

# **SERVICE MANUAL**

**14", 19" VGA & S-VGA MONITOR  
MODEL: NT-431HR / NT-1438  
NT-931HR / NT-1938**

***NEOTEC GRAPHIC INTERNATIONAL INC.***

2721 NORTH TOWNE AVENUE, POMONA, CA 91767

TEL: (909) 626-9889 FAX: (909) 626-0990

## TABLE OF CONTENTS

SAFETY PRECAUTIONS.....	1
INTRODUCTION.....	2
SPECIFICATION.....	3
ADJUSTMENT PROCEDURES.....	4-5
SIGNAL TIMING CHART.....	6
SCHEMATICS.....	7-10
BLOCK DIAGRAM.....	11-13
PC BOARD LAYOUT.....	14-16
PARTS LIST.....	17-26

**CAUTION:** Before servicing this chassis, it is important that the service technician should read the "Safety Precaution" and "Product Safety Notice" in this Service Manual.

## **1. SAFETY PRECAUTIONS**

NOTICE: Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube. The following precautions should be observed:

1. Do not install, remove, or handle the picture tube in any manner unless one wears shatterproof goggles. People not so equipped should be kept away while picture tube is handled. Keep picture tube away from the body while handling.

2. When replacing a chassis in the monitor, all the protective devices, such as, barriers, non-metallic knobs, adjustment and compartment shields, and isolation resistor-capacitor, must be put back in place.

3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.

4. Always use the manufacturer's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacturer's. Furthermore where a short circuit has occurred, replaced those components that indicate evidence of overheating.

5. Before returning a serviced monitor to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the monitor by the manufacturer has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for continued protection of the customer and service technician.

## **HIGH VOLTAGE**

This monitor is provided with a high voltage hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit may function correctly.

## **SERVICE WARNING**

With minimum Brightness and Contrast the operating high voltage in this display is lower than 30KV.

If any component having influence on the high voltage is replaced, confirm that the high voltage with minimum Brightness and Contrast is lower than 30KV. To measure high voltage use a high

impedance high voltage meter. (SENSITIVE RESEARCH MODEL: ESH or Equivalent).  
Connect (-)to chassis earth and (+)to the CRT anode button.

NOTE: *Make sure to turn power switch off before making the connection to the Anode Button.*

## **X-RADIATION**

TUBE: The primary source of X-radiation in this monitor is the picture tube. The tube utilized in this chassis is specially constructed to limited X-radiation emissions. For continued X-radiation protection, the replacement tube must be the same type as the original, manufacturer approved type.

When trouble shooting and making test measurements in a monitor with a problem of excessive high voltage, avoid being unnecessary close to the picture tube and the high voltage components. Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.

## **PRODUCT SAFETY NOTICE**

Many electrical and mechanical parts in the color monitor units have special safety related characteristics. These are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for high voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this Service Manual. Electrical components having such feature are identified by marking with "!" on the schematics and on the parts list in this Service Manual.

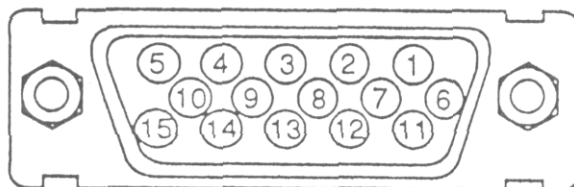
The use of a substitute replacement component which does not **have** same safety characteristics as the manufacturer recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, X-radiation, or other hazards. Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult this Service Manual.

## **2. INTRODUCTION**

This service manual gives information about the NT-43 ~~1HR~~**NT-1438/NT-1448/NT-931HR** NT-1938NT-1948 color display monitors. These color monitors accept TTL and ANALOG inputs for R.G.B.; they feature stable convergence, easy maintenance and compact styling.

MODEL	NT-431HR/1438	NT-931HR/1938
SIGNAL INPUT		
ANALOG	0.7Vpp, 75 OHM, POSITIVE	0.7Vpp, 75 OHM, POSITIVE
SYNC	SEPARATE, TTL LEVEL H&V SYNC, 3.4Vpp+/-	SEPARATE, TTL LEVEL H&V SYNC, 3.4Vpp+/-
GENERAL		
SCAN FREQUENCY	H30~39KHz / V50~90Hz(LINEARITY 10% MAX)	H30~39KHz / V50~90Hz (LINEARITY 10% MAX)
RESOLUTION	1024 X 768 (INTERLACED)	1024 X 768 (INTERLACED)
VIDEO BANDWIDTH	65MHz - 3db (at 30 Vpp)	65MHz - 3db (at 30 Vpp)
POWER SUPPLY		
INPUT VOLTAGE	90~264VAC / 47~63Hz UNIVERSAL	90~264VAC / 47~63Hz UNIVERSAL
POWER CONSUMPTION	85 W	85 W
POWER SAVING	EPNDPMS COMPLIANT	EPA/DPMS COMPLIANT
CRT		
DOT PITCH	0.28mm, 14" CRT	0.76mm, 1.9" CRT
PHOSPHOR	P22 MEDIUM SHORT	P22 MEDIUM SHORT
ENVIRONMENTAL CONDITIONS		
AMBIENT TEMPERATURE	0° - 40°C	0° - 40°C
AMBIENT HUMIDITY	10% ~ 85% NO CONDENSATION	10% ~ 85% NO CONDENSATION

### SIGNAL CONNECTOR



- |                        |                                   |
|------------------------|-----------------------------------|
| 1 Red                  | 9 Not connected                   |
| 2 Green/Sync. on green | 10 Sync. ground                   |
| 3 Blue                 | 11 Ground                         |
| 4 Ground               | 12 Not connected                  |
| 5 Not connected        | 13 H.Sync. or H/V Composite Sync. |
| 6 Red ground           | 14 Ver.Sync.                      |
| 7 Green ground         | 15 Not connected                  |
| 8 Blue ground          |                                   |

## FINAL ALIGNMENT - 1

1. **B+1 Voltage Adjustment:** Input 31.5KHz (640 x 480) Crosshatch pattern. Adjust VR601 (B+1 ADJ) to make the pattern of the wave from the negative point of D606 be 24V.
2. **B+2 Voltage Adjustment:** Adjust VR403 (B+2 ADJ) to make the pattern of the wave from the negative point of D401 be 108 +/- 0.5VDC.
3. **H-Frequency Adjustment:** Adjust VR201 (H-FREQ) to correct horizontal distortion.
4. **V-High Adjustment:** Adjust VR706 (V-High) to the maximum.
5. Inspect VRs of H-Pin, V-High, H-Phase, H-Width, V-Cent, Contrast & Brightness.

## FINAL ALIGNMENT - 2

1. **Bias Adjustment (White Balance):**
  - a. Input 31.5KHz (**640 x 480**) Background pattern. Turn Brightness & Contrast VR to the maximum. Turn counter-clockwise of VR905, VR906, VR907 on CRT Board.
  - b. Use Degaussing Bar to demagnetize the CRT surface. Do the demagnetization only in one direction (clockwise or counter-clockwise) & do not remove the unit demagnetized.
  - c. Depending on the background color, increase the two weaker color from VR905, VR906, VR907. The value from the temperature analyzer is as follows:

$$x = 281 \pm 20FL \quad y = 311 \pm 20FL$$

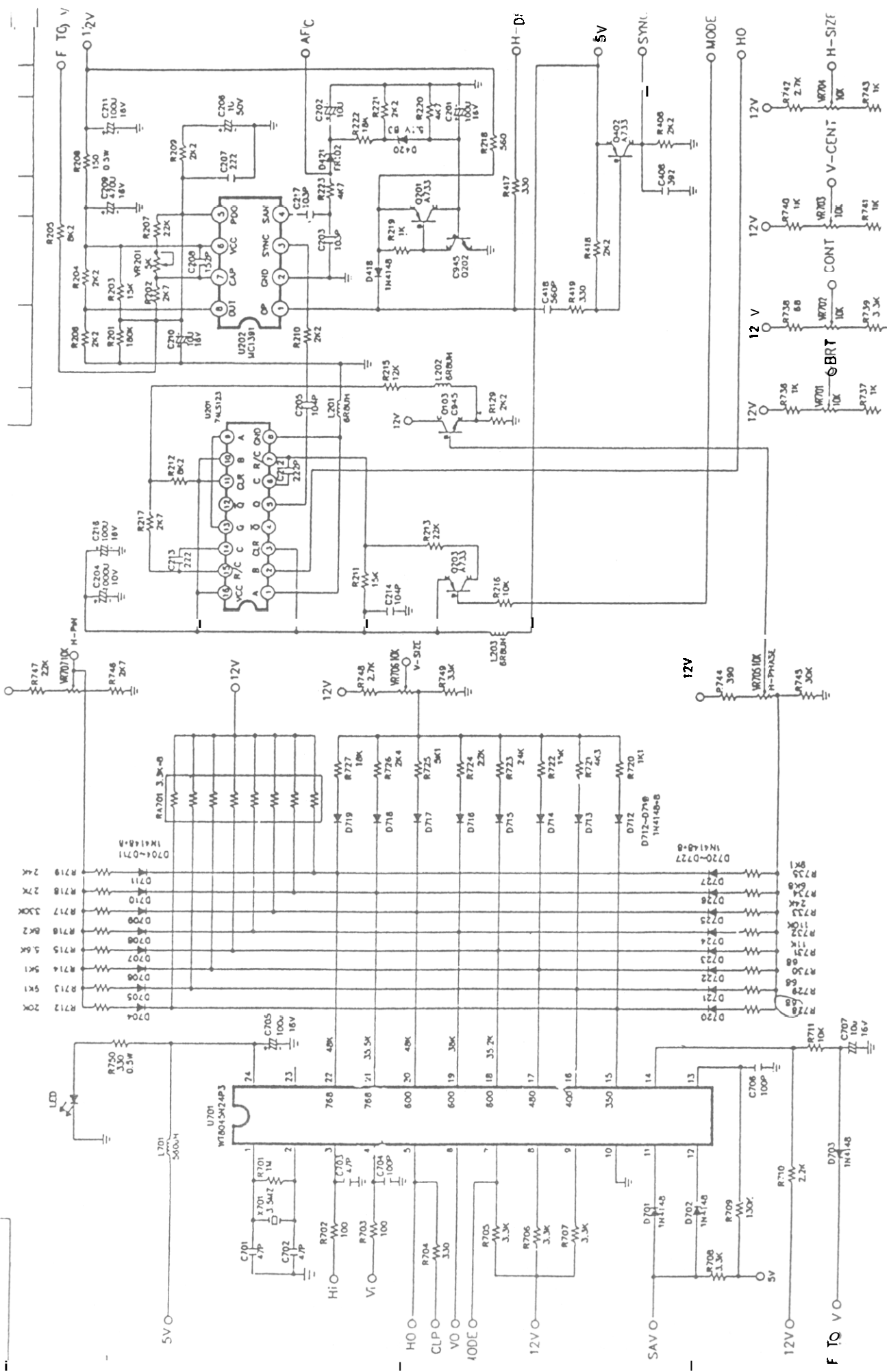
Adjust the Screen VR on FBT to make  $Y = 0.6FL$  ( $0.6 \pm 0.1FL$ )

2. **Drive Adjustment (White Balance):**
  - a. Input 31.5khz (640 x 480) Block pattern. Turn Brightness & Contrast VR to the maximum.

