

TEAC®

Service Manual

CMP1990

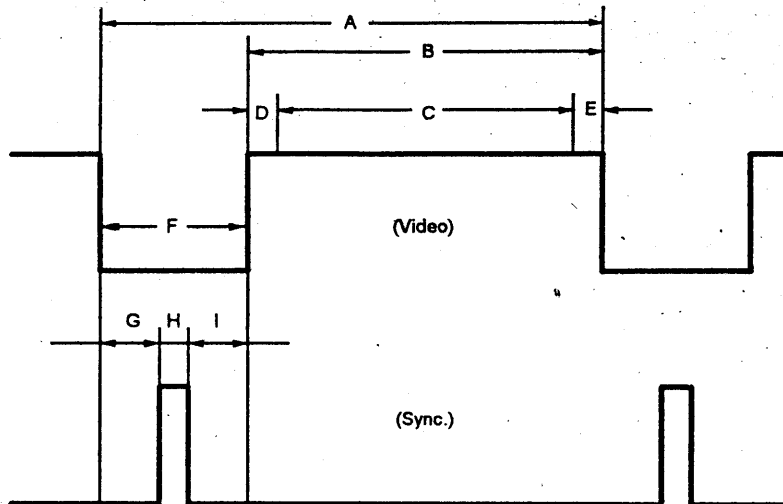
19" Colour Computer Monitor

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A. SPECIFICATIONS:

1. SCREEN 19" F & S, 0.26mm, Antistatic coating.
2. POWER SOURCE 120V 60Hz
220V 50Hz
3. POWER CONSUMPTION 150W (max.)
4. INPUT SIGNAL
VIDEO Analog R. G. B. : 0.7Vpp (positive)
SYNC TTL level, composite (H+V),
positive or negative polarity.
5. CONNECTOR TYPE 15 Pin D type
6. RESOLUTION 1600 X 1200 pixels
7. RECOMMENDED TIMING CHART



Item	Description:
A	Total time
B	Active display area including borders
C	Active display area excluding borders
D	Left/Top border
E	Right/bottom border
F	Blanking time
G	Frontporch
H	Sync-width
I	Backporch

Mode No.		1	2	3	4	5	6	7
		VGA 31K	VGA 31K	VESA 37.5K	VESA 43.2K	VESA 46.8K	MAC 49.7K	VESA 53.6K
H-Resolution	[px]	640	720	640	640	800	832	800
V-Resolution	[Lines]	480	400	480	480	600	624	600
Pixelclock	[MHz]	25.175	28.322	31.500	36.000	49.500	57.270	56.250
H-Frequency	[kHz]	31.469	31.469	37.500	43.269	46.875	49.714	53.674
V-Frequency	[Hz]	59.940	70.090	75.000	85.008	75.000	74.553	85.061
Interlace								
H-Sync-polarity		-	-	-	-	+	-	+
V-Sync-polarity		-	+	-	-	+	-	+
H-total	[us]	31.778	31.778	26.667	23.111	21.333	20.115	18.631
H-active display	[us]	26.062	26.062	20.317	17.778	16.162	14.528	14.222
H-active w/o border	[us]	25.422	25.422	20.317	17.778	16.162	14.528	14.222
H-left border	[us]	0.318	0.318	0	0	0	0	0
H-right border	[us]	0.318	0.318	0	0	0	0	0
H-blanking	[us]	5.720	5.720	6.349	5.333	5.172	5.588	4.409
H-Frontporch	[us]	0.318	0.318	0.508	1.556	0.323	0.559	0.569
H-Sync-width	[us]	3.813	3.813	2.032	1.556	1.616	1.118	1.138
H-Backporch	[us]	1.589	1.589	3.810	2.222	3.232	3.911	2.702
V-total	[ms]	16.683	14.268	13.333	11.764	13.333	13.417	11.756
	[Lines]	525	449	500	509	625	667	631
V-active display	[ms]	15.761	13.154	12.800	11.093	12.800	12.552	11.179
	[Lines]	496	414	480	480	600	624	600
V-active w/o border	[ms]	15.253	12.710	12.800	11.093	12.800	12.552	11.179
	[Lines]	480	340	480	480	600	624	600
V-top border	[ms]	0.254	0.222	0	0	0	0	0
	[Lines]	8	7	0	0	0	0	0
V-bottom border	[ms]	0.254	0.222	0	0	0	0	0
	[Lines]	8	7	0	0	0	0	0
V-blanking	[ms]	0.922	1.112	0.533	0.670	0.533	0.864	0.578
	[Lines]	29	35	20	29	25	43	31
V-Frontporch	[ms]	0.064	0.159	0.027	0.023	0.021	0.020	0.019
	[Lines]	2	5	1	1	1	1	1
V-Sync-width	[ms]	0.064	0.064	0.080	0.069	0.064	0.060	0.056
	[Lines]	2	2	3	3	3	3	3
V-Backporch	[ms]	0.794	0.889	0.427	0.578	0.448	0.784	0.503
	[Lines]	25	28	16	25	21	39	27

Mode No.		8 VESA 60K	9 VESA 67.5K	10 VESA 68.6K	11 VESA 79.9K	12 VESA 91.1K	13 VESA 93.7K
H-Resolution	[px]	1024	1152	1024	1280	1280	1600
V-Resolution	[Lines]	768	864	768	1024	1024	1200
Pixelclock	[MHz]	78.750	108.000	94.500	135.000	157.500	202.500
H-Frequency	[kHz]	60.023	67.500	68.677	79.976	91.146	93.750
V-Frequency	[Hz]	75.029	75.000	84.997	75.025	85.024	75.000
Interlace							
H-Sync-polarity		+	+	+	+	+	+
V-Sync-polarity		+	+	+	+	+	+
H-total	[us]	16.660	14.815	14.561	12.504	10.971	10.667
H-active display	[us]	13.003	10.667	10.836	9.481	8.127	7.901
H-active w/o border	[us]	13.003	10.667	10.836	9.481	8.127	7.901
H-left border	[us]	0	0	0	0	0	0
H-right border	[us]	0	0	0	0	0	0
H-blanking	[us]	3.657	4.148	3.725	3.022	2.844	2.765
H-Frontporch	[us]	0.203	0.593	0.508	0.119	0.406	0.316
H-Sync-width	[us]	1.219	1.185	1.016	1.067	1.016	0.948
H-Backporch	[us]	2.235	2.370	2.201	1.837	1.422	1.501
V-total	[ms]	13.328	13.333	11.765	13.329	11.761	13.333
	[Lines]	800	900	808	1066	1072	1250
V-active display	[ms]	12.795	12.800	11.183	12.804	11.235	12.800
	[Lines]	768	864	768	1024	1024	1200
V-active w/o border	[ms]	12.795	12.800	11.183	12.804	11.235	12.800
	[Lines]	768	864	768	1024	1024	1200
V-top border	[ms]	0	0	0	0	0	0
	[Lines]	0	0	0	0	0	0
V-bottom border	[ms]	0	0	0	0	0	0
	[Lines]	0	0	0	0	0	0
V-blanking	[ms]	0.533	0.533	0.582	0.525	0.527	0.533
	[Lines]	32	36	40	42	48	50
V-Frontporch	[ms]	0.017	0.015	0.015	0.013	0.011	0.011
	[Lines]	1	1	1	1	1	1
V-Sync-width	[ms]	0.050	0.044	0.044	0.038	0.033	0.032
	[Lines]	3	3	3	3	3	3
V-Backporch	[ms]	0.466	0.474	0.524	0.475	0.483	0.491
	[Lines]	28	32	36	38	44	46

8. DISPLAY SIZE

H: 360 + 4/-8 mm
V: 270 + 4/-8 mm

9. OPERATION TEMPERATURE

0-40 degree C

10. DIMENSION

	Without Packaging	Including Packaging
Width	478 mm	575 mm
Height	478 mm	580 mm
Depth	480 mm	585 mm

11. WEIGHT

Net : 24.7 Kgs

B. IMPORTANT SAFETY INSTRUCTION

Prior to using this manual, please ensure that you have carefully followed all the procedures outlined in the user's manual for product.

1. Read all of these instructions.
2. Save these instructions for later use.
3. Follow all warnings and instructions marked on the product.
4. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use this product near water.
6. Do not place this product on an unstable car, stand or table. The product may fall, causing serious damage to the product.
7. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, those openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
8. This product should be operated from the type of power source indicated on the marketing label. If you are not sure of the type of power available, consult your dealer or local power company.
9. This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
10. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
11. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord ampere rating. Also, make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.
12. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
13. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to service personnel.

14. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
- A. When the power cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the product.
 - C. If the product has been exposed to rain or water.
 - D. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - E. If the product has been dropped or the cabinet has been damaged.
 - F. If the product exhibits a distinct change in performance, indicating a need for service.

C. CONTROL LOCATION ON FRONT PANEL



A. Power Switch

B. Degauss

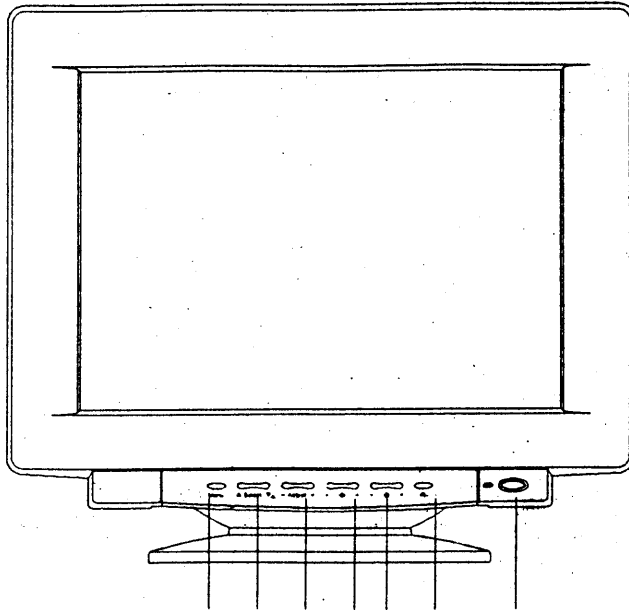
C.  Contrast

D.  Brightness

E + Adjust -

F  Select 

G. Menu



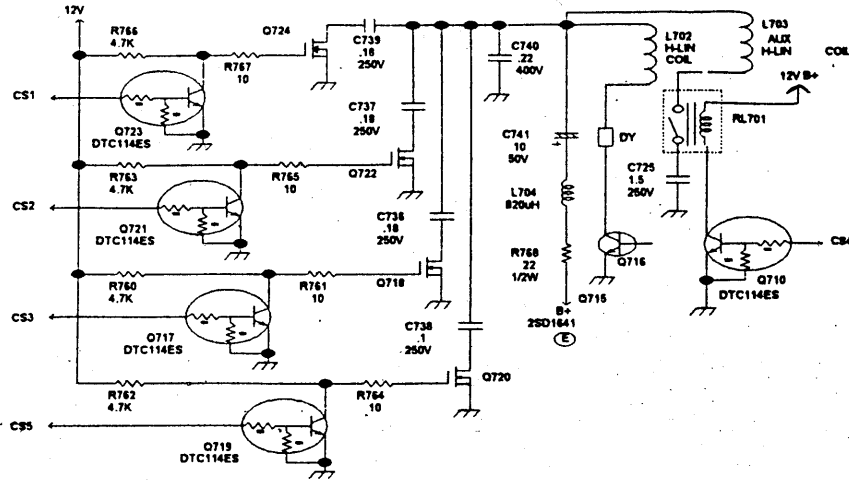
G F E D C B A

D. Circuit Description

1. Deflection Circuit

Cs Circuit

Determination of Cs capacitor and Cs switch circuit
 "Hitachi CRT"



In the existing timing, on the base of 85.9 KHz in level frequency (Cso), the outcome of the test is Cso: under 0.22 μ F

In term of switching of circuits, for cost and display linearity features, it has been determined to use 4 sets and the digits and timing are given as follows:

Input frequency	Cs Timing	Cs value
> 93K	CS ₄	1.5 μ F
83K~93K	CS ₅	0.22 μ F + 0.1 μ F
73.25K~83K	CS ₅	0.22 μ F + 0.1 μ F
66.75K~73.25K	CS ₅ +CS ₁	0.22 μ F + 0.1 μ F + 0.18 μ F
59.25K~66.75K	CS ₅ +CS ₁	0.22 μ F + 0.1 μ F + 0.18 μ F + 0.18 μ F
53K~59.25K	CS ₅ +CS ₂ +CS ₁	0.22 μ F + 0.1 μ F + 0.18 μ F + 0.18 μ F
43K~53K	CS ₅ +CS ₃ +CS ₂ +CS ₁	0.22 μ F + 0.1 μ F + 0.18 μ F + 0.18 μ F
34K~43K	CS ₅ +CS ₄ +CS ₃ +CS ₂ +CS ₁	0.22 μ F + 0.1 μ F + 0.18 μ F + 0.18 μ F + 0.18 μ F + 1.5 μ F
28K~34K	CS ₅ +CS ₄ +CS ₃ +CS ₂ +CS ₁	0.22 μ F + 0.1 μ F + 0.18 μ F + 0.18 μ F + 0.18 μ F + 1.5 μ F
< 28K	CS ₅ +CS ₄ +CS ₃ +CS ₂ +CS ₁	0.22 μ F + 0.1 μ F + 0.18 μ F + 0.18 μ F + 0.18 μ F + 1.5 μ F

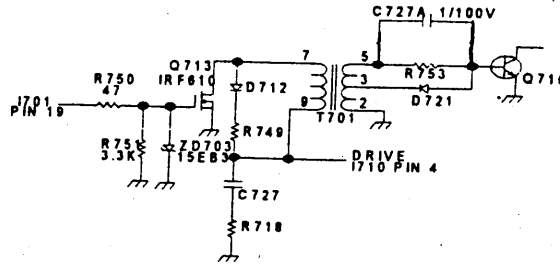
Deflection drive Circuit

Drive voltage before threading and the output μ P voltage come in the following relationship:

Horizontal Frequency	31.5K	46.9K	53.5K	56.5K	64K	68.7K	80K	86K	93.7K
μ P output voltage (A)	2.11V	2.307V	2.387V	2.426V	2.504V	2.558V	3.046V	3.337V	3.7V
Drive output voltage (B)	20.86V	19.83V	19.41V	19.19V	18.78V	18.49V	15.95V	14.45V	12.6V

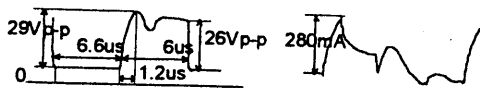
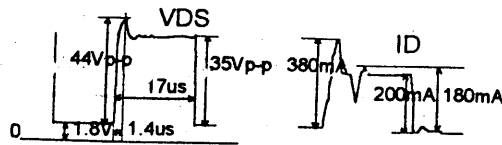
R745, 150 Ω 5W: for start of resistance

Drive circuit



In the Drive Pulse of I701 PIN 19, Q713 Gate is added for amplification of the Drive Voltage and duly converted into horizontal output of drive current of Q716. In the primary side of Drive, VDS and ID pulse is added.

By primary Drive, VDS and ID are pulsed.
On 31K, consumption current 108mA



On 78K, consumption current 100mA

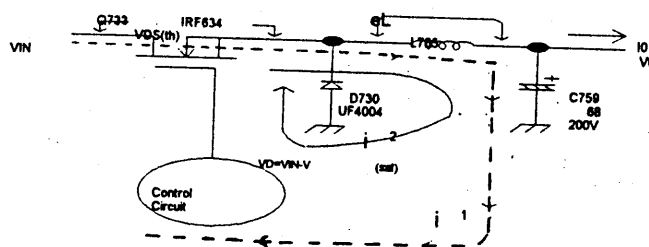
STEP DOWN circuit

When Q738, R783A D 72 950A become power On/Off, the soft start circuit has the protection power TR jeopardized.

UC 3843 (Chopper Pulse Gen.) passes by the drive pulse processed by control circuit with the input derived from Pin 6 and by R7A1 for Drive Amp formed by Q728, Q730, Q731, Q732 to drive the output wave.

CHOPPER OUTPUT circuit

This is a different circuit from the current models as it comes with STEP DOWN DC-DC SWITCH and the principle is given as follows:



When the inlet signal coming from the control circuit drives the TR Q733 on, the voltage V_{ds} (V_j) between Q733 D and S $V_{DS(th)}$ and the voltage on both ends of D730 $V_D = V_{IN} - V_{DS(th)} \cong V_{IN}$, at this time, for D, the voltage becomes inverted and no current passes by. $E_L \cong V_{IN} - V_0$ on both ends of L705 $i_L = e/L/L \times t = (V_{IN} - V_0)/L \times t$ and at this time, current i_L charges to C759 and at the same time L705 has its accumulated energy

$$P = 1/2 L \cdot i_L^2$$

When TR0733 is OFF, the supply of the incoming force stops and the energy accumulated at L705 becomes inverted and current i_L charges to C759 and at this time i_L makes D759 on and on both ends of $e'L$ (both ends of inverted voltage).

