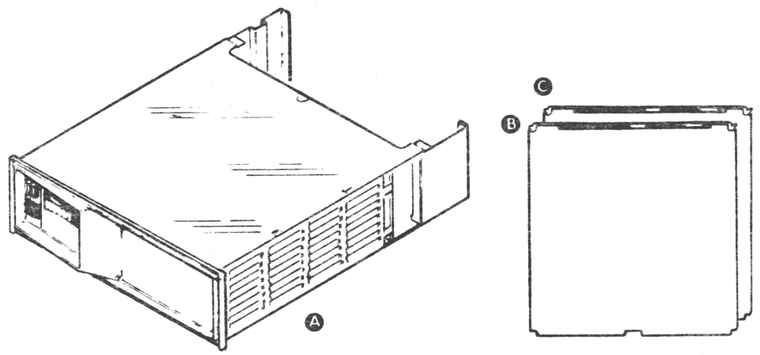
INSTALLATION SPECIFICATIONS



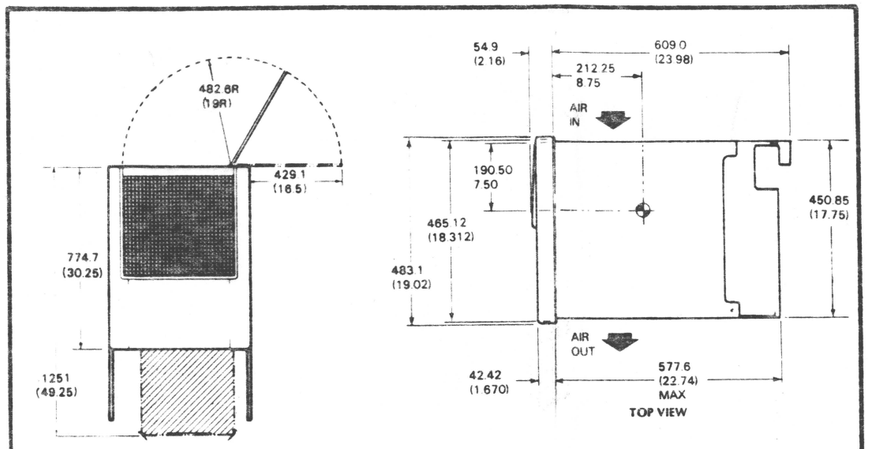
	Component	Mounting Location
A	5-SLOT CHASSIS	CABINET
B	CPU	5-SLOT CHASSIS
C	MEMORY	5-SLOT CHASSIS

SLOT ASSIGNMENTS

Data Channel Speeds Available		Standard ☑ High Speed ☑	
Slot	Allowed (Slot Chart)	Assigned	+5V Current Draw
5	I/O		
4	I/O		
3	I/O		
2	MEMORY or I/O		NOTE 2
1	CPU		NOTE 1
0	POWER SUPPLY		
	Total +5V Current draw		
	Max +5 Current Available		35A
	+5 Current Surplus		

NOTES:

1. NOVA 4/S and NOVA 4/X — 17A
   NOVA 4/C — 8A
2. MEMORY (NOVA 4/S & 4/X only) — 5.6A
3. PUSH ON TERMINATORS ON MEMORY SLOT (NOVA 4/S & 4/X ONLY)
4. MAX DRAW +15V, +12V, +12V MEM — 5.0A
5. MAX DRAW -5V, -5V MEM — 1.5A



SERVICE DIMENSIONS

NOTE: NOVA 4 IS SERVICED WITHOUT REMOVAL FROM CABINET.

DIMENSIONS IN MILLIMETERS
INCHES IN PARENTHESES FOR REFERENCE

SPECIFICATIONS — NOVA 4 5-slot

DIMENSIONS:	Width	Depth	Height
Millimeters	483.1	663.9	133.2
Inches	19.02	26.14	5.25
SERVICE CLEARANCES:	Front		
Millimeters	508.0		
Inches	20.0		
WEIGHT:	Empty	Fully Loaded	
Kilograms	18.14	22.68	
Pounds	40	50	
OPERATING ENVIRONMENT:			
Temperature (max)	55°C(131°F) 60Hz. 45°C(113°F) 50Hz		
Relative Humidity (max)	90%		
Altitude (max)	3084m (10,000')		

CABLES:

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		

HEAT OUTPUT: 400 watts (1365 BTU/hr)

