VECTOR

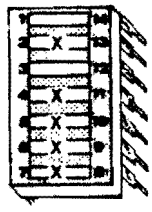
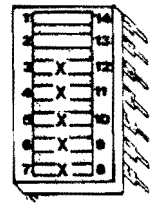
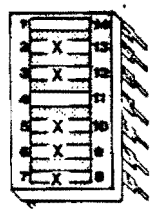
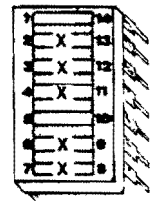
TECHNICAL ADVISORY

SUBJECT: JUMPERING OF 5 1/4" FLOPPY DRIVE	SD	VTA # SD-0001
	NOV. 9, 1981	PAGE 2 OF 2

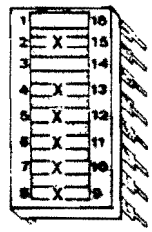
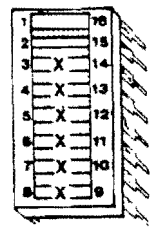
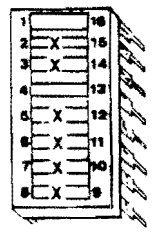
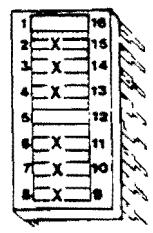
UNITS AFFECTED: 1600

SYSTEM 1600

JUMPERING SHUNT BLOCKS FOR FLOPPY DRIVES

DRIVE A	DRIVE B
	
DRIVE C	**DRIVE D**
 **X= cut**	

Numbers not actually on shunt block

DRIVE A	DRIVE B
	
DRIVE C	**DRIVE D**
 **X= cut**	

Numbers not actually on shunt block

VECTOR

TECHNICAL ADVISORY

SUBJECT: JUMPERING OF	DDW	VTA # DDW-0003
5 1/4 " HARD DISK DRIVE	NOV. 2,1981	PAGE 1 OF 1

UNITS AFFECTED: 3005

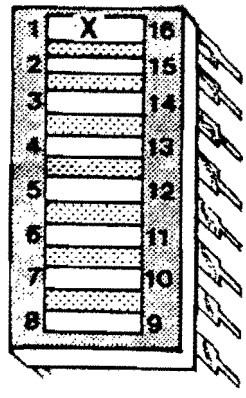
CONDITION: Jumper 5 1/4" hard drive for operation as a single hard disk unit only.

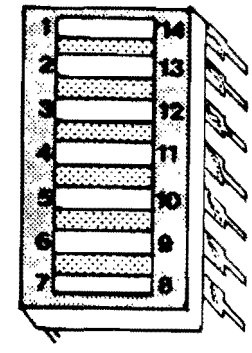
CORRECTION: Set drive select shunt at C6 on the drive printed circuit board for single drive operation.

JUMPERING INSTRUCTIONS: On drive select shunt, (Vector part number 2508-0012), jumpers should be as follows, reading from front of drive to card edge connector:

Jumper Number	Jumpering Pin number on socket
#1	OPEN (pins 1 to 16)
#2	CLOSED (pins 2 to 15)
#3	CLOSED (pins 3 to 14)
#4	CLOSED (pins 4 to 13)
#5	CLOSED (pins 5 to 12)
#6	CLOSED (pins 6 to 11)
#7	CLOSED (pins 7 to 10)
#8	CLOSED (pins 8 to 9)

Note that the socket is a 16 pin socket, but the select shunt may be either 14 or 16 pin. If the shunt has 14 pins, the empty holes in the socket should be the two closest to the front of the drive. (pin # 1 and pin # 16.) If it is a 16 pin shunt, the last jumper (pins 1 to 16) should be cut or left open. This is the one closest to the front of the drive.





PLACE IN PINS 2–14 OF SOCKET

VECTOR

TECHNICAL ADVISORY

SUBJECT: JUMPERING OF	DDW	VTA # DDW-0004
5 1/4" FLOPPY DRIVE	NOV. 9, 1981	PAGE 1 OF 2

UNITS AFFECTED: 3005

CONDITION: Select 5 1/4" double-sided floppy disk drive for operation as C,D, or E.

CORRECTION: Set jumpering shunt block (part # 2508-0012) as illustrated.

JUMPERING INSTRUCTIONS: Refer to attached sheet. Jumper as shown.

NOTES: Drive select shown is for factory standard, with the hard disk configured as 2 logical drives (using MOVCPMJ), allowing for a total of 3 floppies on the system.

