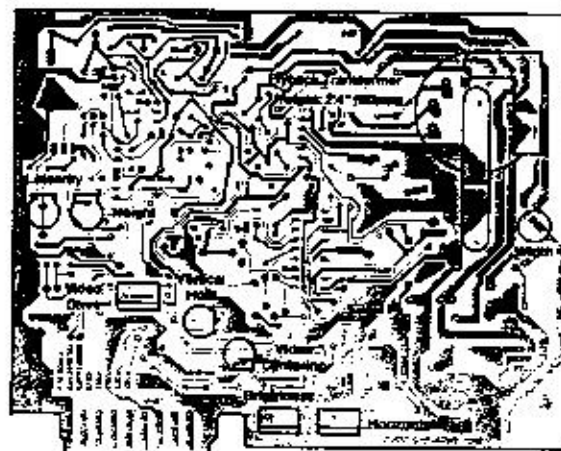
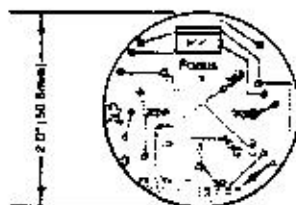


# 115 DMX 90° MONOCHROME DISPLAY MODULE

MAIN SWEEP PCB

CRT SATELLITE PCB



## Standard Chassis Configurations

### Printed circuit board

Main card size: 4.5" X 5.7"

CRT satellite size: 2.0" dia.

Material: glass FR-4

Four corner mounting holes

Custom substrates available

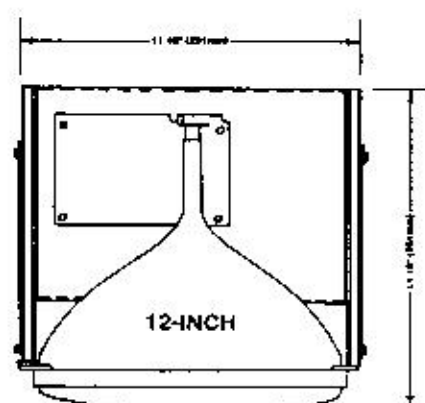
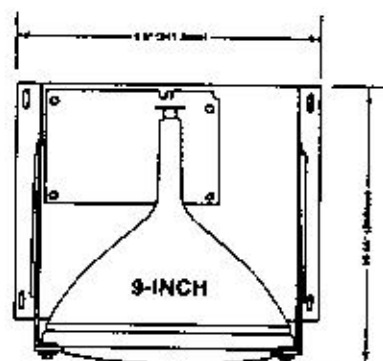
Standard edge card connectors

20-pin square wire connector optional  
(0.1" ctrs.)

10-pin square wire connector optional  
(0.156" ctrs. or 0.1" ctrs.)

## Safety

UL, CSA, DHHS, F.C.C. certifiable



## Performance Characteristics

### Video System

- Bandwidth: 25 MHz (min.)
- Digitally balanced and phase corrected to beyond 30 MHz
- Linear display of multilevel video attributes
- Discrete dual intensity capability

### Deflection system

- Time base operating range:  
Vertical: 40-100 Hz  
Horizontal: 15-21 KHz (see options)
- Sync interface:  
Horizontal and vertical are positive edge triggered at TTL levels. See bi-polar sync option below.

### CRT operation:

- High voltage programmable to 16 KV  
HV fault sensing auto shutdown
- System power requirement:  
12-15V DC at 700 mA to 1.5 A max.

## Available Options

- Bi-polar sync interface  
Provides buffered sync compatibility to any combination of positive or negative going signals
- Composite signal interface  
Provides A/D conversion of low level composite sync and video wave forms and adds vertical and horizontal retrace blanking signals
- Adjustable video centering  
Allows user to vary start of active video within horizontal blanking window

- Interlaced scanning  
Converts vertical deflection to recurrently scan even/odd fields interlaced 2:1
- Low power, auto standby capability  
CRT controller can logic switch monitor to energy conserving (40 mA) standby mode
- Fast scanning  
Higher frequency scanning rates to 30 KHz
- Self-contained power supply  
120/240V AC, 50/60 Hz compatibility  
24V DC optional
- Custom sheet metal chassis

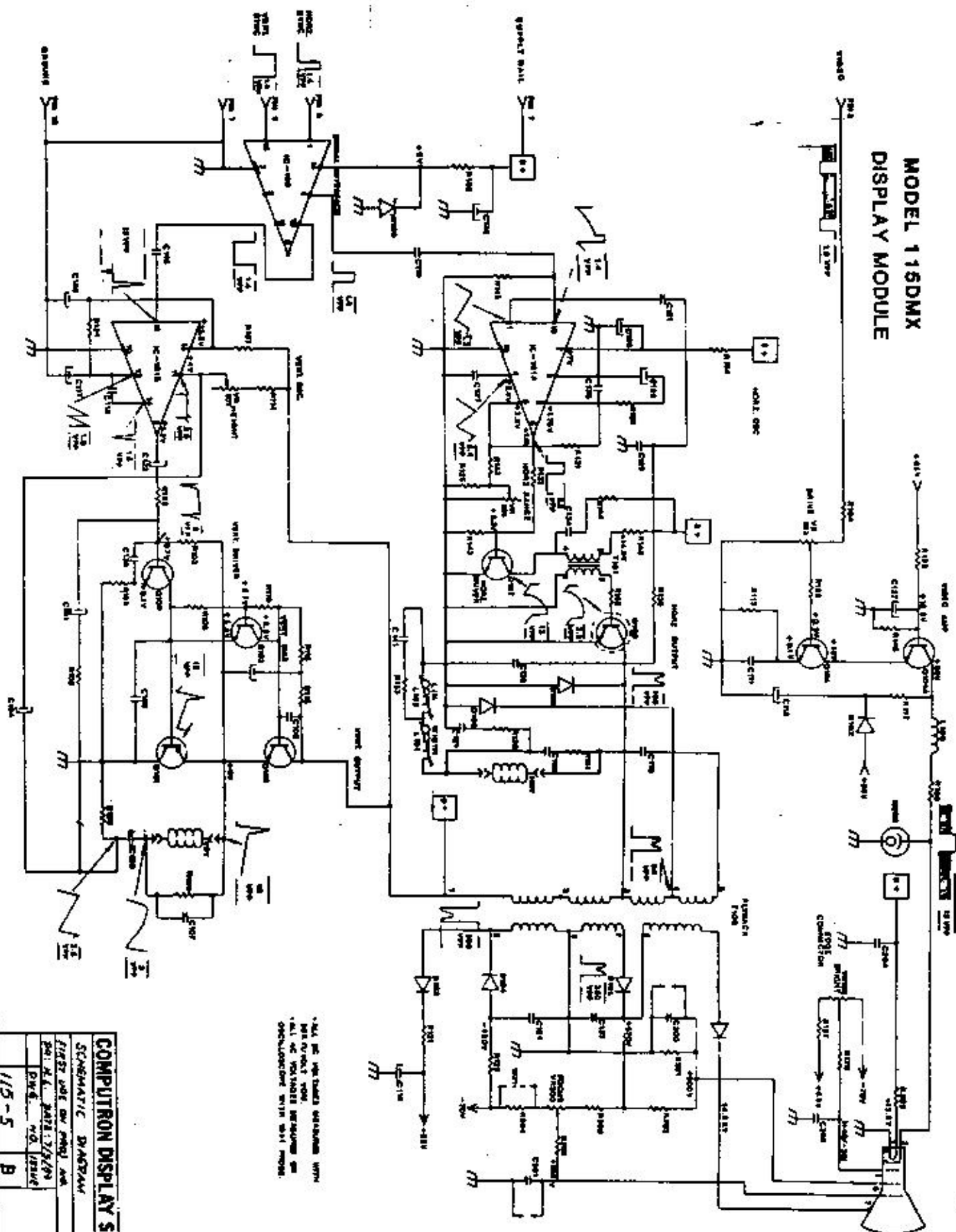
- CRT options:  
5", 7", 9", 10", 12", 14", and 15" sizes  
Contrast enhancements  
Etched face plates  
Hybrid phosphor combinations

## Environment

- Operating temperature: 65°C to -55°C
- Storage temperature: 60°C to -65°C
- Operating altitude: 12,000 ft. max  
(3,658 meters)

Above specifications represent nominal performance. Please check for current performance capability.

**MODEL 115DMX  
DISPLAY MODULE**



\*ALL THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED  
DATE 05-20-2008 BY 60322 UCBAW/SJS

**COMPUTRON DISPLAY SYS.**

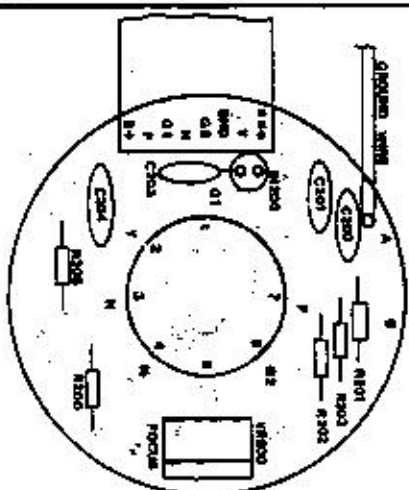
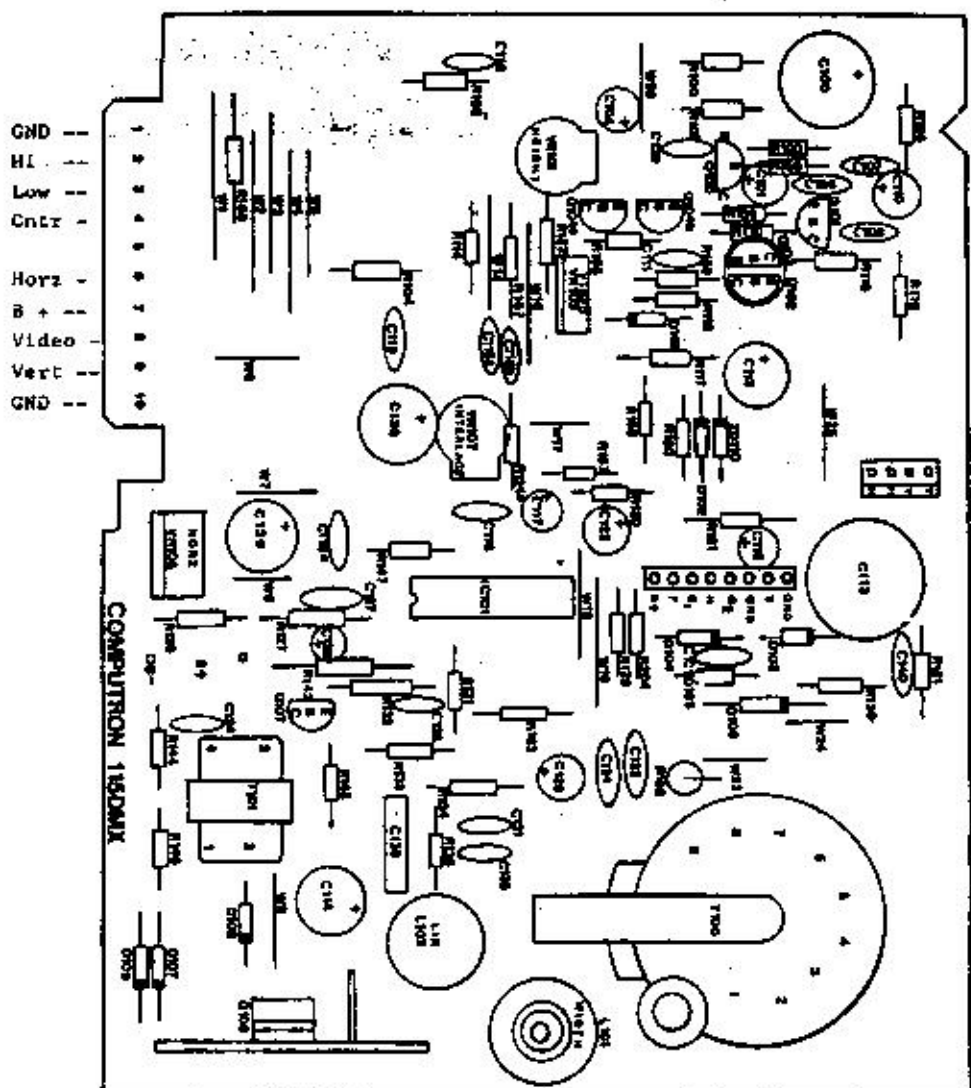
SCHEMATIC DIAGRAM