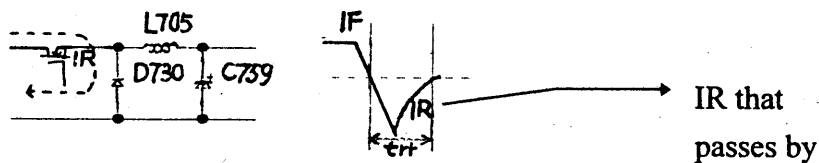
$$e'L = V_0 + V_F \cong V_0 \quad e'L = e'L/L \times t = V_0/L \times t$$

"L value" to be determined by Coil $L = eL/\Delta i_L \times T_{on}$

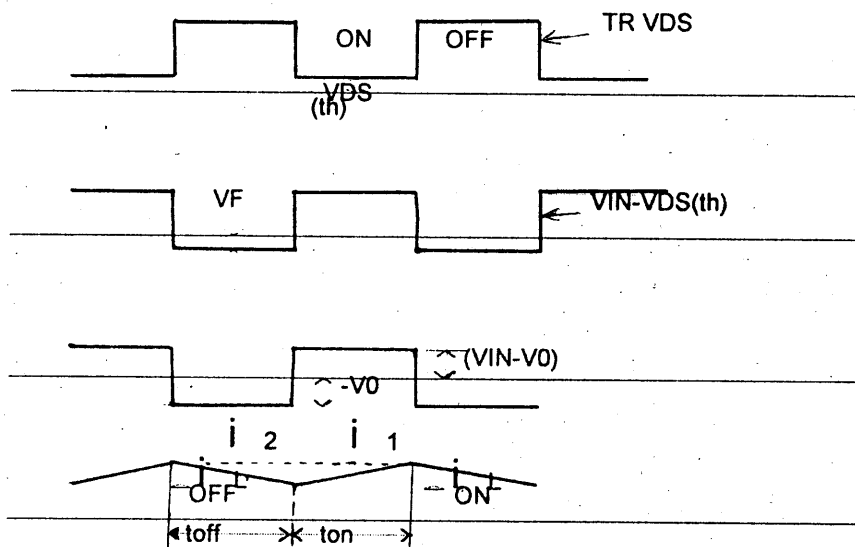
Yet, per actual requirements of the wiring, and with the consideration of the final coil L value of COST, the L value is given as 4mH

On the other hand, the option of COIL CORE is determined by cost with the use of DR CORE being the feature of $I_o = 2ADC$ with the L value $> 90\%$.

Determination of DIODE (D730):



In the DC-DC conveyor switching circuit, DIODE V_F and T_{rr} shall be paid attention to as given above:



step down chopper waveform

DF is the right voltage drop of D730

The outlet voltage is determined by:

As given above, in the current undulation of L705, we learn that L705 is a continuous current and at the switch point of TR (Q733) ON/OFF, it is not an absolute continuous step, that is to say, during ON, the power ΔiL increased by t_{on} and the ΔiL decreased in t_{off} during OFF have the absolute value equal.

The output voltage:

$$V_o = \frac{t_{on}}{t_{on} + t_{off}} \cdot V_{in} = \frac{t_{on}}{T} V_{in}$$

During OFF, current I_F flows continuously, the right voltage V_F and the I_F produce loss in P_O .

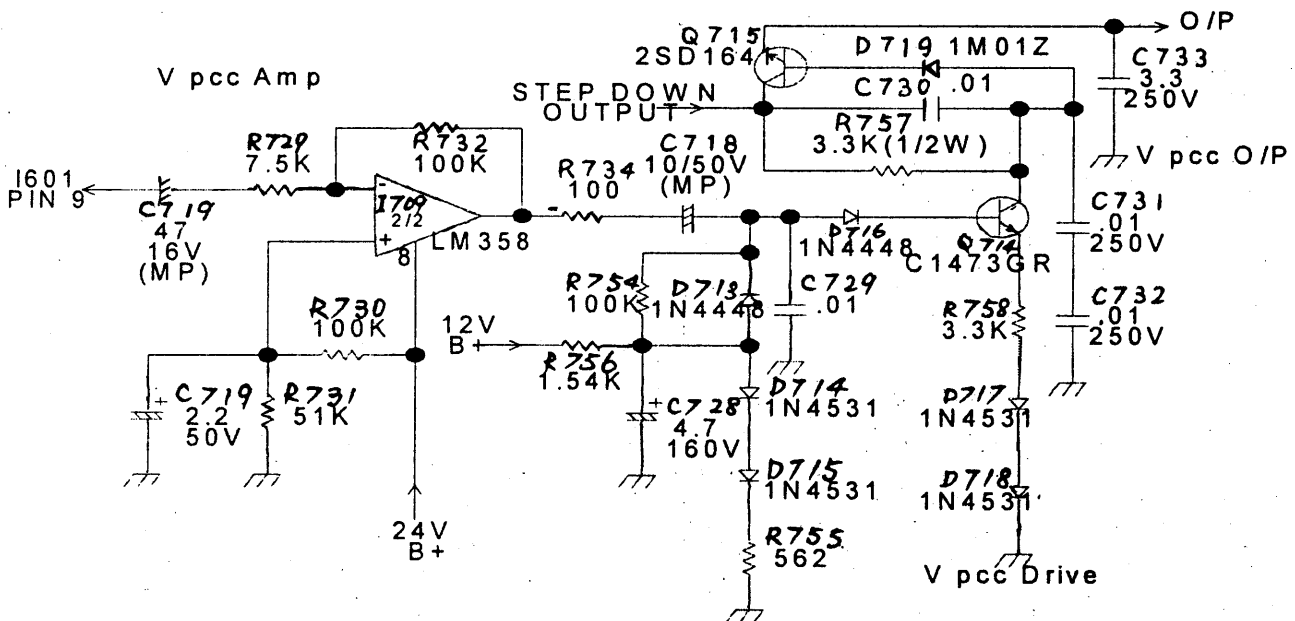
$$P_O = \frac{t_{off}}{T} V_F \cdot I_F$$

As I_F and I_O become almost equal, the decrease of I_F becomes less probable and V_F is opted to enhance the efficiency. When ON, an inverted voltage is added on D730, the inverted current I_R goes on for some time which is referred to as t_{rr} . As this is a flow passage not to be limited, such a large I_R would drive the switching TR "Q733" current over, producing noise.

Based on the above, the option of DIODE of this unit would be SCHOTTKY DIODE and for cost, UF4004 and $T_{rr} = 35ns$ are opted.

Vpcc Amp, Vpcc drive Vpcc output

The 3 blocks are given for compensation of SIDE-PIN as printed onto the bias output circuit B+.



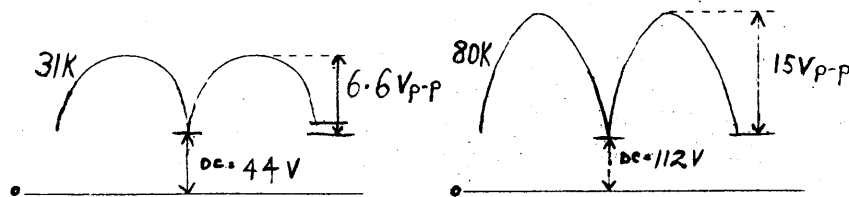
Vpcc Amp.

I601 Pin 9 Vpcc parabola pulse outputs at LM1295 Pin 9 and because of the polarity, DP amp drives an inverted amplification and when the gain goes at maximum, there will be an OFFSET pause and at 31KfH, it would be shown in HV, with poor regulation and in CHROME 2135 in PATTERN 62, it would be the elimination.

R732= Q730=100K

time cosecant R731 C719A >Vf 70Hz

Vpcc drive: conducted by Q714 with the sub-pressure of B+12V by R756 & R755 at 4~5V being the voltage and Vpcc amp PARABOLA PULSE MIX into the base of Q714; with the fixed voltage added, with the control Vpcc output TRQ715 VCE, under the minimum power loss on the amplification of Vpcc and the D714 and Q715 temperature compensation is given on DIODE: Q714 collector pulse.



Vpcc output, conducted by D1641 Q715 which is a Darlington chip of 500nfe and capable of adjusting the parabola pulse and B+, for compensation of pin cushion .

	31K	37.5K	43.2K	46.8K	49.7K	53.6K	60K	67.5K	68.6K	79.9K	91.1K	93.7K
Q715© Voltage	52.7V	63.1V	68.7V	76.4V	83.9V	86.2V	93.1V	113.7V	113.1V	126.9	149.9V	150.8V
Q715 e Voltage	47.4V	58.4V	63.8V	71.6V	78.8V	81.2V	88.1V	108.5V	107.8V	121.5	143.1V	145.1V
Q715© Current	330mA	300mA	290mA	280mA	270mA	247mA	230mA	216mA	210mA	184mA	164mA	168mA

Power Circuit description

1) LINE FILTER:

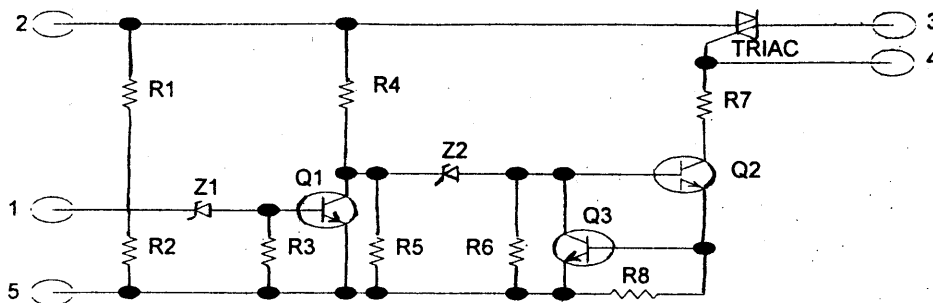
The L901, L902 and the X capacitors (C901, C902) and the Y capacitors (C903, C904) form one set of conductive line filter which is provided as the solution to the power supply EMI by preventing high-frequency noise in the monitor that may go through the SMPS AC Line power supply and cause interference in the other exterior systems.

The R901 is a release resistor and for the safety purpose, it is provided onto the AC I/P with the resistance duly connected, in order to keep out electric shocks in human beings when touching the AC plug upon removal of the power cord.

SV901: MOV (Metal Oxide Varistor) is a metal oxide varistor being which used to keep the AC input from suffering instant high-voltage inputs (such as thunder, power supply instant scram and others) leading to damage in the internal circuit in SMPS. In the event that the instant spike voltage should exceed the limit voltage of MOV, SV901 would go on to take in the excessive voltage energy of the spike so as to restrict the voltage while protecting the SMPS circuit.

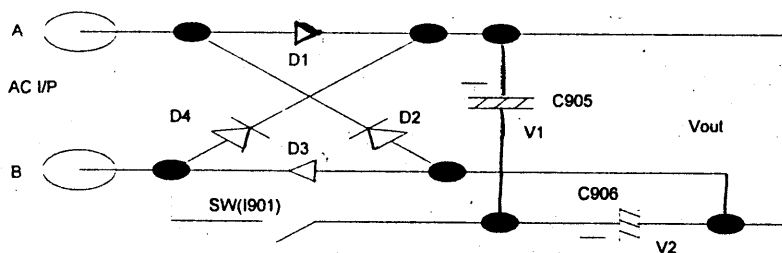
2) VOLTAGE MULTIPLICATION CONTROL CIRCUIT:

The internal wiring of the STR 81145 (I901) is given as follows:



The I901 STR81145 is provided to rectify the AC input semi-wave onto C907 as a negative voltage by means of the exterior diode while the internal resistors R_1 , R_2 remain in voltage division. When the AC Input is located in the Low Line of 90V-135V, the V_{R2} voltage division $< V_{Z1}$ and Q_1 is off, $V_{R2} > V_{Z2}$, making Q_2 and Q_3 to go on at the same time and Pin₄ voltage goes by $R_7 \rightarrow Q_2 \rightarrow R_8$ before its flows in Pin 5, making the V_{R7} spanning over the R_7 voltage trigger TRIAC ON.

When AC Input is on High Line: 180V - 265V, $V_{R2} > V_{Z1}$ and Q_1 goes on, Q_2 and Q_3 go off, TRIAC goes off.



At AC 90V - 135V, SW goes on.
At AC 180V - 265V, SW goes off.

(1) When AC I/P = 110V, SW is switched ON and if the A terminal is a right half-circle, the rectification circuit Loop shall go A → D₁ → C905 → SW → B.

$$V_1 = 110V \times \sqrt{2} = 155.6V.$$

If the B terminal is a right half-circle, the rectification circuit Loop shall go B → SW → C906 → D₂ → A.

$$V_2 = 110V \times \sqrt{2} = 155.6V.$$

$$V_{out} = V_1 + V_2 = 311.2V$$

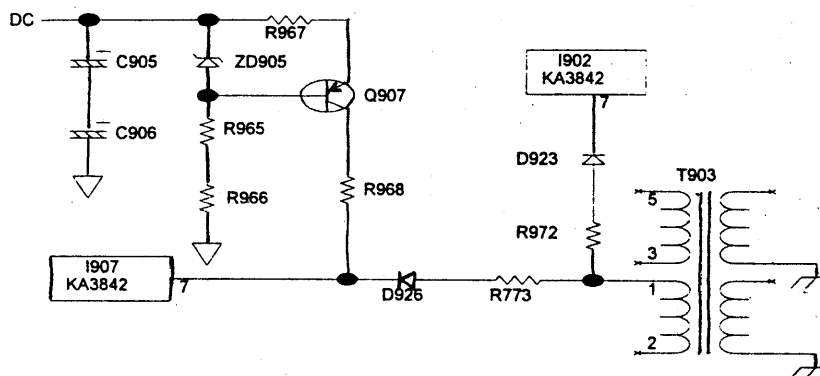
(2) When AC I/P = 220V, SW is switched off, and there is a full wave rectification available
If the A terminal is a right hemisphere, the rectification Loop shall go A → D₁ → C905 → C906 → D₃ → B.

If the B terminal is a right hemisphere, the rectification Loop shall go B → D₄ → C905 → C906 → D₂ → A.

$$V_{out} = 220V \times \sqrt{2} = 311.2V.$$

Therefore, when AC = 110V and AC = 220V, we may have the same V_{out} output voltage in both cases.

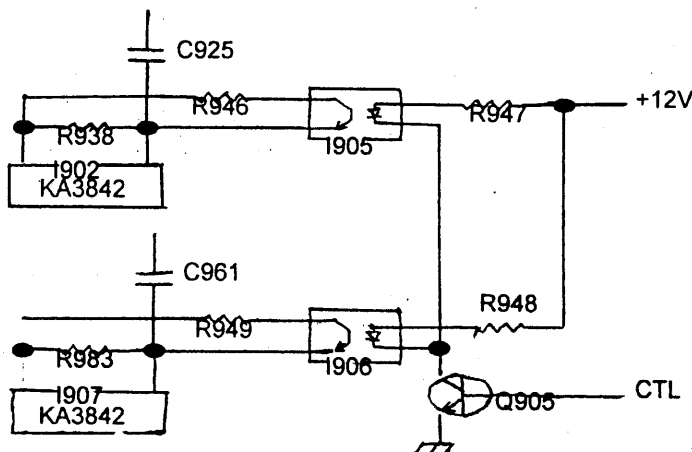
3) Power supply start circuit



When Power goes on, the rectification DC goes by ZD905 to have Q907 go on and DC go by R967, R968 for start current in Pin 7 of I907 when both I907 and T903 are Aux Power which after a normal operation, T903 Pin 1 goes by R972, D923 for the start current for I902 Pin 7 and the I902 and T901 (main power) remain in normal operations.

4) OSC control circuit

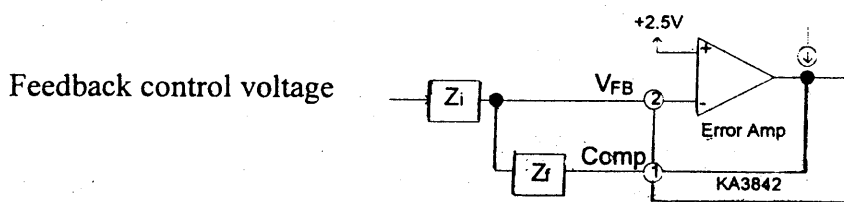
The SMPS model is provided for synchronized operations based on horizontal pulses going through the T902 and couple passing by R941, C926 for the I902 synchronization through the R979, C979 for I907 synchronization.



