VECTOR GRAPHIC INC.

TO: ALL VECTOR GRAPHIC DEALER/SERVICE DEPARTMENTS

FROM: J. Zartman, Director, Product Support

DATE: January 15, 1979

RE: **POWER SUPPLY UPGRADE AND SPRINT 3 OPTION**

HARDWARE BULLETIN NO. #80-1

Vector's recent announcement of QUME S/3 printer support on System B's with Memorite software, will require the following hardware:

1. Vector System B Heavy Duty Power Supply and Printer Power Regulator PCB 99-4500.

   *Note: Upgrade of a system that does not contain the heavy duty power supply can only be accomplished by adding a switching power supply to the Sprint 3.

2. Printer Parallel Interface PCB-99-7600. This board is added "piggy back" fashion to the I/O II board, and includes the logic cable.

3. S/3 Driver Prom added to U11 on the PROM PCB.

4. Printer Power Supply Cable

Vector systems incorporating the Heavy Duty Power Supply can be identified by the 3 molex connectors on the rear panel. These connectors are "dummy" plugs only and must be punched out when the real connector from the regulator board is inserted. The correct position is as follows:

Top	-	Future use
Middle	-	QUME
Bottom	-	Spare

These systems begin with Vector Graphic System B Serial No. #5271.

It is our goal at Vector Graphic to increase our technical support documentation efforts, and this bulletin represents the first of 1980.

Thank you.

Jamie Zartman

JZ:uk

cc: C. Ely, L. Harp, R. Harp,
C. Harvey, R. Kramarz, R. Werner

VECTOR GRAPHIC INC.

TO: ALL VECTOR GRAPHIC DEALER TECHNICIANS

FROM: J. Irwin, Manager, Technical Support

DATE: January 16, 1980

RE: Z80 CLOCK CIRCUIT FAILURE

HARDWARE BULLETIN NO. #80-2

In the past month we have experienced problems with System Bs and MZs using the Z80 board. Upon initial power-on, the system will display random characters on the screen without keyboard input. After several tries of the on-off cycle, the system will come up.

This problem has been traced to the crystal on the Z80. This can be identified by noting that the crystal has its frequency information and part numbers stamped in ink rather than stamped into the case. If a crystal of this type exhibits a problem, a new crystal should be installed. The installation of the 22 MFD cap just below the 1N3643 transistor may also alleviate the problem.

John Irwin

JI:uk

31364 VIA COLINAS • WESTLAKE VILLAGE, CA 91361 • TEL.: (213) 991-2302

TO: ALL VECTOR GRAPHIC DEALER/SERVICE DEPARTMENTS

FROM: J. Irwin, Technical Support Supervisor

DATE: April 4, 1980

RE: CENTRONICS ON A SYSTEM B

HARDWARE BULLETIN #80-6

In order to connect the Centronics 700 series parallel printers to the System B or MZ, it is necessary to order the following:

A. Parallel Port I/O II Cable (PC2) 75-1228
B. AMP Conn. 57-30360, Part #16-2016
C. Wire List (included in this TB)

Using the MDOS, the Centronics overlay program as described in the Users Manual will enable you to use this printer as a list device.

Using CPM, the Configuration program (CONFIG) has provision for a Centronics parallel printer.

JI:uk

I/O 2 TO CENTRONICS WIRE LIST

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

VECTOR GRAPHIC INC.

TO: ALL VECTOR GRAPHIC DEALER/SERVICE DEPARTMENTS

FROM: J. Irwin, Technical Support Supervisor

DATE: February 20, 1980

RE: **APL MOD TO FLASHWRITER II REV. 3**

HARDWARE BULLETIN NO. #80-3

The attached pages explain the cuts and jumpers necessary to incorporate the APL Character Generator PROMs on the Flashwriter II Rev. 3.

Previous instructions sent with each order of APL were for Rev. 2 only.

Sincerely,

John Irwin

JI:uk
Attachments

Data compiled by S. Shatz

cc: Product Support
Engineering
Test

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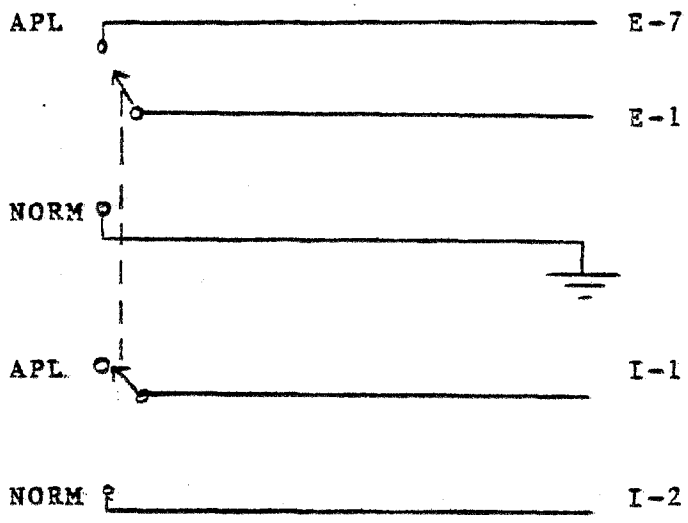
FLASHWRITER II Rev.3 APL MODIFICATION