- b. Turn VR903, VR904 to the center point. The color temperature should be  
 $Y = 80 - 90FL, x = 281 \pm 20FL, y = 311 \pm 20FL$
  - c. Input 31.5KHz (640 x 480) full white pattern.
  - d. Turn Brightness & Contrast VR to the maximum. The color temperature should be  
 $Y = 28FL \text{ up}, x = 281 \pm 20FL, y = 311 \pm 20FL$
  - e. In case that Y, x or y value is not within the standard spec, repeatedly follow above adjustment points to **fix** the values.
3. **H-Phase Adjustment:** Input 31.5KHz (640 x 480) Background patter. Adjust VR705 (H-Phase) to allow the background phase on the center location.
  4. Input 31.5KHz (640 x 480) Color Bar pattern along with Tapping test.

### FINAL ALIGNMENT - 3

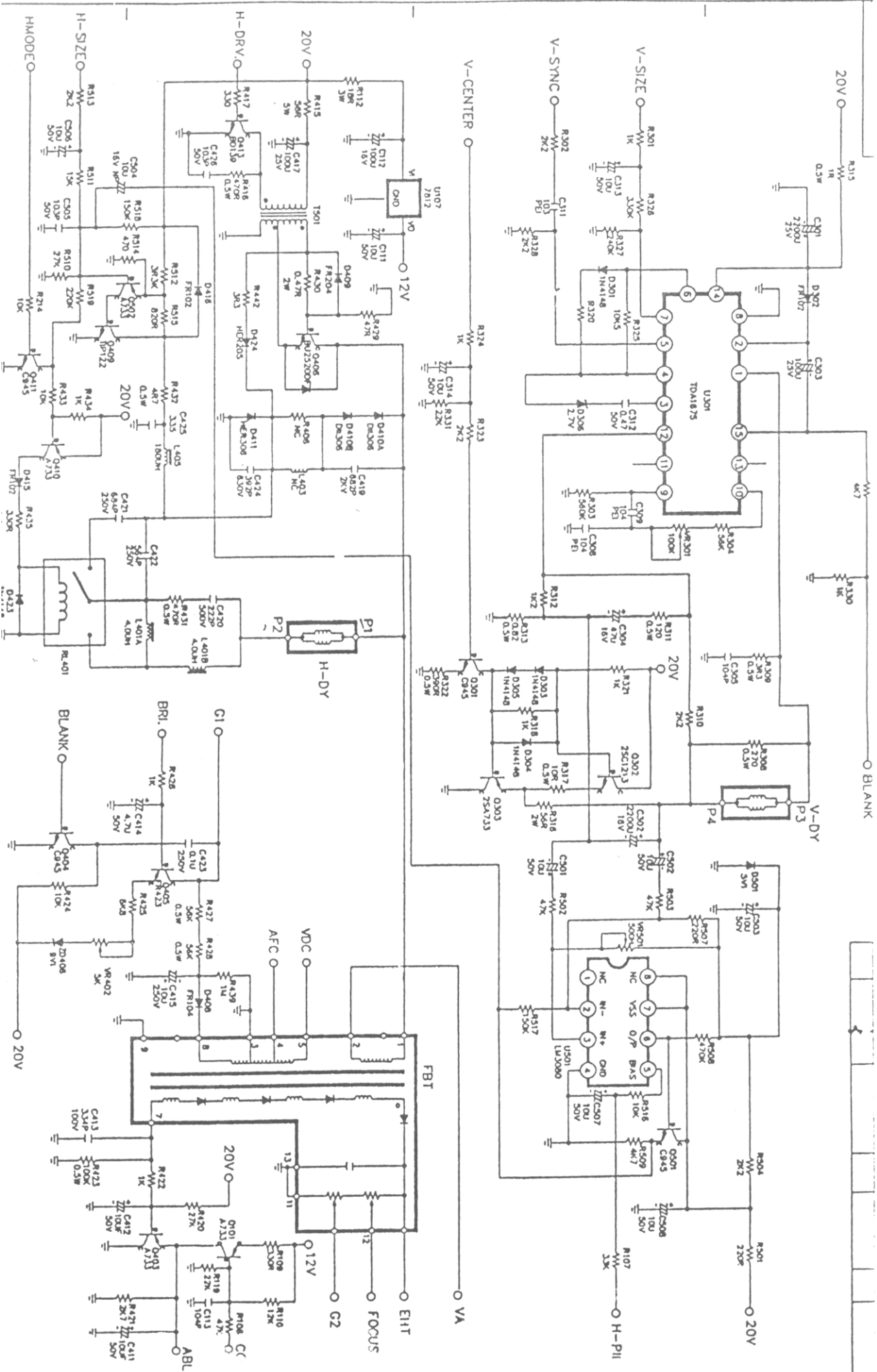
1. **Sub-Brightness Adjustment:** Input 31.5khz (640 x 480) Color Word pattern. Adjust VR406 (Sub-Bright) to the center point.
2. **Focus Adjustment:** Adjust Brightness VR to make Raster Background become darker. Adjust Focus VR on FBT to make character to the clearest. (Adjust the focus on the center point & 1/2 of left top area as clear as possible and fix the Screen & Focus VR with glue.)
3. **Side Pin Adjustment:** Input 31.5KHz (640 x 480) Crosshatch pattern. Adjust VR707 (PIN), VR501 (KEYSTONE), VR352 (PIN-UP) so that the two sides pin becomes vertical.
4. Input 31.5KHz Crosshatch pattern. Adjust H-Pin, V-High, H-Phase, H-Width, V-Cent, Contrast & Brightness.



NEOTECH  
MAIN CIRCUIT BOARD ( 1 )

DATE	4.10.00.07
VERSION	3 (86.7.14)
CHECK	JALIA LEE
DRAW	86.7.14





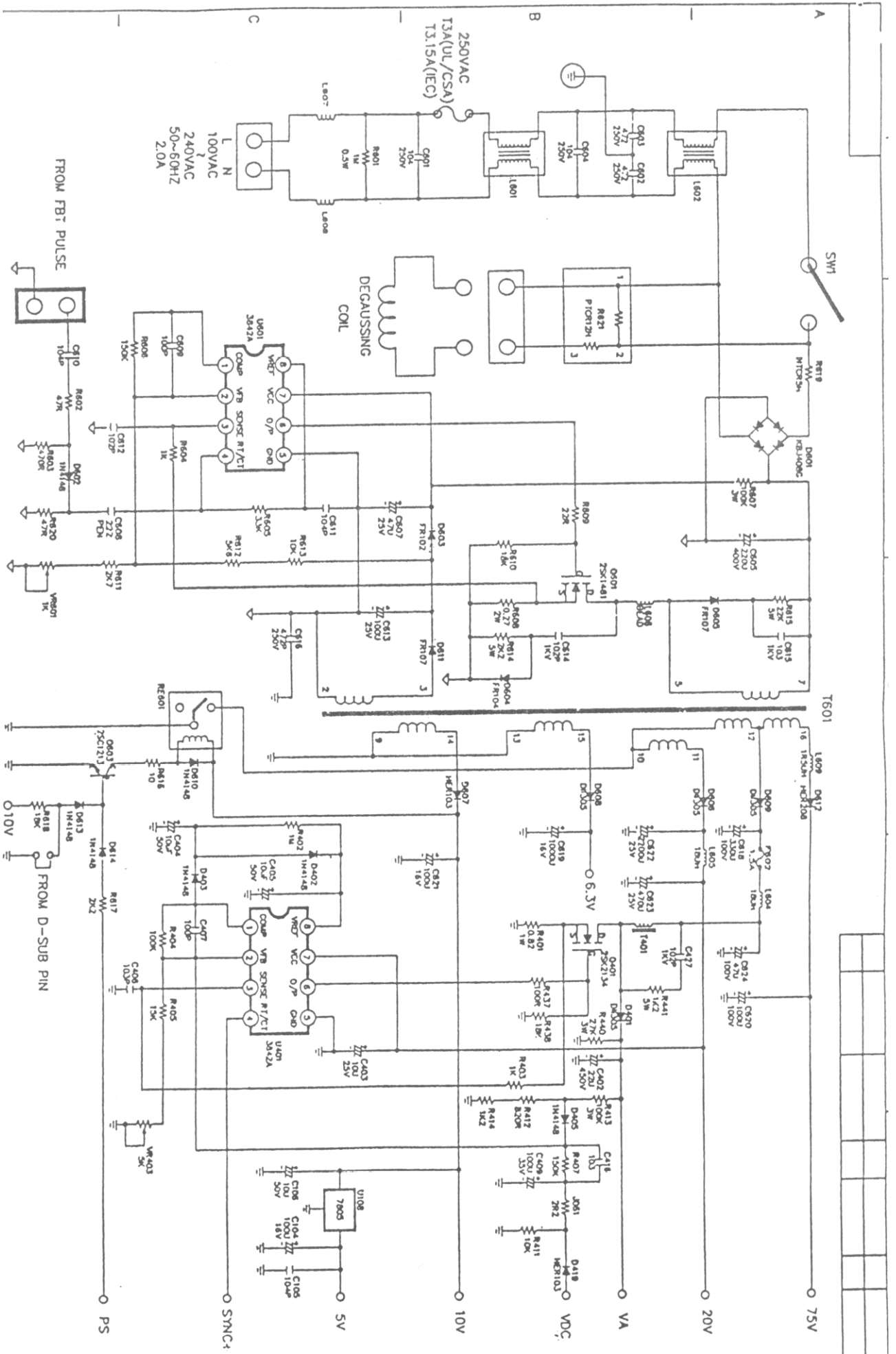
VERSION 2 (86.6.6)  
 VERSION 3 (86.7.14)

REVISED	DATE	BY

CHECKED	DATE	BY

DATE	BY

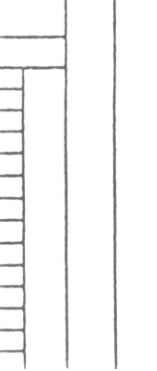
NEOTEC  
 MAIN CIRCUIT BOARD ( 2 )

