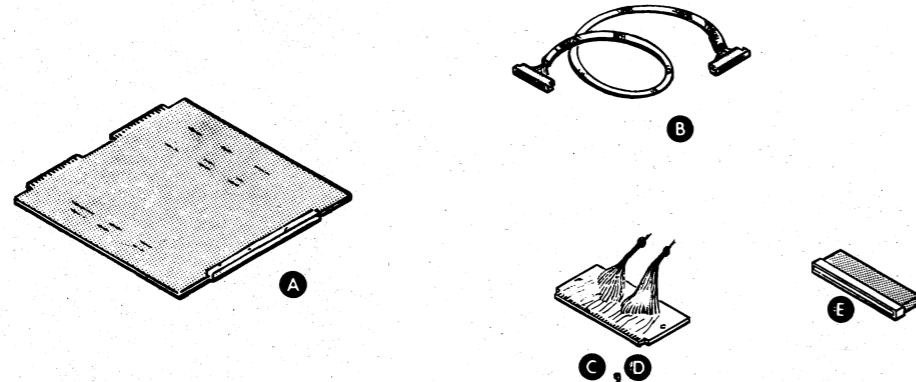


### SUBSYSTEM COMPONENT BREAKDOWN



#### MAJOR COMPONENT

Item	Component	Mounting Location	Notes
A	MCA 4206	COMPUTER CHASSIS	

DG-02672

#### CABLE

Item	Cable	Connecting	Max Allowed Lg		Notes
			ft	m	
B	EXT COMM BUS 1106F	IN PORT CONNECTOR " OUT PORT CONNECTOR	140	42.7	
C	IN PORT INTERNAL	MCA " IN PORT CONNECTOR	2	.6	SHOWN FOR PADDLE BOARD TYPE COMPUTER
D	OUT PORT INTERNAL	MCA " OUT PORT CONNECTOR	2	.6	

DG-02673

#### TERMINATOR

Item	Terminator	Location	Notes
E	COMMUNICATIONS BUS TERMINATOR	IN PORT OR OUT PORT CONNECTOR	

DG-02674

### SPECIFICATIONS OF THE CHASSIS-MOUNTED COMPONENTS

Item	Component	Chassis	Slots Required	Max Allowable Data Channel Latency (μ sec)	Type of Data Channel Service Desired		Max Allowable Programmed I/O Latency *	Controller's +5 Volt Current Draw (Amps)
					High Speed	Standard		
A	MCA	COMPUTER	1	∞	✓	✓	∞	3.5

DG-01912

#### CONFIGURATION RULES

- In normal mode, up to 15 DGC NOVA and/or ECLIPSE computers may be interconnected with one 4206 adapter for each computer.
- In fast mode, up to four DGC NOVA and/or ECLIPSE computers may be interconnected with one 4206 adapter for each computer.
- The MCA board requires one slot per computer.
- The distance between a non-operating "left most" CPU and a functioning CPU is 20 feet maximum.
- The maximum total MCA-bus length is 140 feet for normal mode operation.
- The maximum total MCA-bus length is 40 feet for fast mode operation.
- 4038 and 4206 MCA's cannot be intermixed on the same MCA bus.
- MCA 4206 is a data channel device.
- MCA's other than the "left most" and "right most" in a configuration must have their pull-out terminators removed.
- When interconnecting computers with 4206 adapter's only one 1106 AH or one 1106 BH cable may be used.

FOR PACKING PROCEDURE, SEE 010-000262

**Warning:** This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

013-000840  
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REV	00	01	02	03
ECO	5372	6054	11214	14807
APP	-	11001	1001	1001
DATE	11/5/72	3-9-77	7/26/77	1/17/85

DRAWN <i>[Signature]</i>	APPROVED
CHECKED	FIRST USED ON
ENGINEER <i>[Signature]</i>	CODE IDENT 34984

TITLE  
**MULTIPROCESSOR COMMUNICATIONS ADAPTER SERIES 4206**

<b>DATA GENERAL CORPORATION</b>			
SOUTHBORO, MASSACHUSETTS 01772			
SIZE C	CODE 010	DRAWING NUMBER 000102	REV. 03

# TAILORING

## Jumper Locations:

THE ILLUSTRATION SHOWS THE LOCATION OF THE VARIOUS JUMPERS ON THE MCA BOARD.

### SERVICE SELECT JUMPERS

JUMPERS are used to select the device codes for the MCA. DEVICE CODES 6 AND 7 ARE USED FOR THE FIRST MCA A COMPUTER. THE SECONDARY DEVICE CODES 48 AND 47 ARE USED WHEN A SECOND MCA IS INSTALLED IN THE COMPUTER. INSERT THE JUMPERS AS FOLLOWS.