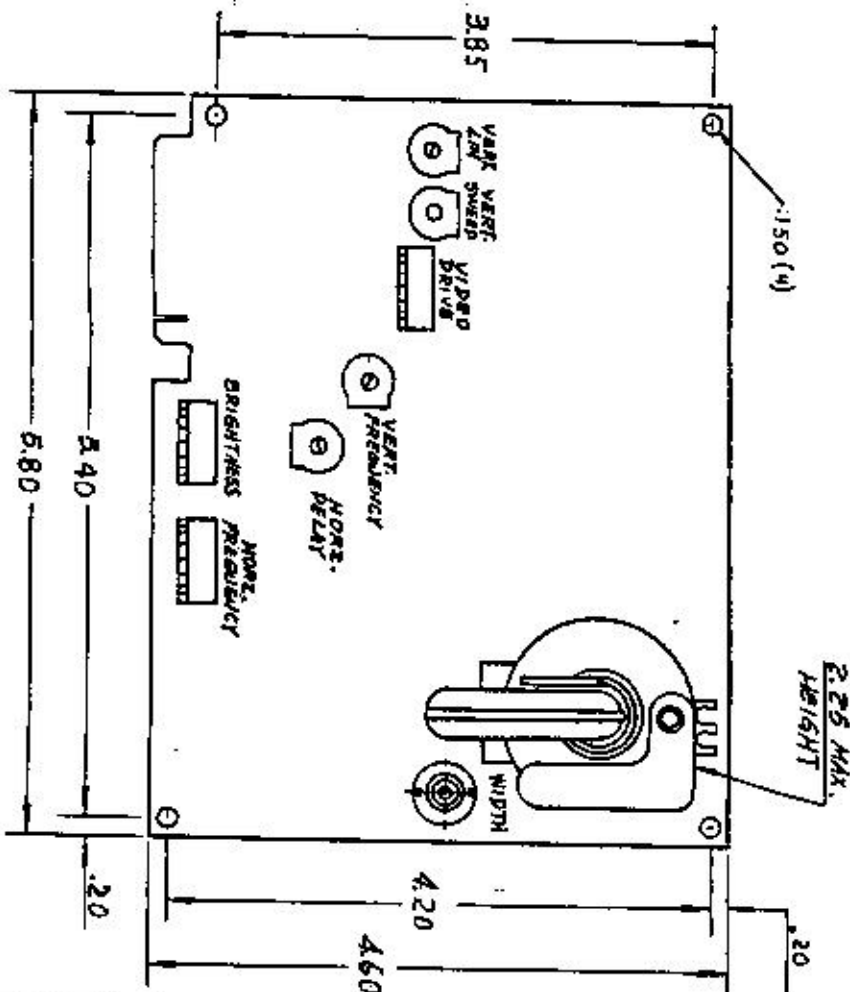
FIRST NAME (OR PREFIX) AND  
 LAST NAME: 7/5/93

DATE	NO.	ISSUE
------	-----	-------

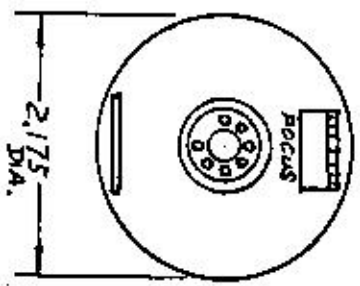
	115-5	B
--	-------	---

**CRT**



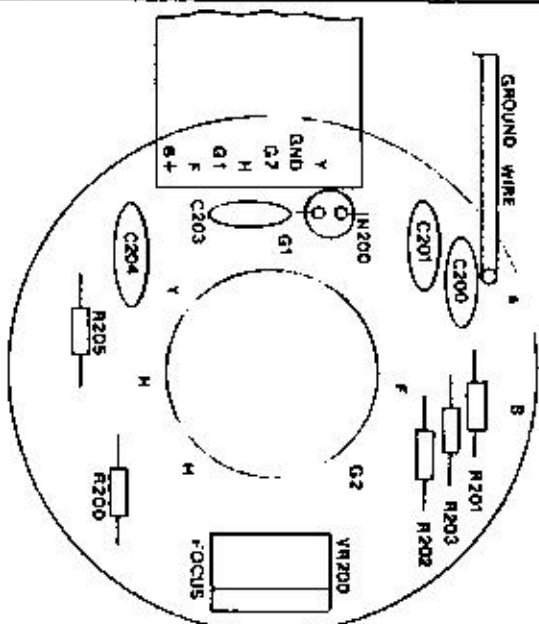
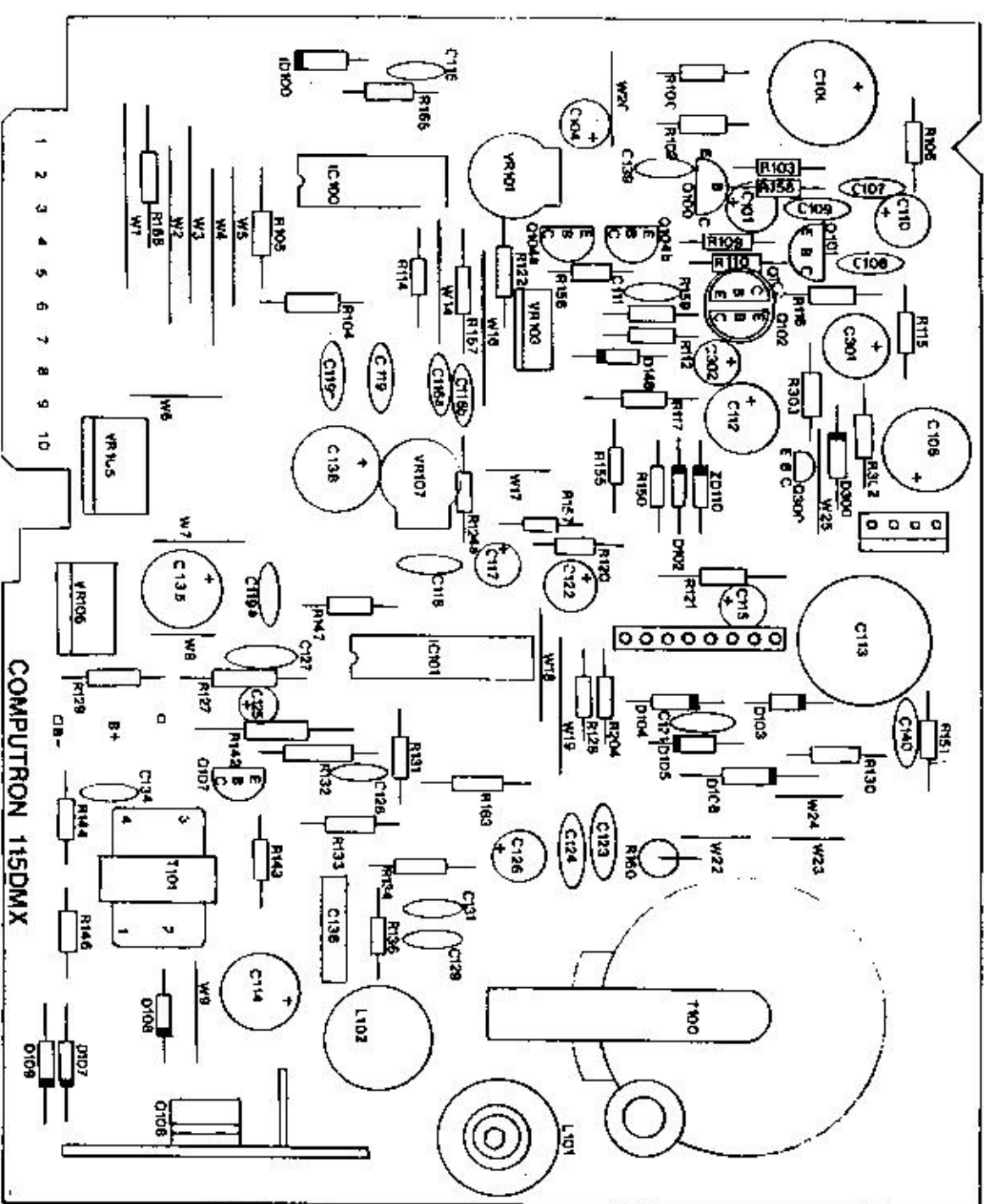


MAIN P.C.B.