The socket is a 16 pin socket, but the select block may be either 14 or 16 pins. If the block has 14 pins, the empty spaces should be 8 and 9, the holes at the bottom of the socket.

VECTOR

TECHNICAL ADVISORY

SUBJECT: JUMPERING OF	SD	VTA # SD-0001
5 1/4" FLOPPY DRIVE	NOV. 9, 1981	PAGE 1 OF 2

UNITS AFFECTED: 1600

CONDITION: Select 5 1/4" double-sided floppy disk drive for operation as A, B, C, or D

CORRECTION: Set jumpering shunt block as illustrated on attached sheet.

JUMPERING INSTRUCTIONS: Refer to attached sheet. Jumper as shown.

NOTE: The socket is a 16 pin socket, but the select block may be either 14 or 16 pins. If the block has 14 pins, the empty spaces should be 8 and 9, the holes at the bottom of the socket.

VECTOR

TECHNICAL ADVISORY

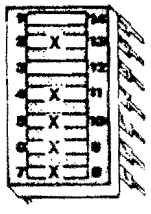
SUBJECT: JUMPERING OF	DDW	VTA # DDW-0004
5 1/4" FLOPPY DRIVE	NOV. 9, 1981	PAGE 2 OF 2

UNITS AFFECTED: 3005

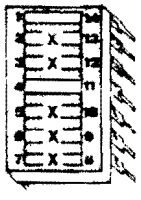
SYSTEM 3005

JUMPERING SHUNT BLOCKS FOR FLOPPY DRIVES

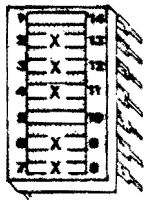
DRIVE C



DRIVE D



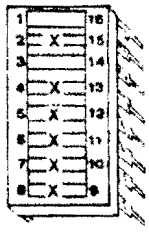
DRIVE E



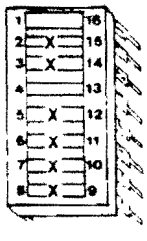
X = cut

Numbers not actually on shunt block

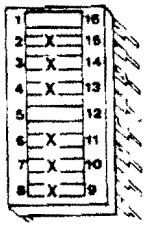
DRIVE C



DRIVE D



DRIVE E



X = cut

Numbers not actually on shunt block

VECTOR
VECTOR GRAPHIC INC

TECHNICAL ADVISORY

SUBJECT: UPGRADE TIMESHARE	MODEL: ALL	U-0002
UNITS AFFECTED: OLD TIMESHARE SYS B	DATE: 29 SEPT 1981	PG. 3 OF 3

SYSTEM CHECK OUT

1. CHECK ALL THE BOARDS ONCE AGAIN TO BE SURE THEY ARE SEATED AND ALL THE CABLES ARE ON CORRECTLY
2. BE SURE THE PLUGS AND CABLES ARE IN THEIR PROPER PLACE TO THE MINDLESS TERMINALS. EARLIER WE STATED THE NEED FOR SPACING THE FWII AND 64K BOARDS ONE SLOT APART. IF YOU HAVE SEVERAL TERMINALS YOU MAY NEED TO PUT THE BOARDS CLOSER TOGETHER. BE SURE TO KEEP THE ORDER. IT WILL BE BETTER TO COMPACT THE FWII AND 64K BOARDS AND LEAVE THE Z80, PROM/RAM, I/O, AND CONTROLLER BOARD SPACED OUT
3. PLUG THE AC LINE CORD BACK INTO THE SYSTEM
4. POWER ON
5. REFER TO MULTISHARE MANUAL FOR OPERATION

PARTS NEEDED: ORDER KIT # U-0002 WHICH CONSISTS OF:

1.	1 - Molex 2 pin right angle connector	2505-0033
2.	1 - 34 Conductor Drive Cable	3539-0017
3.	1 - FD/HD Controller board	3565-0001
4.	1 - CP/M System Disk for Multishare upgrade	6061-2220-01-00
5.	1 - Boot PROM: BOOT A 1.x	6083-1100-00-30
6.	1 - Multishare monitor 4.x (2716)	6205-4500-00-50
*	OR USE : Two chip set (2708)	6205-4500-00-30
7.	1 - Manual "MULTISHARE"	7100-0244

* THE DEALER TECHNICIAN IS RESPONSIBLE FOR DETERMINING WHICH PROMS SHOULD BE ORDERED. PLEASE INDICATE THE TYPE OF PROM NEEDED WHEN ORDERING.