I. For TMS 2716 proms only -

A) Add switch as shown below



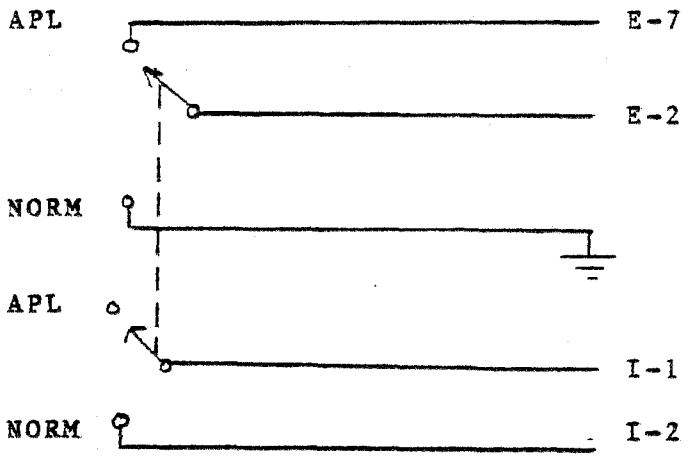
B)	Cut Etches	Jumper from
	I1 to I2	B1 to B2
	E1 to E4	E1 to E3
	E2 to E5	E2 to E6
	E3 to E9	E5 to U22-18
	trace from U22-18	

C) Insert APL PROMs at U22 and U23

Use APL TMS 2716 at U22
Use APL 2708 at U23

II. For INTEL 2716 or TMS 2516 only -

A) Add switch as shown below



B)

Cut etches	Jumper from
I1-I2	B1-B3
E1-E4	E1-E5
E2-E5	

C) Insert APL PROMs at U22 and U23

Use APL TMS 2516 or INTEL 2716 at U22
Use APL 2708 at U23

(1) VTA #80-0

(2) All Systems

(3) September 1, 1980

(4) Page 1 of 1

(5) CREATION OF VECTOR VTA FORM

(6) Vector Product Support has improved the format of all hardware technical bulletins. From now on they will be referred to as a VTA, or Vector Technical Advisory. The format used will be identical to this memo, and will contain the following six groups of information:

(1) VTA number in sequence, indicating both year and order

(2) The system that the VTA is referring to, including National, International, and OEM

(3) Date

(4) How many pages

(5) Main topic

(6) The information and recommended action

This form will be implemented by Vector immediately.

Jamie Zartman
Director
Product Support

JZ:uk

VECTOR TECHNICAL ADVISORY

VTA #80-1

All Systems

September 1, 1980

64K MEMORY PCB

Vector has diagnosed a small number of system boot problems as being caused by a failure in 4108 dynamic RAMS. These chips were not isolated by standard memory tests, including worm. The symptoms were failures of 56K CP/M or Word Management diskette to boot up.

A memory PCB failure occurring in the last 8K of RAM can be isolated by simple trial and error swapping and the defective 4108 replaced.

Jamie Zartman
Director
Product Support

JZ:uk

VECTOR TECHNICAL ADVISORY

#VTA-80-05

System 2800
International 230V Only

October 13, 1980

VECTOR TECHNICAL ADVISORY

JAPAN SERVO DRIVE MOTORS

All Japan Servo manufactured drive motors, made from December 24, 1979 until April 4, 1980 have been recalled. These motors are light gray or silver in color and can be identified by checking the lot #. Units marked 9Z24 to 9Z31 and 0101 to 0404, should be returned to Vector for warranty replaclement. These motors have insufficient insulation which could cause the motor to short after several hours of running.

Jamie Zartman
Director
Product Support

JZ:uk

#VTA-80-06

System 2800, Dualstore

October 23, 1980

VECTOR TECHNICAL ADVISORY

8" FLOPPY DISK CONTROLLER PCB, REV 0

All REV 0, 8 inch disk controllers should be updated to REV 1 at the next opportunity, or if intermittent read errors are encountered. To update the board, perform the following steps:

1) Remove U30, a 74367, and then cut the trace between pin 6 and pin 10.

2) Replace U30.