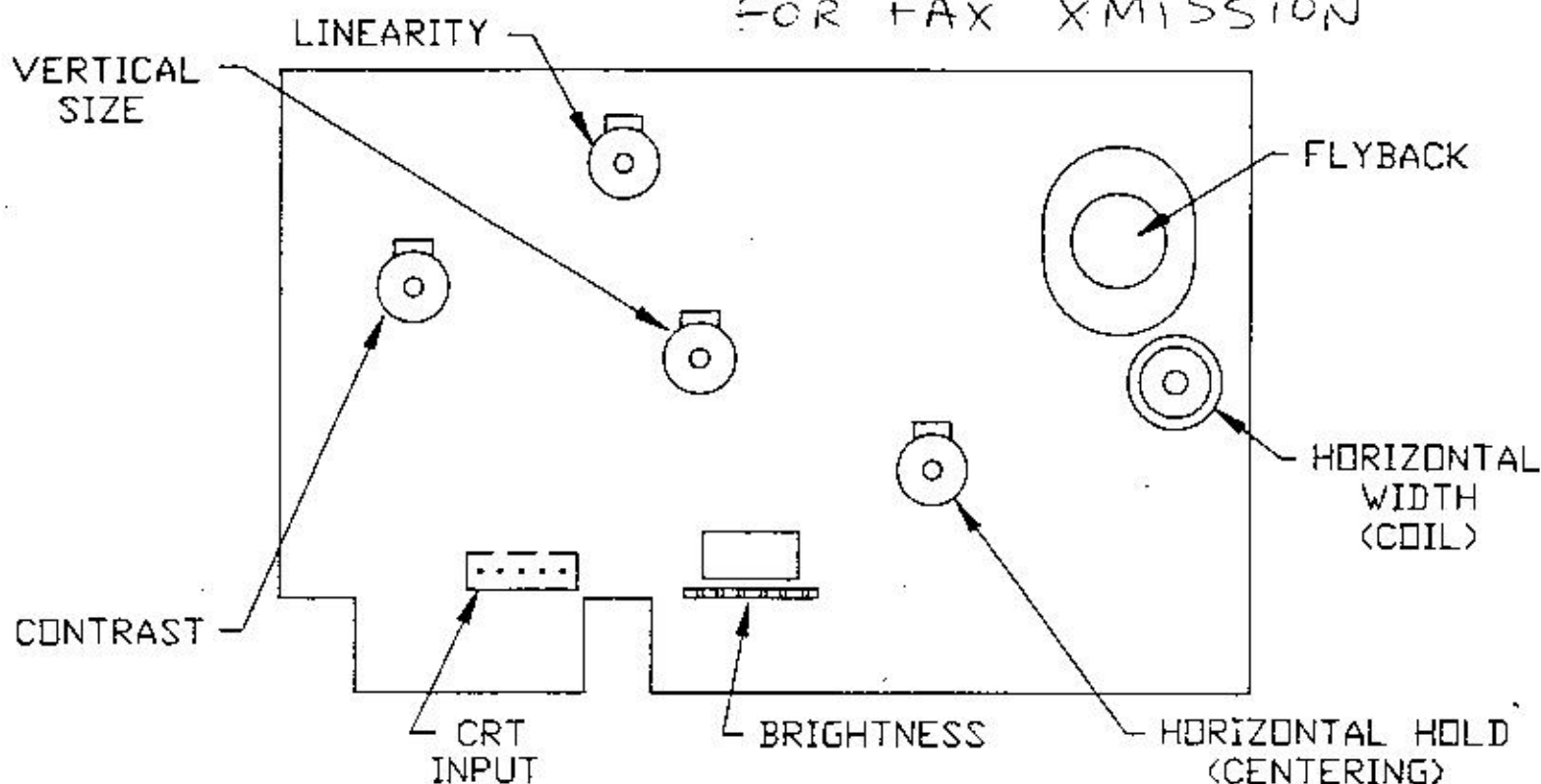
CRT 8ATEL175

COMPUTRON DISPLAY SYSTEMS			
FIRST USED ON PROJ NO. 115-117			
DR. H.A. DATE 11/16/84			
UNIT	PNQ	NO.	ISSUE
INCH		A	



NOTE: FOR CRTS SHIPPED AFTER 8.14.89. DOES NOT  
SUPERCEDE OLD ALIGNMENT GUIDE (FOR OLD  
CRTS)

FOR FAX TRANSMISSION

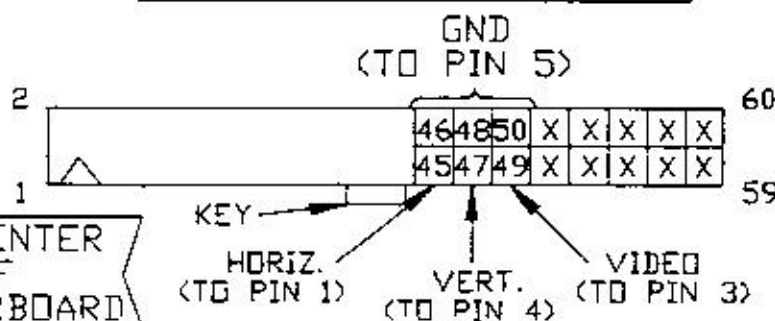


\* FOCUS ADJUSTMENT ON SMALL PCB  
ATTACHED TO TUBE.

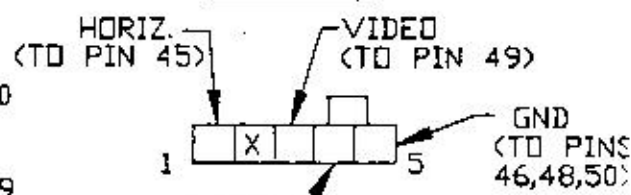
ENTER DIAGNOSTIC PROGRAM AND ALIGN (ON BULLSEYE PATTERN):

- \_\_\_ a. CONTRAST POT DOWN UNTIL DISPLAY IS JUST VISIBLE.
- \_\_\_ b. BRIGHTNESS POT UP UNTIL BACKGROUND RASTER IS VISIBLE.
- \_\_\_ c. BRIGHTNESS POT BACK DOWN UNTIL BACKGROUND RASTER JUST DISAPPEARS.
- \_\_\_ d. CONTRAST POT UP TO DESIRED BRIGHTNESS.
- \_\_\_ e. FOCUS POT UNTIL PICTURE IS SHARP.
- \_\_\_ f. H SIZE POT UNTIL WIDTH IS 6 INCHES.
- \_\_\_ g. V SIZE POT UNTIL HEIGHT IS 4 1/2 INCHES.
- \_\_\_ h. H HOLD POT UNTIL DISPLAY IS CENTERED.
- \_\_\_ i. (ON SQUARES PATTERN) ADJUST LINEARITY POT UNTIL TOP & BOTTOM SQUARES ARE THE SAME HEIGHT.

MOTHERBOARD

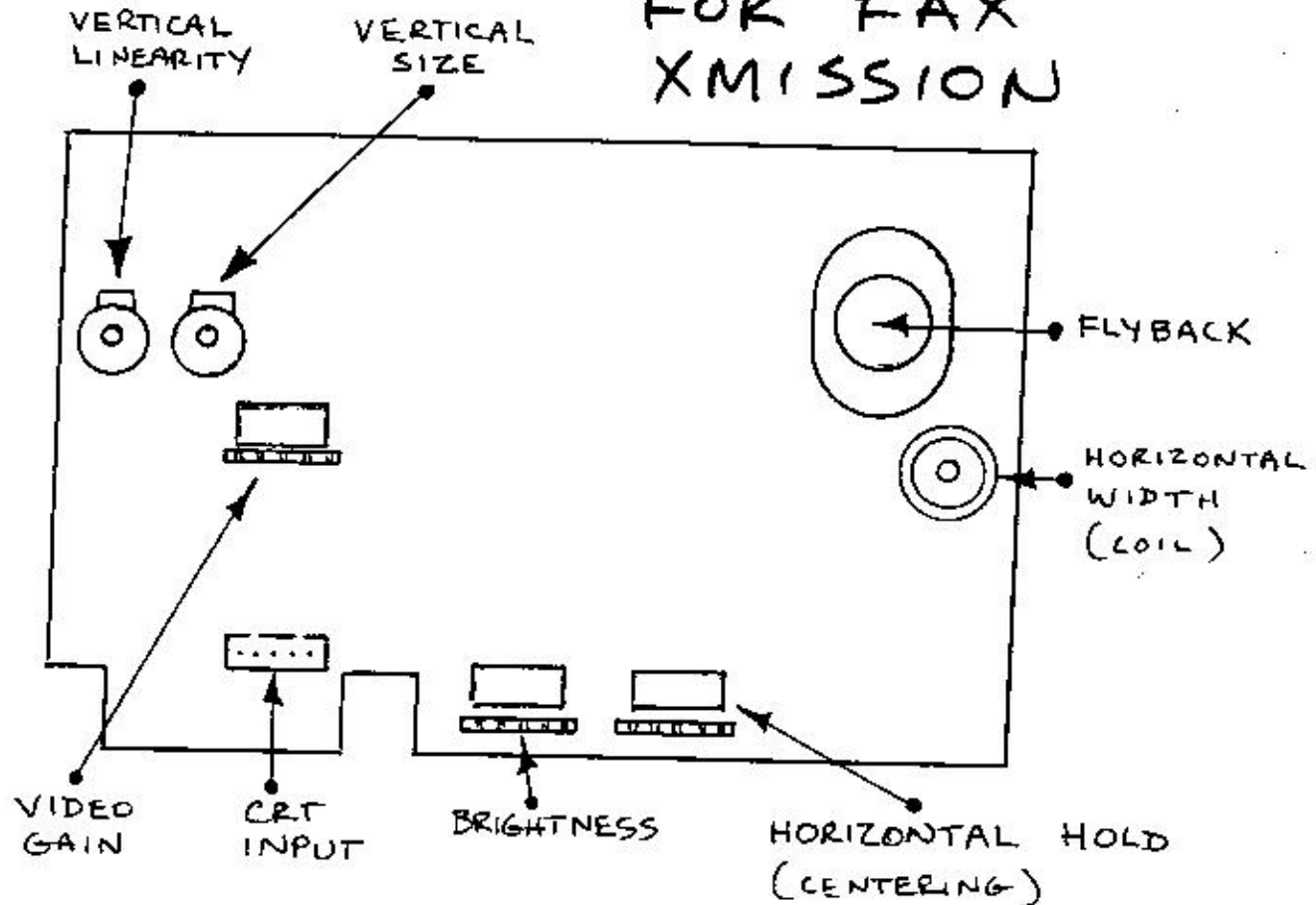


CPT


$$\ast \text{ "X" } = \Pi P E N \text{ P I N}$$

# COMPUTRON CRT ALIGNMENT GUIDE

## FOR FAX TRANSMISSION

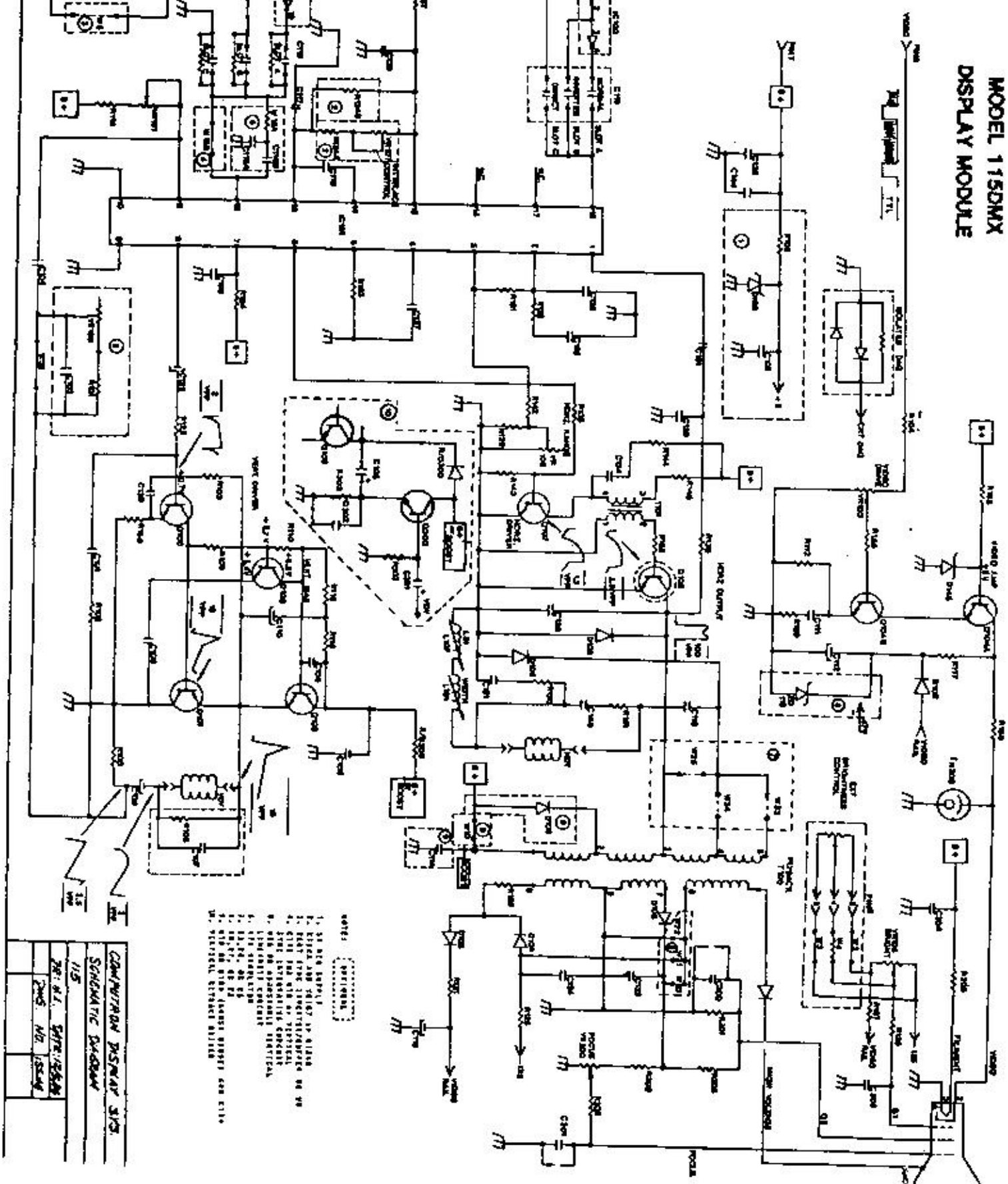


\* FOCUS ADJUSTMENT ON SMALL PCB ATTACHED TO TUBE

- |  |  |
|--|--|
| 1) IMAGES FUZZY                          | - ADJUST FOCUS FOR BEST OVERALL SHARPNESS  |
| 2) VERTICAL SIZE INCORRECT               | - ADJUST VERTICAL SIZE CONTROL FOR $4\frac{1}{2}$ "  |
| 3) PICTURE SIZE VARYS FROM TOP TO BOTTOM | - ADJUST VERTICAL LINEARITY SO BLOCKS ON BOTTOM AND TOP OF DISPLAY ARE EQUAL IN SIZE                   |
| 4) VIDEO NOT CENTERED LEFT TO RIGHT      | - ADJUST HORIZONTAL HOLD CONTROL TO CENTER VIDEO. (TOO MUCH ADJUSTMENT WILL CAUSE LOSS OF HORIZ. SYNC) |



**MODEL 115DMX  
DISPLAY MODULE**

[illegible]

CLARK PETERSON DISNEY JES.