As the horizontal frequency comes with a large range of 30KHz - 95KHz, and when KA3842 is set on the fixed Free Run frequency, it would be hard to maintain the overall level frequency range synchronized and to assure the KA3842 frequency and the horizontal one duly synchronized, the Free Run frequency of KA3842 comes in 2 frequency phases.

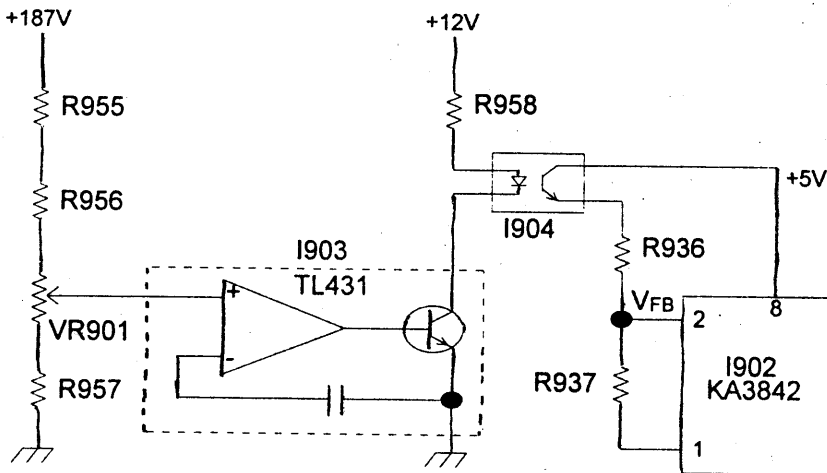
- (1) When $F_H \leq 56$ KHz, CTL sends low level, making Q905 OFF and
 - I902 $F_{O.S.C.} = 1.72/R938 \times C925$
 - I907 $F_{O.S.C.} = 1.72/R983 \times C961$
- (2) When $F_H \geq 56$ KHz, CTL sends high level, making Q905 ON and
 - I902 $F_{O.S.C.} = 1.72/(R938//R946) \times C925$
 - I907 $F_{O.S.C.} = 1.72/(R983//R947) \times C961$

5) Power supply output stabilized voltage control circuit



Inside the KA3842, the Error Amplifier is used as the automatic compensation control, given above. The Error Amplifier has its positive reference power of $2.5 \pm 2\%$ and the negative feedback voltage goes by Z_i to KA3842 PIN2 reverse terminal. When V_{FB} goes up, PWM IC KA3842 Pin 6 output pulse has its duty cycle drop (that is to say, the drive pulse makes the output MOS FET shortened when ON).

When V_{FB} goes down, the Drive Pulse has its duty cycle increase, making the output MOS FET extended in time for stable output.

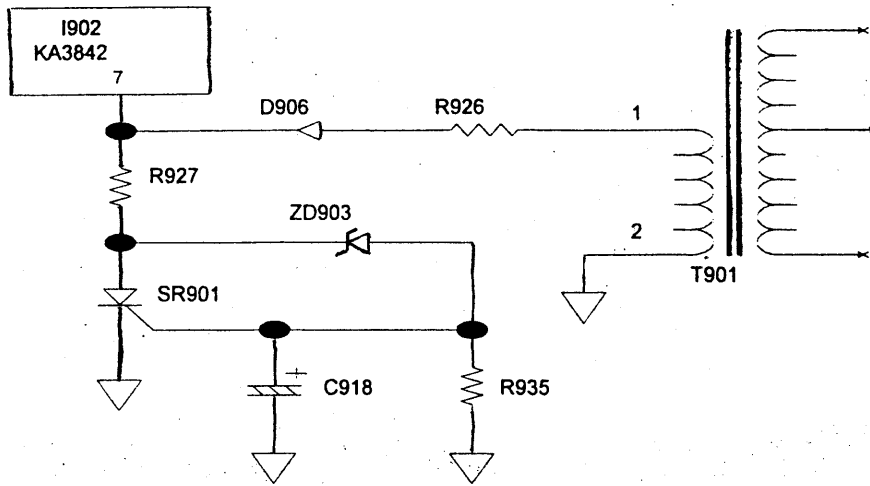


As shown above, the output voltage stabilizing circuit has its main feedback +201V and after passing through R955, R956, VR901 and R957 as differential voltage circuits, the detected voltage change is introduced to I703 for comparison of controls.

In case of high voltage change of +201V, there is more current passing by I902, TL431, making the PHOTO COUPLER I904 go up when it goes on and V_{FB} of I902 KA3842 PIN 2 goes up and Pin 6 Drive Pulse has the Duty Cycle go down, making the output MOS Q903 on in shortened time, therefore, +201V goes down, to keep the original output at TL +201V.

Likewise, when +201V goes low, there is less current passing by I903, making the I904 go off, down and I902 KA3842 PIN 2 V_{FB} goes down, and Pin 6 Drive Pulse has the Duty Cycle increases, making the output Q903 on in extended time, therefore, +201V goes up, to keep the original output at +201V.

6) OVP protection circuit



As shown above, I902 KA3842 Pin 7 is provided for I902 B⁺ and when the secondary suffers from irregular surge of voltage, the primary Pin 1 has its voltage going by R926, D906 in increased amount. When the voltage builds up to over ZD903 as voltage value, SR901 goes on, with the A, K points short, that is to say, the I902 Pin 7 turns low, to keep I902 disabled and the entire power turns off, for OVP.

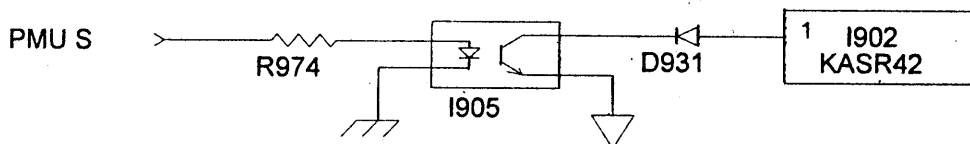
7) Power Saving circuit

The Power Saving feature in this model is controlled by the Micon signals being PMUS to control the Stand-by and Suspend Modes and PMUO the OFF mode.

The signal mean values are given as follows:

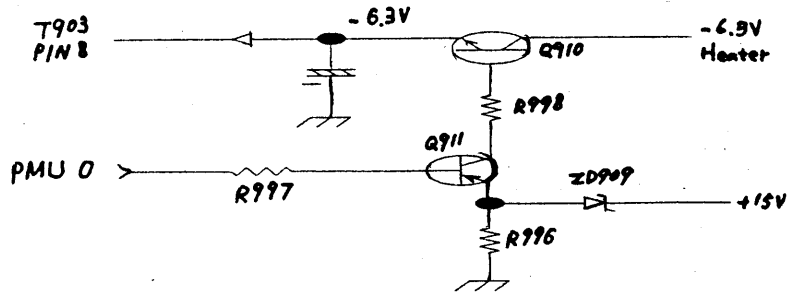
Power Source	PMU S	PMU O
Normal	L	L
Stand-by, Suspend	H	L
OFF	H	H

(1)



PMUS LOW, when I905 becomes inactive and I902 Pin 1 is not affected. When PMU S goes high, I905 goes active, I902 Pin 1 goes by D931 for grounding, making I902 close and at this time, the entire Main Power becomes inactive.

(2)



PMU O LOW, Q911 goes on, Q910 ON, the heater has -6.3V.

PMU O High, Q911 goes OFF, Q910 OFF, the heater does not have -6.3V.

VIDEO CIRCUIT PRINCIPLE FEATURES

1. The signal input is a separate element from the synchronization, for D-SUB circuit.
 - a. The R_{100} , R_{200} , R_{300} 75 Ω input impedance.
 - b. The D_{100} , D_{200} , D_{300} IN 4148 static electricity protection diode
 - c. The C_{100} , C_{101} , C_{200} , C_{201} , C_{300} , C_{301} , as high/low frequency Copper Capacitor.
 - d. I_{7B1} (74LS00) as H & V SYNC separate buffer IC.

2. Video last-level amplification: (I_{201} LM1205)
 - a. The D_{103} , D_{203} , D_{303} IN4531 is the static protective diode.
 - b. Pins 4, 6, 9 shall be Video signals I/P and usually it is 0.7 V_{P-P} , maximum 1.2 V_{P-P}
 - c. Pins 17, 20, 26 shall be Video signals O/P and usually maximum 4 V_{P-P} in amplification.
 - d. Pins 15, 18, 28 shall be R.G.B. Drive (SUB-CONTRAST), when MICON sends 0V, the maximum signal O/P may be accessible and when MICON sends out 5V, the minimum O/P signal may be obtained and the voltage adjustment range is 0V-5V MICON DC CONTROL.
 - e. Pin 12 is provided for control of contrast, with MICON sending out 0V-5V DC voltage for maximum or minimum video O/P signal control, at 5V, the O/P becomes the maximum.
 - f. Pin 14 is IC clamp pulse I/P and it is usually recommended to be set at 2 V_{P-P} and the maximum may to up to 6 V_{P-P} and the minimum 1.5 V_{P-P} and the width is recommended to be set at 0.5 s.
 - g. Pin 13 is BLANK PULSE I/P for SYNC ON GREEN to keep off green screen overwhelmed by video.
 - h. Pin 16, 19, 27 are for video DC level control, and usually it is obtained by means of semi-fixed differential voltage and the voltage is determined by DC level together with the adjustment of bias.
 - i. R_{110} , R_{210} , R_{310} are provided for rear impedance adaptation.

3. Rear amplification features:
 - a. The Q_{107} , Q_{207} , Q_{307} (2SC3811) are provided for blanking with OSD available in video. When OSD goes ON, OSD IC (I205 MTV011) provides the TTL signals, that is to say, FAST BLANKING PULSE as base for Q_{107} , Q_{207} , Q_{307} and the video signal at this time at the pulse duty provided by OSD, cuts off the video for blanking. The transistors Q_{107} , Q_{207} , Q_{307} shall be able to cut off the video completely and lower parts in $V_{CE(sat)}$ SHALL BE OPTED.
 - b. At this time, the OSD, R.G.B. signals are provided by I_{205} to Q_{104} , Q_{204} , Q_{304} (2SC1906) for mixer of OSD before amplification of video O/P transistor Q_{101} , Q_{201} , Q_{301} (MPS3646) and the gain shall determine brightness of OSP based on R_{130} , R_{230} , R_{330} , and C_{113} , C_{213} , C_{313} , shall be used for mixer transistor acceleration capacitors and R_{127} , R_{227} , R_{327} , shall be the base biased voltage impedance and as this is the same signal that of video, transistors of higher frequency shall be selected to keep OSD signals from distortion after processing.
 - c. The Q_{101} , Q_{201} , Q_{301} are for emitter followers as they provide rear effective current and D_{105} , D_{205} , D_{305} are for voltage drop for lower input biased voltage.
 - d. The C_{312} , C_{212} , C_{112} , R_{317} , R_{217} , R_{117} , C_{111} , C_{211} , C_{311} , R_{116} , R_{216} , R_{316} , R_{115} , R_{215} , R_{315} are provided available for Peaking of high/low frequencies.

e. The I_{202} CR6927 is a 3-gun latest version IC being it consisted of assembly circuits with amplification ICs, C_{115} , R_{118} , C_{215} , R_{218} , C_{315} , R_{318} for distortion compensation.(Undulation)

f. R_{125} , L_{105} , R_{225} , L_{205} , R_{325} , L_{305} are provided for peaking and damper.

g. C_{120} , C_{220} , C_{320} are for AC copper capacitor.

h. J wiring

When the VR124 impedance changes the Q_{105} (2SB716) base biased voltage, Q_{105} IC changes along for control of video DC LEVEL.

i. ABL wiring

In case of light load, in white letters and black background, less current is required and at this time V_{cc1} (I201 Pin 11) provides current to FBT with R_{428} , VR_{400} , VR_{432} controlling the volume of the current and at this time, D405 has higher voltage at its negative end, making Q_{407} saturated and the MITTER becomes "Hi" and D_{407} goes off, up sends contrast voltage to I_{201} while Pin 12 is not affected.

In case of heavy load, in black letters and white background, more current is required with R_{428} , VR_{400} , VR_{432} in accelerated drop, D405 has lower voltage and Q_{407} goes on, μp sends out voltage for differential voltage by R_{430} , R_{435} , R_{434} for differential voltage before sending to I_{201} Pin-12 for the control of contrast.

j. OSD wiring and OSD blank signal switching

I_{205} (MTV011) is the OSD processing signal IC, being it responsible for OSD data display conversion into R.G.B. display with the signal duly amplified after being added on video for display on CRT.

a. Pins 6, 7, 8 are the CHIP SELECT, DATA, CLK signals sent out by μp .

b. The level signal is sent by DEF and amplified by HF through Q_{426} (2SC1815) before adding onto Pin 5 for IC level synchronization.

c. The vertical signals come in 1) with normal signals (with monitor in normal operations), V SYNC are sent out by DEF to P_{104} Pin 6, and after going through Q_{409} signal, it is added to Pin 18 for IC vertical synchronization. 2) Without signals, (with monitor in self-test), the Blank signal is removed from the EDF vertical O/P IC Pin 3 (I_{602}) and it is sent to P_{104} Pin 5 for reverse amplification of Q_{405} before sending to Pin 18 where Q_{410} is provided for switching. In normal operations, Base sends "Hi" signals from μp to have Q_{405} saturation cut off and when Blank signal is free of signal, μp sends out "Lo" to cut off Q_{405} and the signals are offered by Blank.

d. Pins 2, 3 have the impedance R_{455} , R_{456} , R_{425} , R_{457} , R_{426} in IC wiring as filters.

DESCRIPTION OF MICON WIRING

The MICON circuit comes, in term of structure, with the existing wiring and the only difference is the additional control Pins on the I/O control and DAC control and the difference is given as follows:

1. DAC control:

DAC (M62358P), this model is offered with 1 12-CH DAC for control of a total of 12 sets of functions and in term of wiring, the data transmission line shall be duly considered in 3-wire pattern with CLK, DI to be shared with other peripherals and the only one to be highlighted is CS (Chip Select) and its advantage is the common I/O as a saving and it may be provided by separate in case of sufficient I/O.

2. I/O control:

This is the most remarkable difference in the model, with limited MCU I/O, many are the functions for control and such a wiring shall be duly re-designed to expand the I/O based on the following:

- 1) The 74HC374 is an OCTAL TRANSPARENT LATCH WITH 3-STATE OUTPUTS IC, this wiring is used on data latch, MCU $P_{\phi\phi}$ - $P_{\phi7}$ while duly connected to I008, I007. There are 2 pieces of *74HC374) IC D_0 - D_7 and I008, I007, come with a control pin each duly linking the MCU ($P_{2.7}$ or $P_{3.0}$).
- 2) When the MCU sends a data first to $P_{\phi\phi}$ - $P_{\phi7}$, it then has the control pin ($P_{2.7}$ or $P_{3.0}$) make H \rightarrow L \rightarrow L and switch the data of $P_{\phi\phi}$ - $P_{\phi7}$ of 74HC374 which latches the data.

Example:

To change the Cs control, MCU first sends the correct CS data to $P_{\phi\phi}$ - $P_{\phi7}$ before having P3.0 make a H \rightarrow L \rightarrow L clock to have $P_{\phi\phi}$ - $P_{\phi7}$ data be switched to I008 $\phi\phi$ - $\phi7$ and at this time, I007, for $P_{2.7}$ without a clock, it would then maintain the data on the existing latch without change.

3) RESET of wiring

With OP (I006, LM324) as the comparator, and the + end with 12V for sensor, when turning on the unit, +12V builds up from 0V to +7V and LM7805 (I003) output becomes stabilized at +5V (V_{cc}) and at this time Pin 2 (- end) has a voltage over Pin 3 (+ end) and the OP output (Pin 1) becomes negative (0V), Q001 goes off, MCU becomes reset, when +12V keeps on building u to \cong 10.5V, OP (+ end voltage) > (- end voltage), OP output outputs +10V for saturated Q001 and MCU finishes the reset and begins to act.