3) Jumper pins 1 and 2 on U29.

4) Jumper pin 1 on U29 to pin 6 on U30.

5) Jumper pin 3 on U29 to pin 10 on U30.

6) Remove the 470 pf cap between U30-8 and U30-9.

*This controller should now be labeled REV 1.

HEAD GAP, QUME 8 INCH FLOPPY

Proper head gap on QUME 8 inch floppy disk is important if media wear is to be minimized. A description of this adjustment can be found on page 69 of the Data Trak-8 manual. Improper adjustment of the head gap being too close, will result in rapid wear of the oxide on a diskette.

An alternate method of adjusting the gap is to individually select track 0, 40, 76 on an alignment disk, and then depress the space bar to unload the head. Looking at TP1A and 1B, screw the adjustment screw in until the "data" signal appears. Now reverse the screw until the data disappears and the gap is set. Caution, any Datatrak-8 drives not having glyptol on the adjusting screw should be double checked.

Jamie Zartman
Director, Product Support

JZ:uk

#VTA-80-7

All Systems

December 1, 1980

ZCB PROM/ROM REMOVAL

All ZCBs being swapped on a warranty basis, must have the PROMS or ROMS removed before return to Vector, because the new ZCB will not have any firmware on it. ZCB boards returned for repair, and then return to the customer, should have the PROMS in place.

Jamie Zartman
Director
Product Support

JZ:uk

VECTOR TECHNICAL ADVISORY

#VTA-80-8

System 3030 Only

December 1, 1980

MICROPOLIS HSD BULLETIN RD008201, 011204

Micropolis has changed its recommendation from retrofit on failure to retrofit recommended for bulletin 008201. This bulletin refers to the six isolation diodes used in the motor control circuit, and recommends the installation of the larger IN5400 in place of the IN5391's.

A new Micropolis bulletin, 011204, recommends installing two pieces of adhesive foam in the HSD to redirect airflow to circuit board areas requiring additional cooling. (See attached pages). These foam kits are available from Vector, part number 8502-0000-00-00. Please insure that the sound deadening foam at the front of the 3030 chasis is cut sufficiently low, so that it does not restrict the exhausted air.

Jamie Zartman
Director
Product Support

JZ:uk
Attachments

VECTOR TECHNICAL ADVISORY

MICROPOLIS

PRODUCT BULLETIN

TITLE	PAGE
Redirection of drive air-flow	1 OF 4
	P.B. No. 011204

PRODUCT	HARDWARE ☑	ASSEMBLY/PROGRAM	EFFECTIVE DATE
1200 Series Rigid Disk	SOFTWARE ☐	MICRODISK	11-15-80

CLASS OF BULLETIN:	ORDER PART KIT NO.	EFFECTIVITY
☐ INFORMATION ONLY ☐ SERVICE INFORMATION ☐ IMPROVEMENT ☐ RETROFIT ON FAILURE ☒ RETROFIT RECOMMENDED ☐ RETROFIT MANDATORY		All 1200 Series 8" Rigid Disk Drives

ORIGINATOR	DATE	MARKETING MANAGER	DATE	QUALITY ASSURANCE	DATE
[signature]	11/6/80	[signature]	11/14/80	[signature]	11/12/80

Purpose: Instructions to install foam tape which redirects drive airflow for more efficient circuit board cooling.

Description: Certain components on the motor control board and device electronics board were found to need additional air flow for proper cooling. This is accomplished by installing the foam tape as described in figures 1 and 2.

Procedure: CAUTION!!!

Remove power to the drive.

1. Loosen three large slot head screws securing the printed circuit boards (two screws near the edge connector, one near the center). Raise the hinged board assembly from the edge connector end.

2. Locate the large white relay adjacent to the D.C. drive motor on the motor control board. This board is directly attached to the drive. (see Figure 1).

3. Install the small 2" foam strip included onto the relay as illustrated in Figure 1 (Remove backing on tape to expose stick surface).*

4. Locate the large aluminum shield on the device electronics board. With the board stack swivled away from you, the device board will directly face you with the large shield covering a large portion of the left hand side of this board.

*Note: Rub tape firmly to push out air bubbles trapped under the tape.

Micropolis Corporation
21329 Nordhoff Street
Chatsworth, California 91311
(213) 709-3300 Telex 651-486

5. Install the longer piece of foam (approximately 6" in length) as illustrated in Figure 2.*

6. Be sure to remove all foam tape backing material from the inside of the drive.

7. Lower the hinged board assembly and tighten the three large slot head screws.

*Note: See Page 1.