115

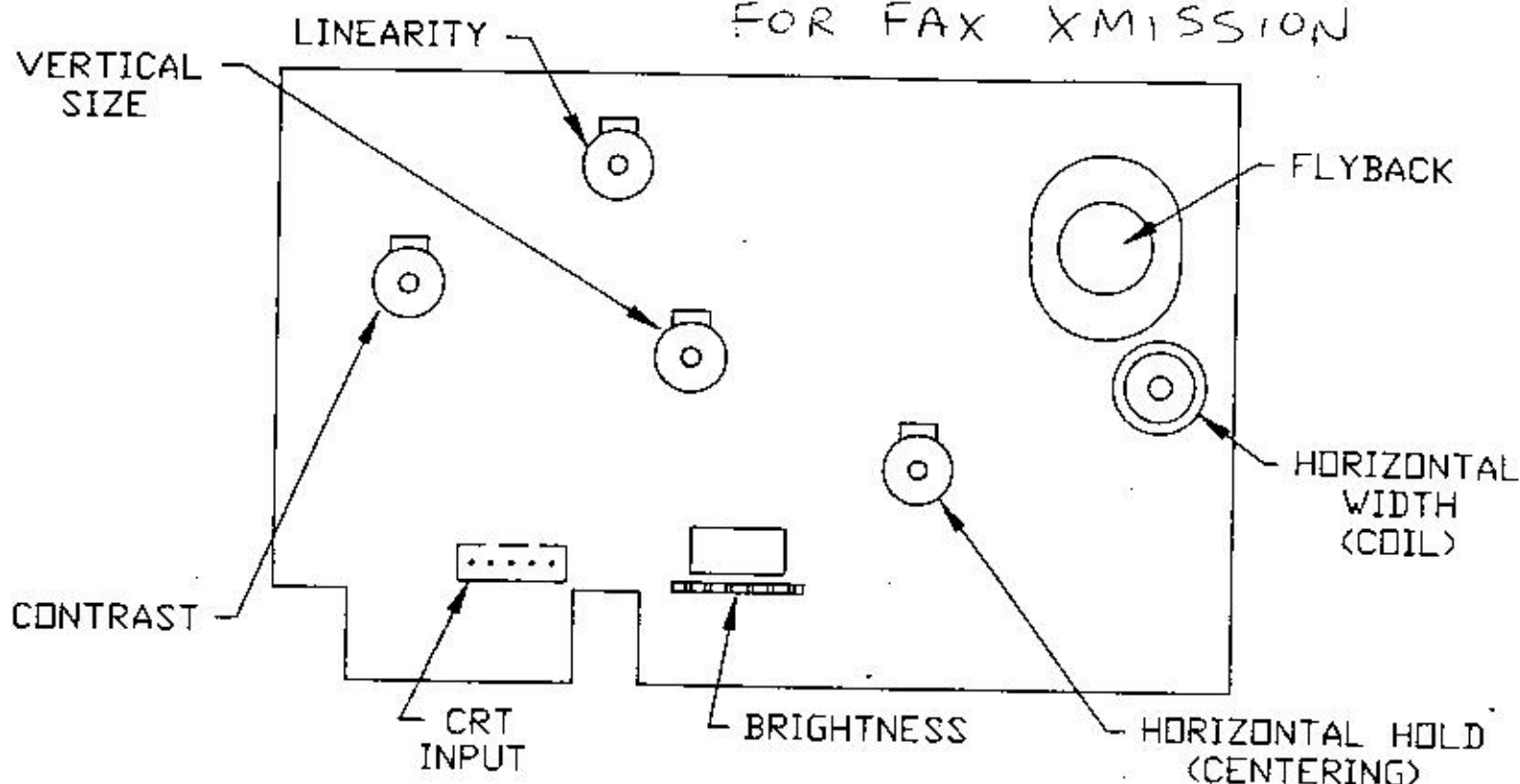
2005. N/D. 15-16



# NEW COMPUTER CRT GUIDE 8.3.89

NOTE: FOR CRTS SHIPPED AFTER 8.14.89. DOES NOT SUPERCEDE OLD ALIGNMENT GUIDE (FOR OLD CRTS)

FOR FAX XMISSION

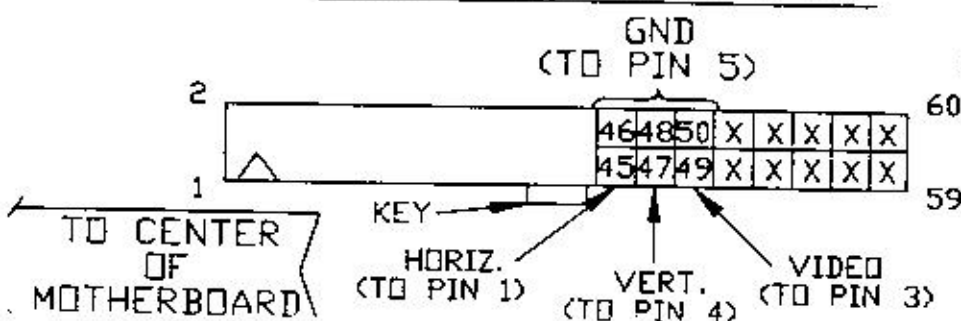


\* FOCUS ADJUSTMENT ON SMALL PCB ATTACHED TO TUBE.

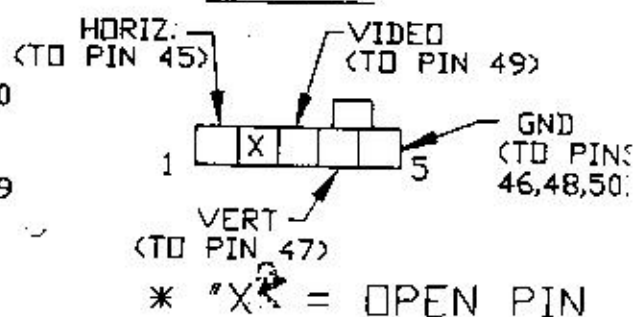
ENTER DIAGNOSTIC PROGRAM AND ALIGN (ON BULLSEYE PATTERN):

- a. CONTRAST POT DOWN UNTIL DISPLAY IS JUST VISIBLE.
- b. BRIGHTNESS POT UP UNTIL BACKGROUND RASTER IS VISIBLE.
- c. BRIGHTNESS POT BACK DOWN UNTIL BACKGROUND RASTER JUST DISAPPEARS.
- d. CONTRAST POT UP TO DESIRED BRIGHTNESS.
- e. FOCUS POT UNTIL PICTURE IS SHARP.
- f. H SIZE POT UNTIL WIDTH IS 6 INCHES.
- g. V SIZE POT UNTIL HEIGHT IS 4 1/2 INCHES.
- h. H HOLD POT UNTIL DISPLAY IS CENTERED.
- i. (ON SQUARES PATTERN) ADJUST LINEARITY POT UNTIL TOP & BOTTOM SQUARES ARE THE SAME HEIGHT.

## MOTHERBOARD



## CRT



# Computron Display Systems

5/16/86

## SAMPLE SUBMISSION

### ANILANE

#### NINE INCH MONITOR KIT - MODEL 115DMK-9

#### CRT TYPE

Orion R5123PDBSDHT  
9 inch - 90 degree/20mm Spot Size  
R690 glass radius - 0.35mm Spot Size  
PDB (Amber) medium Persistence Phosphor  
High Contrast - Direct Etch faceplate

#### DISPLAY MODULE - 12VDC operation

Scanning 18.594Khz x 59.98 HZ (non-interlaced)  
• Multi level attributes Display  
• 10 Pad card edge connector  
• Remote control of Brightness (250K)  
• Bi Polar Interface

#### PERFORMANCE CHARACTERISTICS

Energy Requirement	- 14.4 Watts (12V @1.2A)
CRT HIGH Voltage	- 12.60 KV
100UA Beam Load Impedance	- 8 meg ohms
Horizontal Retrace period	- 8.4 USCS
Vertical Retrace period	- 500 USCS
Scan Linearity (Both Axis)	- Less than 2% deviation

#### SIGNAL INTERFACE

PAD	10	- Ground
PAD	9	- Vertical Sync/Negative going
PAD	8	- Video (1.5vpp low)
PAD	7	- B + 12V @ 1.2A
PAD	6	- Horizontal Sync/Positive going
PAD	5	- NC
PAD	4	- Remote Brightness Center
PAD	3	- Remote Brightness Low
PAD	2	- Remote Brightness High
PAD	1	- Ground