POWER REQUIREMENTS:

(Domestic)	
Voltage	85-132
Hz	47-63
Max Amp per Phase	6.0
Phase	1

(Export)	
Voltage	187-264
Hz	47-63
Max Amp per Phase	3.5
Phase	1

LINE CORDS:

Supply	Part No.
100V	109 000239
120V	109 000238
220V	109 000237
240V	109 000240

REV			C2	
ECO			F885	
APP				
DATE				

DRAWN
CHECKED
ENGINEER

APPROVED
FIRST USED ON
CODE IDENT 34984

TITLE
INSTALLATION DATA SHEET
NOVA 4 5-SLOT

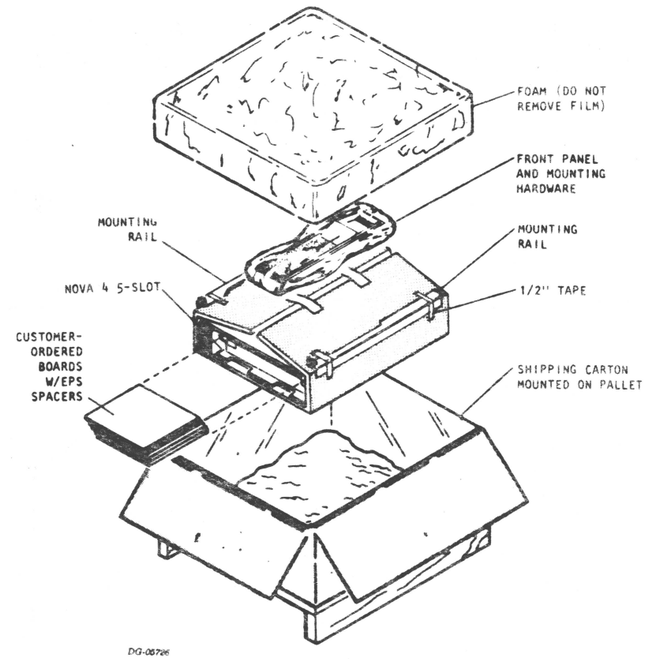
DATA GENERAL CORPORATION
WESTBORO, MASSACHUSETTS 01581

SIZE	CODE	DRAWING NUMBER	REV
C	010	000212	03

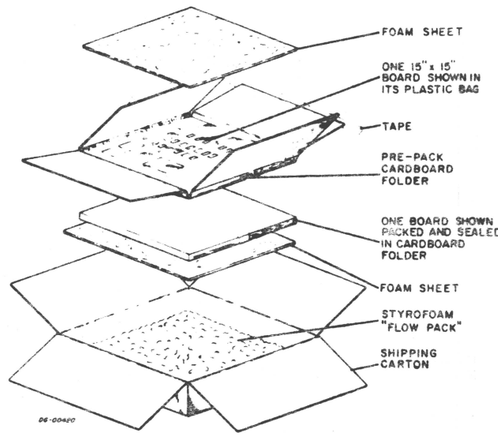
SHEET 1 OF 8

013-000840
BRUNING 40-526 27928

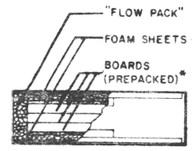
SHIPPING



DG-05726



DG-00480



* **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 129-000062. For four (4) to seven (7) boards, use shipping carton number 129 000012.

SHIPPING AND PACKAGE DATA					
Outside Dimensions			Weight (Gross)	Volume	Density
Length	Width	Depth			
in. / cm	in. / cm	in. / cm	lbs. / kg	cu ft. / cu m	lbs/cu ft. / kg/cu m
36 / 91.4	28 / 71.12	24.5 / 62.2	75 / 34.01	14.29 / .4287	
SHIPPING SPECIFICATIONS			STORAGE SPECIFICATIONS		
Temperature Range °F / °C	Relative Humidity (Non-condensing)	Maximum Altitude	Temperature Range °F / °C	Relative Humidity (Non-condensing)	Maximum Period
-40to+160 / -40to+71	0%/90%	50,000ft. 15,200m	-40to+160 / -40to+71	0%/90%	90 days