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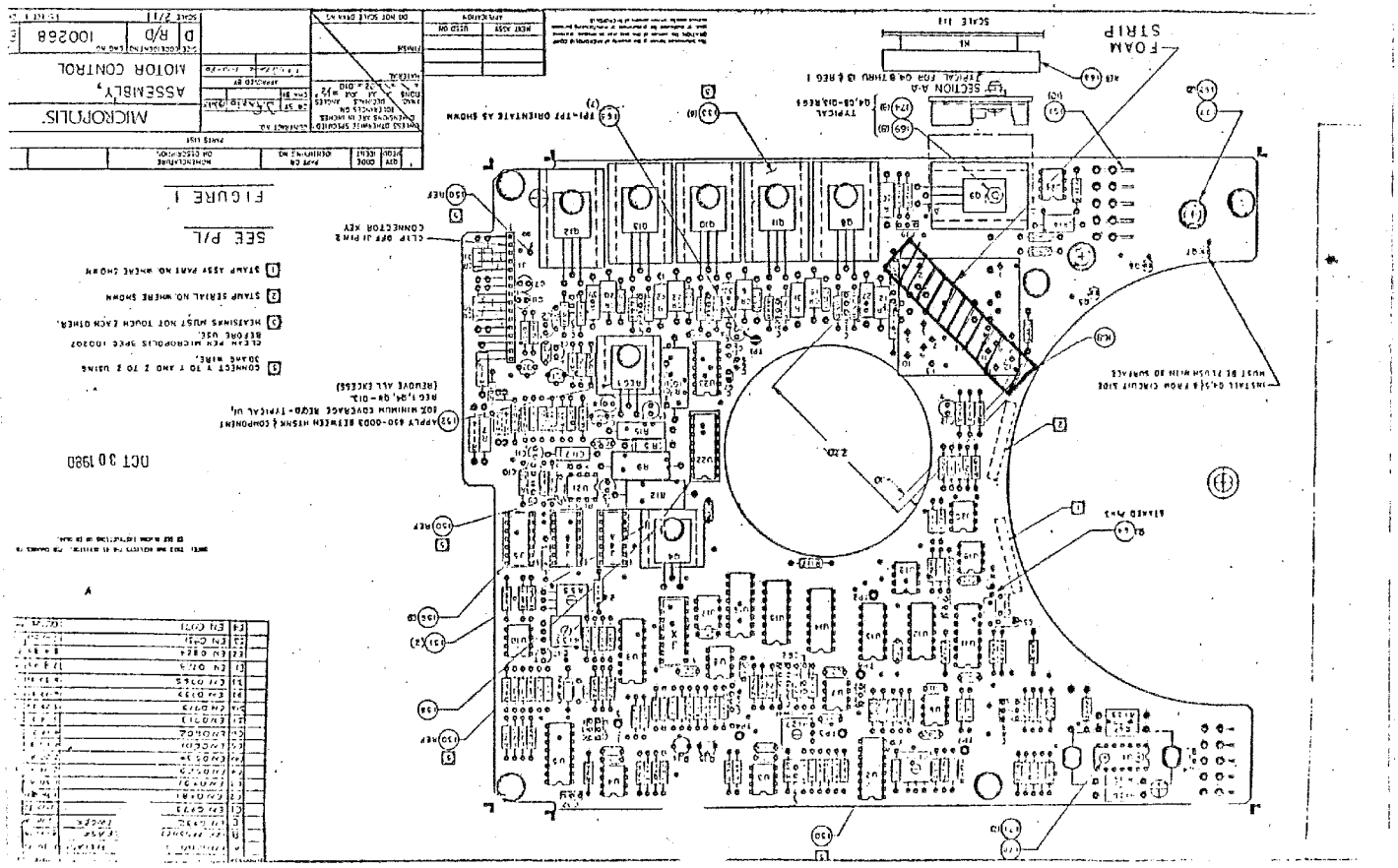
MICRONTUS
ASSEMBLY,
MOTOR CONTROL
B/D
100268
FIGURE 1
SEE P/L
STAMP ASSY PART NO. WHERE SHOWN
STAMP SERIAL NO. WHERE SHOWN
HEATSINKS MUST NOT TOUCH EACH OTHER.
CLEAN PER MICROPOLIS SPEC 102302 BEFORE USE.
CONNECT Y TO Y AND Z TO Z USING 30AWG WIRE.
APPLY 830-0003 BETWEEN HSNK & COMPONENT FOR MINIMUM COVERAGE REQD - TYPICAL (REMOVE ALL EXCESS)
CLIP OFF 11 PINS CONNECTOR KEY
FOAM STRIP
INSTALL Q4,5,8 FROM CIRCUIT SIDE MUST BE FLUSH WITH SURFACE
OCT 30 1980