### DEVICE CODE JUMPERS

DEVICE CODE	INSERT JUMPERS
6/7 (MCAT/MCAR)	W1
46/47 (MCAT1/MCAR)	W2, W17

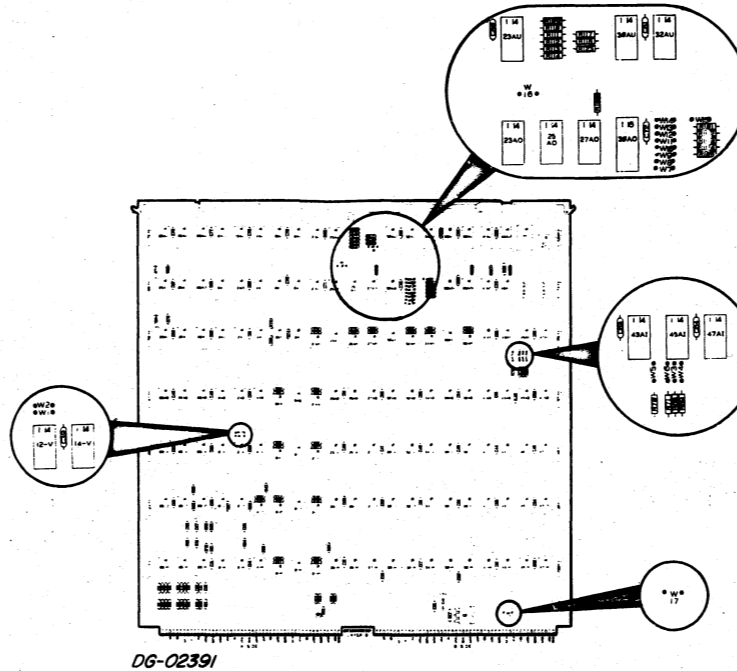
### Identifying Number Jumpers:

JUMPERS ARE USED TO SELECT THE IDENTIFYING NUMBER WHICH IS USED TO DISTINGUISH THIS MCA AND ASSOCIATED COMPUTER IN COMMUNICATIONS WITH OTHER COMPUTERS IN MCA NETWORK. FOUR JUMPERS ARE USED TO SPECIFY THE BINARY REPRESENTATION OF THE SELECTED IDENTIFYING NUMBER. INSERT THE JUMPERS AS FOLLOWS:

### IDENTIFYING NUMBERS

BIT POSITIONS OF IDENTIFYING NUMBER	0	1	2	3
INSERT JUMPER TO SPECIFY 1	W5	W6	W3	W4

NOTE: ALTHOUGH 0 IS A VALID IDENTIFYING NUMBER WITHIN AN MCA NETWORK, 0 IS NOT VALID IDENTIFYING NUMBER WITH DATA GENERAL'S REAL TIME DISC OPERATING SYSTEM.



### Operating Mode Jumpers

JUMPERS ON THE "LEFTMOST" ADAPTER ARE USED TO SELECT WHETHER THE MCA NETWORK OPERATION IN NORMAL MODE WITH A MAXIMUM DATA TRANSFER RATE OF 312,500 WORDS PER SECOND OR IN FAST MODE WITH A MAXIMUM DATA TRANSFER RATE OF 500,000 WORDS PER SECOND. AN MCA NETWORK OPERATING IN FAST MODE CAN CONTAIN A MAXIMUM OF FOUR COMPUTERS. THE OPERATING MODE JUMPERS ON ALL BUT THE "LEFTMOST" ADAPTERS ARE USED TO SELECT THE OPERATING MODE OF THE ADAPTER WHEN IT IS REMOVED FROM THE MCA NETWORK AND PLACED IN DIAGNOSTIC MODE. INSERT THE JUMPERS AS FOLLOWS:

MODE OF OPERATION	INSERT JUMPERS
NORMAL MODE	W8, W10, W12, W14, W15
FAST MODE	W7, W9, W11, W13

### "Leftmost" Processor Jumper

THE "LEFTMOST" PROCESSOR JUMPER, W16 DISABLES THE INTERNAL CLOCKS OF THE MCA. INSERT JUMPER W16 IN ALL THE ADAPTERS IN THE NETWORK EXCEPT THE "LEFTMOST" ADAPTER. OMIT THE W16 ON THE "LEFTMOST" ADAPTER.

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

TITLE  
**INSTALLATION DATA SHEET  
MULTIPROCESSOR  
COMMUNICATIONS ADAPTER  
SERIES 4206**

DATA GENERAL CORPORATION			
WESTBORO, MASSACHUSETTS 01580			
SIZE	CODE	DRAWING NUMBER	REV.
C	O10	000102	03

# EXTERNAL CABLING

Model Number	Description
4206	Multiprocessor communications adapter board with appropriate internal cables (specify CPU). One per CPU. (Note that there is no 4206A; all 4206 MCAs have terminators.)
	External cable for MCA. The MCA cable(s) ordered depend on the MCA configuration as indicated below:

A	1106AA	C350	B	1220/10
	1106AB			820/10
	1106BB			N2/10
	NOVA			1210/4
	SNOVA			N2/4
	1200/17			N3/12
	800/7			N3/4
	1200/17			S100
	800/17			S200
	840/17			S230
830/17	C300			
				C330

- A 1106AA is used to interconnect computers in Category A.
- A 1106BB is used to interconnect computers in Category B.
- A 1106AB is used to interconnect a computer in Category A to a computer in Category B.