# ION PICTURE TUBE

## TECHNICAL DATA

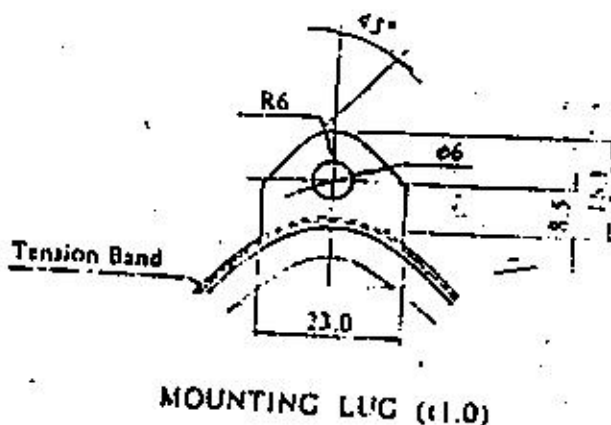
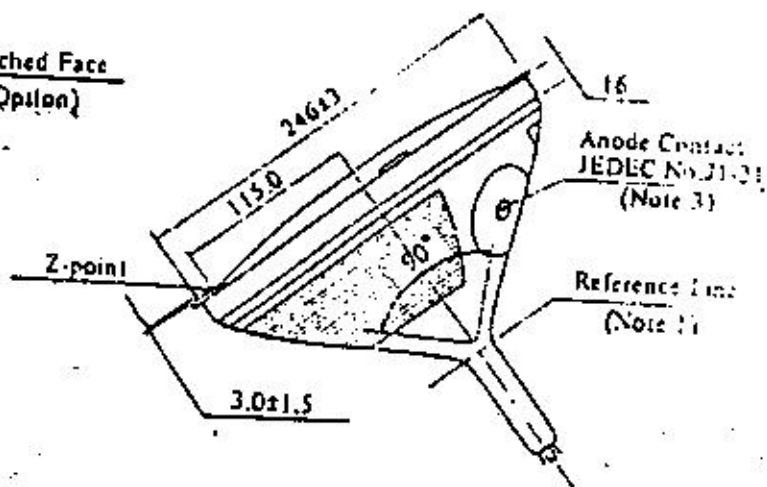
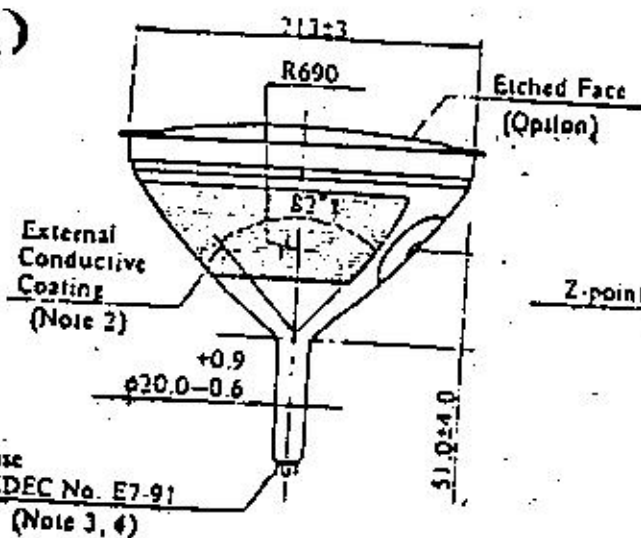
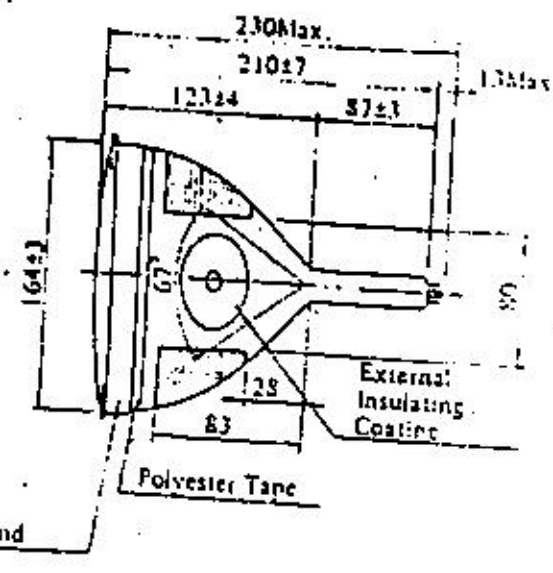
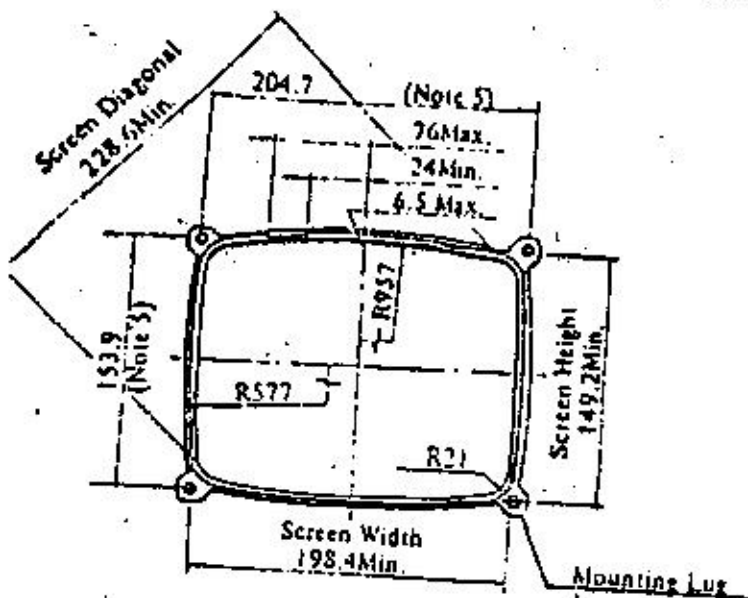
TYPE TYPE  
R5123B4/B31/B39/FDB

7

### DIMENSIONAL OUTLINE

120 STRAP TUBE KNIFE

Unit : mm



MOUNTING LUG (1.0)

## PAGE 1

16:09:16 25 NOV 1986

TRANSACTION  
DATE

33 15 NOV 66

LN	LVL	COMPONENT	DESCRIPTION	QUANTITY UM	MEMO MRP QPR WHERE USED	REFERENCE LINE 1	LINE 2
1	I	35-189-01	MAIN PC BD W/COMP 115-558	1 EA		2	
2	I	B5-135-01	LRT 9" 90 CESSMPP4ZGE FL	1 EA		2	
3	I	84-164-01	YOKE ASSM 80-110 W/LNG LDS	1 EA		5	
4	I	44-100-02	BARRIER SHIELD, CRT BOARD	1 EA		71	
5	I	88-122-02	X-RAY WARNING TSKV	1 EA		64	
6	I	88-101-02	LABEL-DATE OF MFG	1 EA		67	
7	I	88-102-02	TUBE MARKING MODEL S/N LABEL	1 EA		69	
8	I	88-103-02	DAG GROUNDING/CAUTION LABEL	1 EA		71	
9	I	45-100-05	GROUNDING CLIP	1 EA		65	
10	I	37-103-05	TAPE, CARTON SEALING 1" X 2"	11 IN		71	
11	I	37-104-05	1" GLASS TAPE FOR CRT'S	3 IN		71	
12	I	14-102-01	CARTON, 9IN 4 PACK KIT	1 UN		31	
13	I	14-102-02	UNIT WRAP FOR 9IN KIT	1 EA		11	
14	I	90-100-01	YOKE MAGNET KIT	8 EA		71	
ANILAM							

**1 ANILAM**

## COMPUTRON DISPLAY

DOCUMENT

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2

## BILL OF MATERIALS LISTING

16:09:45 25 NOV 1986

BOH NUMBER	DESCRIPTION	EC FAMILY CODE CODE	QUANTITY IN BOH	TRANSACTION DATE	QUANTITY UM MEMO MRP OPR WHERE REFERENCE LINE 1 USED	LINE 2
35-189-01	MAIN PC BD W/COMP 115-558	Y 1	82	15 NOV 86		
LN	LVL COMPONENT	DESCRIPTION	QUANTITY	IN BOH	TRANSACTION DATE	WHERE REFERENCE LINE 1 USED
1	1	84-177-01 PCB AUTO INSERTED 35-189-01	1 EA	1	2	
2	1	63-22312-11 RES 22K 1/4W 5%	1 EA	1	47 DAG	
3	1	63-10412-11 RES 100K 1/4W 5PCT	1 EA	1	69 R304	
4	1	86-107-13 RECT 1000V 1A 1N4007	6 EA	1	57 D104,105 (2 EA IN SERIES),	DAG (2 IN PA
5	1	86-103-22 2N4400 TRANSISTOR	4 EA	1	79 D100,103,104,107	
6	1	86-115-52 TRANSISTOR 2N6727	1 EA	1	30 D101	
7	1	86-112-52 TRANSISTOR 2N6715	1 EA	1	36 D102	
8	1	86-123-52 TRANSISTOR 2N5551	1 EA	1	65 Q104A	
9	1	86-102-52 2SD1163 TRANSISTOR	1 EA	1	49 Q108	
10	1	44-108-01 HEAT SINK #5949B	1 EA	1	49	
11	1	32-100-06 HEAT SINK COMPOUND	1 UN	1	53	
12	1	24-50330-52 COMT 50K SMALL HORIZ MTG	1 EA	1	64 VR101	
13	1	24-50133-53 COMT 500 OHM LARGE VERT MTG	1 EA	1	51 VR103	
14	1	24-25432-53 COMT 250K LARGE VERT MTG	1 EA	1	48 VR105	
15	1	24-50232-53 COMT 5K LARGE VERT MTG	1 EA	1	55 VR106	
16	1	24-20532-53 COMT 2MEG LARGE VERT MTG	1 EA	1	62 VR200	
17	1	18-10853-51 LYTIC 1000UF 16V 20PCT	2 EA	1	57 C100,106	
18	1	18-10554-53 TANTALUM 1UF 25V 20PCT	2 EA	1	58 C101,117	
19	1	18-22534-53 LYTIC 2.2 UF 25V TANTALUM	1 EA	1	59 C104	
20	1	20-10342-21 POLYESTER .01 UF 50V 10%	1 EA	1	66 C107	

## COMPUTRON DISPLAY

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3

## BILL OF MATERIALS LISTING

1610129

25 NOV 1986

BOM NUMBER	DESCRIPTION	EC CODE	FAMILY CODE	QUANTITY IN BOM	TRANSACTION DATE	QUANTITY UM MEMO MRP OPR WHERE USED	REFERENCE LINE 1	LINE 2			
35-189-01	MAIN PC BD W/COMP 115-558	Y	1	82	15 NOV 86						
LN	LVL	COMPONENT	DESCRIPTION	QUANTITY	UM	MEMO	MRP	OPR	WHERE USED	REFERENCE LINE 1	LINE 2
21	1	20-33242-21	POLYESTER .0033 UF 50V 10%	3 EA						68 C108,109,118	
22	1	18-47654-21	LYTIC 47 UF 25V 20%	3 EA						77 C110,122,126	
23	1	12-33142-51	DISC 330 PF 50V 10%	1 EA						56 C140	
24	1	18-22657-21	LYTIC 22 UF 63V 20%	1 EA						60 C112	
25	1	20-68545-51	POLYESTER, 6.8 UF 50V 10%	1 EA						2 C113	
26	1	18-22854-51	LYTIC 2200UF 25V 20PCT	1 EA						36 C114	
27	1	18-10557-21	LYTIC 1 UF 63V 20%	1 EA						69 C115	
28	1	20-10242-21	POLYESTER .001 UF 50V	2 EA						69 C116,139	ALT-12-10242
29	1	63-10212-11	RES 1K 1/4W 5PCT	1 EA						85 INSERT @ C119A	
30	1	12-39142-51	DISC 390 PF 50V 10%	1 EA						2 C111	
31	1	12-47142-51	DISC 470 PF 50V 10%	1 EA						57 C121	
32	1	12-10335-51	DISC .01 UF 1KV 20%	2 EA						67 C123,124	
33	1	18-47554-21	LYTIC 4.7 UF 25V 20%	1 EA						67 C125	
34	1	20-56232-53	POLYSTYRENE 5600PF 50V 5PCT	1 EA						59 C127	
35	1	20-47242-21	POLYESTER .0047 UF 50V 10%	1 EA						65 C128	
36	1	20-33342-21	POLYESTER .033 UF 50V 10%	1 EA						55 C129	
37	1	20-56242-21	POLYESTER .0056 UF 50V 10%	1 EA						7 C131	
38	1	20-22342-21	POLYESTER .022 UF 50V	1 EA						65 C134	
39	1	18-47753-51	LYTIC 470 UF 16V	1 EA						56 C135	
40	1	20-56346-50	FILM CAP .056 UF 600V RETRACE	1 EA						1 C136	