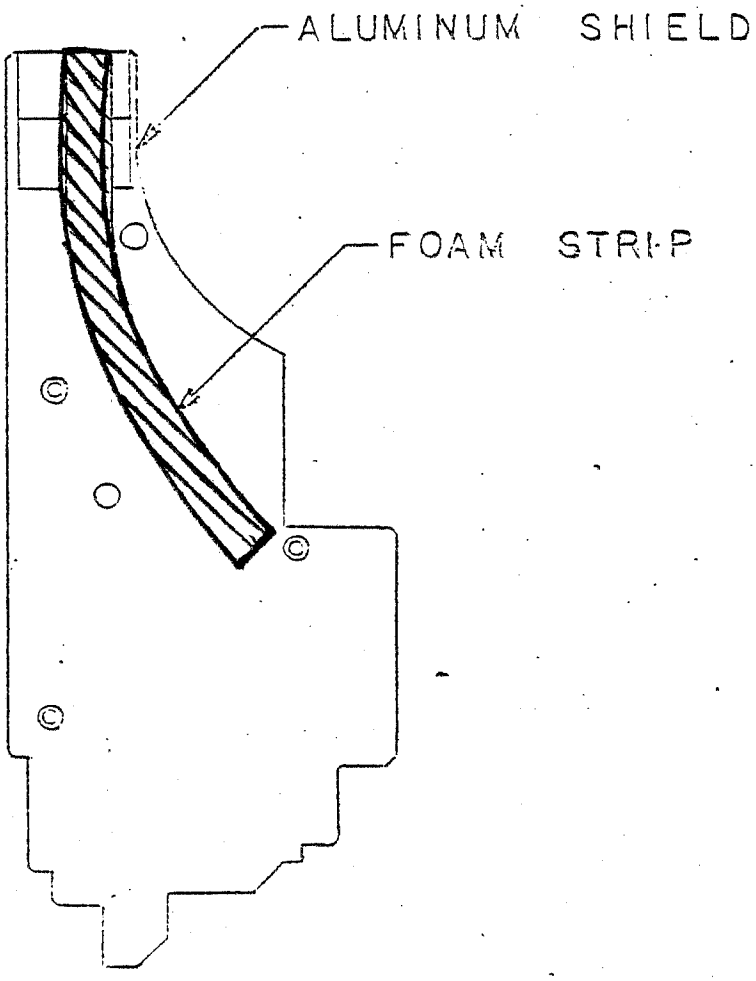

FIGURE 2

Micropolis Corporation
21329 Nordhoff Street
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#VTA-80-9

