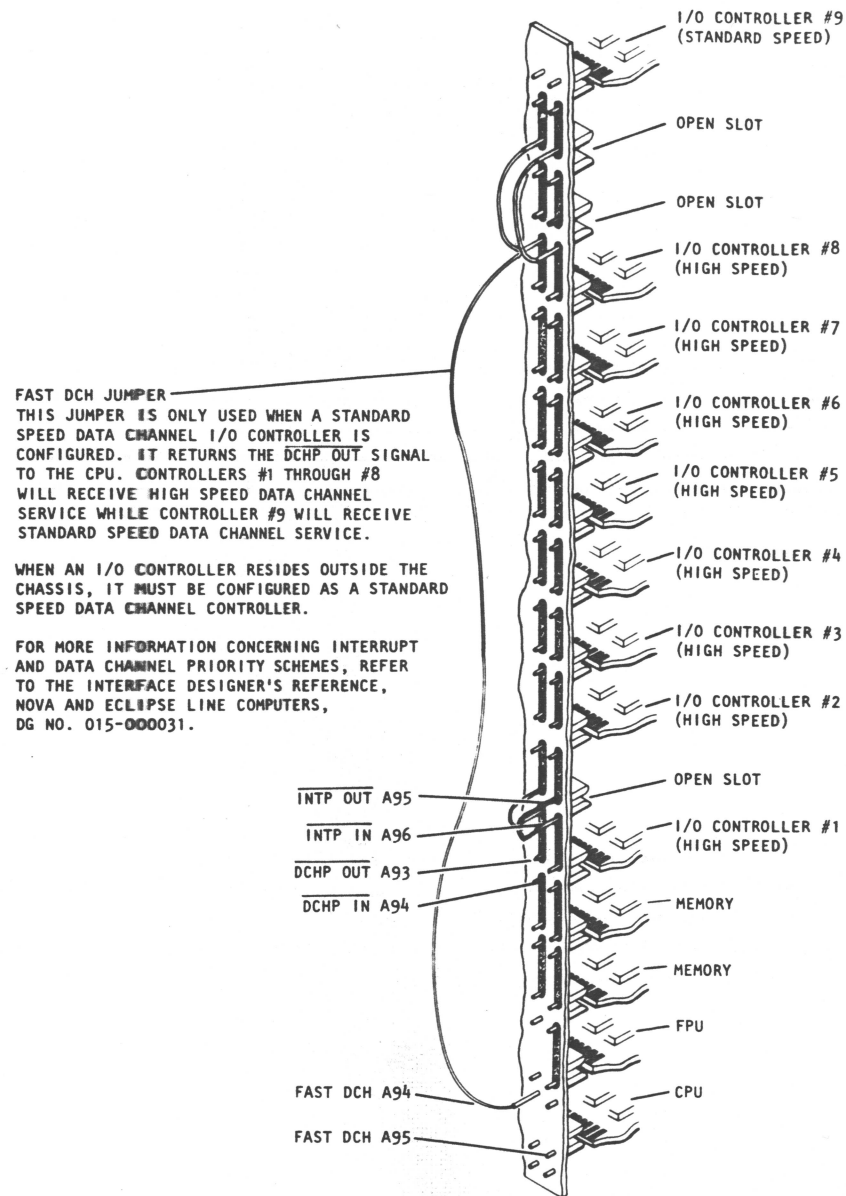
DRAWN	APPROVED
CHECKED	FIRST USED ON
ENGINEER	CODE IDENT 34984

TITLE  
INSTALLATION DATA SHEET  
NOVA 4 16-SLOT

DATA GENERAL CORPORATION WESTBORO, MASSACHUSETTS 01581			
SIZE C	CODE O10	DRAWING NUMBER 000213	REV 02



### TAILORING (CONT) BACKPANEL JUMPERING



**FAST DCH JUMPER**  
THIS JUMPER IS ONLY USED WHEN A STANDARD SPEED DATA CHANNEL I/O CONTROLLER IS CONFIGURED. IT RETURNS THE DCHP OUT SIGNAL TO THE CPU. CONTROLLERS #1 THROUGH #8 WILL RECEIVE HIGH SPEED DATA CHANNEL SERVICE WHILE CONTROLLER #9 WILL RECEIVE STANDARD SPEED DATA CHANNEL SERVICE.