## COMPUTRON DISPLAY

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4

## BILL OF MATERIALS LISTING

16:11:13 25 NOV 1986

BOH NUMBER	DESCRIPTION	EC FAMILY CODE CODE	QUANTITY IN BOH	TRANSACTION DATE	QUANTITY USED	MEMO MRP OFR WHERE REFERENCE LINE 1	LINE 2
35-189-01	MAIN PC BD W/COMP 115-558	Y 1	92	15 NOV 86			
LN	LVL COMPONENT	DESCRIPTION	QUANTITY	MEMO	MRP	OFR	WHERE REFERENCE LINE 1
41	1	18-33753-51 LYTIC 330UF 16V 20PCT	1 EA				57 C138
42	1	18-68554-53 TANTALUM 5.8 UF 25V 20%	1 EA				5 C144
43	1	12-10257-52 SPARK GAP .001 UF 1KV	2 EA				65 C200,201
44	1	20-10443-51 POLYESTER .1UF 100V 10PCT	1 EA				59 C203
45	1	12-10482-51 DISC .1 UF 50V -20+80%	1 EA				60 C204
46	1	10-107-01 COIL, WIDTH ADJ	1 EA				5 L101
47	1	10-109-06 COIL, LIN (100-06 + 4 TURNS)	1 EA				2 L102
48	1	80-107-03B FLYBACK XFMR (SMALL CASE)	1 EA				29 T100
49	1	80-105-06 DRIVER TRANSFORMER	1 EA				65 T101
50	1	45-104-03 HEADER 4-PIN .025 SQ PIN	1 EA				58 H100
51	1	45-108-02 CRT SOCKET SM 7-PIN	1 EA				59 G200
52	1	45-126-03 HEAD. SHRD. 100 SP 102202-2	1 EA				2
53	1	44-103-01 HEAT SINK FOR 2 1092 XISTORS	1 EA				59 FOR Q102,103
54	1	23-103-02 RIBBON CABLE 8 COND. 12.5"	1 EA				2
55	1	89-101-02 NEON LAMP, C2A	1 EA				7 N200
56	1	23-101-04 DAG GROUND WIRE 12IN	1 EA				65
57	1	23-124-04 LEAD 12" ORNG 18GA N/34594A	1 EA				2
58	1	23-123-04 LEAD 8" BLK 18GA N/34594A	1 EA				2
59	1	91-100-12 JUMPER WIRE 22GA 2" LONG	4 EA				102 W-1,1A,2,3
60	1	45-103-05 SQ WIRE PIN .045X1/2 IN	2 EA				69



COMPUTRON DISPLAY

DOCUMENT

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PAGE

5

BILL OF MATERIALS LISTING

16:11:55 25 NOV 1986

BOM NUMBER	DESCRIPTION	EC FAMILY CODE CODE	QUANTITY IN BOM	TRANSACTION DATE
35-189-01	MAIN PC BD W/CDMP 115-558	Y 1	82	15 NOV 86

LN	LVL COMPONENT	DESCRIPTION	QUANTITY UM	MEMO MRP OPR	WHERE REFERENCE	LINE
61	1	22-100-04	1 EA	1	61	2

1 USED ON ANILAM 115-558  
2  
3

USED

## COMPUTER DISPLAY

## BILL OF MATERIALS LISTING

DOCUMENT 6067  
16:12:09 25 NOV 1986

PAGE 6

BOH NUMBER	DESCRIPTION	EC FAMILY CODE CODE	QUANTITY IN BOH	TRANSACTION DATE
84-177-01	PCB AUTO INSERTED 35-189-01	Y 1	71	15 NOV 86
LN	LVL COMPONENT	DESCRIPTION	QUANTITY UM	MEMO MRP DFR WHERE REFERENCE LINE 1 USED
1	1	63-18B12-11 RES 1.8 OHM 1/4W 5%	1 EA	1 2 R100
2	1	63-27212-11 RES 2.7K 1/4W 5PCT	4 EA	1 59 R102,129,142,110
3	1	63-18412-11 RES 180K 1/4W 5%	1 EA	1 7 R103
4	1	63-47012-11 RES 47 OHM 1/4W 5PCT	2 EA	1 57 R104,R150
5	1	63-15114-11 RES 150 OHM 1/2W 5%	1 EA	1 16 R105
6	1	63-15112-11 RES 150 OHM 1/4W 5PCT	1 EA	1 33 R106
7	1	63-47212-11 RES 4.7K 1/4W 5PCT	1 EA	1 60 R109
8	1	63-56012-11 RES 56 OHM 1/4 W 5%	1 EA	1 47 R112
9	1	63-22312-11 RES 22K 1/4W 5%	1 EA	1 47 R114
10	1	63-33112-11 RES 330 OHM 1/4W 5%	1 EA	1 51 R115
11	1	63-47112-11 RES 470 OHM 1/4W 5PCT	1 EA	1 69 R116
12	1	63-12214-11 RES 1.2K 1/2W 5%	1 EA	1 41 R117
13	1	63-47312-11 RES 47K 1/4W 5PCT	2 EA	1 48 R120,8 M-4
14	1	63-56112-11 RES 560 OHM 1/4W 5%	2 EA	1 16 R121,151
15	1	63-22112-11 RES 220 OHM 1/4W 5%	3 EA	1 66 R122,130,133
16	1	63-82312-11 RES 82K 1/4W 5%	1 EA	1 39 R124B
17	1	64-100-11 47.5K 1/4W 1% METAL FILM	1 EA	1 37 R127
18	1	64-102-11 RES 464K 1/2W METAL FILM	1 EA	1 41 R128
19	1	63-27312-11 RES 27K 1/4W 5%	1 EA	1 27 R131
20	1	63-10312-11 RES 10K 1/4W 5%	2 EA	1 69 R132,136

## COMPUTRON DISPLAY

DOCUMENT

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PAGE

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## BILL OF MATERIALS LISTING

16:12:53 25 NOV 1986

BOM NUMBER	DESCRIPTION	EC CODE	FAMILY CODE	QUANTITY IN BOM	TRANSACTION DATE	
84-127-01	PCB AUTO INSERTED 35-189-01	Y	1	71	15 NOV 86	
LN	LVL COMPONENT	DESCRIPTION	QUANTITY	UN MEMO MRP OPR WHERE USED	REFERENCE LINE 1	LINE 2
21	1	63-27112-11	RES 270 OHM 1/4W 5%	2 EA	1	31 R134,157
22	1	63-12212-11	RES 1.2K 1/4W 5PCT	2 EA	1	53 R143,155
23	1	63-18014-11	RES 18 OHM 1/2W 5%	1 EA	1	44 R146
24	1	63-27012-11	RES 27 OHM 1/4W 5PCT	2 EA	1	58 R156,158
25	1	63-10012-11	RES 10 OHM 1/4W 5PCT	1 EA	1	52 R159
26	1	63-10212-11	RES 1K 1/4W 5PCT	1 EA	1	65 R163
27	1	63-10412-11	RES 100K 1/4W 5PCT	1 EA	1	69 R200
28	1	63-27514-11	RES 2.7M 1/2W 5%	1 EA	1	46 R201
29	1	63-47412-11	RES 470K 1/4W 5PCT	1 EA	1	51 R202
30	1	63-22412-11	RES 220K 1/4W 5%	1 EA	1	44 R203
31	1	63-47812-11	RES 4.7 OHM 1/4W 5%	1 EA	1	35 R205
32	1	63-33812-11	RES 3.3 OHM 1/4W 5%	1 EA	1	16 R300
33	1	13-103-06	IC HEX INVERTER 74LS04	1 EA	1	33 IC100
34	1	13-100-06	IC HORIZ PROD	1 EA	1	58 IC101
35	1	86-101-14	DIODE, 5V ZENER 1N5231	2 EA	1	55 D100,148
36	1	86-101-13	RECT 1N4005 600V 1A	1 EA	1	62 D102
37	1	86-113-13	RECT MRB18, FR157 1000V 1A	1 EA	1	51 D103
38	1	86-106-13	RECT 400V 1A 1N4936SP	2 EA	1	59 D106,108
39	1	86-115-53	RECT FR306 800V 3A	1 EA	1	19 D109
40	1	86-102-14	ZENER, 47V 1W 1N4756A	1 EA	1	31 ZD110

## COMPUTRON DISPLAY

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## BILL OF MATERIALS LISTING

16:13:37 25 NOV 1986

BOM NUMBER	DESCRIPTION	EC FAMILY CODE CODE	QUANTITY IN BOM	TRANSACTION DATE
84-177-01	PCB AUTO INSERTED 35-189-01	Y 1	71	15 NOV 86
LN	LVL COMPONENT	DESCRIPTION	QUANTITY UM	MEMO MRP OPR WHERE REFERENCE LINE 1
41	1 91-100-12	JUMPER WIRE 22GA 2" LONG	15 EA	1 102 M-5,6,7,8,9,14,15,16,17,18, 19,20,23,26,
42	1 36-110-01N	MAIN PC BD (115)	1 EA	1 39
43	1 92-100-01	AUTO INSERTION	1 EA	1 41
1	USED ON ANILAM 35-189-01			
2				
3				

## COMPUTRON DISPLAY

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## BILL OF MATERIALS LISTING

15:03:00 12 DEC 1986

BOM NUMBER	DESCRIPTION	EC CODE	FAMILY	QUANTITY IN BOM	TRANSACTION DATE							
115-55B	9" KIT	Y	1	33	28 NOV 86							
LN	LVL	COMPONENT	DESCRIPTION	QUANTITY	UM	MEMO	MRP	OPX	WHERE USED	REFERENCE	LINE 1	LINE 2
1	1	35-189-01	MAIN PC BD W/COMP 115-55B	1	EA		1		2			
2	1	85-135-01	CRT 9" 90 CE68TM9P42GE FL	1	EA		1		2			
3	1	84-164-01	YOKE ASSM 80-110 W/LNG LDS	1	EA		1		5			
4	1	44-100-02	BARRIER SHIELD, CRT BOARD	1	EA		1		73			
5	1	88-122-02	X-RAY WARNING 15KV	1	EA		1		66			
6	1	88-101-02	LABEL-DATE OF MFG	1	EA		1		69			
7	1	88-102-02	TUBE WARNING MODEL S/N LABEL	1	EA		1		71			
8	1	88-103-02	DAG GROUNDING/CAUTION LABEL	1	EA		1		73			
9	1	45-100-05	GROUNDING CLIP	1	EA		1		67			
10	1	37-103-05	TAPE, CARTON SEALING 1" X 2"	11	IN		1		73			
11	1	37-104-05	1" GLASS TAPE FOR CRT'S	3	IN		1		73			
12	1	14-102-01	CARTON, 9IN 4 PACK KIT	1	UN		1		33			
13	1	14-102-02	UNIT WRAP FOR 9IN KIT	1	EA		1		13			
14	1	90-100-01	YOKE MAGNET KIT	8	EA		1		73			

## COMPUTRON DISPLAY

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6:17:1

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## BILL OF MATERIALS LISTING