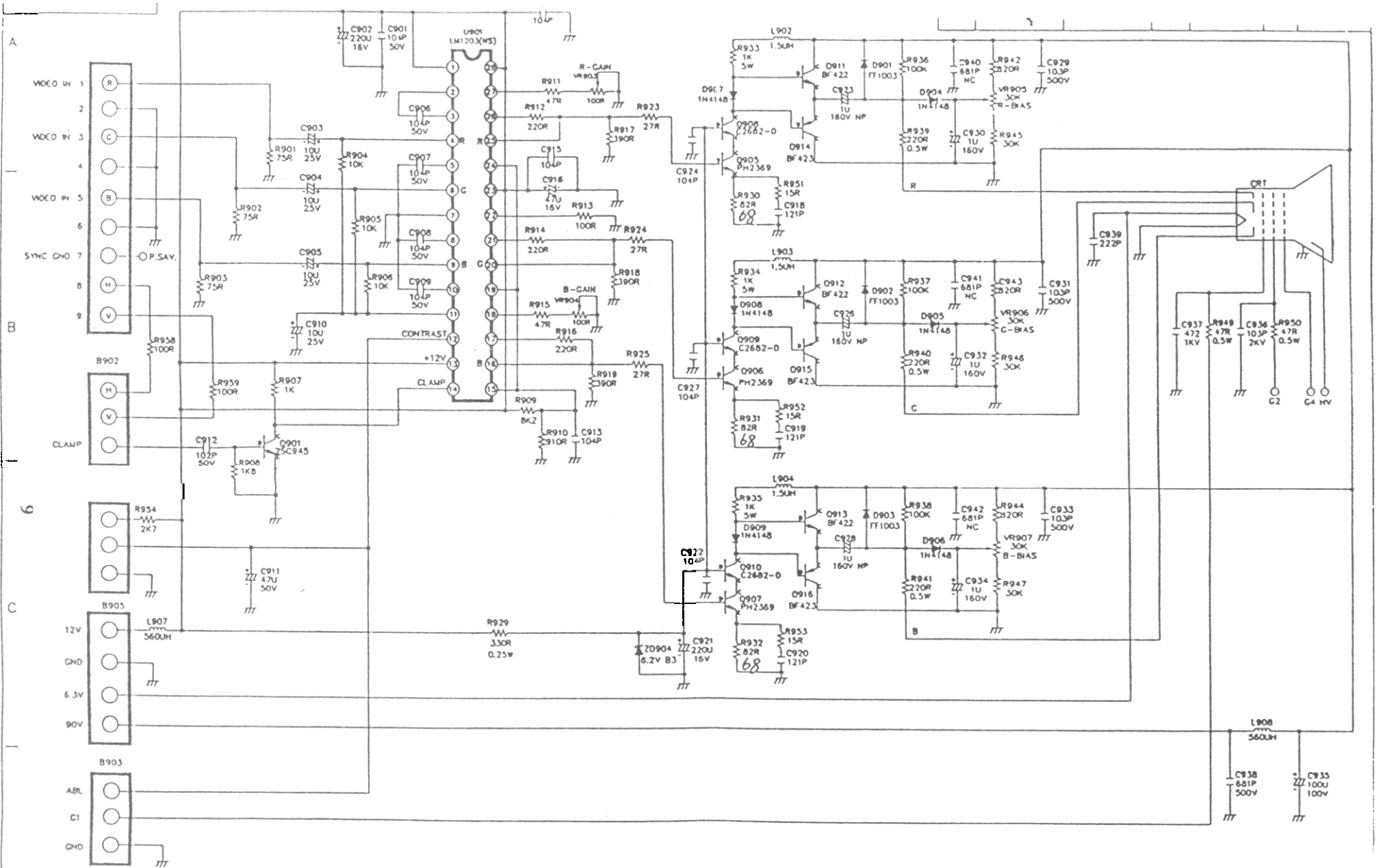


VERSION 2 (86.6.6)  
 VERSION 3 (86.7.14)