All Vector 3 Systems

December 5, 1980

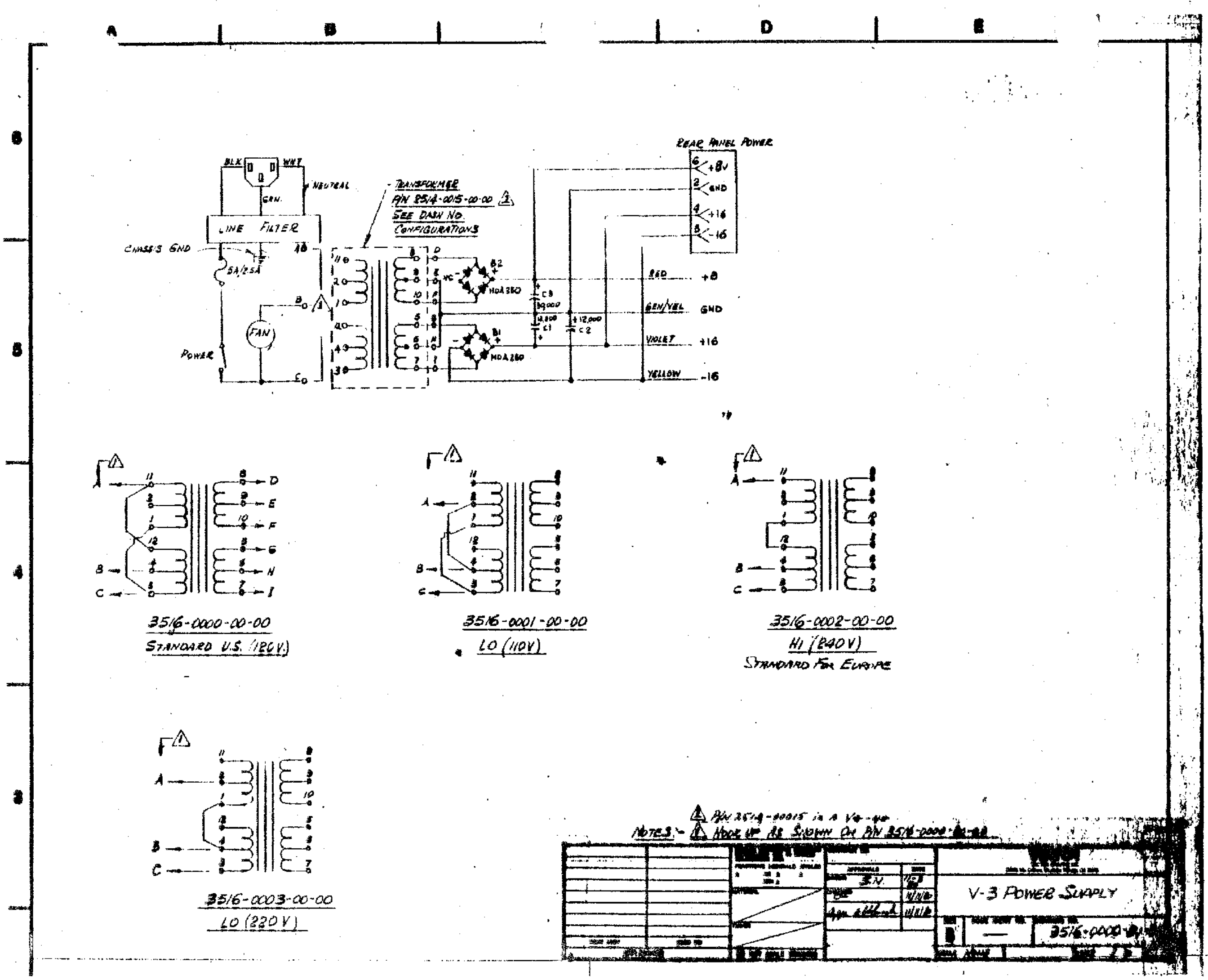
VECTOR TECHNICAL ADVISORY

V-3, VG-4G TRANSFORMER

Vector has upgraded the Vector 3 from a VG-4 to a VG-4G. The VG-4G is slightly larger and has a higher rating. This was done to prevent the transformer from affecting the display in 220V. versions. Note that the connections are different than the VG-4.

Jamie Zartman
Director
Product Support

JZ:uk


REAR PANEL POWER
+8V
GND
+16
-16
BLK
WHT
NEUTRAL
GRN.
LINE FILTER
CHASSIS GND
5A/25A
FAN
POWER
TRANSFORMER
P/N 3514-0015-00-00
SEE DASH NO.
CONFIGURATIONS
MDA 380
MDA 380
RED +8
GRN/YEL GND
VIOLET +16
YELLOW -16
3516-0000-00-00
STANDARD U.S. (120V.)
3516-0001-00-00
LO (110V)
3516-0002-00-00
HI (240V)
STANDARD FOR EUROPE
3516-0003-00-00
LO (220V)
NOTES:
V-3 POWER SUPPLY

#VTA-80-10

ALL SYSTEMS

December 16, 1980

DC POWER PLUG WIRING

When a molex type power plug is added to the rear panel of a system, for either a Unistor or MP printer, care should be taken to confirm that the add-on power plug is both wired and connected correctly. Some cables manufactured in December were wired incorrectly.

The attached diagram shows the correct relationship for the specified voltages.

Jamie Zartman
Director
Product Support

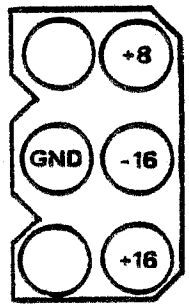
JZ:uk
Attachment

VECTOR TECHNICAL ADVISORY

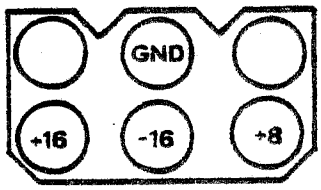
DC POWER PLUG CONFIGURATION

-Molex Type-

CONNECTIONS	SYSTEM B	VECTOR 3
WHITE TO GND	- ON C3, 60,000 μf	- ON C3, 30,000 μf
PURPLE TO +16V	+ ON C1, 28,000 μf	+ ON C1, 12,000 μf
RED TO +8V	+ ON C3, 60,000 μf	+ ON C3, 30,000 μf
YELLOW TO -16V	- ON C2, 28,000 μf	- ON C2, 12,000 μf



(REAR PANEL VIEW)



(REAR PANEL VIEW)

CAUTION

CONFIRM CORRECT VOLTAGE BEFORE APPLYING POWER!