DG-03224

REV	ECO	APP	DATE

DRAWN | CHECKED | ENGINEER

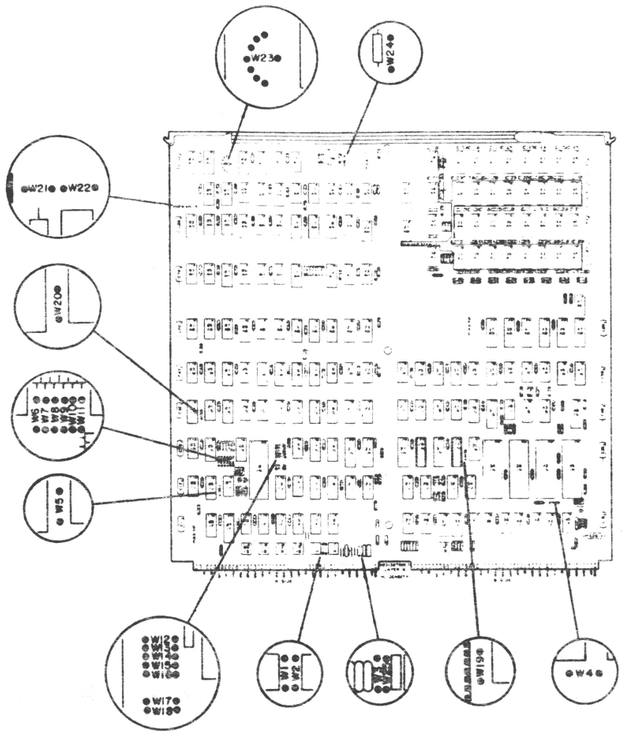
APPROVED | FIRST USED ON | CODE IDENT 34984

TITLE: INSTALLATION DATA SHEET NOVA 4 5-SLOT

DATA GENERAL CORPORATION
WESTBORO, MASSACHUSETTS 01581

SIZE	CODE	DRAWING NUMBER	REV
C	010	000212	03

013-000840
BRUNING 40-526 27928



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 27_8:

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.

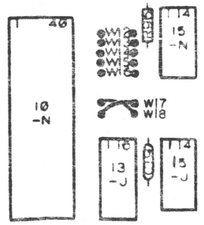
TYPE OF TRANSMISSION JUMPERS

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

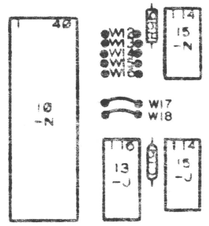
* JUMPER 25 IS INSERTED IF THE SYSTEM TERMINAL IS A TELETYPE, OTHERWISE IT IS NOT INSERTED.

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

20MA CURRENT LOOP

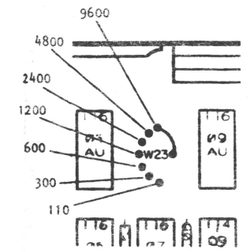


EIA RS232-C



JUMPERS W17 AND W18 MUST NOT TOUCH!

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

REV		DRAWN		APPROVED
ECO		CHECKED		FIRST USED ON
APP		ENGINEER		CODE IDENT 34984
DATE				

TITLE
INSTALLATION DATA SHEET
NOVA 4 5-SLOT

DATA GENERAL CORPORATION
WESTBORO, MASSACHUSETTS 01581

SIZE	CODE	DRAWING NUMBER	REV
C	010	000212	03

SHEET 3 OF 8

013-000840
BRUNING 40.526 27928

TAILORING (CONT)