4) Self test of wiring:

- (1) OP I006 (LM324) is a comparator.
- (2) The negative end is given for reference, with impedance for difference of voltage = 7V.
- (3) The positive end from 10K (R_{079}) to H-SYNC and when D-Sub goes on
- (4) The positive end would be torn to +5V and (-) voltage > (+) voltage, OP OUTPUT becomes low.
- (5) When Cable is removed, H-SYNC equals floating, the (+) voltage would be torn to +12V > (-) voltage OP OUTPUT shall be torn to \approx 10V and MCU has the detection in self mode.

6) DDC wiring:

This is an independent wiring where DDC is accessible with one 24LC21 (I009) for DDC1/2B, at this time, DDC 1 has VCLK as CLK, SDA is the data for transmission, DDC2B has SCL as CLK SDA is the data for transmission.

KIA 7045P (IC₁₀) is a -Reset IC, duly provided for easy resetting of IC free of impact by exterior voltage. This IC is only available for supply of 24 LC 21V_{cc} when the V_{cc} reaches 4.5V after turning on the unit, otherwise, 24LC 21V_{cc} remains at 0V.

E. GENERAL ADJUSTMENT

1. B+ 201V adjustment : VR901

- Connect the positive lead of multimeter to R963, negative lead to chassis ground.
- Adjust VR901 to obtain 201 ± 0.1 V reading.

2. AUX B+ 14.5v adjustment : VR902

- Connect the positive lead of multimeter to TP2, negative lead to chassis ground.
- Adjust VR902 to obtain 14.5 ± 0.1 V reading.

3. High Voltage adjust VR801

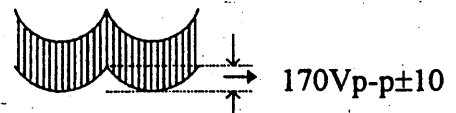
- Turn off the power and connect the positive lead of high voltage voltmeter to the tube anode, negative lead to chassis ground.
- Turn on the power of display at 15 minutes.
- Adjust VR801 to obtain 26KV reading.

4. H-BOW adjustment : VR703

Adjust VR703 to let picture left and right distortion shape to a rectangle.

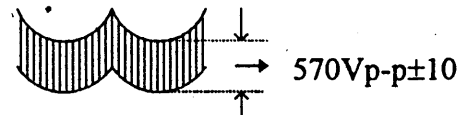
5. V-dynamic focus adjustment : VR502

Adjust VR502 to let obtain a parabolic wave so following figure from connect the probe of scope on TP1.



6. H-dynamic focus adjustment : VR501

Adjust VR501 to let obtain a parabolic wave so following figure from connect the probe of scope on TP1.



7. Micon control H-size, H-position, V-position, V-size, Pincushion, Trapezoid value setting

- Hold "Select ▼" key, then press power on.
-(The adjusting master picture will be displayed)
- Shift the selective item to stay at "H-size", push adjust key to let horizontal size just 360 ± 4 /
-8mm.
- Shift the selective item to stay at "V-size", push adjust key to let vertical size just 270 ± 4 /
-8mm.
- Shift the selective item to stay at "H-position", push adjust key to let picture to be centered.
- Shift the selective item to stay at "V-position", push adjust key to let picture to be centered.
- Shift the selective item to stay at "Pincushion", push adjust key to let picture be obtained a best shape.
- Shift the selective item to stay at "Rotation", push adjust key to correct screen image to be horizontal level.
- Shift the selective item to stay at "Trapezoid", push adjust key to let image shape to rectangle.
- Power off

8. Vertical static focus adjustment : VR FOCUS V

- Display any character all over the screen.
- Set contrast maximum and brightness in cut off position.
- Adjust Focus V VR until the 1/4 and 3/4 position of center Horizontal line of picture is sharpest.

- b) Set contrast maximum and brightness in cut off position.
 - c) Adjust Focus H VR until the 1/4 and 3/4 position of center vertical line of picture is sharpest.
10. Background white balance adjustment : VR124, VR224, VR324
- a) Set reload key (Video OFF) and all bias VR124, VR224, VR324 to maximum and let the raster invisible.
 - b) Display black pattern (all video signals are disabled) and adjust SCREEN VR until the raster just appear to see which color comes out first (red, green, or blue colors).
 - c) Adjust bias VR of the other 2 colors to get grey (9300K, 6550K, 5500K) raster.
 - d) adjust SCREEN VR to let the grey raster just 0.4FL.
11. White balance adjustment : R. G. B-Gain
- a) select color mode, push reload key.
 - b) connect the probe of scope on G-Cathode.
 - c) Input the full white pattern to the display.
 - d) Adjust G-Gain to get 37 Vp-p.
 - e) Set reload key
 - f) Adjust the other Gain to get the white pattern (9300K, 6550K, 5500K)
 - g) Turn off the power
12. Automatic beam current limit (ABL) adjustment : VR400
- a) Input 80KHz timing and full white pattern to the display.
 - b) Set contrast maximum and brightness maximum
 - d) Adjust VR400 to obtain a 30 FL reading.
13. Purity adjustment
- a) Display magenta color pattern.
 - b) Adjust the purity magnet so that the picture is in magenta color. By turning two overlapping pawls in opposite direction, move them until they are at the same angle, the 9 o'clock and 3 o'clock positions respectively (shown in Fig 1).
14. Static convergence adjustment : (shown in Fig 1, 2,3,4)
- a) Display magenta crosshatch pattern.
 - b) open the two pawls of the 4-pole magnets to allow the red and blue vertical line to unite.
 - c) Open and rotate the two pawls at a constant angle so that the red and blue horizontal lines unite.
 - d) If the vertical line deviates, open the two pawls at the deviation position and make a minor adjustment by changing its angle.
 - e) Display white crosshatch pattern.
 - f) Make the red and blue vertical lines at the center unite with the green by opening two pawls.
 - g) Rotate the two pawls at constant angle so that the red and blue horizontal lines unite with the green.
 - h) If the vertical lines deviate, change the of pawls from the deviation position.

RELATIVE PLACEMENT OF COMPONENTS

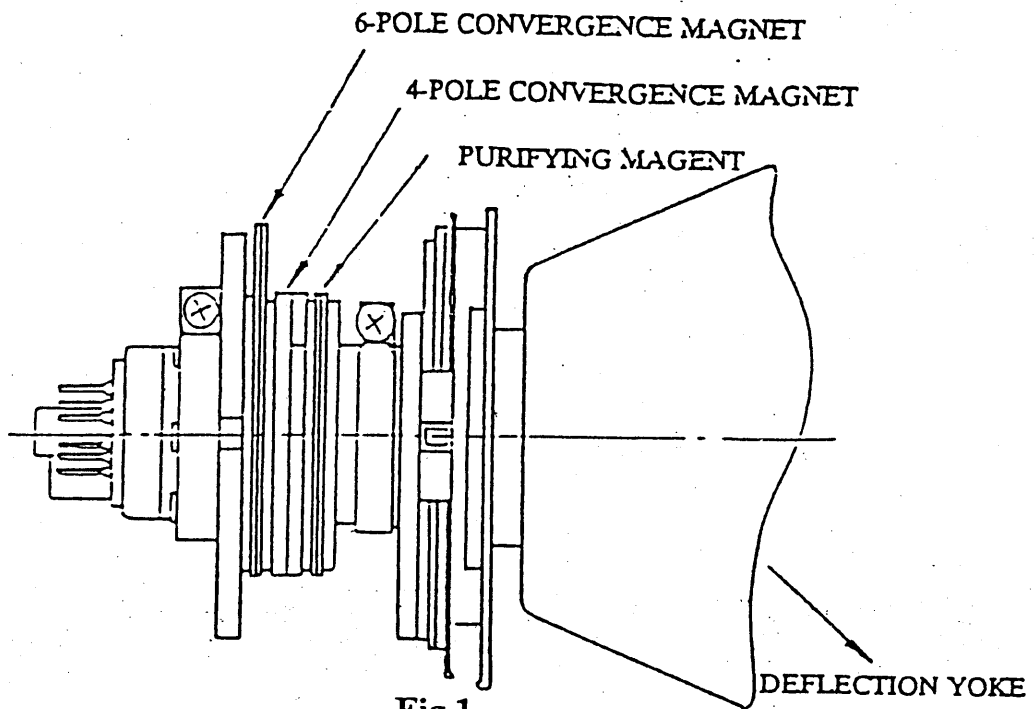


Fig.1

STATIC CONVERGENCE SYSTEM

Beam Motion Produced by the six-pole and four-pole Convergence Magnet

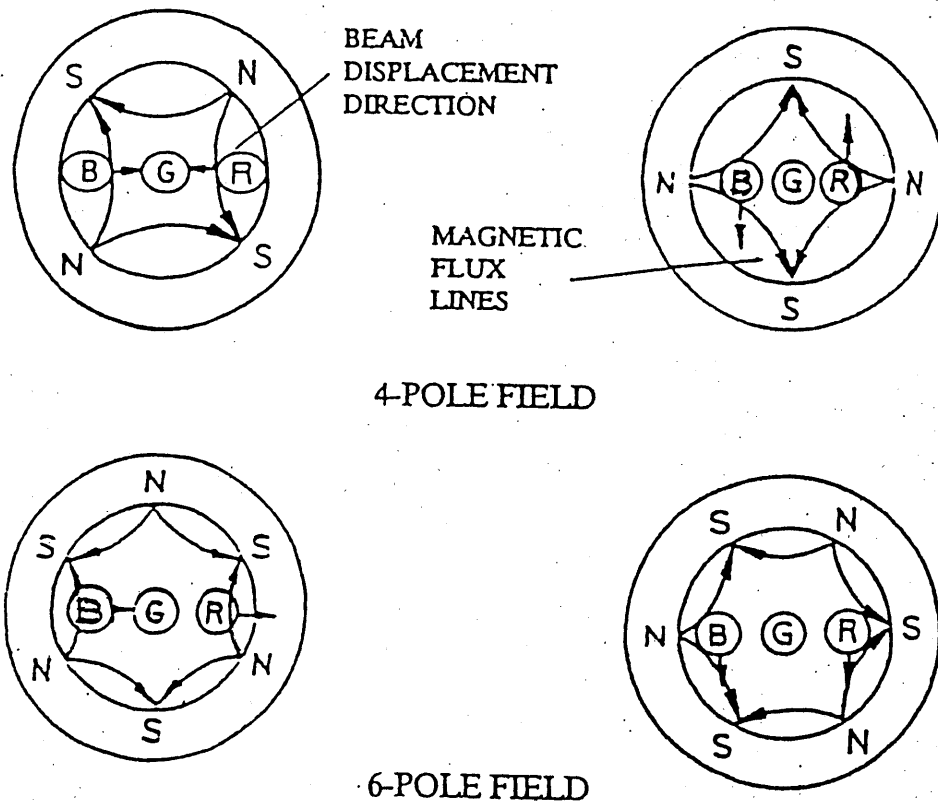
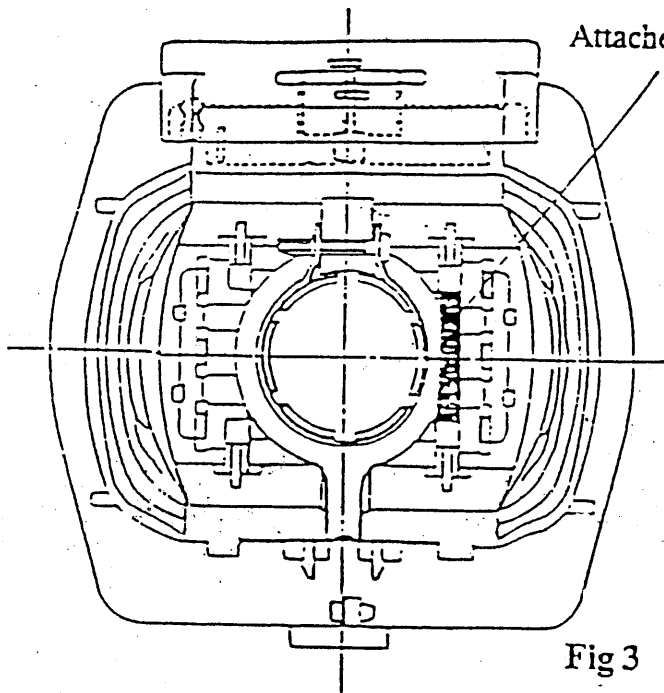


Fig.2

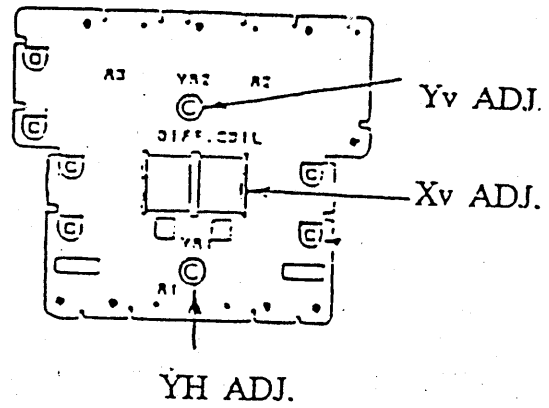
Adjustable misconvergence pattern on 41cm CDT

1. DY Outline



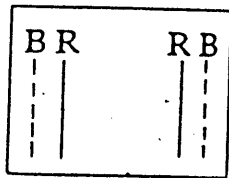
Attached Ferrite-Bar

Note (1)

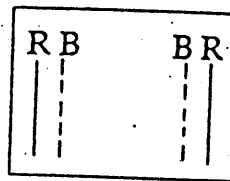


Upper side terminal board

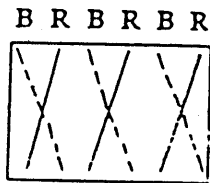
2. Adjustable misconvergence pattern



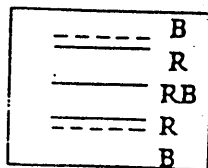
Attached Ferrite to right side.



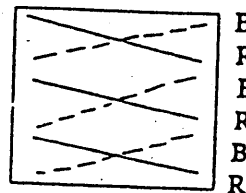
Attached Ferrite to left side.



Adjusted YH vol.

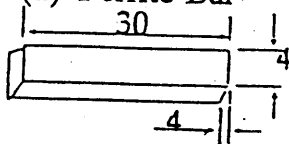


Adjusted Yv vol.



Adjusted Xv coil.