#VTA-81-1

All Systems

January 15, 1981

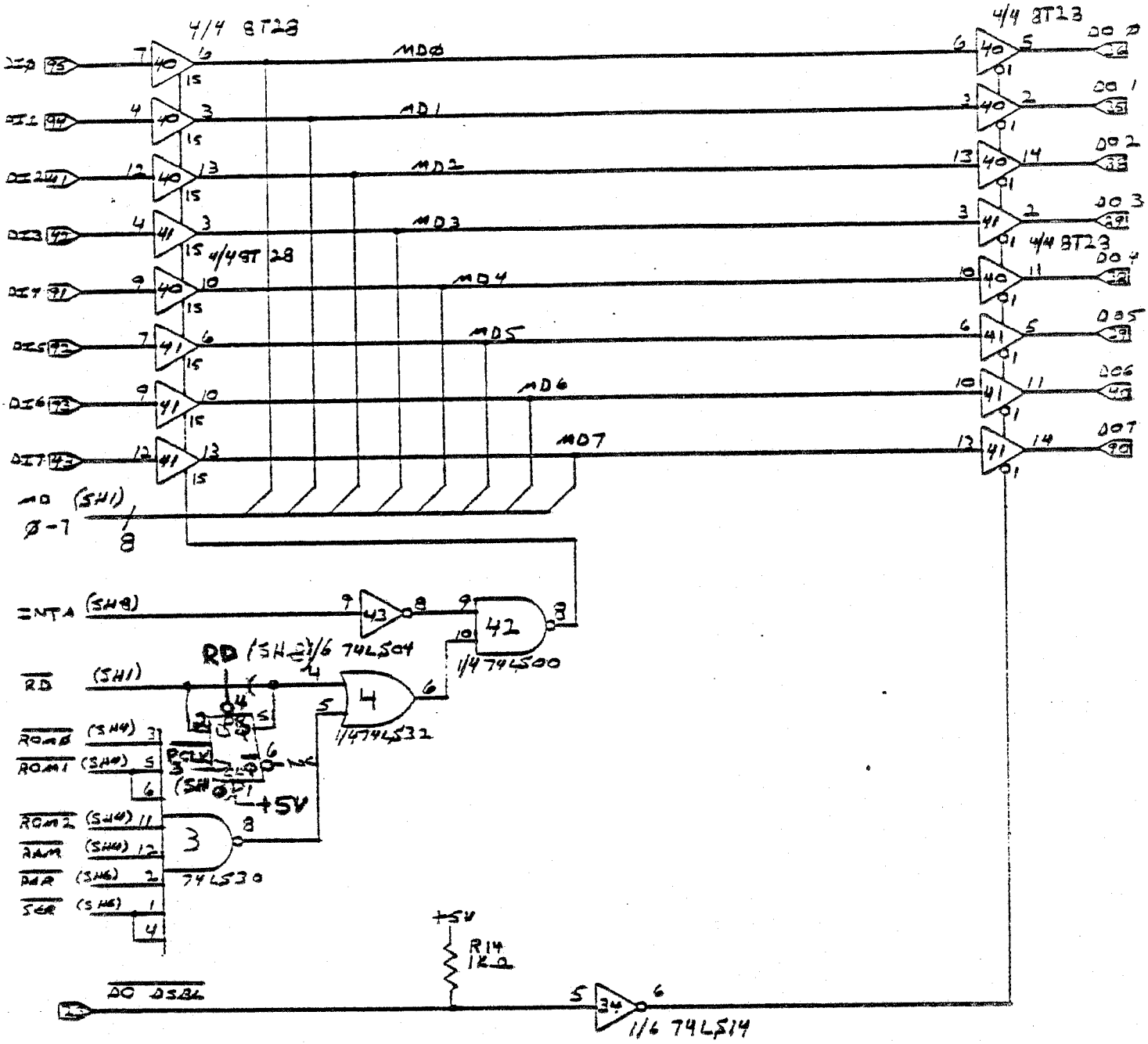
REV 3 ZCB

The Revision 3 ZCB board is now in production at Vector. This Revision was implemented in order to delay the RD signal, which was creating a race condition that caused a data glitch. This "glitch" could create memory errors that were attributed to the 64K PCB. This revision is a factory only modification. The error condition is apparent when a 64K PCB is swapped or the LS244's are changed to resolve a memory error, but the original 64K PCB functions properly with a different ZCB board. The attached schematic should be added to your ZCB documentation.

Jamie Zartman
Director, Product Support

JZ:uk
attachment

VECTOR TECHNICAL ADVISORY



REVISION C 7/16/80

SHEET 2/10

DATA BUS CONTROL

#VTA-81-2

Vector 3 Based System

January 15, 1981

Wells-Gardner CRT

The Wells-Gardner CRT has been approved for use in Vector 3 systems. A schematic is provided for on page 2 of this VTA.