CPU JUMPERING
NOVA 4/S OR 4/X

BAUD RATE JUMPERS

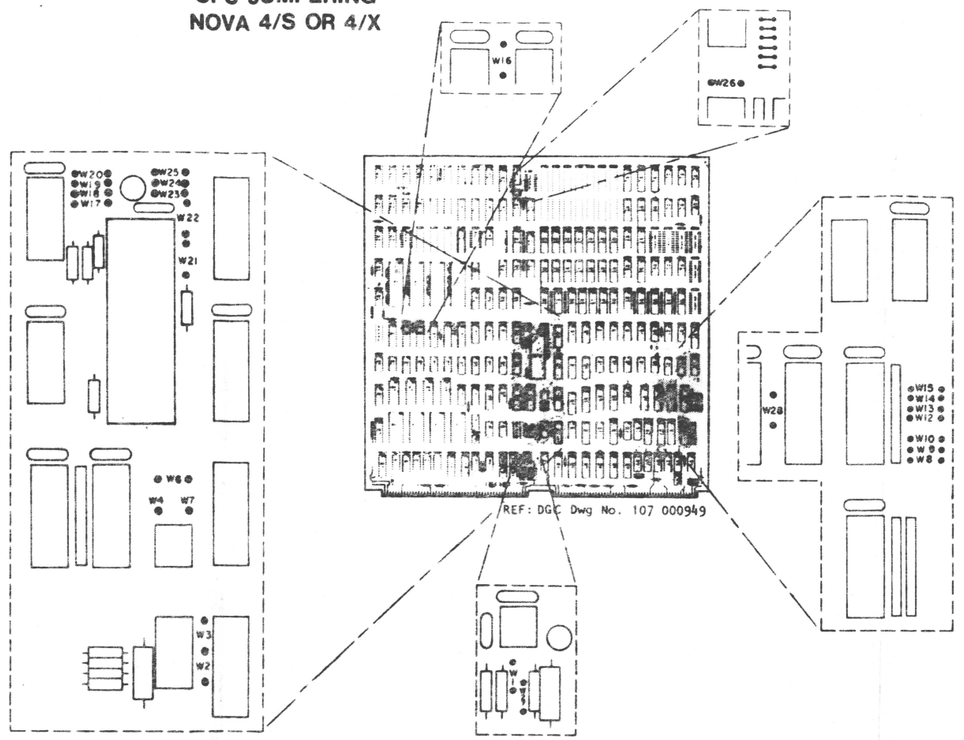
BAUD RATE	JUMPER POSITION W17	W18	W19	W20	W27
50	IN	IN	OUT	IN	OUT
75	IN	IN	OUT	OUT	OUT
110	OUT	OUT	OUT	OUT	IN
134.5	IN	OUT	IN	IN	OUT
150	OUT	OUT	OUT	IN	OUT
200	IN	OUT	IN	OUT	OUT
300	OUT	OUT	IN	OUT	OUT
600	IN	OUT	OUT	IN	OUT
1200	OUT	IN	OUT	OUT	OUT
1600	OUT	IN	OUT	IN	OUT
2400	OUT	OUT	IN	IN	OUT
4800	OUT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

REV	ECO	APP	DATE

DRAWN | APPROVED
CHECKED | FIRST USED ON
ENGINEER | CODE IDENT 34984

TITLE
INSTALLATION DATA SHEET
NOVA 4 5-SLOT

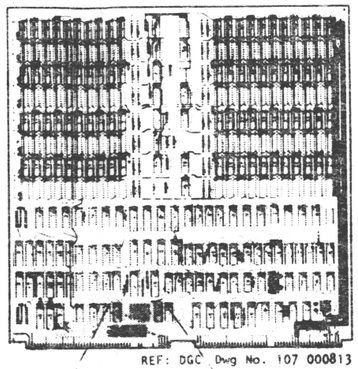
DATA GENERAL CORPORATION
WESTBORO, MASSACHUSETTS 01581

SIZE	CODE	DRAWING NUMBER	REV
C	010	000212	03

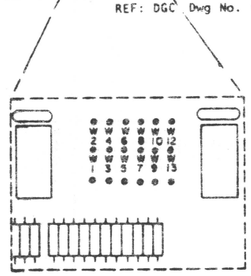
013-000840
BRUNING 40-526 27928

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
0377777- 0300000- 0277777- 0200000- 0177777- 0100000- 0077777- 0000000-	NONE	W7

*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- 0040000- 0037777- 0000000-	W7 W9	W7 W9 W11

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

MEMORY LOADS

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

REV		DRAWN	APPROVED
ECO		CHECKED	FIRST USED ON
APP		ENGINEER	CODE IDENT 34984
DATE			

TITLE
INSTALLATION DATA SHEET
NOVA 4 5-SLOT

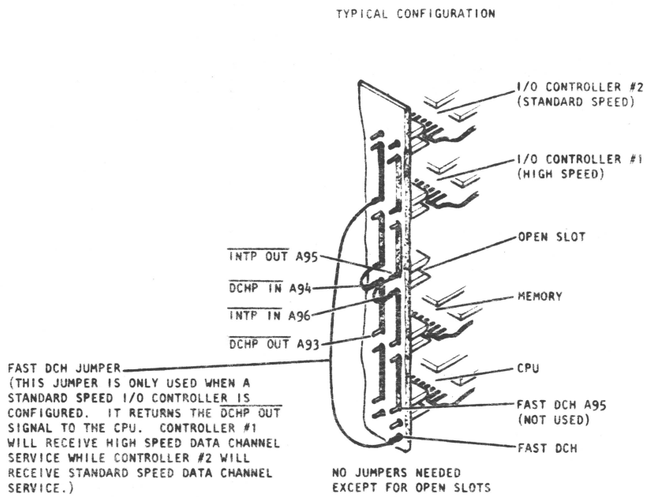
DATA GENERAL CORPORATION
WESTBORO, MASSACHUSETTS 01581