DESIGN	DATE	BY
DRAN	JALA LID	86-7-14

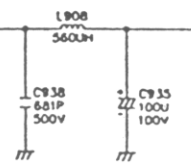
NEOTECH

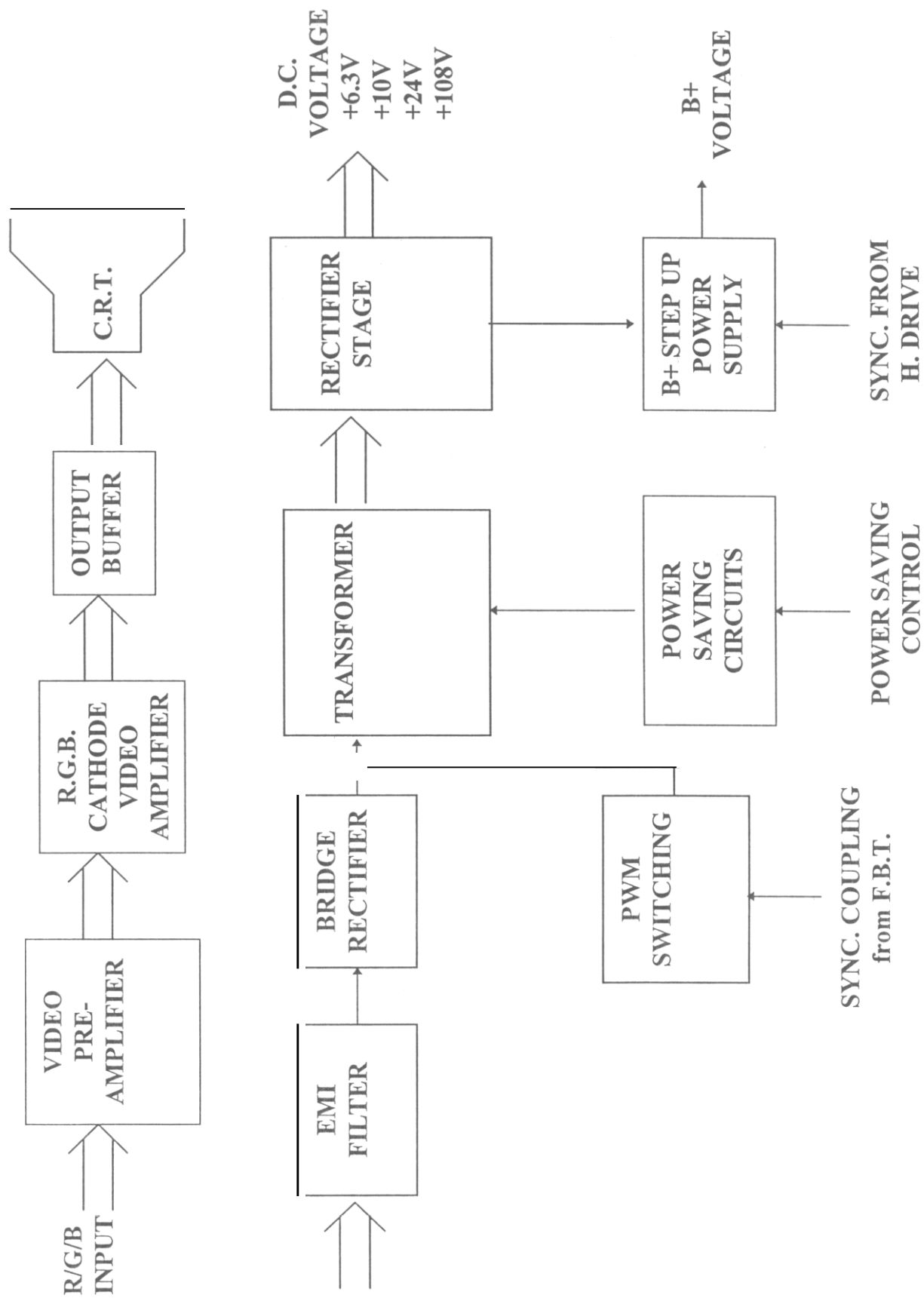


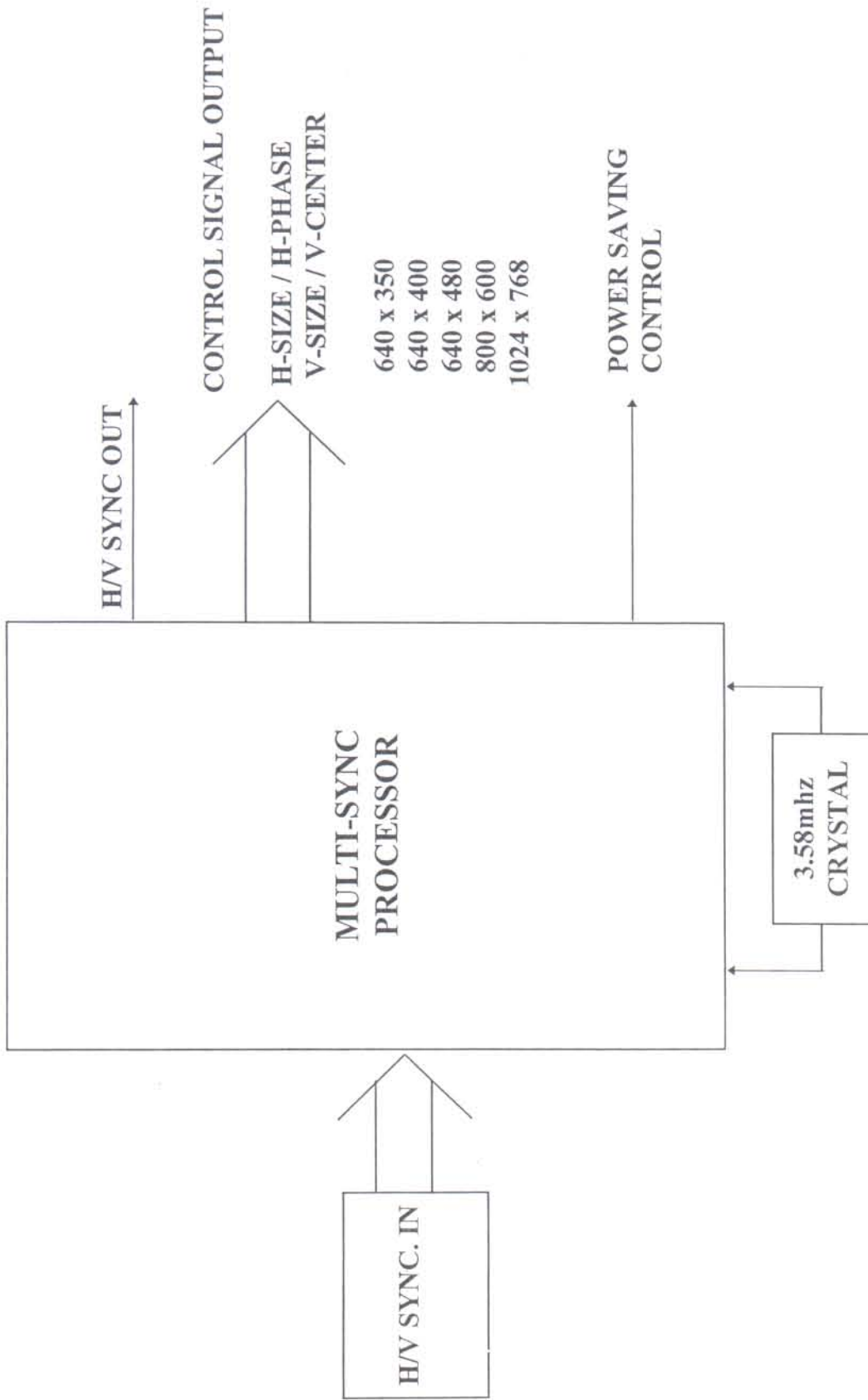


APPROVED	<i>Jua</i>	.	.
CHECKED	<i>Jua</i>	.	.
DRAWN	JUA LII	86	2 • 4

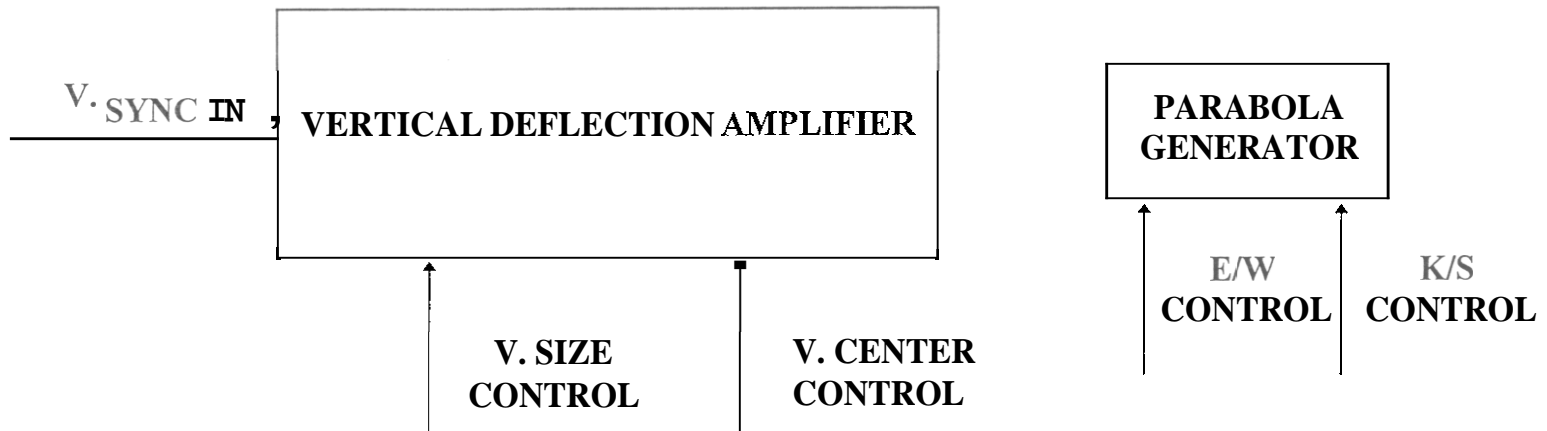
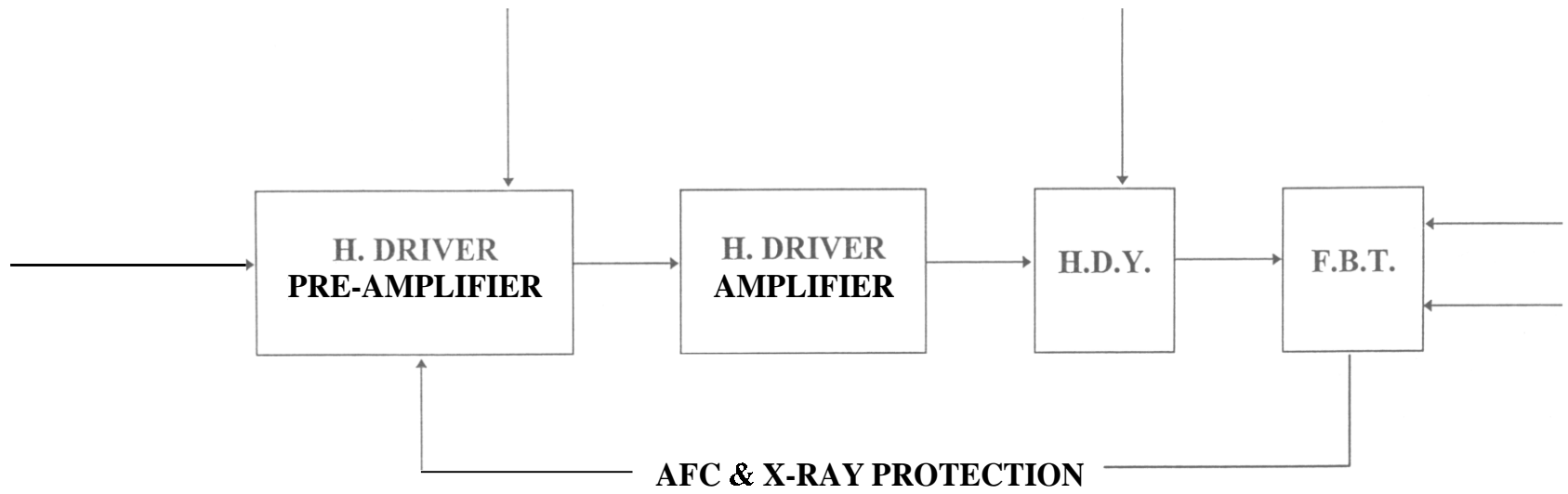
NEOTEC  
CRT & VIDEO CIRCUIT BOARD