**NOTES:**

1. USE 005-019484 INTERNAL CABLE FOR CATEGORY "H".
2. USE MCA TERMINATOR 005-007067 FOR CATEGORY "A".
3. USE MCA TERMINATOR 005-007072 FOR CATEGORY "B".
4. USE MCA TERMINATOR 005-020329 FOR CATEGORY "H".
5. 1106CC - USE 005-018617 (10 FT.) OR 005-019276 (40 FT.) OR 005-019485 (140 FT.) EXTERNAL CABLE TO INTERCONNECT A COMPUTER IN CATEGORY "H" TO A COMPUTER IN CATEGORY "H". REF. 018-1190, 005-019421 (20 FT.), 005-020131.
6. 1106 BC - USE 005-019498 (10 FT.) OR 005-019263 (40 FT.) OR 005-019487 (40 FT.) EXTERNAL CABLE TO INTERCONNECT A COMPUTER IN CATEGORY "H" TO A COMPUTER IN CATEGORY "B". REF. 001-3315 AND 018-1550, 005-020130 (20 FT.), 005-020129 (75 FT.).
7. 1106 AC - USE 005-019483 (10 FT.) OR 005-019482 (40 FT.) OR 005-019486 (140 FT.) EXTERNAL CABLE TO INTERCONNECT A COMPUTER IN CATEGORY "H" TO A COMPUTER IN CATEGORY "A". REF. 001-3316 AND 018-1560, 005-020128 (20 FT.), 005-020127 (75 FT.).

The MCA bus is time-division multiplexed among MCAs. The priority on the bus proceeds from the leftmost CPU to the rightmost CPU along the MCA bus. If, for example, (Figure 2) MCA #1 has the bus, MCA #3 has next priority. However, assuming MCA #3 does not need the bus and MCA #4 does, MCA #4 will get the bus. MCA #3 will not have an opportunity to get the MCA bus again until MCA #2 and MCA #1 have had opportunity to get the bus.

A further description of the theory of operation of the MCA 4206 can be found in technical reference manual 014-000072.

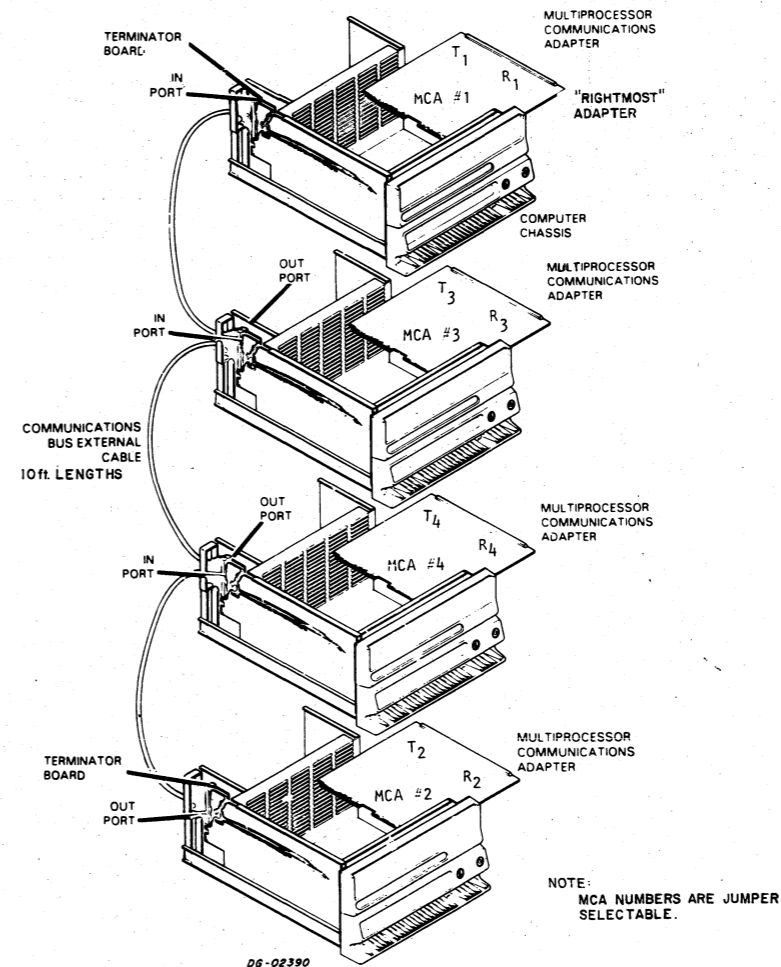


FIGURE - 2

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ECO		CHECKED		FIRST USED ON		<b>CODE IDENT 34984</b>		SIZE	CODE	DRAWING NUMBER	REV		
APP		ENGINEER				C	010	000102	03				
DATE													