SIZE	CODE	DRAWING NUMBER	REV
C	010	000212	03

013-000840
BRUNING 40-526 27928

TAILORING (CONT)

BACKPANEL JUMPERING



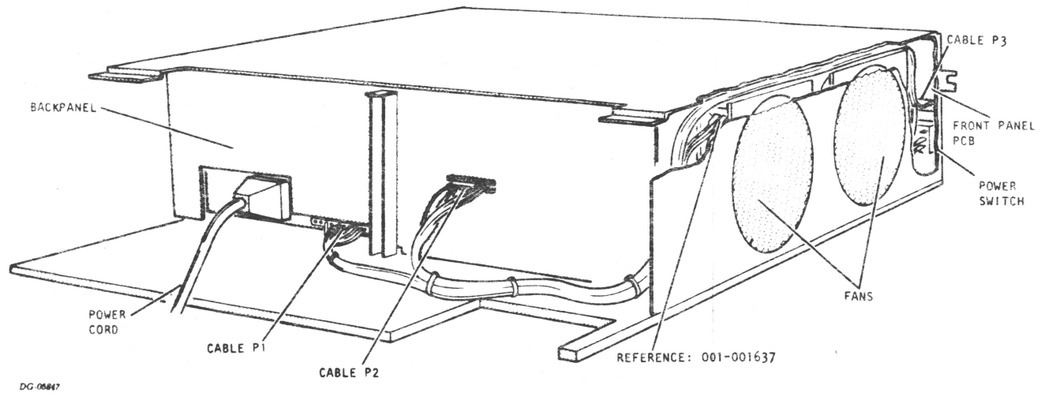
NOTE: WHEN AN I/O CONTROLLER RESIDES OUTSIDE THE CHASSIS, IT MUST BE CONFIGURED AS A STANDARD DATA CHANNEL CONTROLLER.

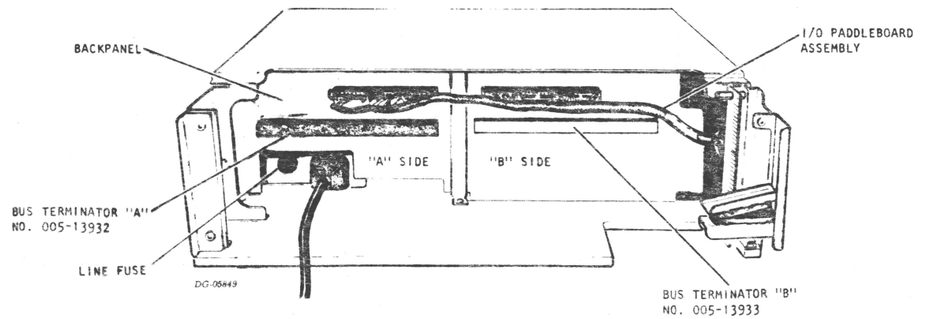
FOR MORE INFORMATION CONCERNING INTERRUPT AND DATA CHANNEL PRIORITY SCHEMES, REFER TO THE INTERFACE DESIGNER'S REFERENCE, NOVA AND ECLIPSE LINE COMPUTERS, DG NO. 015-000031.

DG-05828

INTERNAL CABLING

BACKPANEL CONNECTORS





REV														
ECO														
APP														
DATE														

DRAWN | CHECKED | ENGINEER

APPROVED | FIRST USED ON | CODE IDENT 34984

TITLE
INSTALLATION DATA SHEET
NOVA 4 5-SLOT

DATA GENERAL CORPORATION
WESTBORO, MASSACHUSETTS 01581

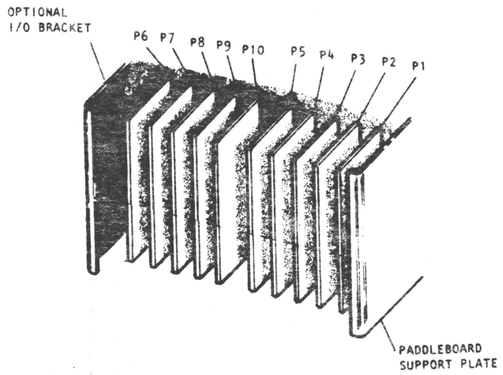
SIZE	CODE	DRAWING NUMBER	REV.
C	010	000212	03