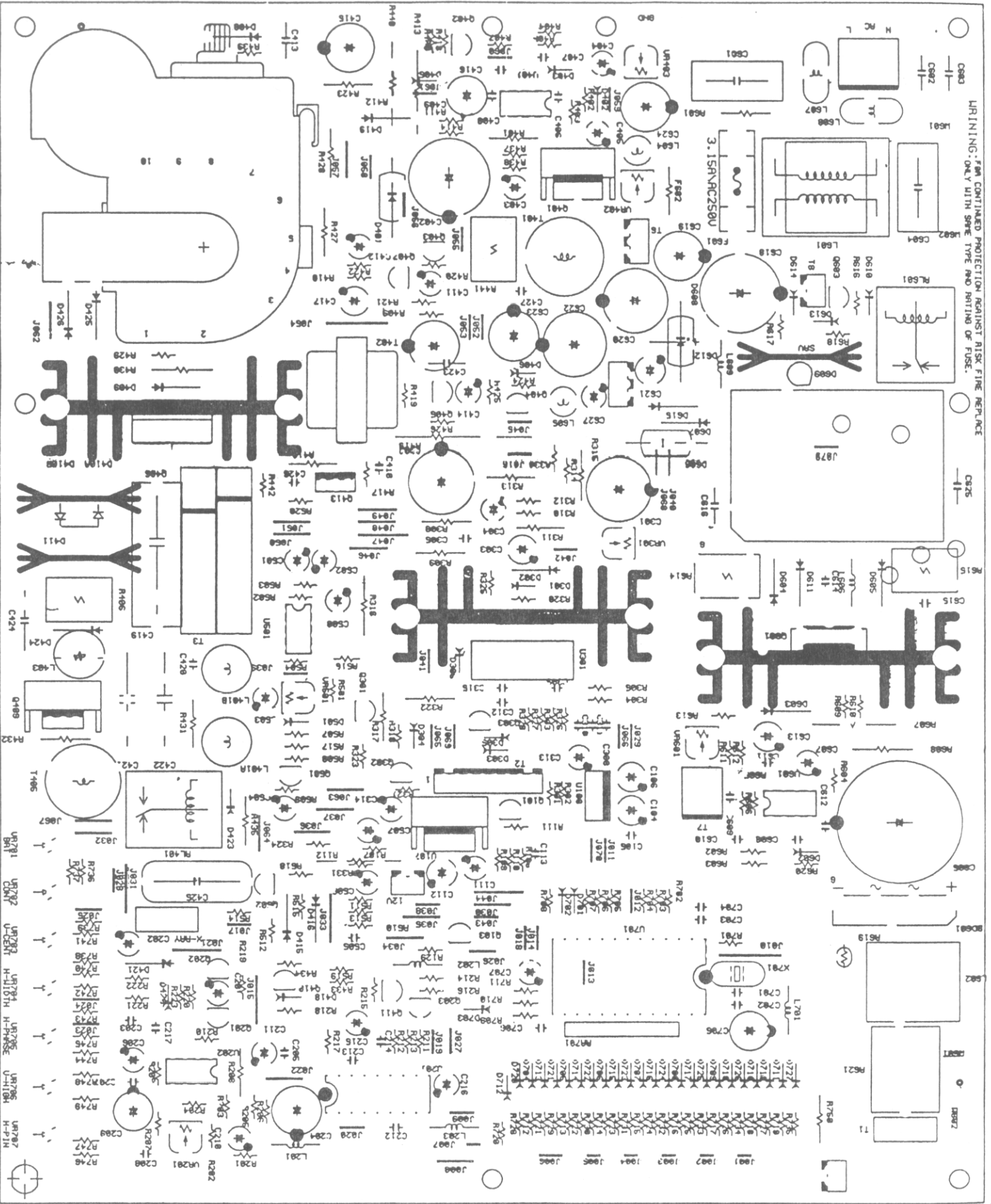


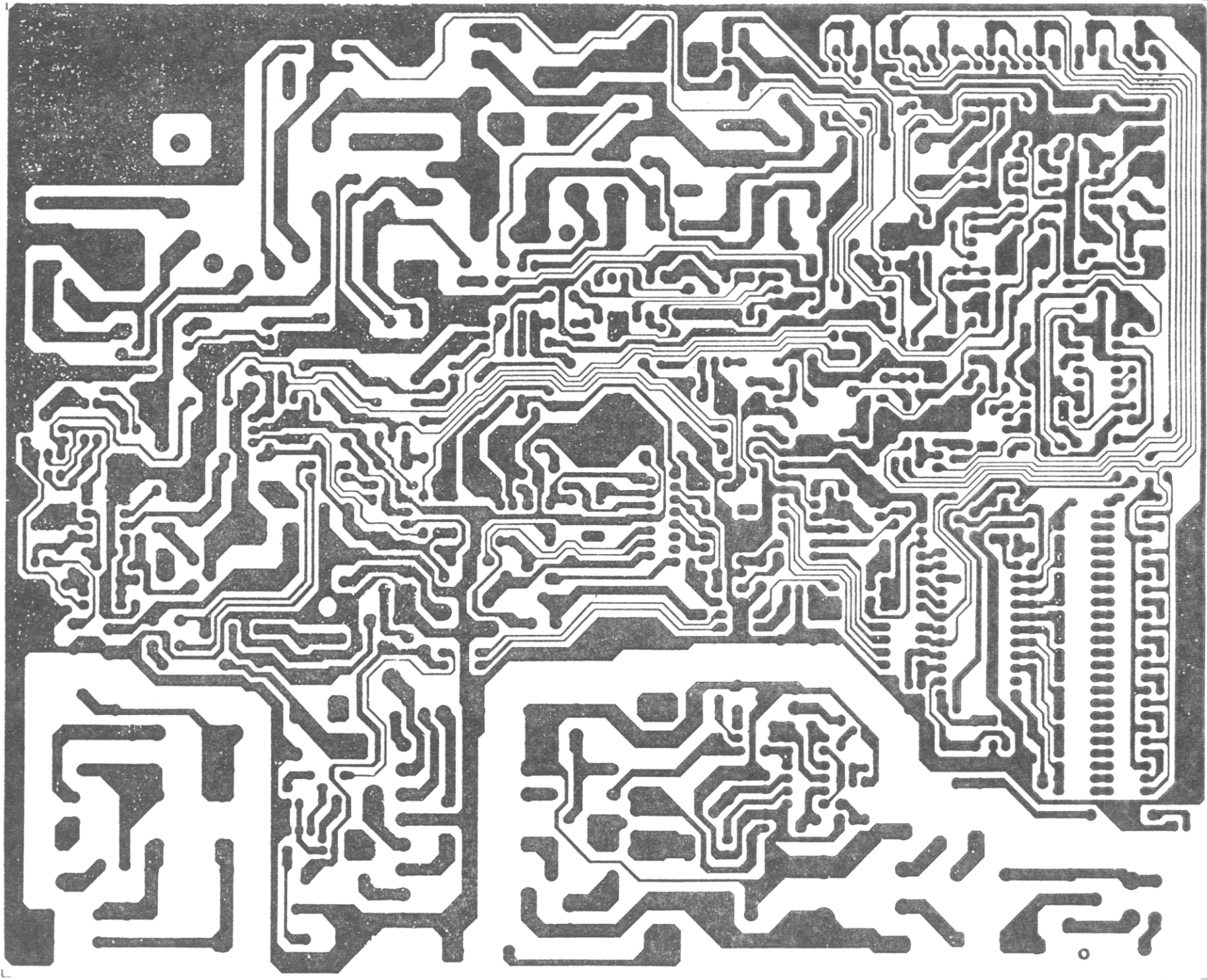
MULTI-SYNC CONTROL BLOCK DIAGRAM



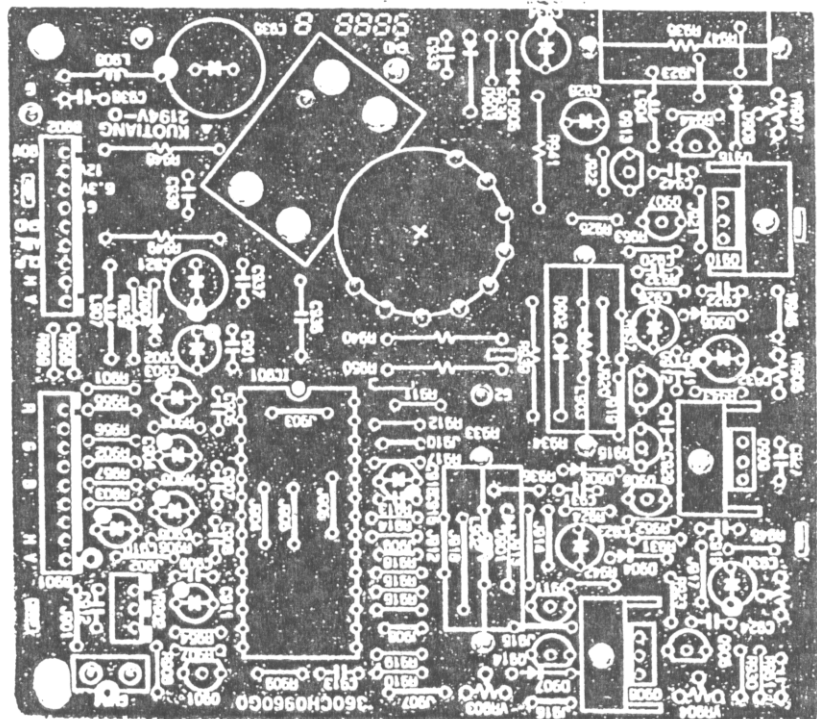
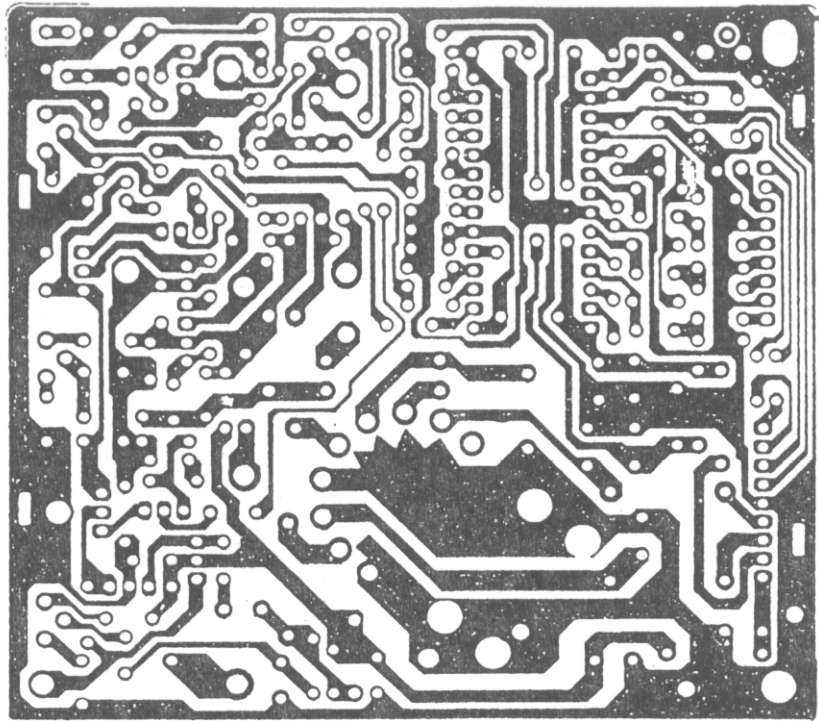
**HORIZONTAL & VERTICAL DEFLECTION BLOCK DIAGRAM**

WRITING: PGM CONTAINED PROTECTION AGAINST RISK FIRE REFLECT  
PRINTING: ONLY WITH SAME TYPE AND WRITING OF FUSE.









**ASSEMBLY NAME: MAIN PWB ASSY**

NO.	LOCATION	ITEM NAME	ITEM SPEC	PART NUMBER	QTY
0010	J001	JUMPER WIRE	0.6D, 5M/M	83206005000	1
0020	J002	JUMPER WIRE	0.6D, 5M/M	83206005000	1
0030	J003	JUMPER WIRE	0.6D, 5M/M	83206005000	1
0040	J004	JUMPER WIRE	0.6D, 5M/M	83206005000	1
0050	J005	JUMPER WIRE	0.6D, 5M/M	83206005000	1
0060	J006	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0070	J007	JUMPER WIRE	0.6D, 5M/M	83206005000	1
0080	J008	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0090	J009	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0100	J010	JUMPER WIRE	0.6D, 15M/M	83206015000	1
0110	J011	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0120	J012	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0130	J013	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0140	J014	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0150	J015	JUMPER WIRE	0.6D, 12.5M/M	83206012500	1
0160	J016	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0170	J017	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0180	J018	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0190	J019	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0200	J020	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0210	J021	JUMPER WIRE	0.6D, 12.5M/M	83206012500	1
0220	J022	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0230	J023	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0240	J024	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0250	J025	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0260	J026	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0270	J027	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0280	J028	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0290	J029	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0300	J030	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0310	J031	JUMPER WIRE	0.6D, 12.5M/M	83206012500	1
0320	J032	JUMPER WIRE	0.6D, 12.5M/M	83206012500	1
0330	J033	JUMPER WIRE	0.6D, 12.5M/M	83206012500	1
0340	J034	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0350	J035	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0360	J036	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0370	J037	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0380	J038	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0390	J039	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0400	J040	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0410	J041	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0420	J042	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0430	J043	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0440	J044	JUMPER WIRE	0.6D, 12.5M/M	83206012500	1
0450	J045	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0460	J046	JUMPER WIRE	0.6D, 12.5M/M	83206012500	1
0470	J047	JUMPER WIRE	0.6D, 12.5M/M	83206012500	1
0480	J048	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0490	J049	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0500	J050	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0510	J051	JUMPER WIRE	0.6D, 10M/M	83206010000	1

**ASSEMBLY NAME: MAIN PWB ASSY**

NO.	LOCATION	ITEM NAME	ITEM SPEC	PART NUMBER	QTY
0520	J052	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0530	J053	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0540	J054	JUMPER WIRE	0.6D, 15M/M	83206015000	1
0550	J055	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0560	J056	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0570	J057	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0580	J058	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0590	J059	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0600	J060	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0610	J061	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0620	J062	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0630	J063	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0640	J064	JUMPER WIRE	0.6D, 10M/M	83206010000	1
0650	J065	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0660	J066	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0670	J067	JUMPER WIRE	0.6D, 12.5M/M	83206012500	1
0680	J068	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0690	J069	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0700	J070	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0710	J079	JUMPER WIRE	0.6D, 7.5M/M	83206007500	1
0720	R107	RES. CARBON	RD1/8PY33KJT	RDEPY33K0JT	1
0730	R108	RES. CARBON	RD1/8PY47KJT	RDEPY47K0JT	1
0740	R109	RES. CARBON	RD1/8PY330HJT	RDEPY330HJT	1
0750	R110	RES. CARBON	RD1/8PY12KJT	RDEPY12K0JT	1
0760	R112	RES. METALOXIDE	RS3PB18HJK	RS3PB18HOJK	1
0770	R129	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
0780	R201	RES. CARBON	RD1/8PY180KJT	RDEPY180KJT	1
0790	R202	RES. CARBON	RD1/8PY2R7KJT	RDEPY2K70JT	1
0800	R203	RES. CARBON	RD1/8PY15KJT	RDEPY15K0JT	1
0810	R204	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
0820	R205	RES. CARBON	RD1/8PY8R2KJT	RDEPY8K20JT	1
0830	R206	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
0840	R207	RES. CARBON	RD1/8PY22KJT	RDEPY22K0JT	1
0850	R208	RES. CARBON	RD1/2PY150HJT	RDHPY150HJT	1
0860	R209	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
0870	R210	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
0880	R211	RES. CARBON	RD1/8PY15KJT	RDEPY15K0JT	1
0890	R212	RES. CARBON	RD1/8PY8R2KJT	RDEPY8K20JT	1
0900	R213	RES. CARBON	RD1/8PY22KJT	RDEPY22K0JT	1
0910	R214	RES. CARBON	RD1/8PY10KJT	RDEPY10K0JT	1
0920	R215	RES. CARBON	RD1/8PY12KJT	RDEPY12K0JT	1
0930	R216	RES. CARBON	RD1/8PY10KJT	RDEPY10K0JT	1
0940	R217	RES. CARBON	RD1/8PY2R7KJT	RDEPY2K70JT	1
0950	R218	RES. CARBON	RD1/8PY560HJT	RDEPY560HJT	1
0960	R219	RES. CARBON	RD1/8PY1KJT	RDEPYIKOOJT	1
0970	R220	RES. CARBON	RD1/8PY4R7KJT	RDEPY4K70JT	1
0980	R221	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
0990	R222	RES. CARBON	RD1/8PY18KJT	RDEPY18K0JT	1
1000	R223	RES. CARBON	RD1/8PY4R7KJT	RDEPY4K70JT	1
1010	R301	RES. CARBON	RD1/8PY1KJT	RDEPY1K00JT	1
1020	R302	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1