15:03:29 12 DEC 1984

ROM NUMBER	DESCRIPTION	EC CODE	FAMILY CODE	QUANTITY IN BOM	TRANSACTION DATE	QUANTITY UM	MEMO	MRP	OPR	WHERE USED	REFERENCE LINE 1	LINE 2
35-189-01	MAIN PC BD M/COMP 115-55R	Y	1	82	15 NOV 86							
1 1	84-177-01			1 EA	1	2						
2 1	63-22312-11			1 EA	1	49	DAG					
3 1	63-10412-11			1 EA	1	69	R304					
4 1	86-107-13			6 EA	1	59	D104,105 (2 EA IN SERIES)					DAG (2 IN PA
5 1	86-103-22			4 EA	1	81	D100,103,104,107					
6 1	86-115-52			1 EA	1	31	D101					
7 1	86-112-52			1 EA	1	39	D102					
8 1	86-123-52			1 EA	1	67	D104A					
9 1	86-102-52			1 EA	1	51	D108					
10 1	44-108-01			1 EA	1	51						
11 1	32-100-06			1 UN	1	55						
12 1	24-50330-52			1 EA	1	66	VR101					
13 1	24-50132-53			1 EA	1	52	VR103					
14 1	24-25432-53			1 EA	1	50	VR105					
15 1	24-50232-53			1 EA	1	57	VR106					
16 1	24-20532-53			1 EA	1	64	VR200					
17 1	18-10853-51			2 EA	1	59	C100,106					
18 1	18-10554-53			2 EA	1	60	C101,117					
19 1	18-22554-53			1 EA	1	61	C104					
20 1	20-10342-21			1 EA	1	68	C107					

## COMPUTRON DISPLAY

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## BILL OF MATERIALS LISTING

15:04:13 12 DEC 1986

ROM NUMBER	DESCRIPTION	EC CODE	FAMILY CODE	QUANTITY IN ROM	TRANSACTION DATE	WHERE REFERENCE LINE 1 USED	LINE 2
35-189-01	MAIN PC BU W/COMP 115-558	Y	1	92	15 NOV 86		
LN	LVL COMPONENT	DESCRIPTION	QUANTITY	UM	MEMO	MRP	OPK
21	1	20-33242-21	3 EA				
22	1	18-47654-21	3 EA				
23	1	12-33142-51	1 EA				
24	1	18-22657-21	1 EA				
25	1	20-68543-51	1 EA				
26	1	18-22854-51	1 EA				
27	1	18-10557-21	1 EA				
28	1	20-10242-21	2 EA				
29	1	63-10212-11	1 EA				
30	1	12-39142-51	1 EA				
31	1	12-47142-51	1 EA				
32	1	12-10355-51	2 EA				
33	1	18-47554-21	1 EA				
34	1	20-56232-53	1 EA				
35	1	20-47242-21	1 EA				
36	1	20-33342-21	1 EA				
37	1	20-56242-21	1 EA				
38	1	20-22342-21	1 EA				
39	1	18-47753-51	1 EA				
40	1	20-56346-50	1 EA				

QUANTITY UM MEMO MRP OPK WHERE REFERENCE LINE 1 USED

ALT 12-10242



## COMPUTRON DISPLAY

## BILL OF MATERIALS LISTING

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15:04:58 12 DEC 1986

BOM NUMBER	DESCRIPTION	EC CODE	FAMILY	QUANTITY IN BOM	TRANSACTION DATE	QUANTITY USED	MEMO MRP OPR WHERE REFERENCE LINE 1	LINE 2
35-189-01	MAIN PC BD W/COMP 115-SSB	Y	1	82	15 NOV 86			
LN	1.VL COMPONENT	DESCRIPTION	QUANTITY	MEMO	MRP	OPR	WHERE REFERENCE LINE 1	LINE 2
41	1	18-33753-51	1 EA				59 C138	
42	1	18-68554-53	1 EA				6 C144	
43	1	17-10257-52	2 EA				67 C200,201	
44	1	20-10443-51	1 EA				61 C203	
45	1	12-10482-51	1 EA				62 C204	
46	1	10-107-01	1 EA				6 L101	
47	1	10-109-06	1 EA				3 L102	
48	1	80-107-03B	1 EA				30 T100	
49	1	80-105-06	1 EA				67 T101	
50	1	45-104-03	1 EA				60 H100	
51	1	45-108-02	1 EA				61 S200	
52	1	45-126-03	1 EA				2	
53	1	44-103-01	1 EA				61 FOR Q102,103	
54	1	23-103-02	1 EA				2	
55	1	89-101-02	1 EA				7 N200	
56	1	23-101-04	1 EA				67	
57	1	23-124-04	1 EA				2	
58	1	23-123-04	1 EA				2	
59	1	91-100-12	4 EA				106 W-1,1A,2,3	
60	1	45-103-05	2 EA				71	



## COMPUTRON DISPLAY

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## BILL OF MATERIALS LISTING

15:05:40 13 DEC 1986

BOM NUMBER	DESCRIPTION	EC CODE CORR	FAMILY	QUANTITY IN BOM	TRANSACTION DATE	LINE
35-189-01	MAIN PC BD W/COMP 115-558	Y	1	82	15 NOV 86	1
LN CUL COMPONENT	DESCRIPTION			QUANTITY ON HAND	WHERE USED	REFERENCE LINE
61 1	22-100-04			1 EA	1	61
	WIRE TIE 4" LOCKING					

## BILL OF MATERIALS LISTING

15:08:05 12 DEC 1986

BOM NUMBER	DESCRIPTION	EC CODE	FAMILY CODE	QUANTITY IN BOM	TRANSACTION DATE						
84-177-01	PCB AUTO INSERTED 35-189-01	Y	1	71	15 NOV 86						
LN	LVL	COMPONENT	DESCRIPTION	QUANTITY	UM	MEMO	MRP	OPR	WHERE	REFERENCE	LINE
										USED	
1	1	63-18812-11	RES 1.8 OHM 1/4W 5%	1 EA						2 R100	
2	1	63-27212-11	RES 2.7K 1/4W SPCT	4 EA						61 R102,129,142,110	
3	1	63-18412-11	RES 180K 1/4W 5%	1 EA						7 R103	
4	1	63-47012-11	RES 47 OHM 1/4W SPCT	2 EA						59 R104,R150	
5	1	63-15114-11	RES 150 OHM 1/2W 5%	1 EA						18 R105	
6	1	63-15112-11	RES 150 OHM 1/4W SPCT	1 EA						34 R106	
7	1	63-47212-11	RES 4.7K 1/4W SPCT	1 EA						62 R109	
8	1	63-56012-11	RES 56 OHM 1/4 W 5%	1 EA						49 R112	
9	1	63-22312-11	RES 22K 1/4W 5%	1 EA						49 R114	
10	1	63-33112-11	RES 330 OHM 1/4W 5%	1 EA						53 R115	
11	1	63-47112-11	RES 470 OHM 1/4W SPCT	1 EA						71 R116	
12	1	63-12214-11	RES 1.2K 1/2W 5%	1 EA						42 R117	
13	1	63-47312-11	RES 47K 1/4W SPCT	2 EA						50 R120,0 M-4	
14	1	63-56112-11	RES 560 OHM 1/4W 5%	2 EA						16 R121,151	
15	1	63-22112-11	RES 220 OHM 1/4W 5%	3 EA						68 R122,130,133	
16	1	63-82312-11	RES 82K 1/4W 5%	1 EA						41 R124B	
17	1	64-100-11	47.5K 1/4W 1% METAL FILM	1 EA						39 R127	
18	1	64-102-11	RES 464K 1/2W METAL FILM	1 EA						43 R128	
19	1	63-27312-11	RES 27K 1/4W 5%	1 EA						29 R131	
20	1	63-10312-11	RES. 10K 1/4W 5%	2 EA						71 R132,136	

## COMPUTRON DISPLAY

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## BILL OF MATERIALS LISTING

15:08:49

12 DEC 1986

BOM NUMBER	DESCRIPTION	EC CODE	FAMILY CODE	QUANTITY IN BOM	TRANSACTION DATE	QUANTITY UM	MEMO	MRP	OPR	WHERE USED	REFERENCE LINE 1	LINE 2
84-177-01	PCB AUTO INSERTED 35-189-01	Y	1	71	15 NOV 86							
LN	LVL	COMPONENT	DESCRIPTION	QUANTITY	UM	MEMO	MRP	OPR	WHERE USED	REFERENCE LINE 1	LINE 2	
21	1	63-27112-11	RES 270 OHM 1/4W 5%	2 EA			1			32 R134,157		
22	1	63-12212-11	RES 1.2K 1/4W 5PCT	2 EA			1			55 R143,155		
23	1	63-18014-11	RES 18 OHM 1/2W 5%	1 EA			1			46 R146		
24	1	63-27012-11	RES 27 OHM 1/4W 5PCT	2 EA			1			60 R156,158		
25	1	63-10012-11	RES 10 OHM 1/4W 5PCT	1 EA			1			54 R159		
26	1	63-10212-11	RES 1K 1/4W 5PCT	1 EA			1			88 R163		
27	1	63-10412-11	RES 100K 1/4W 5PCT	1 EA			1			69 R200		
28	1	63-27514-11	RES 2.7K 1/2W 5%	1 EA			1			48 R201		
29	1	63-47412-11	RES 470K 1/4W 5PCT	1 EA			1			53 R202		
30	1	63-22412-11	RES 220K 1/4W 5%	1 EA			1			46 R203		
31	1	63-47812-11	RES 4.7 OHM 1/4W 5%	1 EA			1			37 R205		
32	1	63-35812-11	RES 3.3 OHM 1/4W 5%	1 EA			1			17 R300		
33	1	13-103-06	IC HEX INVERTER 74LS04	1 EA			1			35 IC100		
34	1	13-100-06	IC HORIZ PROC	1 EA			1			60 IC101		
35	1	86-101-14	DIODE, 5V ZENER 1N5231	2 EA			1			57 D100,148		
36	1	86-101-13	RECT 1N4005 600V 1A	1 EA			1			64 D102		
37	1	86-113-13	RECT MR818, FR157 1000V 1A	1 EA			1			53 D103		
38	1	86-106-13	RECT 400V 1A 1N4936GF	2 EA			1			61 D106,108		
39	1	86-115-53	RECT FR306 800V 3A	1 EA			1			21 D109		
40	1	86-102-14	ZENER, 47V 1W 1N4756A	1 EA			1			33 ZD110		

## COMPUTRON DISPLAY

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## BILL OF MATERIALS LISTING

15:09:32 12 DEC 1986

BOM NUMBER	DESCRIPTION	EC CODE	FAMILY CODE	QUANTITY IN BOM	TRANSACTION DATE	QUANTITY USED	REFERENCE LINE	LINE
84-177-01	PCB AUTO INSERTED 35-189-01	Y	1	71	15 NOV 86			
LN	LVL COMPONENT	DESCRIPTION	QUANTITY	LN	MEMO MRP QPR WHERE USED	REFERENCE LINE	1	LINE 2
41	1	91-100-12	JUMPER WIRE 22GA 2" LONG	15 EA	1	106 4-5,6,7,8,9,14,15,16,17,18,	19,20,23,26,	
42	1	36-110-01N	MAIN PC BD (115)	1 EA	1	41		
43	1	92-100-01	AUTO INSERTION	1 EA	1	43		