WHEN AN I/O CONTROLLER RESIDES OUTSIDE THE CHASSIS, IT MUST BE CONFIGURED AS A STANDARD SPEED DATA CHANNEL CONTROLLER.

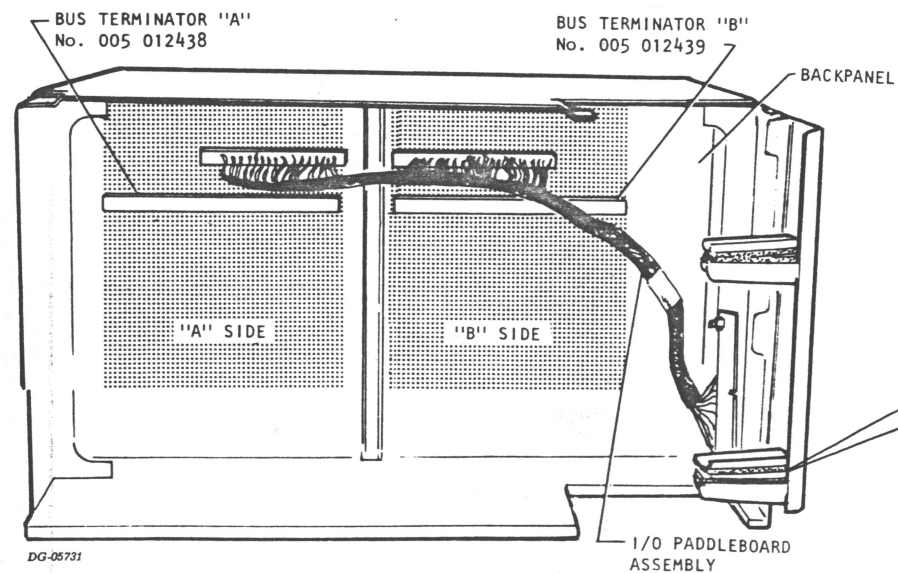
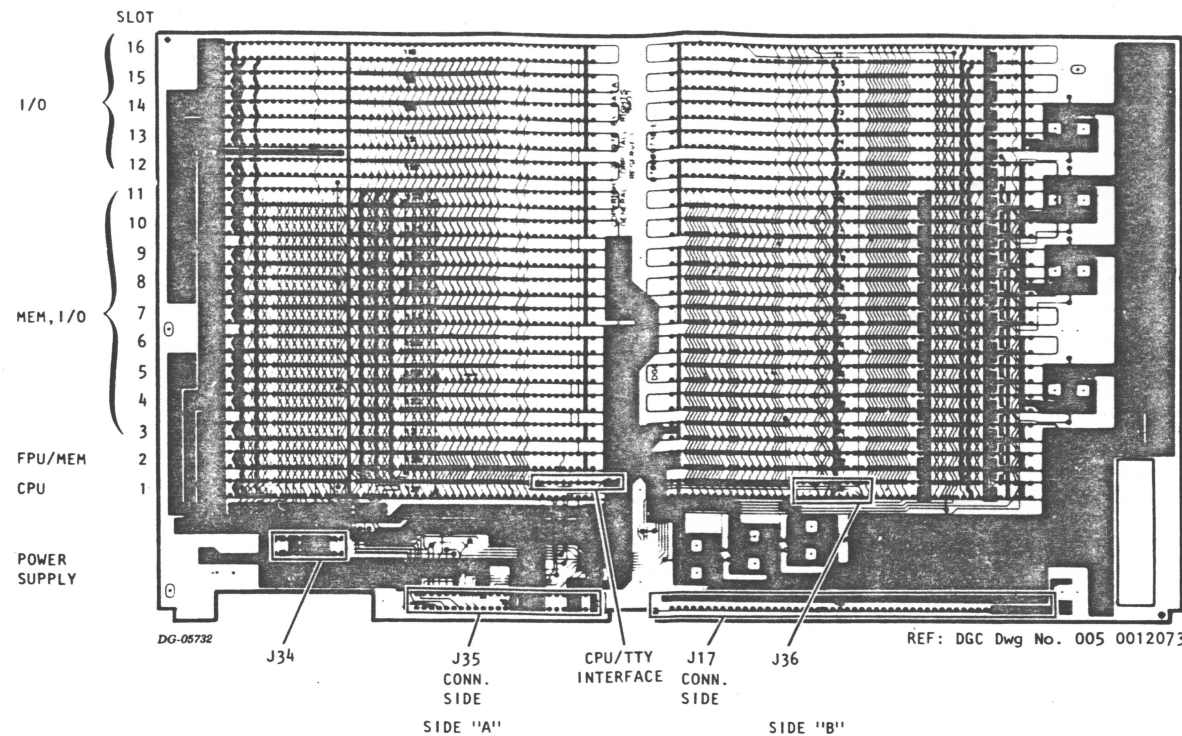
FOR MORE INFORMATION CONCERNING INTERRUPT AND DATA CHANNEL PRIORITY SCHEMES, REFER TO THE INTERFACE DESIGNER'S REFERENCE, NOVA AND ECLIPSE LINE COMPUTERS, DG NO. 015-000031.