**ASSEMBLY NAME: MAIN PWB ASSY**

NO.	LOCATION	ITEM NAME	ITEM SPEC	PART NUMBER	QTY
1030	R303	RES. CARBON	RD1/8PY560KJT	RDEPY560KJT	1
1040	R304	RES. CARBON	RD1/8PY56KJT	RDEPY56K0JT	1
1050	R308	RES. CARBON	RD1/2PY270HJT	RDHPY270HJT	1
1060	R309	RES. CARBON	RD1/2PY3R3HJT	RDHPY3H30JT	1
1070	R310	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
1080	R311	RES. CARBON	RD1/8PY120HJT	RDEPY120HJT	1
1090	R312	RES. CARBON	RD1/8PY1R2KJT	RDEPYIK20JT	1
1100	R313	RES. CARBON	RD1/2PYR82HJT	RDHPY0H82JT	1
1110	R314	RES. CARBON	RD1/8PY4R7KJT	RDEPY4K70JT	1
1120	R315	RES. CARBON	RD1/2PY1HJT	RDHPY1H00JT	1
1130	R316	RES. METALOXIDE	RS2PB56HJK	RS2PB56H0JK	1
1140	R317	RES. CARBON	RD1/2PY10HJT	RDHPY10H0JT	1
1150	R318	RES. CARBON	RD1/8PY1KJT	RDEPT1K00JT	1
1160	R320	RES. CARBON	RD1/8PY3R3KJT	RDEPY3K30JT	1
1170	R321	RES. CARBON	RD1/8PY1KJT	RDEOY1K00JT	1
1180	R322	RES. CARBON	RD1/2PY390HJT	RDHPY390HJT	1
1190	R323	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
1200	R324	RES. CARBON	RD1/8PY1KJT	RDEPYIK00JT	1
1210	R325	RES. CARBON	RD1/8PY 10R5KJT	RDEPY10K5JT	1
1220	R326	RES. CARBON	RD1/8PY330KJT	RDEPY330KJT	1
1230	R327	RES. CARBON	RD1/8PY240KJT	RDEPY240KJT	1
1240	R328	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
1250	R330	RES. CARBON	RD1/8PY1KJT	RD1/8PY1KJT	1
1260	R331	RES. CARBON	RD1/8PY22KJT	RDEPY22K0JT	1
1270	R401	RES. METALOXIDE	RS1PBR82HJK	RS1PB0H82JK	1
1280	R402	RES. CARBON	RD1/8PY1MJT	RDEPY1M00JT	1
1290	R403	RES. CARBON	RD1/8PY1KT	RDEPYIK00JT	1
1300	R404	RES. CARBON	RD1/8PY100KJT	RDEPY100KJT	1
1310	R405	RES. CARBON	RD1/8PY15KJT	RDEPY15K0JT	1
1320	R406	RES. CARBON	NC		1
1330	R407	RES. CARBON	RD1/8PY150KJT	RDEPY150KJT	1
1340	R408	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
1350	R411	RES. CARBON	RD1/8PY10KJT	RDEPY10K0JT	1
1360	R412	RES. CARBON	RD1/8PY820HJT	RDEPY820HJT	1
1370	R413	RES. METALOXIDE	RS3PB100KJK	RS3PB100KJK	1
1380	R414	RES. CARBON	RE1/8PY1R2KJT	RDEPYIK20JT	1
1390	R415	RES. METALOXIDE	RS5PB56HJK	RS5PB56H0JT	1
1400	R416	RES. CARBON	RD1/2PY470HJT	RDHPY470HJT	1
1410	R417	RES. CARBON	RD1/8PY330HJT	RDEPY330HJT	1
1420	R418	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
1430	R419	RES. CARBON	RD1/8PY330HJT	RDEPY330HJT	1
1440	R420	RES. CARBON	RD1/8PY27KJT	RDEPY27K0JT	1
1450	R421	RES. CARBON	RD1/8PY2R7KJT	RDEPY2K70JT	1
1460	R422	RES. CARBON	RD1/8PY1KJT	RDEPYIK00JT	1
1470	R423	RES. CARBON	RD1/2PY100KJT	RDHPY100KJT	1
1480	R424	RES. CARBON	RD1/8PY10KJT	RDEPY10KJT	1
1490	R425	RES. CARBON	RD1/8PY6R8KJT	RDEPY6K8JT	1
1500	R426	RES. CARBON	RD1/8PY1KJT	RDEPYIK00JT	1
1510	R427	RES. CARBON	RD1/2PY56KJT	RDHPY56K0JT	1
1520	R428	RES. CARBON	RD1/2PY56KJT	RDHPY56K0JT	1
1530	R429	RES. CARBON	RD1/8PY47HJT	RDEPY47H0JT	1

**ASSEMBLY NAME: MAIN PWB ASSY**

<b>NO.</b>	<b>LOCATION</b>	<b>ITEM NAME</b>	<b>ITEM SPEC</b>	<b>PART NUMBER</b>	<b>QTY</b>
1540	R430	RES. METALOXIDE	RS2PBR47HJK	RS2PB0H47JK	1
1550	R431	RES. CARBON	RD1/2PY470HJT	RDHPY470HJT	1
1560	R432	RES. CARBON	RD1/2PY4R7HJT	RDHPY4H70JT	1
1570	R433	RES. CARBON	RD1/8PY10KJT	RDEPY10K00JT	1
1580	R434	RES. CARBON	RD1/8PY1KJT	RDEPY1K00JT	1
1590	R435	RES. CARBON	RD1/2PY330HJT	RDHPY330HJT	1
1600	R437	RES. CARBON	RD1/8PY100HJT	RDEPY100HJT	1
1610	R438	RES. CARBON	RD1/8PY18KJT	RDEPY18K0JT	1
1620	R439	RES. CARBON	RD1/8PY1MJT	RDEPY1M00JT	1
1630	R440	RES. METALOXIDE	RS3PB27KJK	RS3PB27K0JK	1
1640	R441	RES. WIRE WOUND	RW5PT1R2KJA	RW5PT1K20JA	1
1650	R442	RES. CARBON	RD1/8PY3R3HJT	RDEPY3H30JT	1
1660	R501	RES. CARBON	RD1/8PY220HJT	RDEPY220HJT	1
1670	R502	RES. CARBON	RD1/8PY47KJT	RDEPY47K0JT	1
1680	R503	RES. CARBON	RD1/8PY47KJT	RDEPY47K0JT	1
1690	R504	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
1700	R507	RES. CARBON	RD1/8PY220HJT	RDEPY220HJT	1
1710	R508	RES. CARBON	RD1/8PY470KJT	RDEPY470KJT	1
1720	R509	RES. CARBON	RD1/8PY4K7JT	RDEPY4K70JT	1
1730	R510	RES. CARBON	RD1/8PY27KJT	RDEPY27K0JT	1
1740	R511	RES. CARBON	RD1/8PY15KJT	RDEPY15K0JT	1
1750	R512	RES. CARBON	RD1/8PY3R3KJT	RDEPY3K30JT	1
1760	R513	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
1770	R514	RES. CARBON	RD1/8PY470HJT	RDEPY470HJT	1
1780	R515	RES. CARBON	RD1/8PY820HJT	RDEPY820HJT	1
1790	R516	RES. CARBON	RD1/8PY10KJT	RDEJFY10K0JT	1
1800	R518	RES. CARBON	RD1/8PY150KJT	RDEPY150KJT	1
1810	R519	RES. CARBON	RD1/8PY220KJT	RDEPY220KJT	1
1820	R601	RES. CARBON	RD1/2PY1MJT	RDHPY1M00JT	1
1830	R602	RES. CARBON	RD1/8PY47HJT	RDEPY47H0JT	1
1840	R603	RES. CARBON	RD1/8PY470HJT	RDEPY470HJT	1
1850	R604	RES. CARBON	RD1/8PY1KJT	RDEPY1K00JT	1
1860	R605	RES. CARBON	RD1/8PY33KJT	RDEPY33K0JT	1
1870	R606	RES. CARBON	RD1/8PY150KJT	RDEPY150KJT	1
1880	R607	RES. METALOXIDE	RS3PB100KJK	RS3PB100KJK	1
1890	R608	RES. METALOXIDE	RS2PBR27HJK	RS2PB0H27JK	1
1900	R609	RES. CARBON	RD1/8PY22HJT	RDEPY22H0JT	1
1910	R610	RES. CARBON	RD1/8PY18KJT	RDEPY18K0JT	1
1920	R611	RES. CARBON	RD1/8PY2R7KJT	RDEPY2K70JT	1
1930	R612	RES. CARBON	RD1/8PY5R6KJT	RDEPY5K60JT	1
1940	R613	RES. CARBON	RD1/8PY10KJT	RDEPY10K0JT	1
1950	R614	RES. WIRE WOUND	RW5PT2R2KJA	RW5PT2K20JA	1
1960	R615	RES. WIRE WOUND	RW5PT22KJA	RW5PT22K0JA	1
1970	R616	RES. CARBON	RD1/8PY10HJT	RDEPY10H0JT	1
1980	R617	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
1990	R618	RES. CARBON	RD1/8PY18KJT	RDEPY18K0JT	1
2000	R619	THERMISTER	5H(LM04)	3400905H001	1
2010	R620	RES. CARBON	RD1/8PY47HJT	RDEPY47H0JT	1
2020	R621	THERMISTER	12H	340012H000	1
2030	R407	RES. CARBON	RD1/8PY1MJT	RDEPY1M00JT	1
2040	R702	RES. CARBON	RD1/8PY100HJT	RDEPY100HJT	1

**ASSEMBLY NAME: MAIN PWB ASSY**

NO.	LOCATION	ITEM NAME	ITEM SPEC	PART NUMBER	QTY
2050	R703	RES. CARBON	RD1/8PY10OHJT	RDEPY10OHJT	1
2060	R704	RES. CARBON	RD1/8PY330HJT	RDEPY330HJT	1
2070	R705	RES. CARBON	RD1/8PY3R3KJT	RDEPY3K30JT	1
2080	R706	RES. CARBON	RD1/8PY3R3KJT	RDEPY3K30JT	1
2090	R707	RES. CARBON	RD1/8PY3R3KJT	RDEPY3K30JT	1
2100	R708	RES. CARBON	RD1/8PY3R3KJT	RDEPY3K30JT	1
2110	R709	RES. CARBON	RD1/8PY130KJT	RDEPY3K30JT	1
2120	R710	RES. CARBON	RD1/8PY2R2KJT	RDEPY2K20JT	1
2130	R711	RES. CARBON	RD1/8PY10KJT	RDEPY10K0JT	1
2140	R712	RES. CARBON	RD1/8PY20KJT	RDEPY20K0JT	1
2150	R713	RES. CARBON	RD1/8PY9R1KJT	RDEPY9K10JT	1
2160	R714	RES. CARBON	RD1/8PY5R1KJT	RDEPY5K10JT	1
2170	R715	RES. CARBON	RD1/8PY5R6KJT	RDEPY5K60JT	1
2180	R716	RES. CARBON	RD1/8PY8R2KJT	RDEPY8K20JT	1
2190	R717	RES. CARBON	RD1/8PY330KJT	RDEPY330KJT	1
2200	R718	RES. CARBON	RD1/8PY27KJT	RDEPY27K0JT	1
2210	R719	RES. CARBON	RD1/8PYJT27K	RDEPY24K0JT	1
2220	R720	RES. CARBON	RD1/8PY1R1KJT	RDEPY1K10JT	1
2230	R721	RES. CARBON	RD1/8PY4R3KJT	RDEPY4K30JT	1
2240	R722	RES. CARBON	RD1/8PY15KJT	RDEPY15K0JT	1
2250	R723	RES. CARBON	RD1/8PYJT43K	RDEPY24K0JT	1
2260	R724	RES. CARBON	RD1/8PY22KJT	RDEPY22K0JT	1
2270	R725	RES. CARBON	RD1/8PY5R1KJT	RDEPY5K10JT	1
2280	R726	RES. CARBON	RD1/8PYJT100	RDEPY2K40JT	1
2290	R727	RES. CARBON	RD1/8PY18KJT	RDEPY18K0JT	1
2300	R728	RES. CARBON	RD1/8PY68HJT	RDEPY68H0JT	1
2310	R729	RES. CARBON	RD1/8PY68HJT	RDEPY68H0JT	1
2320	R730	RES. CARBON	RD1/8PY68HJT	RDEPY68H0JT	1
2330	R731	RES. CARBON	RD1/8PYKJT22N	RDEPY11K0JT	1
2340	R732	RES. CARBON	RD1/8PYJT12K	RDEPY110KJT	1
2350	R733	RES. CARBON	RD1/8PYJT12K	RDEPY24K0JT	1
2360	R734	RES. CARBON	RD1/8PY6R8KJT	RDEPY6K80JT	1
2370	R735	RES. CARBON	RD1/8PYJT2.4K	RDEPY9K10JT	1
2380	R736	RES. CARBON	RD1/8PY1KJT	RDEPY1K00JT	1
2390	R737	RES. CARBON	RD1/8PY1KJT	RDEPY1K00JT	1
2400	R738	RES. CARBON	RD1/8PY68HJT	RDEPY68H0JT	1
2410	R739	RES. CARBON	RD1/8PY3R3KJT	RDEPY3K30JT	1
2420	R740	RES. CARBON	RD1/8PY1KJT	RDEPY1K00JT	1
2430	R741	RES. CARBON	RD1/8PY1KJT	RDEPY1K00JT	1
2440	R742	RES. CARBON	RD1/8PY2R7KJT	RDEPY2K70JT	1
2450	R743	RES. CARBON	RD1/8PY1KJT	RDEPY1K00JT	1
2460	R744	RES. CARBON	RD1/8PY390HJT	RDEPY390HJT	1
2470	R745	RES. CARBON	RD1/8PY30KJT	RDEPY30K0JT	1
2480	R746	RES. CARBON	RD1/8PY22KJT	RDEPY22K0JT	1
2490	R747	RES. CARBON	RD1/8PY22KJT	RDEPY22K0JT	1
2500	R748	RES. CARBON	RD1/8PY2R7KJT	RDEPY2K70JT	1
2510	R749	RES. CARBON	RD1/8PY33KJT	RDEPY33KJT	1
2520	R750	RES. CARBON	RD1/2PY330HJT	RDHPY330HJT	1
2530	RA701	RES. CARBON	3R3K X 8SB	34007010030	1
2540	C104	CAP. ELEC	CE04B1C101MT	CE4B1C101MT	1
2550	C105	CAP. CERAMIC	CK45B1H104ZT	CK5B1H104ZT	1