SHEET 6 OF 8

013-000840 BRUNING 40-526 27928

INTERNAL CABLING (CONT)

PADDLEBOARD MOUNTING



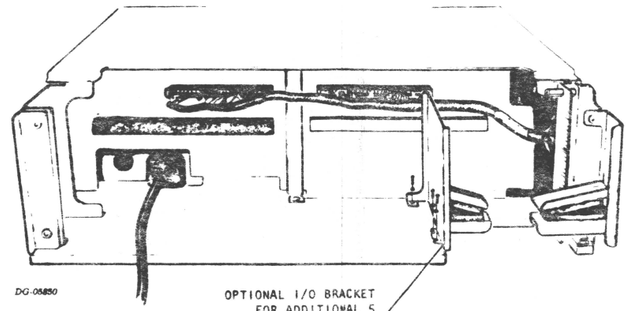
NOVA 4 I/O PADDLEBOARDS

ASSEMBLY No.	TYPE
005 012472	GENERAL PURPOSE I/O
005 012751	EXTERNAL I/O BUS**
005 012765	UNIVERSAL LINE MUX (SYNC) MODEL 4241, 4241A, 4242, 4243***
005 012476	I/O BUS REPEATER MODEL 8315
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.

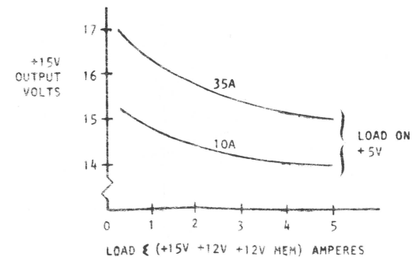
*** REQUIRES TWO PADDLEBOARD LOCATIONS.



POWER SYSTEM LOADING RULES:

1) SUPPLY VOLTAGES +5V, +12V, -5V ARE TIGHTLY REGULATED (SEE 001-001615 FOR LIMITS). +15 VOLTS IS NOT LOAD REGULATED; IT'S TYPICAL OUTPUT VOLTAGE IS SHOWN IN THE GRAPH TO THE RIGHT.

2) LOADING ON +5V VOLTS MUST BE DIVIDED SO THAT SLOTS 1 AND 2 DRAW LESS THAN 22 AMPERES, SLOTS 3, 4, AND 5 DRAW LESS THAN 22 AMPERES AND THE TOTAL LOAD IS LESS THAN 35 AMPERES.



REV															
ECO															
APP															
DATE															

DRAWN		APPROVED	
CHECKED		FIRST USED ON	
ENGINEER		CODE IDENT 24984	

TITLE
INSTALLATION DATA SHEET
NOVA4 5-SLOT

DATA GENERAL CORPORATION
WESTBORO, MASSACHUSETTS 01581

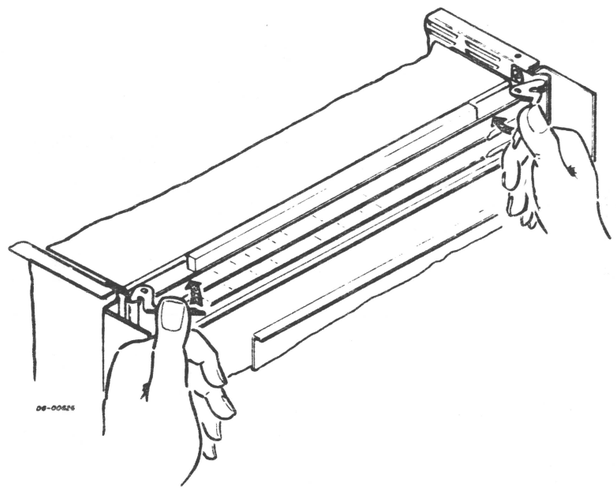
SIZE	CODE	DRAWING NUMBER	REV
C	010	000212	03