DG-05722

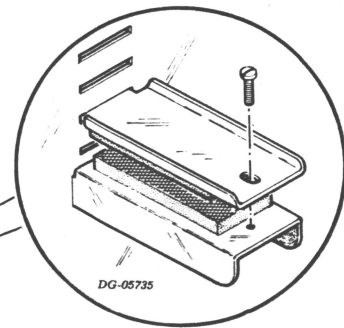
NO JUMPERS NEEDED EXCEPT FOR OPEN SLOTS AND STANDARD SPEED DATA CHANNEL I/O CONTROLLERS.

WHEN A 4C PROCESSOR IS USED IN THIS CHASSIS, THE END OF THE INTP PRIORITY NETWORK CLOSEST TO THE PROCESSOR (HIGHEST PRIORITY) MUST BE CONNECTED TO THE NEAREST GROUND (PIN A99 OR A100).

### INTERNAL CABLING BACKPANEL CONNECTORS



#### STRAIN RELIEF



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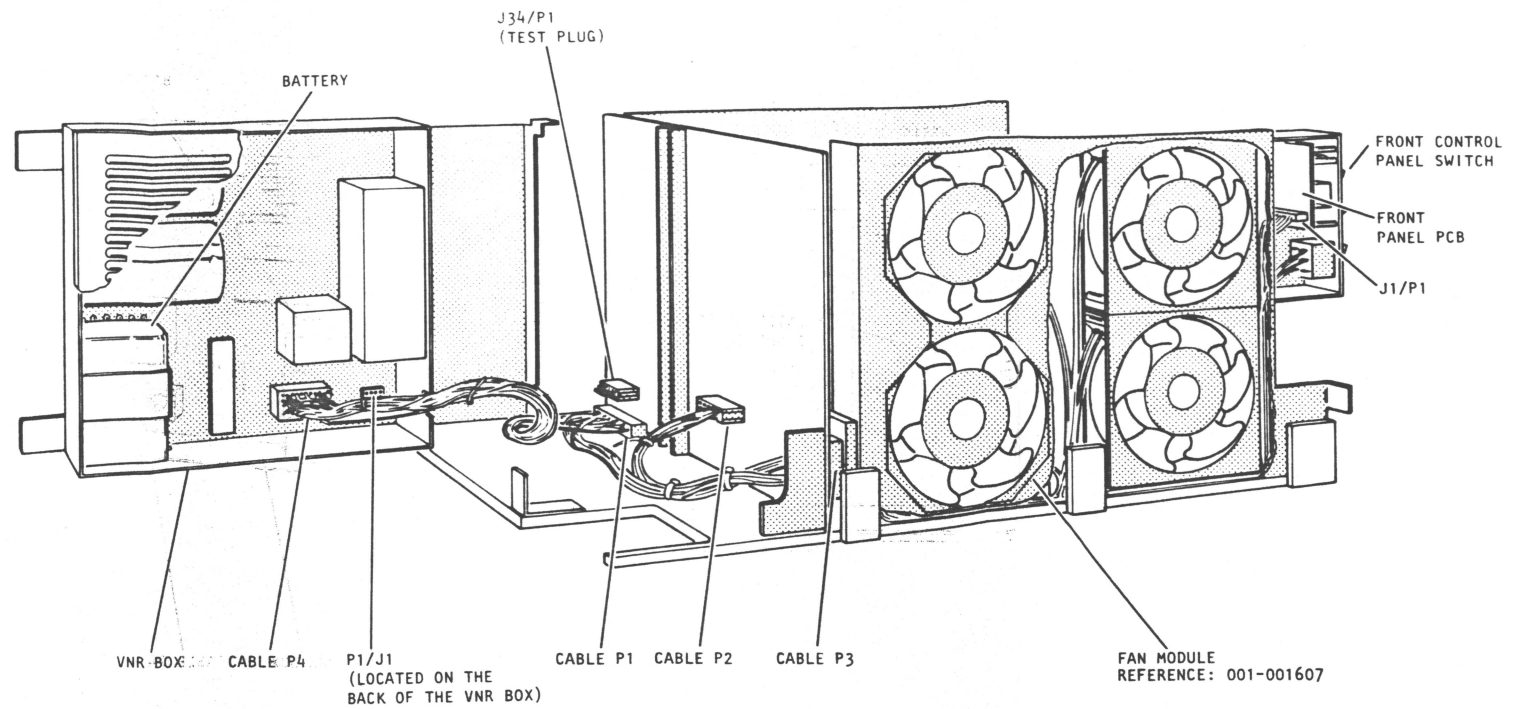
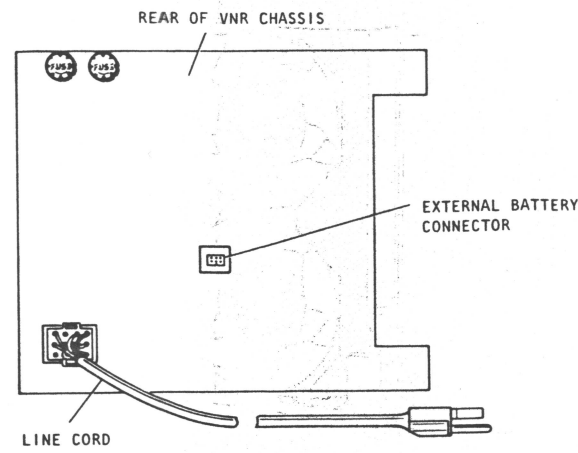
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REV	DATE	APP	CHECKED	ENGINEER	DRAWN	APPROVED