**ASSEMBLY NAME: MAIN PWB ASSY**

NO.	LOCATION	ITEM NAME	ITEM SPEC	PART NUMBER	QTY
2560	C106	CAP. ELEC	CE04B1H100MT	CE4B1H100MT	1
2570	C111	CAP. ELEC	CE04B1H100MT	CE4B1H100MT	1
2580	c112	CAP. ELEC	CE04B1C101MT	CE4B1C101MT	1
2590	C113	CAP. CERAMIC	CK45B1H104ZT	CK5B1H104ZT	1
2600	c201	CAP. ELEC	CE04B1C101MT	CE4B1C101MT	1
2610	c202	CAP. ELEC	CE04B1H100MT	CE4B1H100MT	1
2620	C203	CAP. MYLAR	CQ92M1H103KT	CQ2M1H103KT	1
2630	C204	CAP. ELEC	CE04B1R102MT	CE4B1H102MT	1
2640	C205	CAP. CERAMIC	CK45B1H104ZT	CK5B1H104ZT	1
2650	C206	CAP. ELEC	CE04B1HOIOMT	CE4B1HOIOMT	1
2660	C207	CAP. MYLAR	CQ92M1H222KT	CQ2M1H222KT	1
2670	C208	CAP. MYLAR	CQ92M2A152KT	CQ2M2A152KT	1
2680	C209	CAP. ELEC	CE04B1C471MT	CE4B1C471MT	1
2690	c210	CAP. ELEC	CE04B1C100MT	CE4B1C100MT	1
2700	c211	CAP. ELEC	CE04B1C101MT	CE4B1C101MT	1
2710	c212	CAP. MYLAR	CQ92M2A222KT	CQ2M2A222KT	1
2720	C213	CAP. PP	CQ93P2A222KT	CQ3P2A222KT	1
2730	C214	CAP. CERAMIC	CK45B1H104ZT	CK5B1H104ZT	1
2740	C216	CAP. ELEC	CE04B1C101MT	CE4B1C101MT	1
2750	C217	CAP. MYLAR	CQ92M1H103KT	CQ2M1H103KT	1
2760	C301	CAP. ELEC	CE04B1E222MT	CE4B1E222MT	1
2770	C302	CAP. ELEC	CE04B1C222MT	CE4B1C222MT	1
2780	C303	CAP. ELEC	CE04B1E101MT	CE4B1E101MT	1
2790	C304	CAP. ELEC	CE04B1C470MT	CE4B1C470MT	1
2800	C305	CAP. MYLAR	CK45B1H104ZT	CK5B1H104ZT	1
2810	C308	CAP. MYLAR	CQ92M1H104KT	CQ2M1H104KT	1
2820	C309	CAP. MYLAR	CQ92M1H104KT	CQ2M1H104KT	1
2830	C311	CAP. MYLAR	CQ92M1H103KT	CQ2M1H103KT	1
2840	C312	CAP M.P.	CQ93P1H474KT	CQ3P1H474KT	1
2850	C313	CAP. ELEC	CE04B1HIOOMT	CE4B1HIOOMT	1
2860	C314	CAP. ELEC	CE04B1HIOOMT	CE4B1HIOOMT	1
2870	C402	CAP. ELEC	CE04B2W220MT	CE4B2W220MT	1
2880	C403	CAP. ELEC	CE04B1D100MT	CE4B1D100MT	1
2890	C404	CAP. ELEC	CE04B1H100MT	CE4B1H100MT	1
2900	C405	CAP. ELEC	CE04B1H100MT	CE4B1H100MT	1
2910	C406	CAP. MYLAR	CQ92M1H103KT	CQ2M1H103KT	1
2920	C407	CAP. CERAMIC	CK45B1H101KT	CK5B1H101KT	1
2930	C408	CAP. MYLAR	CQ92M1H392KT	CQ2M1H392KT	1
2940	C409	CAP. ELEC	CE04B1V101MT	CE4B1V101MT	1
2950	C411	CAP. ELEC	CE04B1H100MT	CE4B1HIOOMT	1
2960	C412	CAP. ELEC	CE04B1HIOOMT	CE4B1HIOOMT	1
2970	C413	CAP M.P.	CF93P2A334KA	CF3P2A334KA	1
2980	C414	CAP. ELEC	CE04B1H047MT	CE4B1H047MT	1
2990	C415	CAP. ELEC	CE04B2E100MT	CE4B2E100MT	1
3000	C416	CAP. MYLAR	CQ92M1H103KT	CQ2M1H103KT	1
3010	C417	CAP. ELEC	CE04B1H100MT	CE4B1E101MT	1
3020	C418	CAP. CERAMIC	CK45B1H561KT	CK5B1H561KT	1
3030	C419	CAP. PP	CQ93P3D682JA	CQ3P3D682JA	1
3040	C420	CAP. CERAMIC	CK45B2H222KT	CK5B2H222KT	1
3050	C421	CAP M.P.	CF93P2E684KA	CF3P2E684KA	1
3060	C422	CAP M.P.	CF93P2E564KA	CF3P2E564KA	1

**ASSEMBLY NAME: MAIN PWB ASSY**

NO.	LOCATION	ITEM NAME	ITEM SPEC	PART NUMBER	QTY
3070	C423	CAP M.P.	CF93P2E104KA	CF3P2E104KA	1
3080	C424	CAP. PP	CQ93P2J392JA	CQ3P2J392JA	1
3090	C425	CAP. PP	CQ93P3D682KT	CQ3P3D682KT	1
3100	C426	CAP. MYLAR	CQ92M1H103KT	CQ2M1H103KT	1
3110	C427	CAP. CERAMIC	CK45B3A102KT	CK5B3A102KT	1
3120	C501	CAP. ELEC	CE04B1H100MT	CE4B1E101MT	1
3130	C502	CAP. ELEC	CE04B1H100MT	CE4B1E101MT	1
3140	C503	CAP. ELEC	CE04B1H100MT	CE4B1E101MT	1
3150	C504	CAP. ELEC	CN04B1C100MT.NP	CN4B1C100MT	1
3160	C505	CAP. MYLAR	CQ92M1H103KT	CQ2M1H103KT	1
3170	C506	CAP. ELEC	CE04B1H100MT	CE4B1E101MT	1
3180	C507	CAP. ELEC	CE04B1H100MT	CE4B1E101MT	1
3190	C508	CAP. ELEC	CE04B1H100MT	CE4B1E101MT	1
3200	c602	CAP. AC	CA45B2G472MA.AC	CA5B2G472MA	1
3210	C603	CAP. AC	CA45B2G472MA.AC	CA5B2G472MA	1
3220	C605	CAP. ELEC	CE04B2G221MT	CE4B2G221MT	1
3230	C607	CAP. ELEC	CE04B1E470MT	CE4B1E470MT	1
3240	C608	CAP. MYLAR	CQ92M1H222JT	CQ2M1H222JT	1
3250	C609	CAP. CERAMIC	CK45B1H101KT	CK5B1H101KT	1
3260	C610	CAP. MYLAR	CQ92M1H104KT	CQ2M1H104KT	1
3270	C611	CAP. CERAMIC	CK45B1H104ZT	CK5B1H104ZT	1
3280	C612	CAP. MYLAR	CQ92M1H102KT	CQ2M1H102KT	1
3290	C613	CAP. ELEC	CE04B1E101MT	CE4B1E101MT	1
3300	C614	CAP. CERAMIC	CK45B3A102KT	CK5B3A102KT	1
3310	C615	CAP. CERAMIC	CK45B3A103KT	CK5B3A103KT	1
3320	C616	CAP. AC	CA45B2G472MA.AC	CA5B2G472MA	1
3330	C618	CAP. ELEC	CE04B2A331MT	CE4B2A331MT	1
3340	C619	CAP. ELEC	CE04B1C102MT	CE4B1C102MT	1
3350	C620	CAP. ELEC	CE04B2A101MT	CE4B2A101MT	1
3360	C621	CAP. ELEC	CE04B1C101MT	CE4B1C101MT	1
3370	C622	CAP. ELEC	CE04B1E222MT	CE4B1E222MT	1
3380	C623	CAP. ELEC	CE04B1E471MT	CE4B1E471MT	1
3390	C624	CAP. ELEC	CE04B2A470MT	CE4B2A470MT	1
3400	C627	CAP. ELEC	CE04B1H100MT	CE4B1H100MT	1
3410	C701	CAP. CERAMIC	CK45B1H470KT	CK5B1H470KT	1
3420	C702	CAP. CERAMIC	CK45B1H470KT	CK5B1H470KT	1
3430	C703	CAP. CERAMIC	CK45B1H470KT	CK5B1H470KT	1
3440	C704	CAP. CERAMIC	CK45B1H101KT	CK5B1H101KT	1
3450	C705	CAP. ELEC	CE04B1C101MT	CE4B1C101MT	1
3460	C706	CAP. CERAMIC	CK45B1H101KT	CK5B1H101KT	1
3470	C707	CAP. ELEC	CE04B1C100MT	CE4B1C100MT	1
3480	VR201	VER SEMI FIX	RV6PBPB5K	RV615B5K000	1
3490	VR301	VER SEMI FIX	RV6PBPB100K	RV615B100K000	1
3500	VR402	VER SEMI FIX	RV6PBPB5K	RV615B5K000	1
3510	VR403	VER SEMI FIX	RV6PBPB5K	RV615B5K000	1
3520	VR501	VER SEMI FIX	RV6PBPB500H	RV615B500H000	1
3530	VR601	VER SEMI FIX	RV6OB0B1K	RV615B1K000	1
3540	VR701	VER SEMI FIX	RV6PBPB10K	RV615B10K000	1
3550	VR702	VER SEMI FIX	RV6PBPB10K	RV615B10K000	1
3560	VR703	VER SEMI FIX	RV6PBPB10K	RV615B10K000	1
3570	VR704	VER SEMI FIX	RV6PBPB10K	RV615B10K000	1