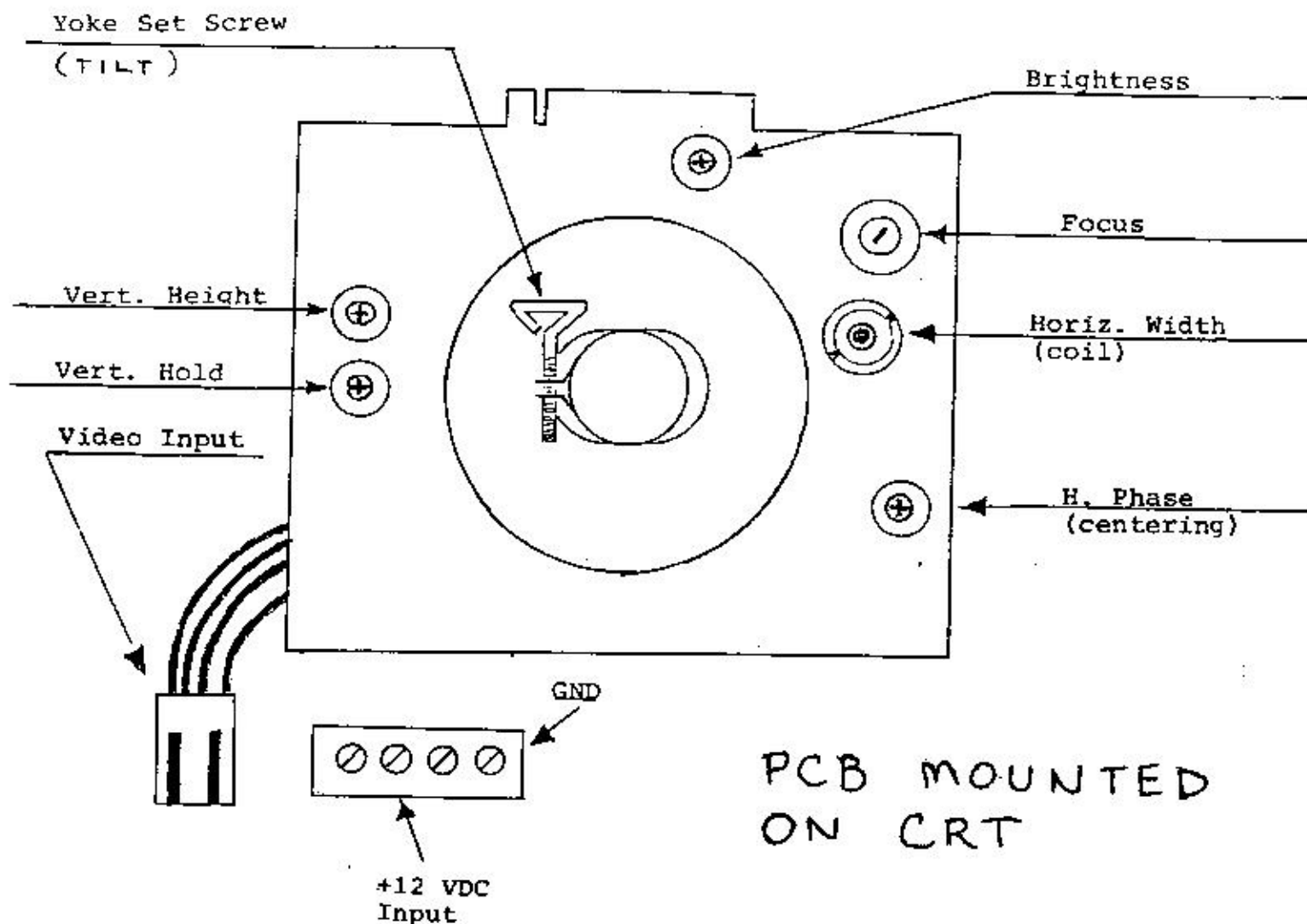
END OF REPORT 15:09:44 12 DEC 1986



ANILAM ELECTRONICS CORP., 5625 N.W. 79th AVENUE, MIAMI, FLORIDA 33166  
(305) 592-2171 • TLX 26-4824

DIGITAL READOUTS — CNC CONTROLS — CAD/CAM SYSTEMS — MACHINE TOOLS

## AUDIOTRONICS / DOTRONIX CRTS



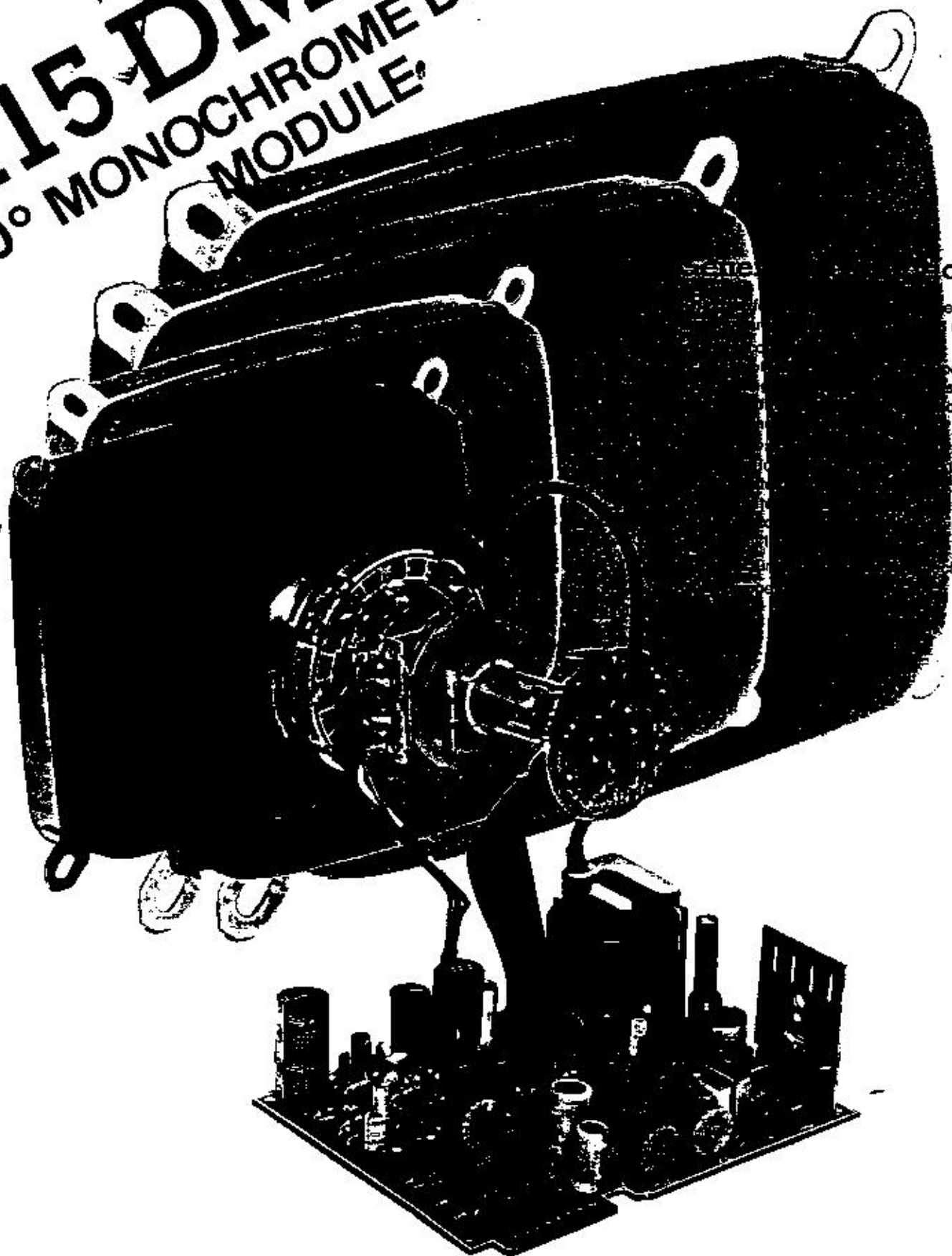
- |                               |   |   |
|-------------------------------|---|---|
| 1). Images fuzzy/not sharp    | - | Adjust focus for best overall sharpness.  |
| 2). Horizontal size incorrect | - | Adjust width coil slug for 6" horiz. width  |
| 3). Video not centered        | - | Adjust H.Phase until video is centered.   |
| 4). Picture rolls vertically  | - | Adjust vert. hold.  |
| 5). Vertical size incorrect   | - | Adjust vert. height control for 4 1/2" hgt  |
| 6). Picture appears tilted    | - | Loosen yoke set screw, rotate yoke to desired position, re-tighten yoke set screw |



# 115 DMX

## 90° MONOCHROME DISPLAY MODULE

7"



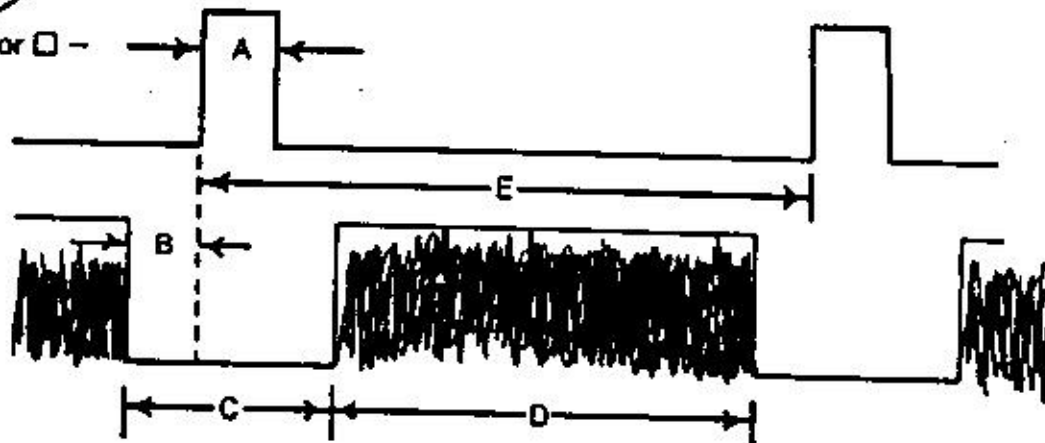
**COMPUTRON DISPLAY SYSTEMS**  
835 Bonnie Lane • Elk Grove Village • Illinois 60007 Telephone (312) 952-8800 • TWX 910-222-1425

# Timing Specification Chart

Check One: Polarity ☒ +, or ☐ -

Horizontal Sync.

Video



Real Time (Microseconds)

A. Horizontal Sync. Width

6.5854

B. Horizontal Sync. Delay

0

C. Video Blanking

9.8781

D. Active Video

43.902

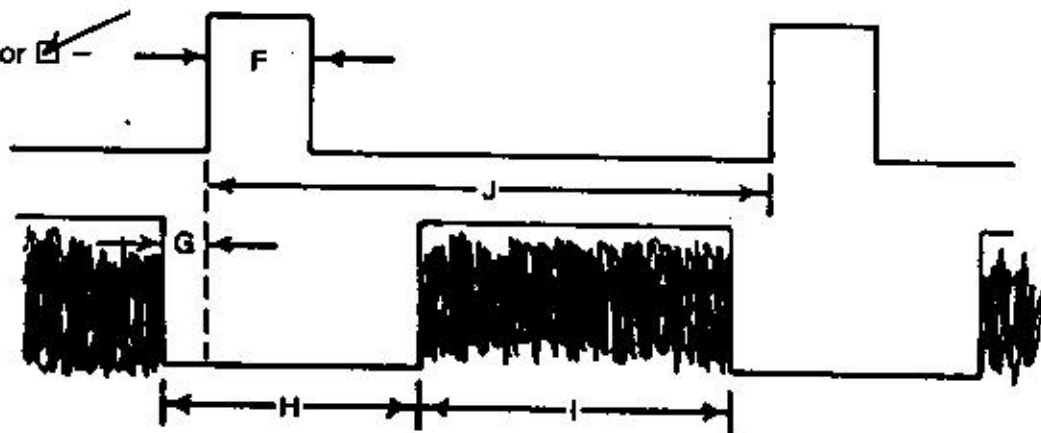
E. Horizontal Frequency

53.780 or 18.594 KHz

Check One: Polarity ☐ +, or ☒ -

Vertical Sync.

Video



Real Time (Microseconds)

F. Vertical Sync. Width

161.34

G. Vertical Sync. Delay

0

H. Video Blanking

1075.6

I. Active Video

15596

J. Vertical Frequency

16672 or 5998 Hz

Character Cell

Horizontal Pixels (A to B)

9

Vertical LINES(B to C)

10

*video size 5"x7"*