TITLE  
**INSTALLATION DATA SHEET**  
**NOVA 4 16-SLOT**

<b>DATA GENERAL CORPORATION</b>			
WESTBORO, MASSACHUSETTS 01581			
SIZE	CODE	DRAWING NUMBER	REV
C	010	000213	02

# INTERNAL CABLING (CONT)



**WARNING**  
 FOR SERVICING DISCONNECT  
 POWER, WAIT 5 MINUTES  
 REASSEMBLE UNIT BEFORE  
 APPLYING POWER

## PADDLEBOARD MOUNTING

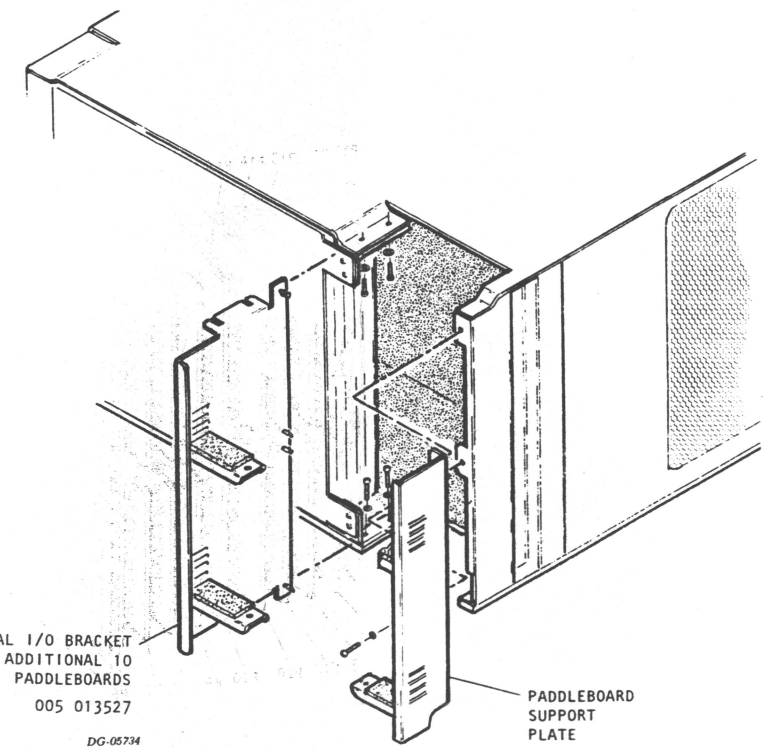
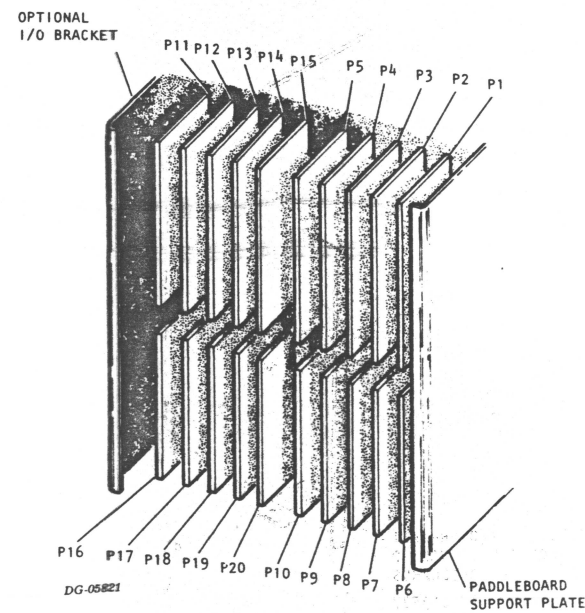
NOVA 4 I/O PADDLEBOARDS

ASSEMBLY NO.	TYPE
005 012472	GENERAL PURPOSE I/O
005 012751	EXTERNAL I/O BUS**
005 012765	UNIVERSAL LINE MUX MODEL 4241, 4241A, 4242, 4243***
005 012476	I/O BUS REPEATER MODELS 8315, 8300
005 012590	DCU-50 MODELS 4250, 4254
005 012473*	ASYNCHRONOUS INTERFACE MODELS 4007, 4010, 4023, 4075, 4077, 4078
005 012585	MCA MODEL 4206

\* THIS PADDLEBOARD MUST BE PLACED IN THE OUTSIDE POSITION: I.E. THE FURTHEST AWAY FROM THE PADDLEBOARD SUPPORT PLATE.

\*\* EXTERNAL I/O BUS MUST BE TERMINATED AT THE END AWAY FROM THE COMPUTER BY TERMINATOR NO. 005-9067; OR EQUIVALENT.

\*\*\* REQUIRES TWO PADDLEBOARD LOCATIONS.