PARTS TO BE RETURNED TO VECTOR*

1.	2 - VTS PROMS	6205-3300-00-30
2.	1 - MICROPOLIS CONTROLLER BOARD	3546-0000

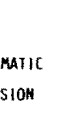
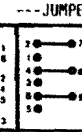
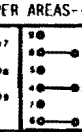
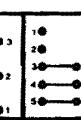
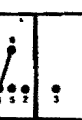
d. Circuit side
   1. In Area B, cut the trace connecting pads 2 and 3.
   2. In Area B, cut the trace connecting pad 3 and U15-6.
   3. In Area B, cut the trace connecting pad 2 and U15-1.
   4. Install a jumper wire between Area B, pad 3 and U15-13.
   5. Install a jumper wire between Area B, pad 1 and U15-6.
   6. Install a jumper wire between U15-11 and U15-7.
   7. Install a jumper wire between U15-12 and U14-13.

e. **Rev. 3 or Later**
   1. Install 2 pin Molex connector in J1 with the long pins up.

5. REMOVE THE PROM/RAM BOARD
6. REMOVE THE PROMS IN SLOTS 8 AND 9. RETURN THESE PROMS TO VECTOR
7. INSTALL THE NEW VMS 4.x PROMS IN SLOTS 8 AND 9. #0 IN SLOT 8. #1 IN SLOT 9
8. INSTALL THE BOOT A 1.x IN SLOT 10
9. LEAVE ANY PRINTER DRIVER PROMS IN SLOT 11. (Be sure the program switch is in the off position.)
10. REMOVE THE MICROPOLIS DISK CONTROLLER AND ASSOCIATED CABLE. RETURN TO VECTOR.

REPLACING BOARDS AND CONNECTING CABLES

1. CREATE ONE CABLE WITH THE 2-PIN MOLEX SHELL AND PINS. USE ONE WIRE APPROX. 1 FT. IN LENGTH FOR EACH PAIR OF FWII AND 64K BOARDS
2. PLACE ONE FLASHWRITER NEAR THE REAR OF THE MOTHER BOARD, CONNECTING THE FLAT RIBBON CABLE FOR THE KEYBOARD TO J1 AND THE MOLEX CONNECTOR FOR THE VIDEO TO P2.
3. CONNECT THE CABLE MADE IN STEP 1 TO THE MOLEX PIN AT AREA K
4. PLACE A 64K BOARD IN THE MOTHER BOARD, LEAVING ONE SLOT FOR VENTILATION, IN FRONT OF THE FLASHWRITER
5. CONNECT THE CABLE FROM AREA K OF THE FLASHWRITER TO AREA B OF THE 64K BOARD. PIN 2 OF AREA K MUST BE CONNECTED TO PIN 3 OF AREA B. THE OTHER PINS HAVE NO CONNECTION
6. PLACE THE PROM/RAM BOARD IN FRONT OF THE LAST FLASHWRITER, 64K BOARD PAIR. BE SURE THE VMS 4.x PROMS ARE IN SLOTS 8 AND 9 AND THE BOOT A 1.x IS IN SLOT 10
7. PLACE THE Z80 BOARD IN FRONT OF THE PROM/RAM BOARD IN THE MOTHERBOARD
8. PLACE THE FD/HD CONTROLLER IN THE MOTHERBOARD IN FRONT OF THE Z80
9. CONNECT THE CABLE PROVIDED TO THE MICROPOLIS DRIVES AND THE FD/HD CONTROLLER. THE END FOR THE CONTROLLER SHOULD BE KEYED FOR PROPER INSTALLATION
10. PLACE THE I/O BOARD IN FRONT OF THE CONTROLLER