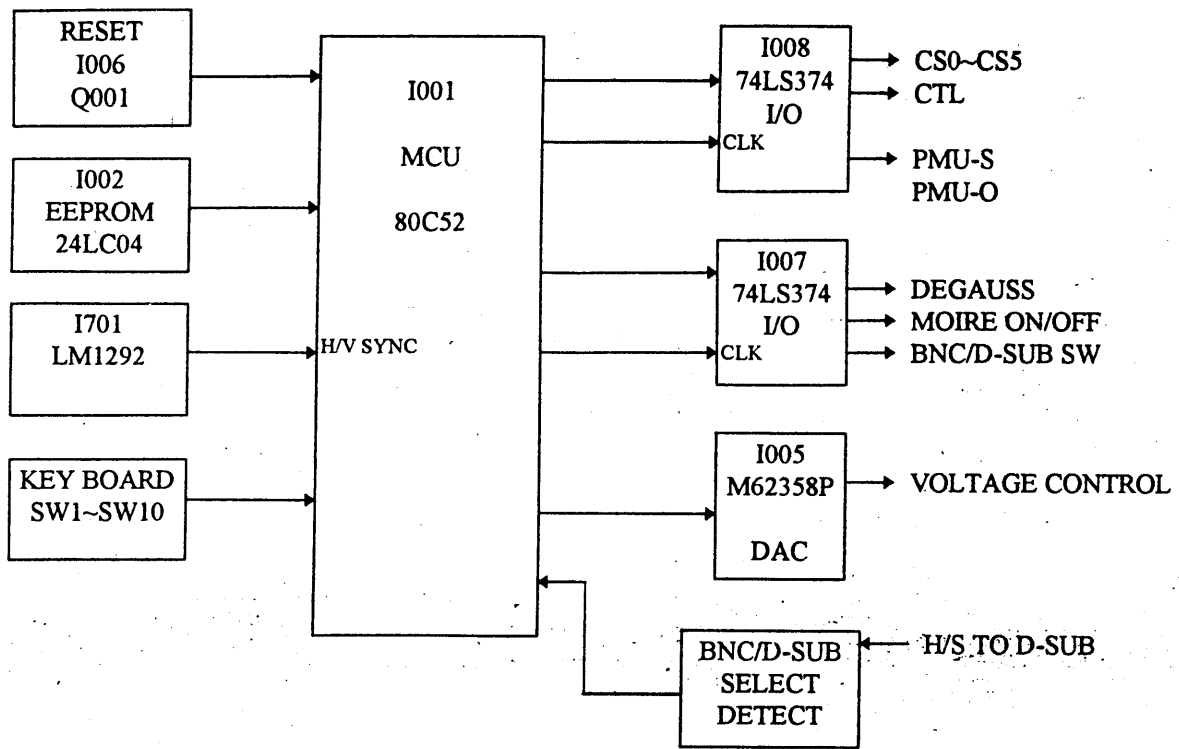
Note (1) Ferrite-Bar



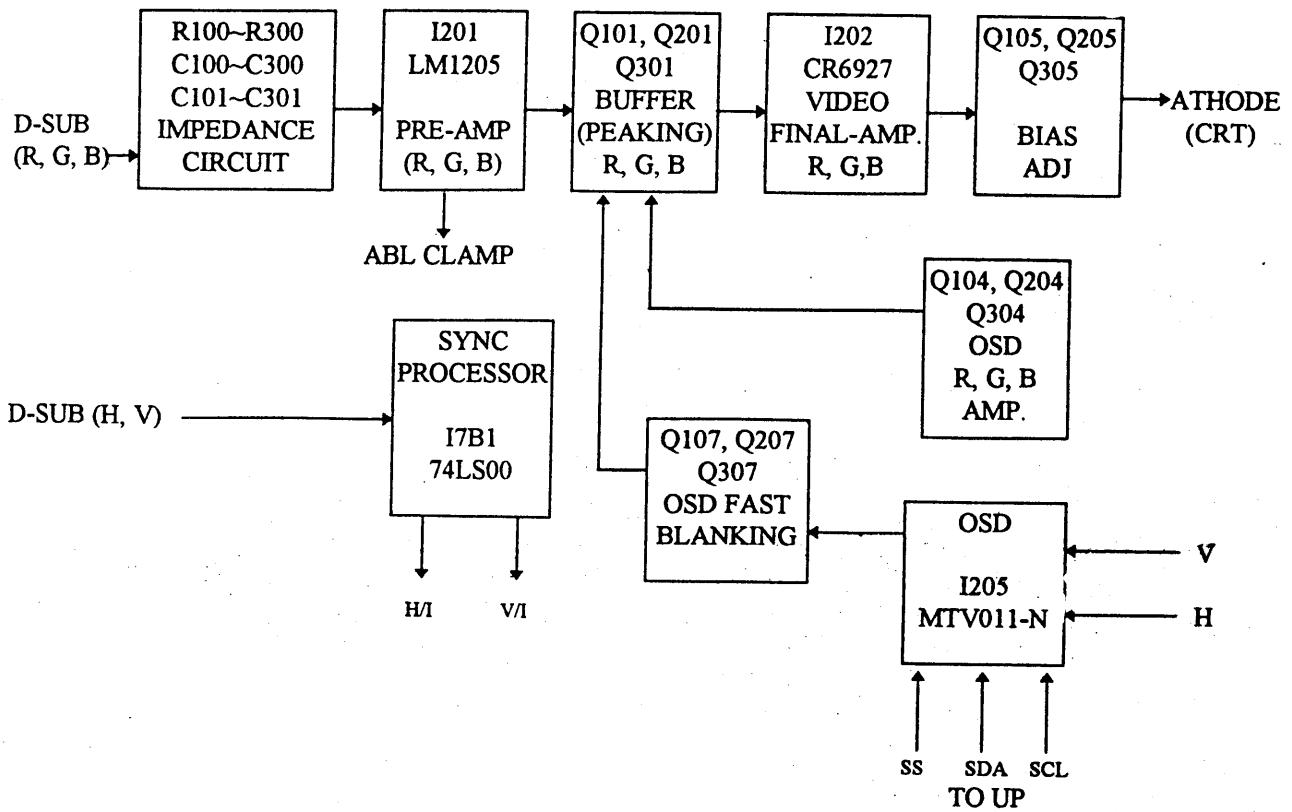
Barium-Ferrite

Fig 4

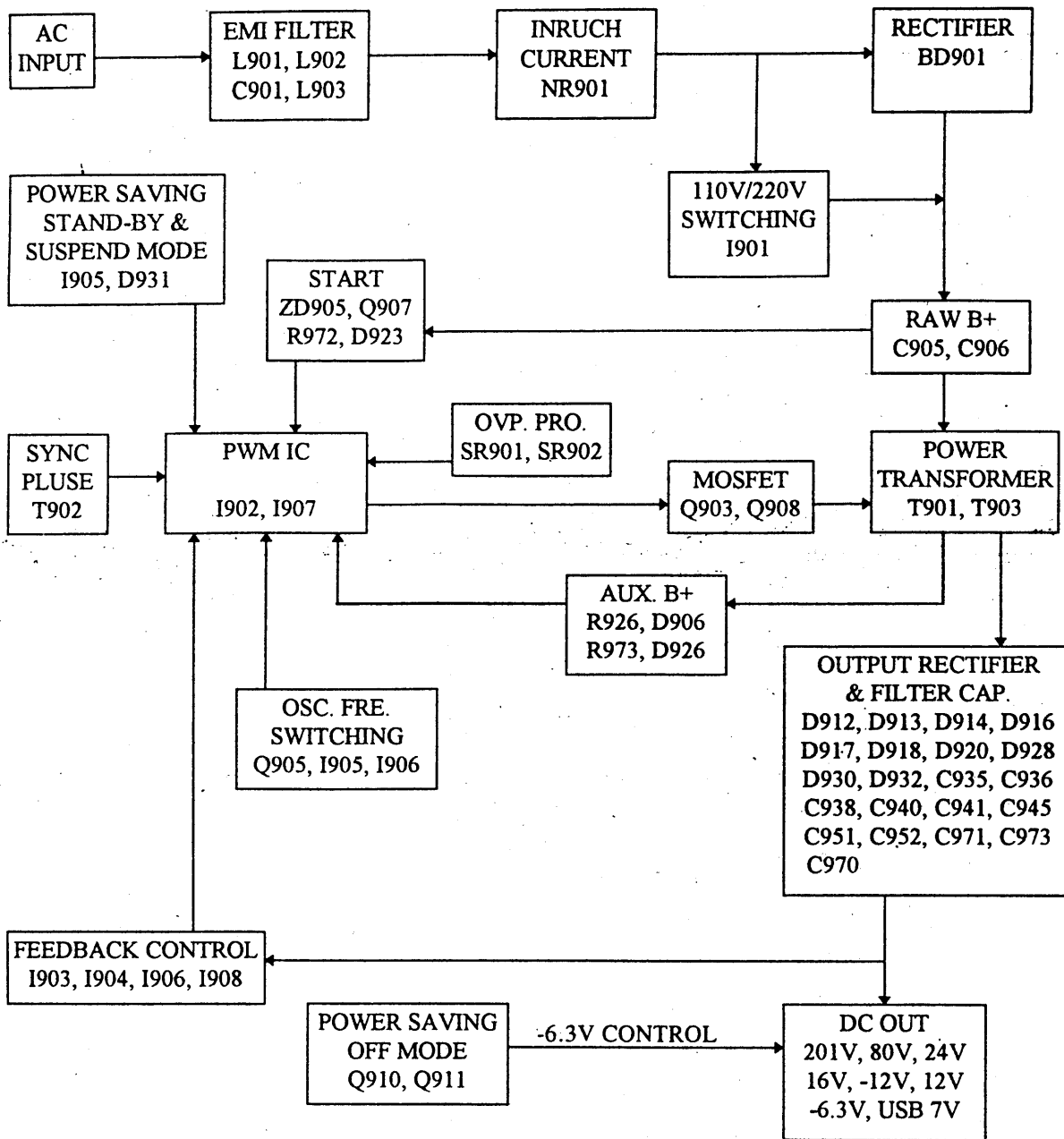
MICRO BLOCK DIAGRAM



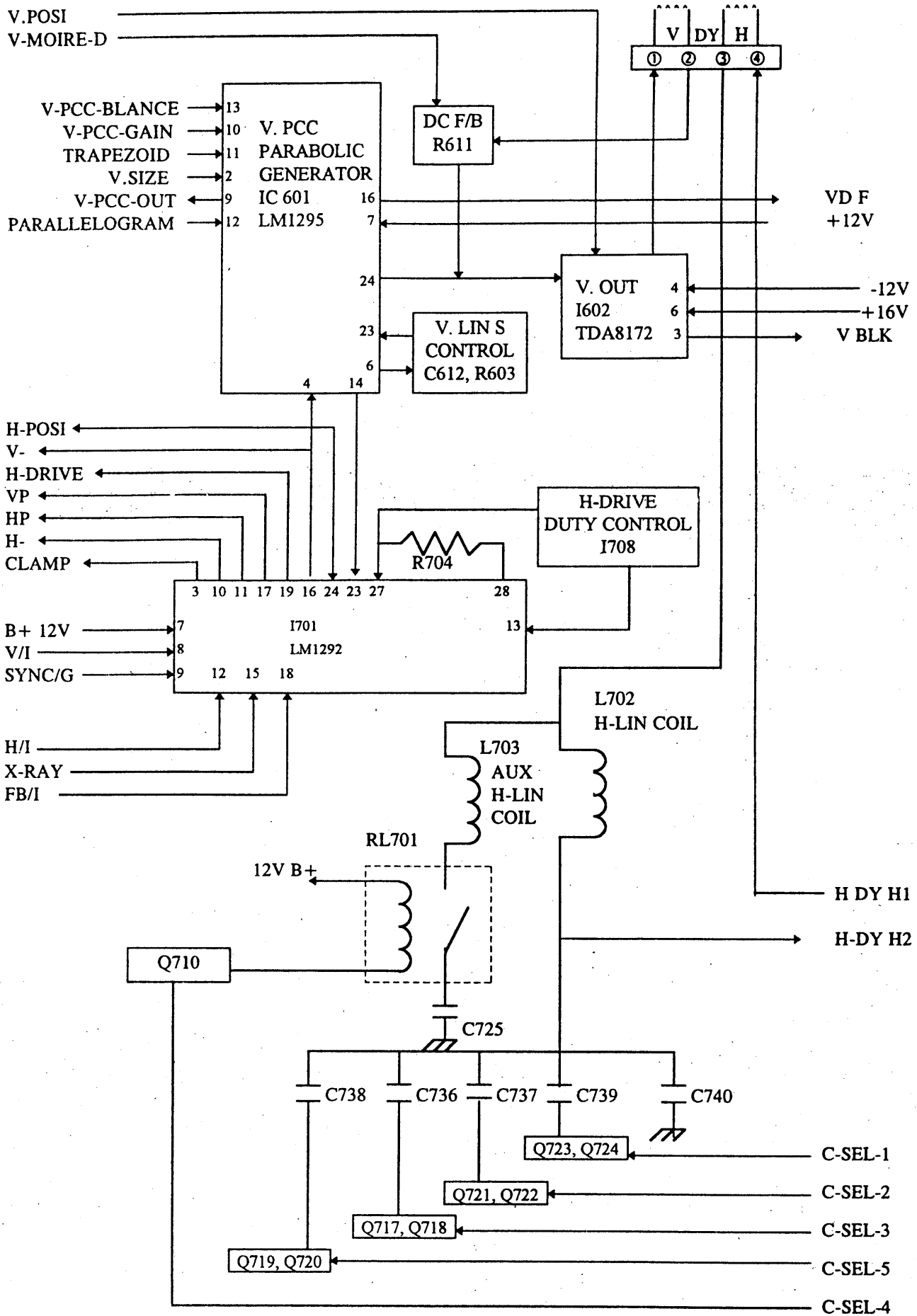
VIDEO BLOCK DIAGRAM



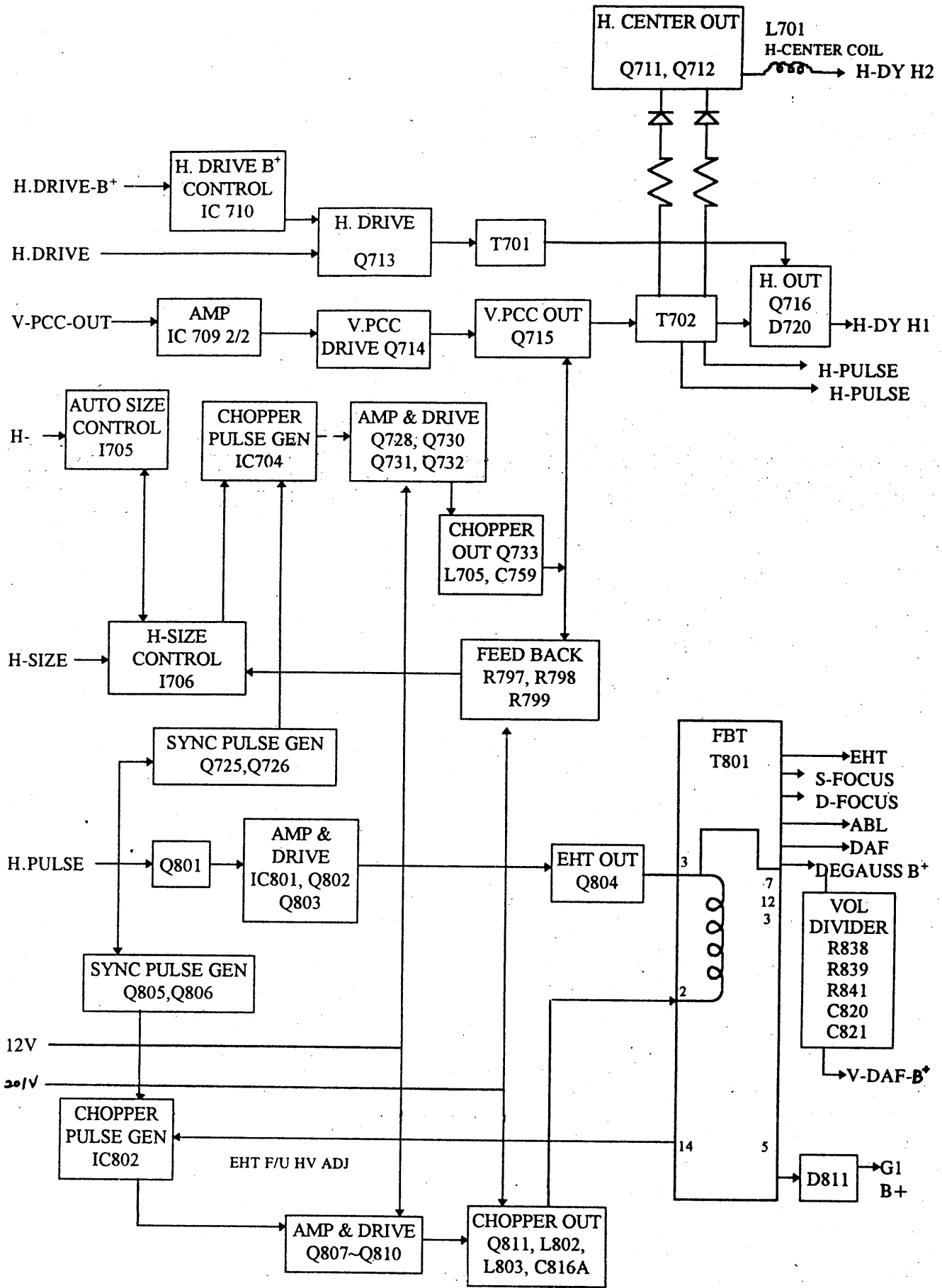
POWER BLOCK DIAGRAM



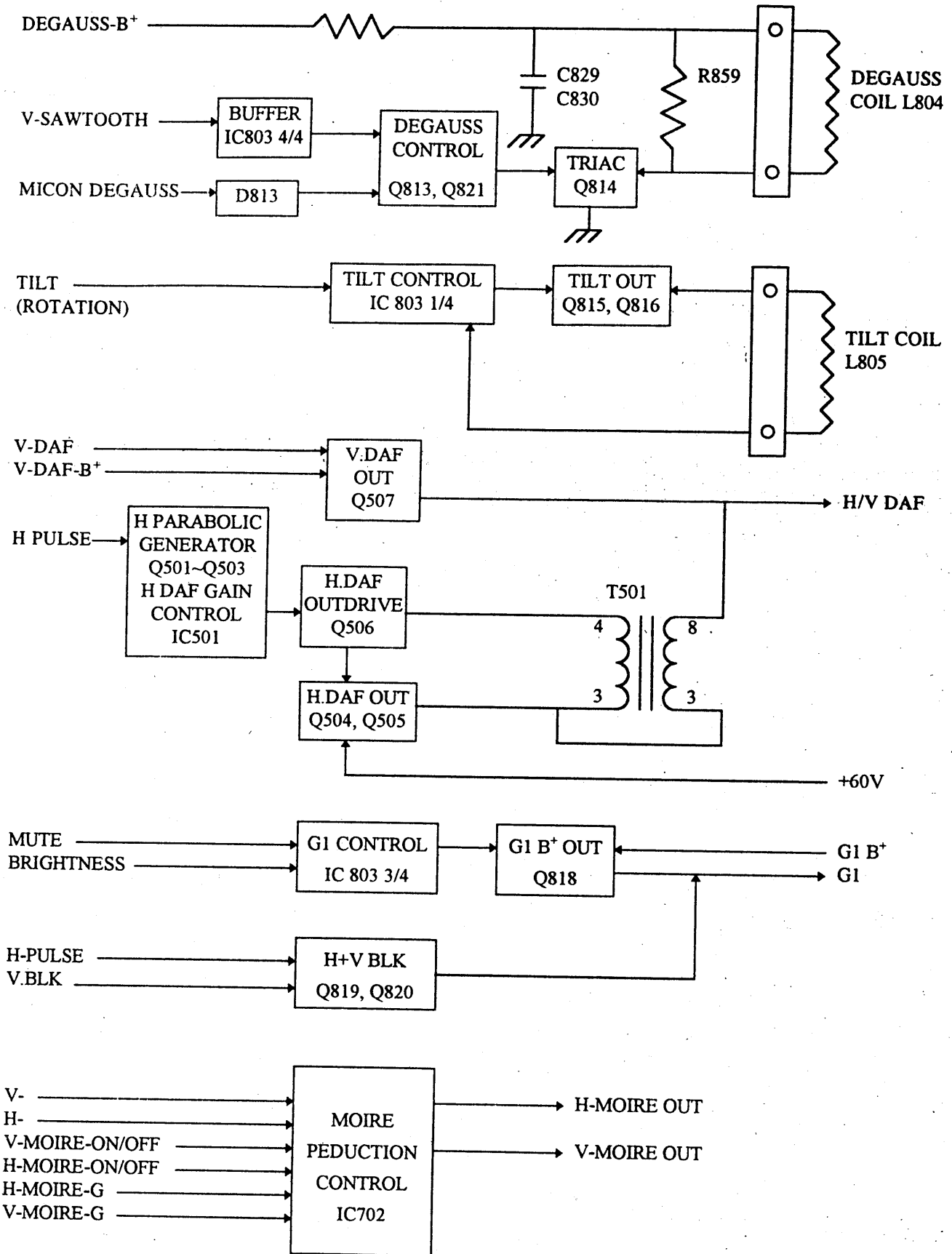