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REV	DATE	APP	ENGINEER
ECO			
APP			
DATE			

DRAWN	CHECKED	ENGINEER

APPROVED	FIRST USED ON	CODE IDENT
		34984

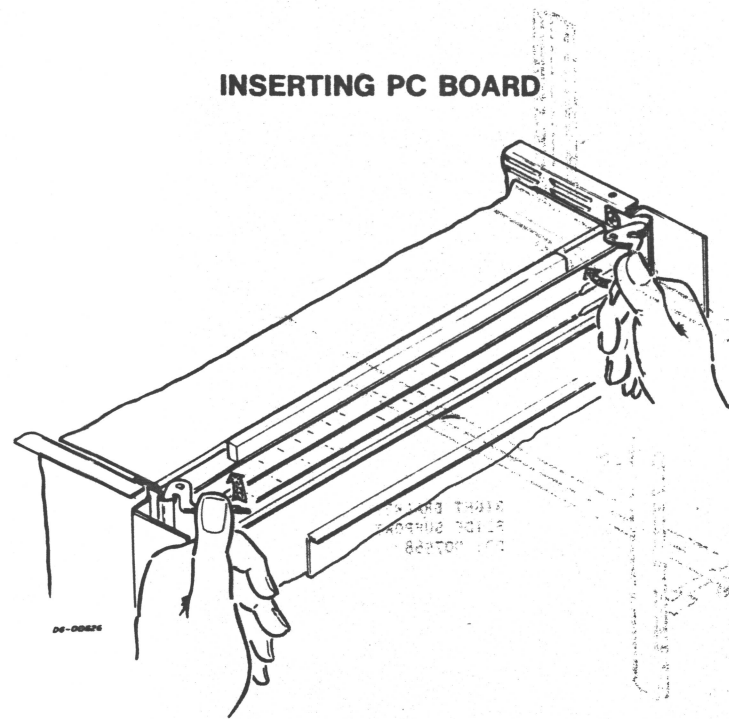
TITLE  
 INSTALLATION DATA SHEET  
 NOVA 4 16-SLOT