**ASSEMBLY NAME: MAIN PWB ASSY**

NO.	LOCATION	ITEM NAME	ITEM SPEC	PART NUMBER	QTY
3580	VR705	VER SEMI FIX	RV6PBPB10K	RV615B10K00	1
3590	VR706	VER SEMI FIX	RV6PBPB10K	RV615B10K00	1
3600	VR707	VER SEMI FIX	RV6PBPB10K	RV615B10K00	1
3610	T401	COIL CHOKE	180UH DI 16X18	35111000070	1
3620	T403	F.B.T.	8515	35003330050	1
3630	T501	TRANS, H-DRIVE	E119	35011410020	1
3640	T601	TRANS SMPS	ER39 96697	35002230040	1
3650	L201	COIL PEAKING	K6R8JT	LC0KA6R8JT0	1
3660	L202	COIL PEAKING	K6R8JT	LC0KA6R8JT0	1
3670	L203	COIL PEAKING	K6R8JT	LC0KA6R8JT0	1
3680	L401A	COIL H-LINE	4.0UH	35117000050	1
3690	L401B	COIL H-LINE	4.0UH	35117000050	1
3700	L403	JUMPER WIRE	0.6D, 5M/M	83206005000	1
3701	L405	COIL CHOKE	180UH DI 14X19	35111000050	1
3720	L604	COIL FILTER	18UH, 6X8	35116000010	1
3730	L605	COIL FILTER	18UH, 6X8	35116000010	1
3740	L606	FERRITE BEAD2.5	BC0610R6H-B	35109110001	1
3750	L607	JUMPER WIRE	0.6D, 5M/M	83206005000	1
3760	L608	JUMPER WIRE	0.6D, 5M/M	83206005000	1
3770	L609	COIL PEAKING	KIR5JT	LC0KAIR5JT0	1
3780	L701	COIL FILTER	560UH	LCOKA561JT0	1
3790	D301	DIODE SI	IN4148	DS001N41480	1
3800	D302	DIODE SI	FR102	DS000FR1020	1
3810	D303	DIODE SI	IN4148	DS001N41480	1
3820	D304	DIODE SI	IN4148	DS001N41480	1
3830	D305	DIODE SI	IN4148	DS001N41480	1
3840	D306	DIODE ZENER	2.7V	DZ20002V700	1
3850	D401	DIODE SI	HER305	DS00HER305	1
3860	D402	DIODE SI	1N4148	DS001N41480	1
3870	D403	DIODE SI	1N4148	DS001N41480	1
3880	D405	DIODE SI	1N4148	DS001N41480	1
3890	D406	DIODE ZENER	9.1V	DZ20009V100	1
3900	D408	DIODE SI	FR104	DS000FR1040	1
3910	D409	DIODE SI	FR204	DS000FR204T	1
3920	D410A	DIODE SI	D11306	DS00D113060	1
3930	D410B	DIODE SI	D11306	DS00D113060	1
3940	D411	DIODE SI	HER306	DS00HER3060	1
3941		HEAT SINK	WS-AP001	02152000120	1
3950	D415	DIODE SI	FR102	DS000FR1020	1
3960	D416	DIODE SI	FR102	DS000FR1020	1
3970	D418	DIODE SI	IN4148	DS001N41480	1
3980	D419	DIODE SI	HER103	DS00HER1030	1
3990	D420	DIODE ZENER	5.1V	DZ20005V100	1
4000	D421	DIODE SI	FR102	DS000FR1020	1
4010	D423	DIODE SI	IN4148	DS001N41480	1
4020	D424	DIODE SI	HER205	DS00HER2050	1
4030	D501	DIODE ZENER	5.1V	DZ20005V100	1
4040	D601	DIODE BRIDGE	KBJ408G	DB00KBJ408G	1
4050	D602	DIODE SI	IN4148	DS001N41480	1
4060	D603	DIODE SI	FR102	DS000FR1020	1
4070	D604	DIODE SI	FR102	DS000FR1020	1

**ASSEMBLY NAME: MAIN PWB ASSY**

NO.	LOCATION	ITEM NAME	ITEM SPEC	PART NUMBER	QTY
4080	D605	DIODE SI	FR107	DS000FR1070	I
4090	D606	DIODE SI	HER305	DS00HER3050	1
4100	D607	DIODE SI	HER103	DS00HER1030	1
4110	D608	DIODE SI	HER305	DS00HER3050	1
4120	D609	DIODE SI	HER306	DS00HER3060	I
4130	D610	DIODE SI	1N4148	DS001N41480	1
4140	D611	DIODE SI	FR107	DS000FR1070	1
4150	D612	DIODE SI	HER208	DS00HER2080	1
4160	D613	DIODE SI	1N4148	DS001N41480	1
4170	D614	DIODE SI	1N4148	DS001N41480	1
4180	D615	DIODE SI	FR102	DS000FR1020	1
4190	D701	DIODE SI	1N4148	DS001N41480	1
4200	D702	DIODE SI	1N4148	DS001N41480	1
4210	D703	DIODE SI	1N4148	DS001N41480	1
4220	D704	DIODE SI	1N4148	DS001N41480	1
4230	D705	DIODE SI	1N4148	DS001N41480	1
4240	D706	DIODE SI	1N4148	DS001N41480	1
4250	D707	DIODE SI	1N4148	DS001N41480	1
4260	D708	DIODE SI	1N4148	DS001N41480	1
4270	D709	DIODE SI	1N4148	DS001N41480	1
4280	D710	DIODE SI	1N4148	DS001N41480	1
4290	D711	DIODE SI	1N4148	DS001N41480	1
4300	D712	DIODE SI	1N4148	DS001N41480	1
4310	D713	DIODE SI	1N4148	DS001N41480	1
4320	D714	DIODE SI	1N4148	DS001N41480	1
4330	D715	DIODE SI	1N4148	DS001N41480	1
4340	D716	DIODE SI	1N4148	DS001N41480	1
4350	D717	DIODE SI	1N4148	DS001N41480	1
4360	D718	DIODE SI	1N4148	DS001N41480	1
4370	D719	DIODE SI	1N4148	DS001N41480	1
4380	D720	DIODE SI	1N4148	DS001N41480	1
4390	D721	DIODE SI	1N4148	DS001N41480	1
4400	D722	DIODE SI	1N4148	DS001N41480	1
4410	D723	DIODE SI	1N4148	DS001N41480	1
4420	D724	DIODE SI	1N4148	DS001N41480	1
4430	D725	DIODE SI	1N4148	DS001N41480	1
4440	D726	DIODE SI	1N4148	DS001N41480	1
4450	D727	DIODE SI	1N4148	DS001N41480	1
4460	Q101	TRANSISTOR	2SA733	TA002SA7330	1
4470	Q103	TRANSISTOR	2SC945	TC002SC9450	1
4480	Q201	TRANSISTOR	2SA733	TA002SA7330	1
4490	Q202	TRANSISTOR	2SC945	TC002SC9450	1
4500	Q203	TRANSISTOR	2SA733	TA002SA7330	1
4510	Q301	TRANSISTOR	2SC945	TC002SC9450	1
4520	Q302	TRANSISTOR	2SC1213	TC02SC12130	1
4530	Q303	TRANSISTOR	2SC945	TA002SA7330	1
4540	Q401	TRANSISTOR	2SA733	TF02SK21340	1
4550		HEAT SINK	2SK2134	2152000150	1
4560		SCREW TAPPING	WS-BL-042X50H	80PB3008CA0	1
4570	Q402	TRANSISTOR	PHWM3-24X8TP-B	TA002SA7330	1
4580	Q403	TRANSISTOR	2SA733	TA002SA7330	1

**ASSEMBLY NAME: MAIN PWB ASSY**

NO.	LOCATION	ITEM NAME	ITEM SPEC	PART NUMBER	QTY
4590	Q404	TRANSISTOR	2SA733	TC002SC9450	1
4600	Q405	TRANSISTOR	2SC945	TX000BF4230	1
4610	Q406	TRANSISTOR	BF423	TCBU2520DF0	1
4620		HEAT SINK	BU2520DF	215200100	1
4630		SCREW TAPPING	WS-DMF317X00H	80PB3008CA0	1
4640	Q409	TRANSISTOR	TIP122	TX00T1P1220	1
4650		HEAT SINK	WS-BL042X50H	2152000110	1
4660		SCREW TAPPING	PHWM3-24X8TP-B	80PB3008CA0	1
4670	Q410	TRANSISTOR	2SA733	TA002SA7330	1
4680	Q411	TRANSISTOR	2SC945	TC002SC9450	1
4690	Q413	TRANSISTOR	BD-139	TX000BD1390	1
4700	Q501	TRANSISTOR	2SC945	TC002SC9450	1
4710	Q502	TRANSISTOR	2SA733	TA002SA7330	1
4720	Q601	TRANSISTOR	FS7KM-16A	TFFS75M16A0	1
4730		HEAT SINK	WS-DMF317X80H	02152000100	1
4740		SCREW TAPPING	PHWM3-24X8TP-B	80PB3008CA0	1
4750	Q603	TRANSISTOR	2SC1213	TC02SC12130	1
4760	X701	CRYSTAL	3.5MHZ	33702000030	1
4770	U107	IC	LM7812	AA00LM78120	1
4780		HEAT SINK	WS-BLO42 X 35H	02152000110	1
4790		SCREW TAPPING	PHWM3-24X8TP-B	80PB3008CA0	1
4800	U108	IC	LM7805	AA00LM78050	1
4810	u201	IC	74LS123	AL074LS1230	1
4820	u202	IC	LM1391	AA00LM13910	1
4830	U301	IC	TDA1675	AATDA1675P0	1
4840	U401	IC	KS3842A	AA00KS3842A0	1
4850	U501	IC	LM3080N	AA0LM3080N0	1
4860	U601	IC	KS3842A	AA00KS3842A0	1
4870	U701	IC	WT8045N24P3	AA0WT8045N0	1
4880	RL401	RELAY	15A 120V DC9V	35250000020	1
4890	RL601	RELAY	15A 120VDC9V	35250000020	1
4900		PIN	1.56D, 2 PIN	37100728000	1
4910		PIN	2.35D, 4 PIN	37100040010	1
4920		WAFER	3.96D, 3P2/0	37110728000	1
4930		WAFER	3.96D, 2 PIN	37110729000	1
4940		FUSE SLOW BLOW	3 15A,250V(218315)	35201150020	1
4950		FUSE HOLDER		35290000010	1
4960		WIRE FKC1617	W22RN240-10/10	39522102400	1
4970		CONNECTOR UNIT	9 PIN	37420900010	1
4980		P.C.B. MAIN			1
4990		BAND WIRE	2.5-9D	83301000010	1
5000		HEADER PIN	3P, 2.5M/M	37020020030	1
5010		WIRE FKA	W24MAG280-10/10	39023702800	1
5020		WIRE FKC	W22BLK200-10/10	39522002000	1
5030		WIRE FKC	W22BLK120-10/10	39522001200	1
5040		HEAT SINK	WS-AP001	02152000070	1
5050		SHIELD CASE		02151000020	1
5060		CORE	20 X 10 X 10mm		1