Jamie Zartman
Director, Product Support

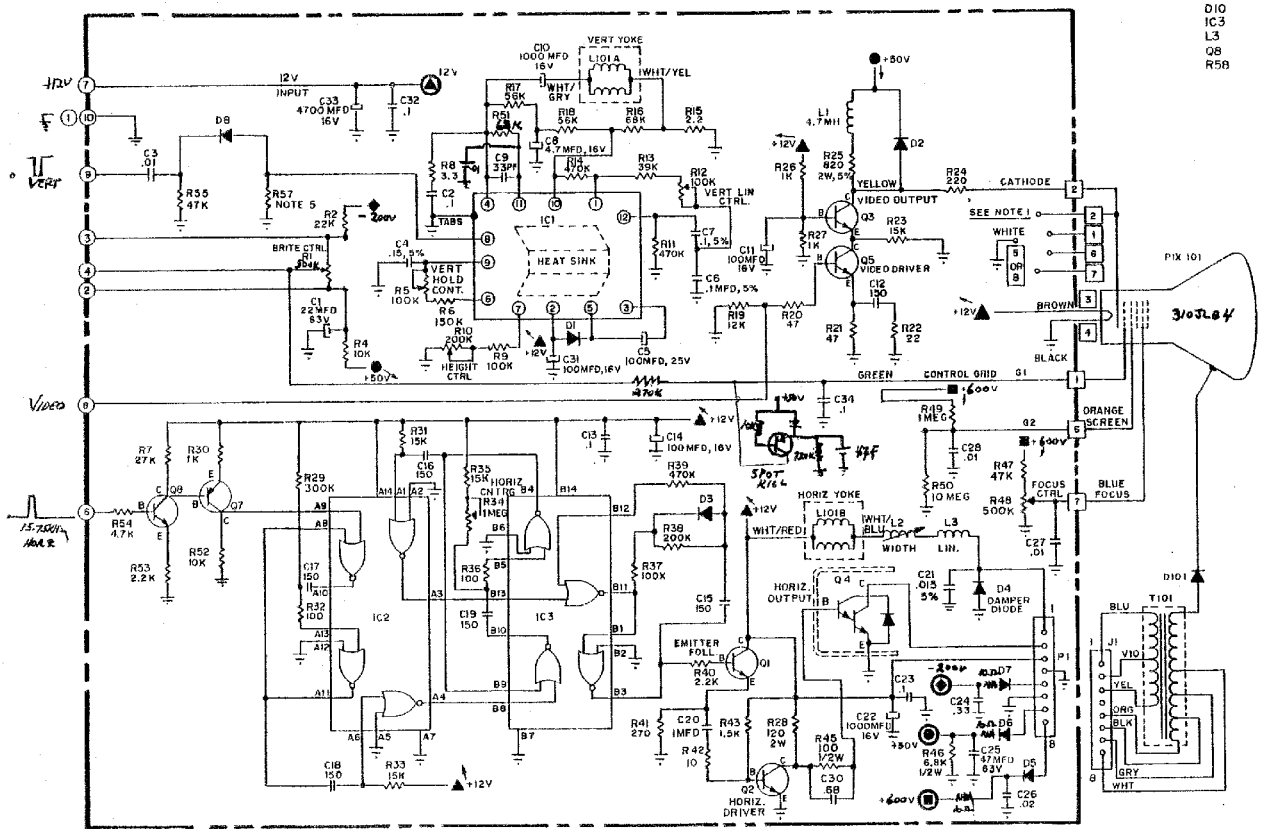
JZ:uk
attachment

VECTOR TECHNICAL ADVISORY

12" MONITOR KIT SCHEMATIC

LAST Nº'S USED

C34	L101A
D10	L101B
IC3	D101
L3	T101
Q8	
R58	



NOTES:

1. PIN 5 OF PIX SOCKET IS GROUND. RETURN FOR SPARK GAPS TO PINS 1, 2, 6 AND 7.
2. SOURCE VOLTAGES. SYMBOL CIRCLED. ARROWS POINT TO SOURCE.
3. EDGE CONNECTOR NUMBERS INDICATED IN CIRCLES. PIX SOCKET PIN CONNECTIONS IN RECTANGLES.
4. ALL RESISTORS 5% 1/4W UNLESS SPECIFIED OTHERWISE.
5. R57 REQUIRED WITH TDA1170S BUT NOT WITH TDA1170.
6. CAPACITANCE VALUES OF 1 OR LESS ARE IN MICROFARADS, ABOVE 1 IN PICOFARADS, UNLESS OTHERWISE INDICATED.

SCHEMATIC FOR VECTOR GRAPHICS
12/8/80