ASSEMBLY VERSION	SCHEMATIC VERSION	VERSION CHARACTERISTIC	S1			PROMS			---JUMPER AREAS---												PROCESSOR Z80
			SWITCH	SOCKET	JUMPER	U20	U21	U22	 A	C	D	 E	 F	 G	 H	 I	 J	 L	 M	 N	
3501-0000-07-00	3502-0000-07-00	4MHZ WITH 3 SOCKETS	YES	YES	---	2716	2708	2708	CUT 1-2 JUMPER 3-2	-----	-----	-----	CUT 13-12-11 JUMPER 11-2 12-6	-----	-----	-----	CUT 7-2 JUMPER 7-5	-----	-----	-----	A OR B
-0001-05-01	-0001-05-01	4MHZ (A/M) WITH 3 SOCKETS	---	---	9600 0-0	2716	2708	2708	CUT 1-2 JUMPER 3-2	-----	-----	-----	CUT 13-12-11 JUMPER 11-2 12-6	-----	-----	-----	CUT 7-2 JUMPER 7-5	-----	-----	-----	A OR B
-0002-03-00	-0002-03-00	6MHZ	YES	YES	---	2732	---	---	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	B
-0003-04-01	-0003-04-01	6MHZ (A/M)	---	---	9600 0-0	2732	---	---	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	B
-0004-02-00	-0004-02-00	4MHZ SINGLE SOCKET	YES	YES	---	2732	---	---	CUT 1-2 JUMPER 3-2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	A OR B
-0005-00-00	-0005-00-00	4MHZ X-CPM	YES	YES	---	2732	---	---	CUT 1-2 JUMPER 3-2	-----	-----	-----	cut 11-12 jumper 9-10-5 & 3-4	-----	-----	-----	-----	-----	-----	-----	A OR B
-0006-00-00	-0006-00-00	6MHZ X-CPM	YES	YES	---	2732	---	---	-----	-----	-----	-----	cut 11-12 jumper 9-10-5 & 3-4	-----	-----	-----	-----	-----	-----	-----	B
-0007-00-01	-0007-00-01	4MHZ (A/M) SINGLE SOCKET	---	---	9600 0-0	2732	---	---	CUT 1-2 JUMPER 3-2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	A OR B

VECTOR

TITLE

SCHEMATIC - ZCB

3502-XXXX-XX-XX | SIZE B

I/O 2 TO CENTRONICS WIRE LIST

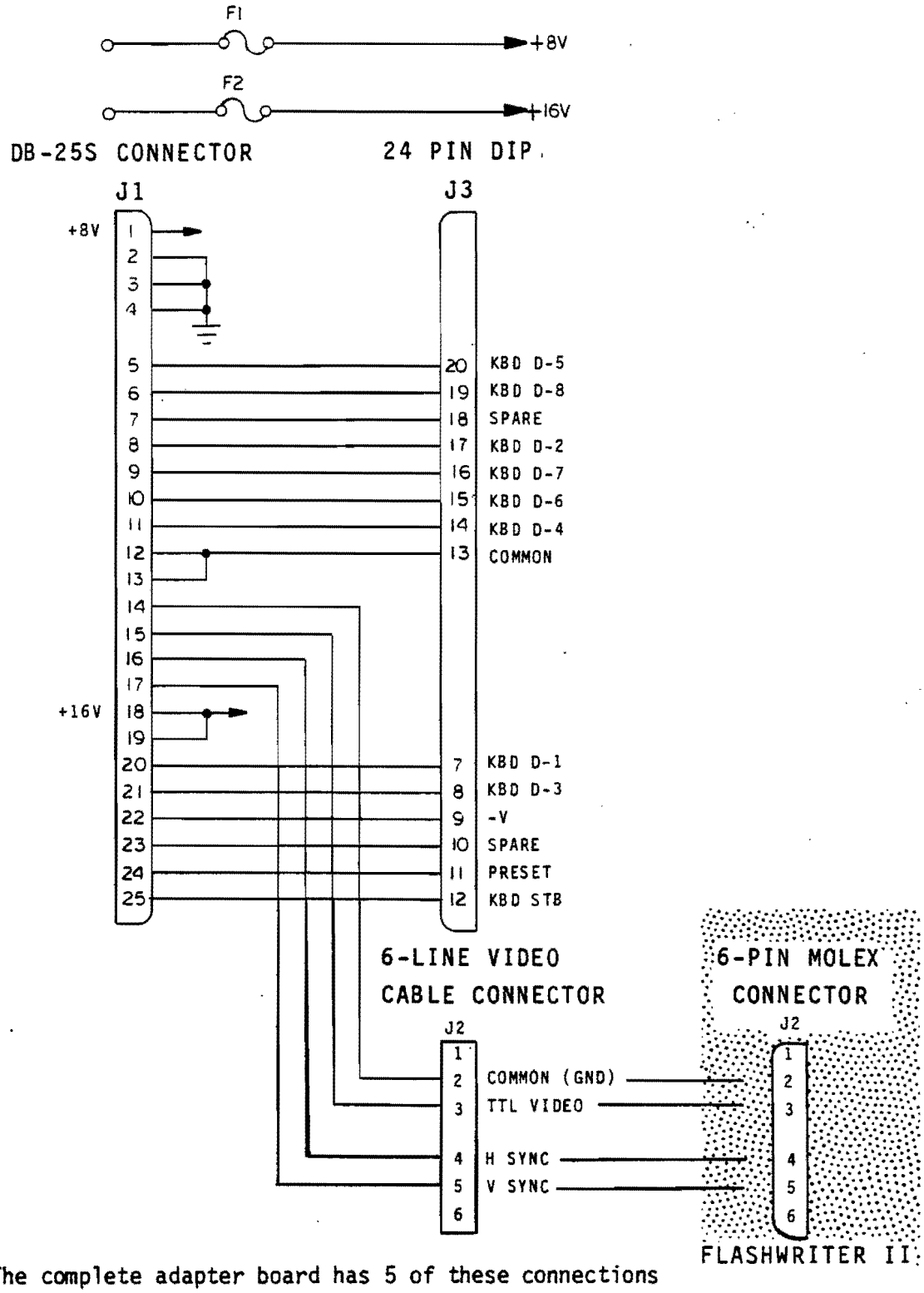
I/O 2 J4,J5	I/O 1 J3	REAR PANEL DB 25	PRINTER AMP 57-30360	SIGNAL NAME	
2	— 5	17	2	DATA 0	OUT
3	— 6	16	3	DATA 1	OUT
4	— 9	15	4	DATA 2	OUT
5	— 10	14	5	DATA 3	OUT
6	— 15	24	6	DATA 4	OUT
7	— 16	25	7	DATA 5	OUT
8	— 17	12	8	DATA 6	OUT
1	— 8	11	1	STAROBE	OUT
11	— 20	6	11	BUSY	IN
20	— 18	7	16 -0230	GROUND	