V. OSC-OUT/V. PCC CONTROL/H.OSC/H. LIN CONTROL



HORIZONTAL DEFLECTION/EHT OUT

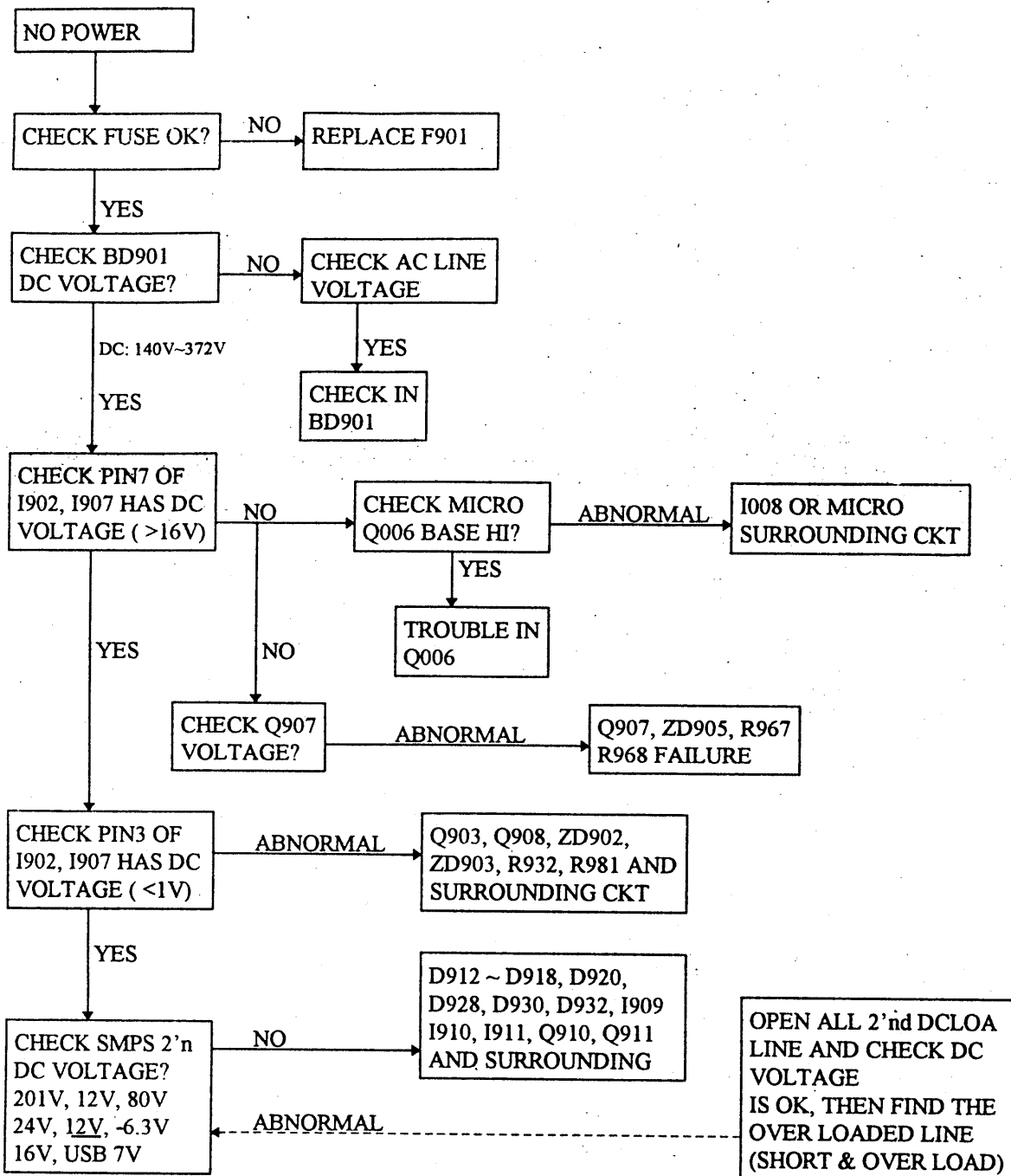


DEGAUSS ROTATION H/V DAF BRIGHTNESS H/V MOIRE

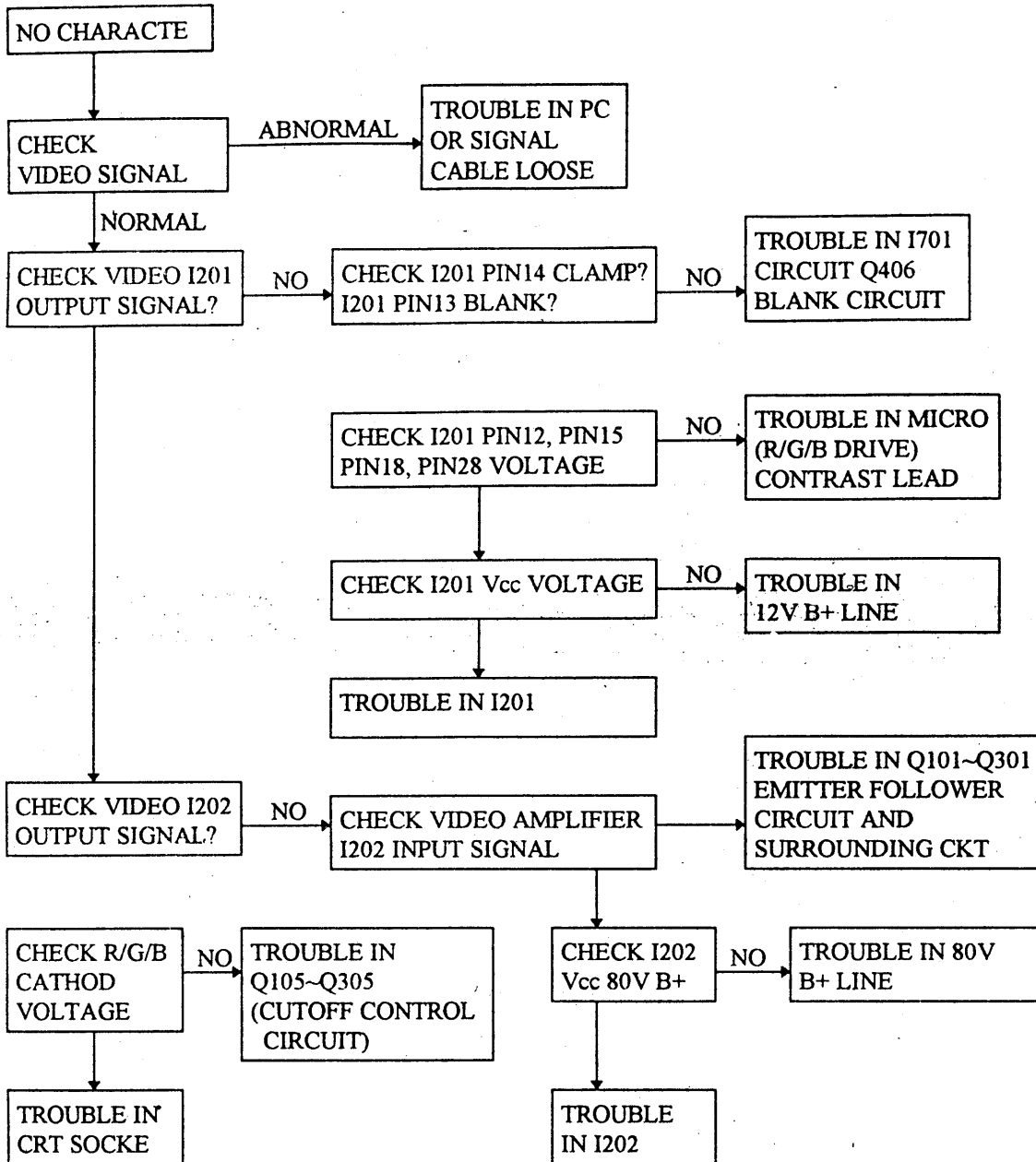


G. TROUBLE SHOOTING

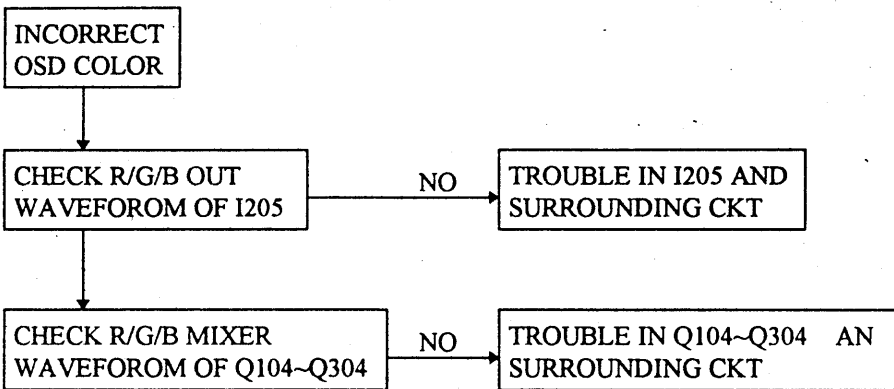
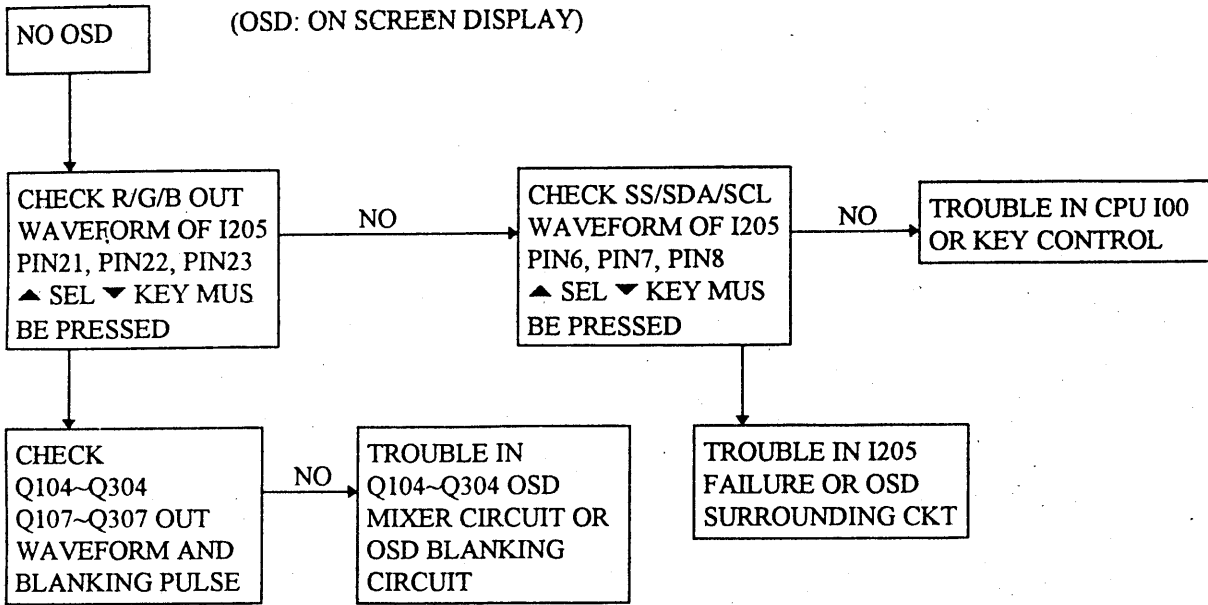
1. NO POWER