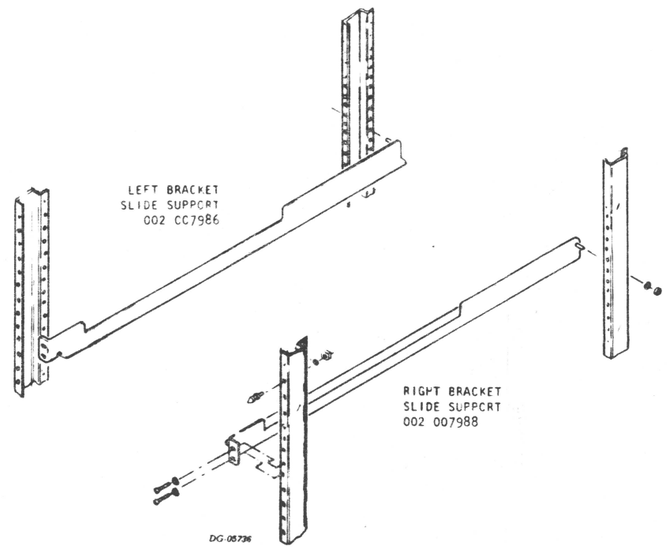
SHEET 7 OF 8

013-000840
BRUNING 40-526 27928

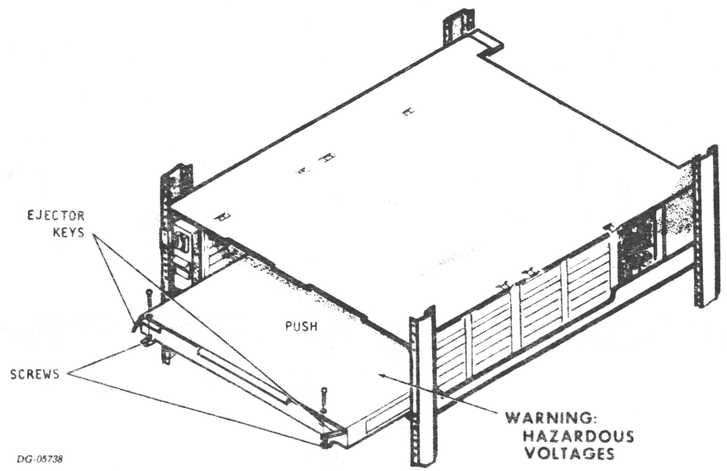
CABINET MOUNTING

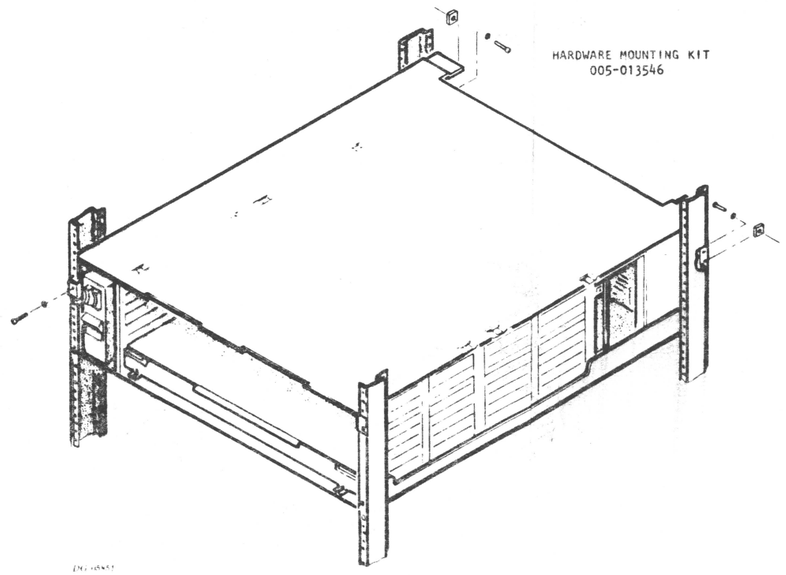
INSERTING PC BOARD





INSERTING POWER SUPPLY PCB





REV	ECO	APP	DATE

DRAWN | CHECKED | ENGINEER

APPROVED | FIRST USED ON | CODE IDENT 34984

TITLE
INSTALLATION DATA SHEET
NOVA 4 5-SLOT

DATA GENERAL CORPORATION
WESTBORO, MASSACHUSETTS 01581

SIZE	CODE	DRAWING NUMBER	REV.
C	010	000212	03

013-000840
BRUNING 40-526 27928