VECTOR
VECTOR GRAPHIC, INC.
a Colinas
...e Village CA 91361
...) 991-2302

PORT MAP

Revision A

July 10, 1981



The complete adapter board has 5 of these connections

EXHIBIT 4-5 SCHEMATIC OF MZ5 ADAPTER BOARD CONNECTOR WITH FLASHWRITER II CONNECTIONS

2. Type "ESC" and "G 0000". (Execute the program at 0000H). This continually outputs to port C0H which forces the controller to attempt to select the hard disk.

3. Now measure the frequency on U1 pin 10 with the oscilloscope or frequency counter.
4. With the probe on U1-10 adjust the left hand potentiometer (R1) for a 10 MHz square wave (100 nanosecond period). This signal should approximate a square wave with a 50% duty-cycle.

SIGNAL:	LOCATION:	FREQUENCY:	POTENTIOMETER:
FLOPPY VCO	U1-7	500 kHz	R15
HARD DISK VCO	U1-10	10 MHz	R1

Address (Hex)	Boards	Descriptions
7F	Video Digitizer	Output: T Count Low Input: A Data
80	8 Port Parallel I/O	Parallel Port: Bidirectional
81	8 Port Parallel I/O	Parallel Port: Bidirectional
82	8 Port Parallel I/O	Parallel Port: Bidirectional
82	Clock/Calendar	Serial: Data
83	8 Port Parallel I/O	Parallel Port: Bidirectional
83	Clock/Calendar	Serial: Status
84	8 Port Parallel I/O	Parallel Port: Bidirectional
84	Clock/Calendar	Output: Write Data to Clock Input: Read Data from Clock
85	8 Port Parallel I/O	Parallel Port: Bidirectional
85	Clock/Calendar	Output: Incrementing Clock
86	8 Port Parallel I/O	Parallel Port: Bidirectional
86	Clock/Calendar	Output: Initializes/Sets Clock
87	8 Port Parallel I/O	Parallel Port: Bidirectional
87	Clock/Calendar	Output: Control
C0	Dualmode Disk Controller	Output: Control Ports Input: Status
C1	Dualmode Disk Controller	Output: Control Ports Input: Status
C2	Dualmode Disk Controller	Bidirectional Data Port
C3	Dualmode Disk Controller	Output: Start Input: Reset
D0	Network Controller	Input: Control Hardware Address
D1	Network Controller	Output: Load Controller Word Input: Read Controller Status Word
D2	Network Controller	Output: Load Buffer RAM Input: Read Buffer RAM
D3	Network Controller	Output: Output Data Don't Care Input: Reset
E0	Floppy Disk Controller	Output: Communication Input: Status
E1	Floppy Disk Controller	Output: Track Input: Track
E2	Floppy Disk Controller	Output: Sector Input: Sector