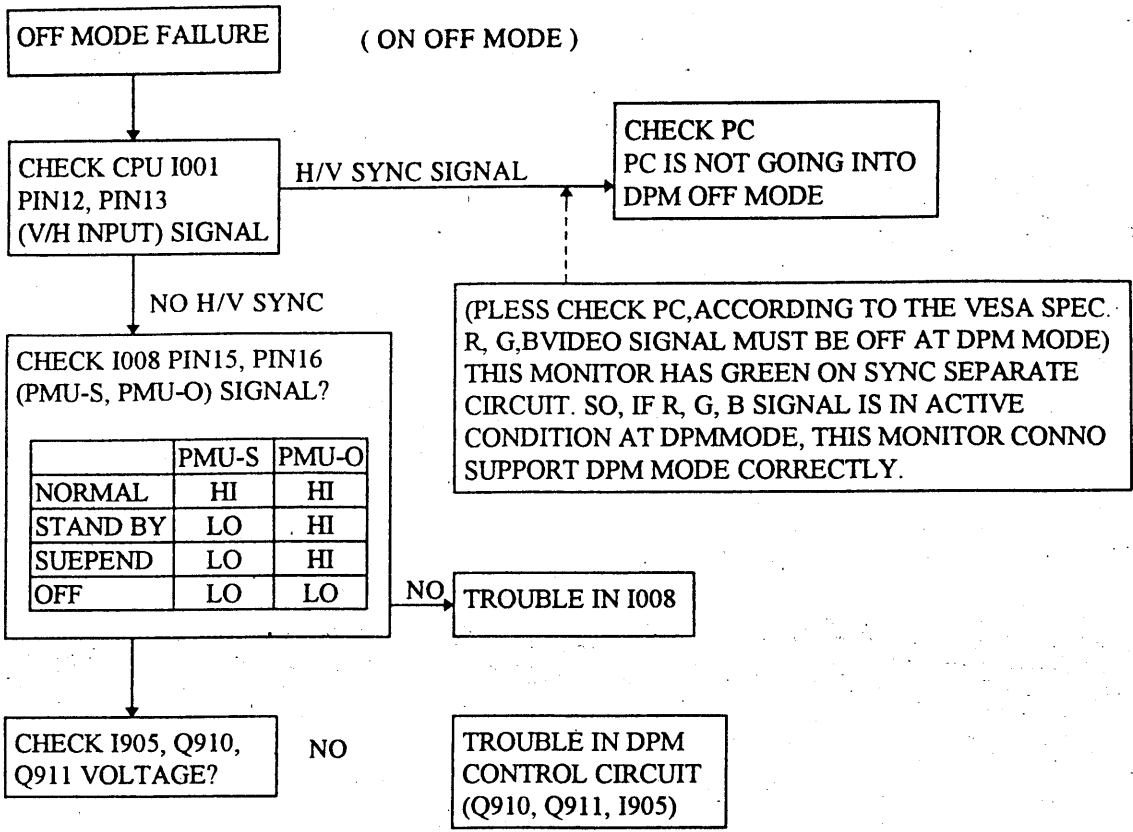
2. NO CHARACTER



3. TROUBLE OSD



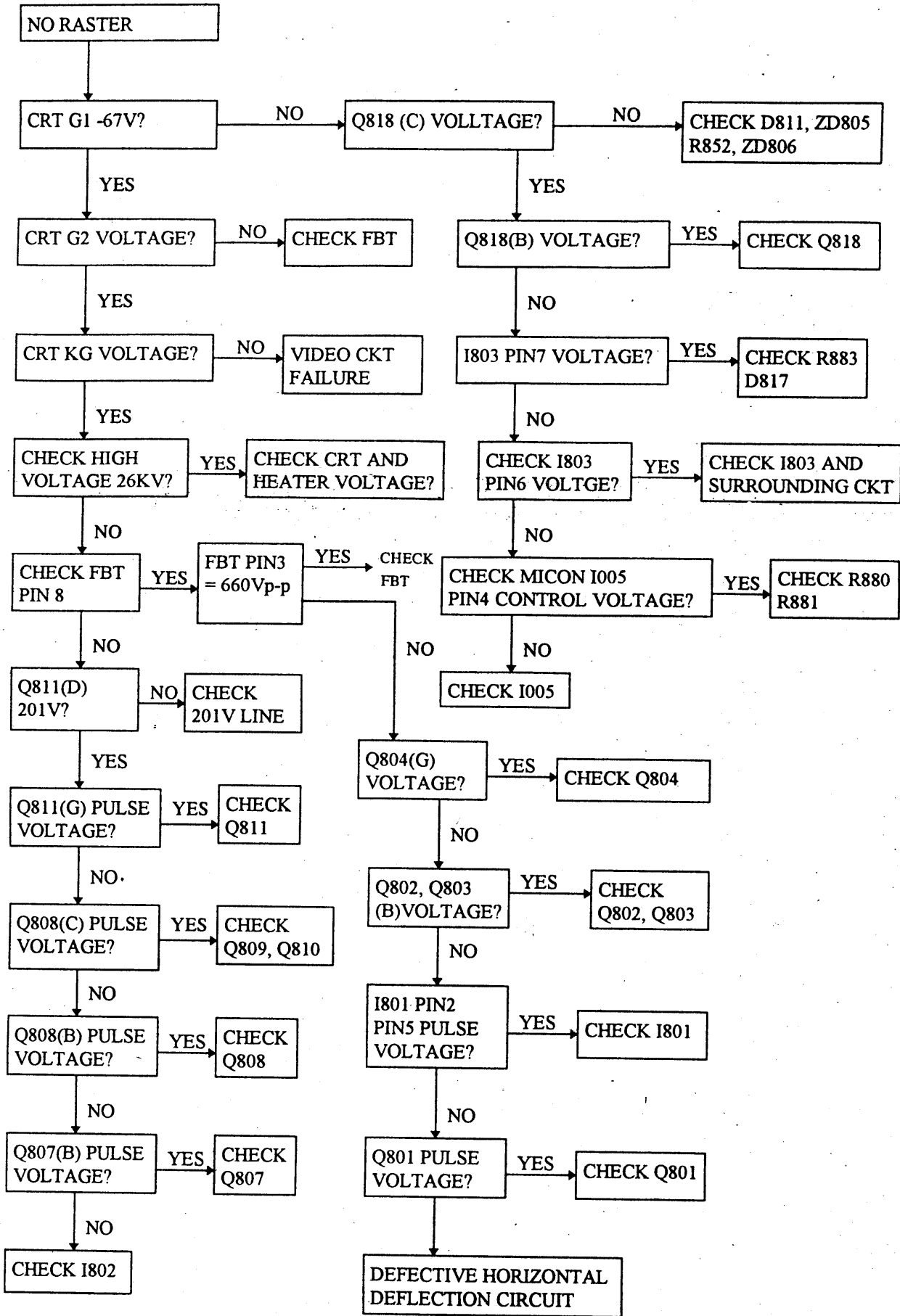
4. TROUBLE IN DPM

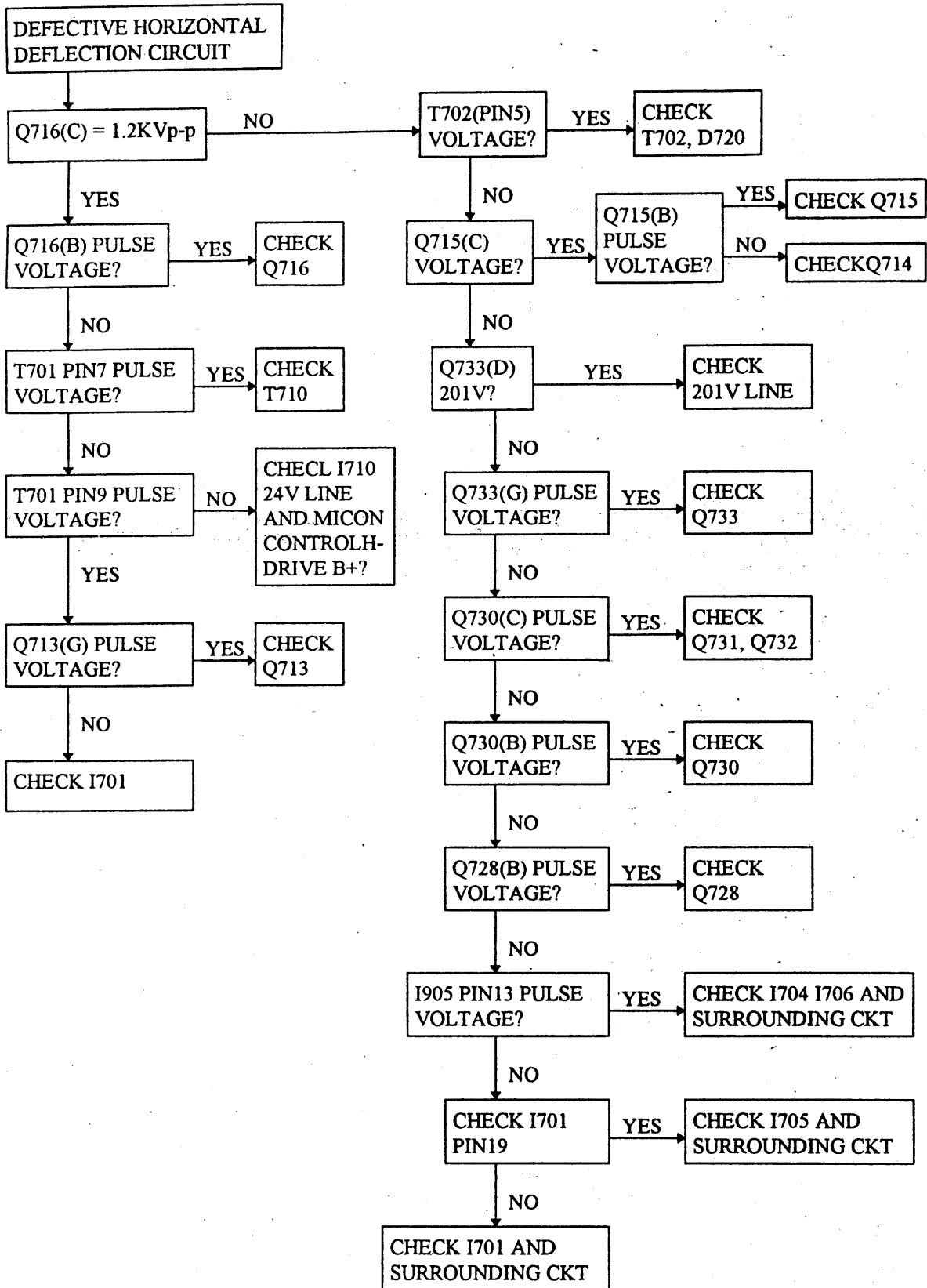


VESA STANDARD DPMS

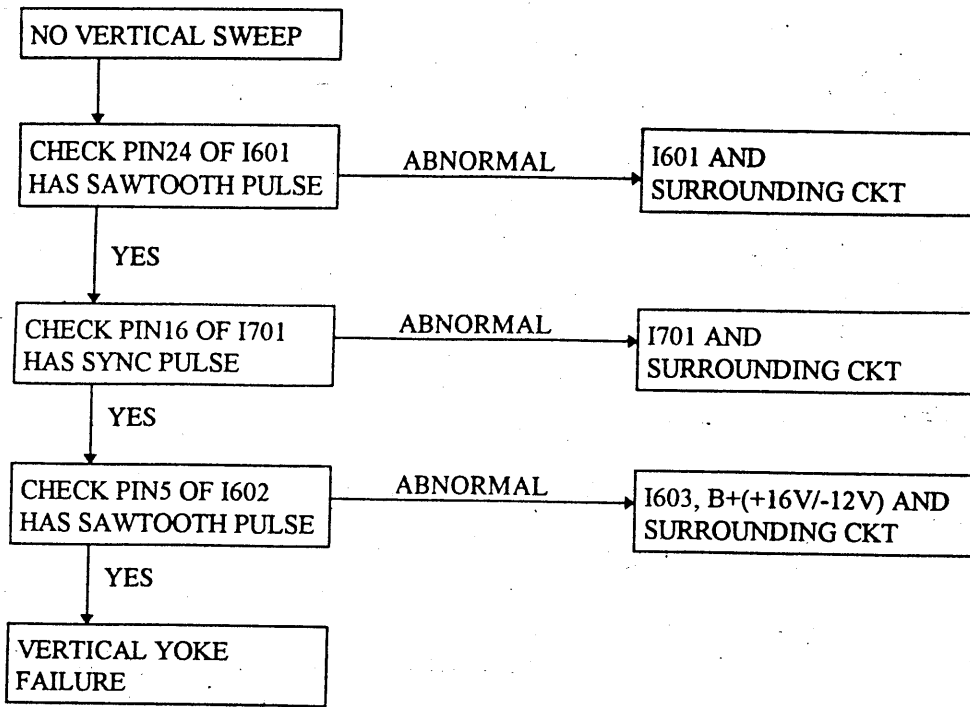
MODE \ ITEM	H/V SYNC	VIDEO	LED
NORMAL	ON/ON	NPRMAL	GREEN
STAND BY	OFF/ON	OFF	YELLOW
SUPEND	ON/OFF	OFF	YELLOW
OFF	OFF/OFF	OFF	AMBER

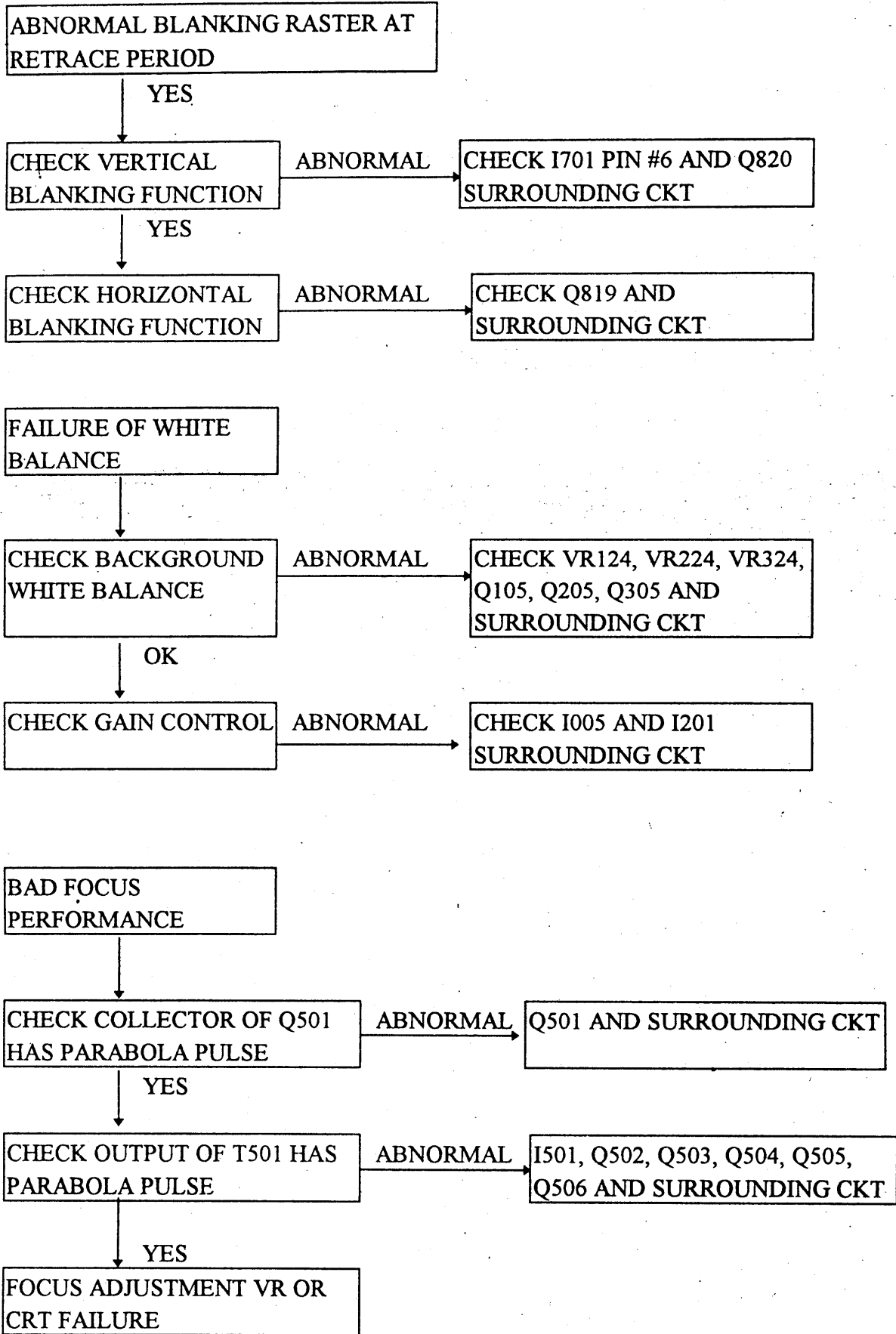
5. NO RASTER

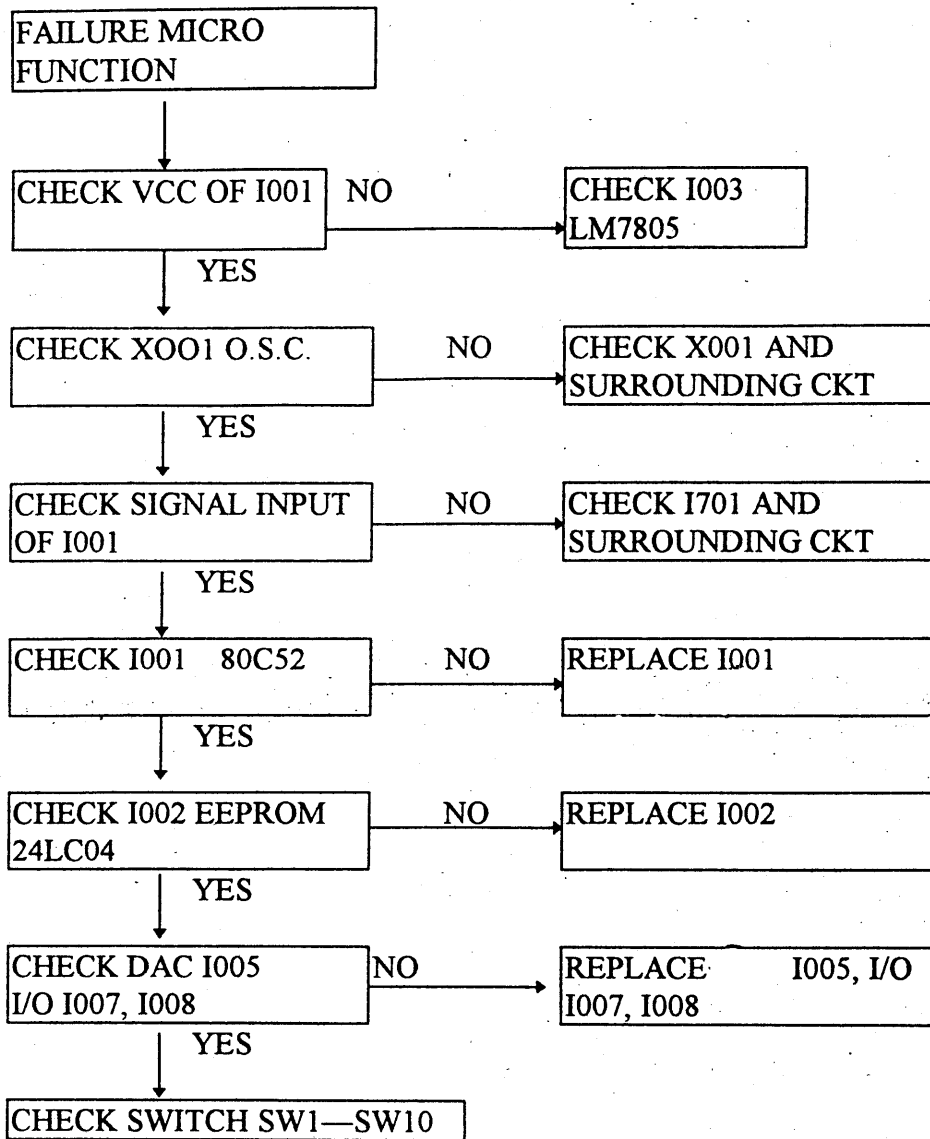




7.