DATA GENERAL CORPORATION			
WESTBORO, MASSACHUSETTS 01581			
SIZE	CODE	DRAWING NUMBER	REV
C	O10	000213	02

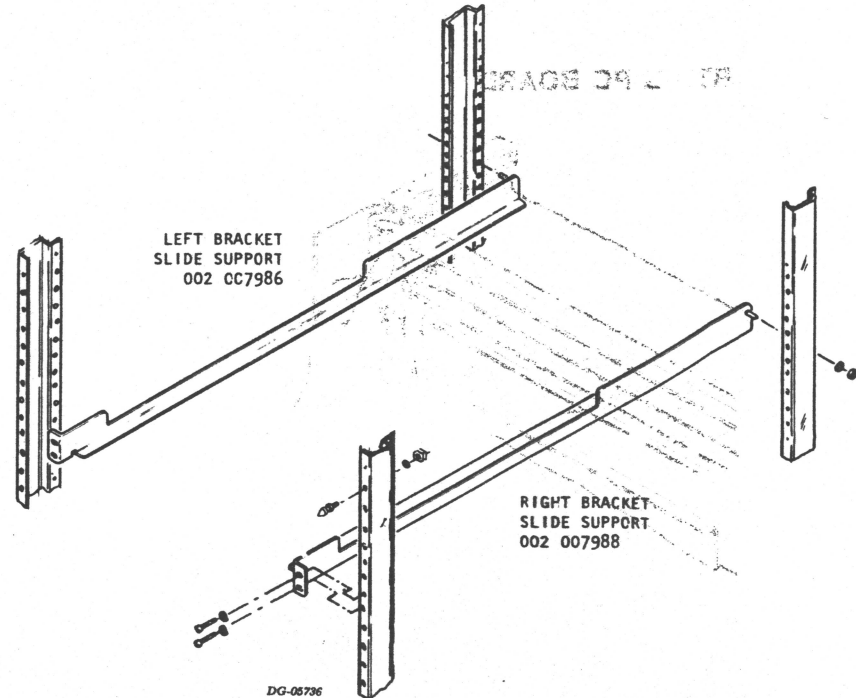


# CABINET MOUNTING

**INSERTING PC BOARD**

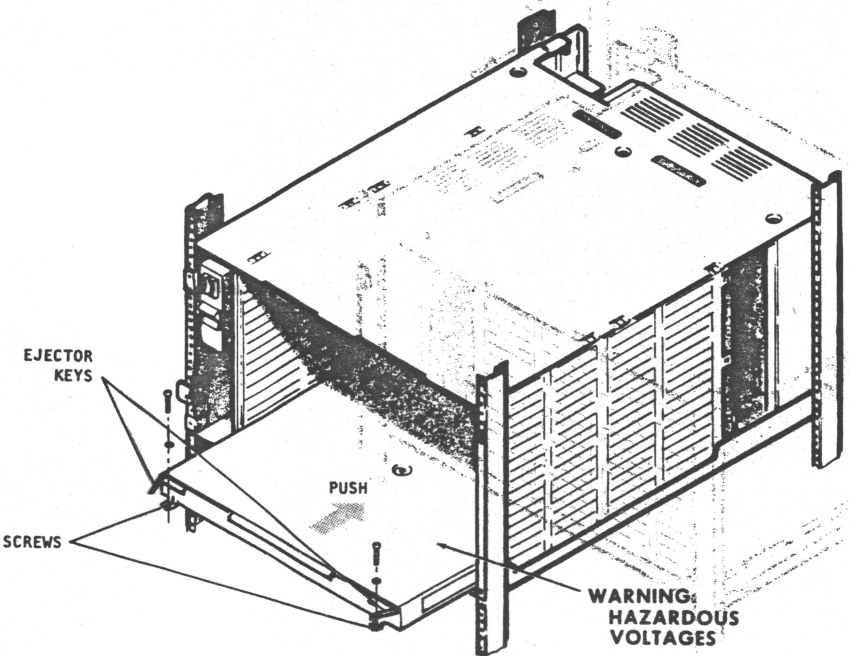


**LEFT BRACKET  
SLIDE SUPPORT  
002 007986**

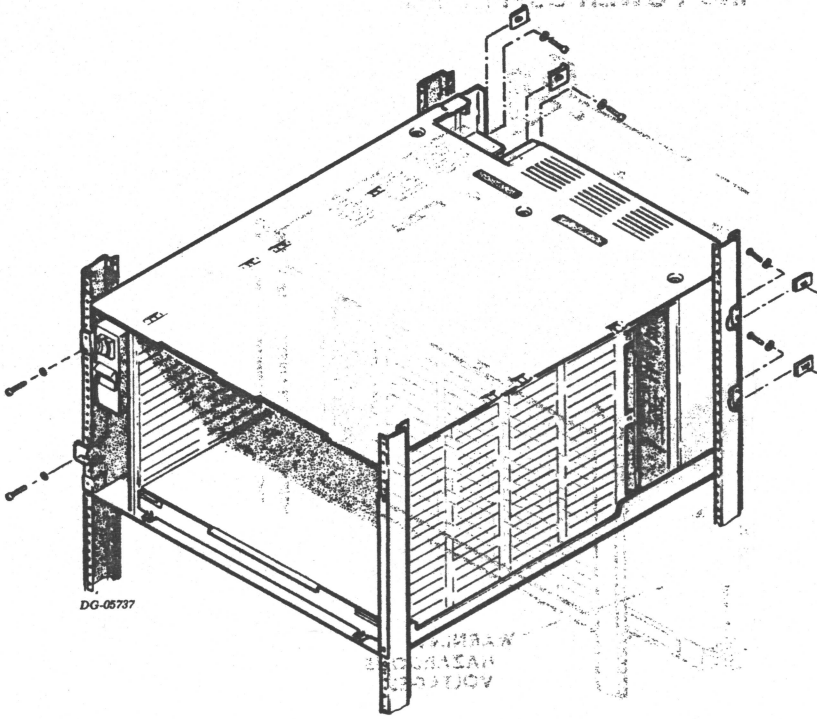


**RIGHT BRACKET  
SLIDE SUPPORT  
002 007988**

**INSERTING POWER SUPPLY PCB**



**HARDWARE MOUNTING KIT  
005 012068**



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REV	DATE	DESCRIPTION

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**INSTALLATION DATA SHEET**  
NOVA 4 16-SLOT

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SIZE	CODE	DRAWING NUMBER	REV.
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