PART NAME & DESCRIPTION			
TYPE		ALLOWANCE	
C	Carbon	F	±1%
F	Fuse	J	±5%
M	Metal	K	±10%
N	Metal Oxide	M	±20%
S	Solid	G	±2%
VR	Variable		
W	Wire Wound		

PART NAME & DESCRIPTION			
TYPE		ALLOWANCE	
C	Ceramic	C	±0.25pF
E	Electrolytic	D	±0.5pF
P	Polyester	F	±1pF
S	Styrol	J	±5%
T	Tantalum	K	±10%
PP	Polypropylene	L	±15%
M	Metalized Polyester	M	±20%
		P	+100%-0%
		Z	+80%-20%

Example:

VRMPTV4-103J-U M 10K J 1/4W

VCEACU1HH107MIP E 100U M 50V

Ref. No.	Parts No.	Description
	QPWB-2985D8-2-	MAIN BOARD
B701	RCORA1021D8-HU	BEAD CORE
B702	RCORA1021D8-HU	BEAD CORE
B703	RCORA1021D8-HU	BEAD CORE
B801	QJUM-1045D8100-	JUMPER
B802	RCORA1021D8-HU	BEAD CORE
B803	QJUM-1045D8100-	JUMPER
B804	RCORA1018T8-A	BEAD CORE
B901	RCORA1021D8-HU	BEAD CORE
B902	QJUM-1045D8050-	JUMPER
B903	QJUM-1045D8100-	JUMPER
B904	QJUM-1045D8150-	JUMPER
BD901	RSRCB1048D8---	RECTIFIER DIODE
C001	VCEACU1EG107MIP	E 100U M 25V

C001	VCEACU1EG107M-P	E 100U M 25V
C002	VCSFDU1HY104Z-P	C 0.1U Z 50V
C003	VCEACU1HG106MIP	E 10U M 50V
C003	VCEACU1HG106M-P	E 10U M 50V
C004	VCSFDU1HY104Z-P	C 0.1U Z 50V
C005	VCDSDU1HL330J-P	C 33P J 50V
C006	VCDSDU1HL330J-P	C 33P J 50V
C007	VCSFDU1HY104Z-P	C 0.1U Z 50V
C008	VCEACU1HG105M-P	E 1U M 50V
C009	VCSFDU1HY104Z-P	C 0.1U Z 50V
C010	VCEACU1HG106MIP	E 10U M 50V
C010	VCEACU1HG106M-P	E 10U M 50V
C014	VCKBDU1HY101K-P	C 100P K 50V
C016	VCSFDU1HY104Z-P	C 0.1U Z 50V
C017	VCSFDU1HY104Z-P	C 0.1U Z 50V
C019	VCSFDU1HY104Z-P	C 0.1U Z 50V
C020	VCSFDU1HY104Z-P	C 0.1U Z 50V

C021	VCKBDU2HY561K-P	C 560P K 500V	C616	VCEACF1EH108MI-	E 1000U M 25V 105°C
C022	VCKBDU2HY561K-P	C 560P K 500V	C617	VCPEHU1HG333JNP	P 0.033U J 50V
C023	VCDCDU1HH101J-P	C 100P J 50V	C618	VCEACF1EH108MI-	E 1000U M 25V 105°C
C501	VCEACU1EG476M-P	E 47U M 25V	C619	VCSFDU1HY104Z-P	C 0.1U Z 50V
C501A	VCKFDU1HY102Z-P	C 1000P Z 50V	C620	VCEACU1HH107MIP	E 100U M 50V 105°C
C503	VCPEHU1HG122JNP	P 1200P J 50V	C621	VCMEIU1HG224JNP	M .22U J 50V
C504	VCMEIU1HG105JNP	M 1U J 50V	C623	VCPEHU1HG223JNP	P 0.022U J 50V
C505	VCDSDU1HL471J-P	C 470P J 50V	C624	VCSFDU1HY104Z-P	C 0.1U Z 50V
C506	VCEACU1EG106M-P	E 10U M 25V	C624A	VCEACU1HG106MIP	E 10U M 50V
C506A	VCDSDU2HL100D-P	C 10P D 500P	C624A	VCEACU1HG106M-P	E 10U M 50V
C507	VCKFDU1HY103Z-P	C 0.01U Z 50V	C625	VCEACU1HH106M-P	E 10U M 50V 105°C
C508	VCSFDU1HY104Z-P	C 0.1U Z 50V	C626	VCSFDU1HY104Z-P	C 0.1U Z 50V
C509	VCMEIU1HG105JNP	M 1U J 50V	C627	VCSFDU1HY104Z-P	C 0.1U Z 50V
C510	VCSFDU1HY104Z-P	C 0.1U Z 50V	C628	VCSFDU1HY104Z-P	C 0.1U Z 50V
C511	VCEACU1HH107MIP	E 100U M 50V 105°C	C629	VCSFDU1HY104Z-P	C 0.1U Z 50V
C512	VCEACU1HH475MIP	E 4.7U M 50V 105°C	G630	VCSFDU1HY104Z-P	C 0.1U Z 50V
C513	VCKBEF3AY221K--	C 220P K 1KV	C701	VCPEHU1HG103JNP	P 0.01U J 50V
C514	VCEACU1HH106M-P	E 10U M 50V 105°C	C702	VCPEHU1HG104JNP	P 0.1U J 50V
C515	VCEACU1EG106M-P	E 10U M 25V	C703	VCPEHU1HG472JNP	P 4700P J 50V
C601	VCEACU1HH105MIP	E 1U M 50V 105°C	C703A	VCSFDU1HY104Z-P	C 0.1U Z 50V
C601A	VCSFDU1HY104Z-P	C 0.1U Z 50V	C703B	VCEACU1HH225M-P	E 2.2U M 50V 105°C
C602	VCPEHU1HG104JNP	P 0.1U J 50V	C703C	VCKBDU1HY102K-P	C 1000P K 50V
C602A	VCKFDU1HY103Z-P	C 0.01U Z 50V	C704	VCMEIU1HG474JNP	M .47U J 50V
C603	VCEACU1EH227MIP	E 220U M 25V 105°C	C705	VCEACU1HH335M-P	E 3.3U M 50V 105°C
C604	VCSFDU1HY104Z-P	C 0.1U Z 50V	C706	VCEACU1HH106M-P	E 10U M 50V 105°C
C605	VCMEIU1HG104JNP	M .1U J 50V	C707	VCPEHU1HG104JNP	P 0.1U J 50V
C606	VCEACU1HH106M-P	E 10U M 50V 105°C	C707A	VCEACU1HH106M-P	E 10U M 50V 105°C
C606A	VCEACU1AG107M-P	E 100U M 10V	C708	VCSFDU1HY104Z-P	C 0.1U Z 50V
C607	VCEACU1CH107MIP	E 100U M 16V 105°C	C711	VCPEHU1HG104JNP	P 0.1U J 50V
C608	VCEACU1HH106M-P	E 10U M 50V 105°C	C711A	VCPEHU1HG103JNP	P 0.01U J 50V
C609	VCPEHU1HG104JNP	P 0.1U J 50V	C712	VCSFDU1HY104Z-P	C 0.1U Z 50V
C610	VCMEIU1HG474JNP	M .47U J 50V	C713	VCEACU1CH107MIP	E 100U M 16V 105°C
C611	VCEACU1HH475MIP	E 4.7U M 50V 105°C	C713A	VCEACU1CH227MIP	E 220U M 16V 105°C
C611A	VCKBDU1HY331K-P	C 330P K 50V	C714	VCEACF1CH477MI-	E 470U M 16V 105°C
C612	VCEACU1HH335M-P	E 3.3U M 50V 105°C	C714A	VCSFDU1HY104Z-P	C 0.1U Z 50V
C613	VCDSDU1HL471J-P	C 470P J 50V	C715	VCEACU2AH106MIP	E 10U M 100V 105°C
C613A	VCKBDU1HY562K-P	C 5600P K 50V	C715A	VCSFDU1HY104Z-P	C 0.1U Z 50V
C613B	VCDSDU1HL331J-P	C 330P J 50V	C715B	VCEACU1CH106MIP	E 10U M 16V 105°C
C614	VCSFDU1HY104Z-P	C 0.1U Z 50V	C716	VCEACU1CG227M-P	E 220U M 16V
C615	VCSFDU1HY104Z-P	C 0.1U Z 50V	C718	VCENCU1HG106M-P	E 10U M 50V

C719	VCENCF1CG476M--	E 47U M 16V	C743	VCDSDU1HL470J-P	C 47P J 50V
C719A	VCEACU1HG225M-P	E 2.2U M 50V	C744	VCSFDU1HY104Z-P	C 0.1U Z 50V
C720	VCEACU1VH107MIP	E 100U M 35V 105°C	C745	VCMEIU1HG474JNP	M .47U J 50V
C723	VCKFDU1HY103Z-P	C 0.01U Z 50V	C746	VCEACU1HH225M-P	E 2.2U M 50V 105°C
C725	VCMPBF2EC155J9B	M 1.5U J 250V	C746A	VCEACU1HG225M-P	E 2.2U M 50V
C725	VCMPBF2EG155J5-	M 1.5U J 250V	C747	VCPSEF1HG391G--	P 390P G 50V
C725	VCMPHF2EY155JN-	M 1.5U J 250V	C748	VCPEHU1HG222JNP	P 2200P J 50V
C725	VCMPHF2EY155JY-	M 1.5U J 250V	C749	VCKBDU1HY472K-P	C 4700P K 50V
C726	VCEACU1HH107MIP	E 100U M 50V 105°C	C750	VCKFDU1HY473Z-P	C 0.047U Z 50V
C727	VCKBDU2HY222K-P	C 2200P K 500V	C750A	VCEACU1HG106MIP	E 10U M 50V
C727A	VCMEHF2AG105J--	M 1U J 100V	C750A	VCEACU1HG106M-P	E 10U M 50V
C728	VCEACF2CG475M--	E 4.7U M 160V	C751	VCKBDU1HY332K-P	C 3300P K 50V
C729	VCKFDU1HY103Z-P	C 0.01U Z 50V	C752	VCSFDU1HY104Z-P	C 0.1U Z 50V
C730	VCKFDU1HY103Z-P	C 0.01U Z 50V	C753	VCSFDU1HY104Z-P	C 0.1U Z 50V
C731	VCMEHF2EG103KN-	M 0.01U K 250V	C754	VCEACU1EH107MIP	E 100U M 25V 105°C
C732	VCMEHF2EG103KN-	M 0.01U K 250V	C756	VCDCDU1HH101J-P	C 100P J 50V
C733	VCMEHF2EG335KN-	M 3.3U K 250V	C757	VCEACU1HH475MIP	E 4.7U M 50V 105°C
C734	VCMPHF3EY222JN-	M 2200P J 2.5KV	C758	VCEACU2AH106MIP	E 10U M 100V 105°C
C735	VCMPHF3EY222JN-	M 2200P J 2.5KV	C759	VCEACF2DG686M--	E 68U M 200V
C736	VCMPBF2EC184J9B	M 0.18U J 250V	C760	VCKEDF2HY153M--	C 0.015U M 500V
C736	VCMPBF2EG184J5-	M 0.18U J 250V	C761	VCMEHF2EG224KN-	M 0.22U K 250V
C736	VCMPHF2EY184JN-	M 0.18U J 250V	C762	VCDCDU1HH101J-P	C 100P J 50V
C736	VCMPHF2EY184JY-	M 0.18U J 250V	C763	VCPEHU1HG221KNP	P 220P K 50V
C737	VCMPBF2EC184J9B	M 0.18U J 250V	C764	VCSFDU1HY104Z-P	C 0.1U Z 50V
C737	VCMPBF2EG184J5-	M 0.18U J 250V	C764A	VCEACU1CH107MIP	E 100U M 16V 105°C
C737	VCMPHF2EY184JN-	M 0.18U J 250V	C801	VCKBDU1HY272K-P	C 2700P K 50V
C737	VCMPHF2EY184JY-	M 0.18U J 250V	C802	VCKFDU1HY103Z-P	C 0.01U Z 50V
C738	VCMPBF2EC104J9B	M 0.1U J 250V	C803	VCKFDU1HY103Z-P	C 0.01U Z 50V
C738	VCMPBF2EG104J5-	M 0.1U J 250V	C805	VCMPHF3CY222JN-	M 2200P J 1.6KV
C738	VCMPHF2EY104JN-	M 0.1U J 250V	C805A	VCKBEF3AY561K--	C 560P K 1KV
C738	VCMPHF2EY104JY-	M 0.1U J 250V	C806	VCDCDU1HH101J-P	C 100P J 50V
C739	VCMPBF2EC184J9B	M 0.18U J 250V	C807	VCSFDU1HY104Z-P	C 0.1U Z 50V
C739	VCMPBF2EG154J5-	M .15U J 250V	C808	VCSFDU1HY104Z-P	C 0.1U Z 50V
C739	VCMPHF2EY154JN-	M 1.2U J 250V	C809	VCPEHU1HG222JNP	P 2200P J 50V
C739	VCMPHF2EY154JY-	M 0.15U J 250V	C810	VCKBDU1HY332K-P	C 3300P K 50V
C740	VCMPBF2GC224J9B	M 0.22U J 400V	C811	VCKBDU1HY472K-P	C 4700P K 50V
C740	VCMPBF2GG224J5-	M 0.22U J 400V	C812	VCKFDU1HY473Z-P	C 0.047U Z 50V
C740	VCMPHF2GY224JN-	M 0.22U J 400V	C813	VCEACU1HH475MIP	E 4.7U M 50V 105°C
C740	VCMPHF2GY224JY-	M 0.22U J 400V	C814	VCEACU1JG106M-P	E 10U M 63V
C741	VCEACU1HH106M-P	E 10U M 50V 105°C	C815	VCMEHF2EG224KN-	M 0.22U K 250V

C816A	VCMEHF2EG335KN-	M 3.3U K 250V	C917	VCKFDU1HY103Z-P	C 0.01U Z 50V
C819	VCEACU2WH335MIP	E 3.3U M 450V 105°C	C918	VCEACU1HG225M-P	E 2.2U M 50V
C820	VCEACF2VH475MI-	E 4.7U M 350V 105°C	C920	VCKBDU1HY102K-P	C 1000P K 50V
C821	VCEACF2VH475MI-	E 4.7U M 350V 105°C	C921	VCKBDU1HY471K-P	C 470P K 50V
C822	VCEBCF2EH226M--	E 22U M 250V 105°C	C922	VCKBDU1HY102K-P	C 1000P K 50V
C823	VCEACU2CY225Y-P	E 2.2U Y 160V	C923	VCSFDU1HY104Z-P	C 0.1U Z 50V
C824	VCKBDU2HY102K-P	C 1000P K 500V	C925	VCPBU2AK272J9P	P 2700P J 100V
C825	VCSFDU1HY104Z-P	C 0.1U Z 50V	C925	VCPSEF1HG272G--	P 2700P G 50V
C826	VCKBDU1HY222K-P	C 2200P K 50V	C926	VCKBDU1HY222K-P	C 2200P K 50V
C828	VCKBDU1HY332K-P	C 3300P K 50V	C927	VCKBDU2HY222K-P	V 2200P K 500V
C829	VCMEHF2JG225KN-	M 2.2U K 630V	C928	VCKFDF7BY222MX3	C 2200P M 125V
C830	VCMEHF2JG225KN-	M 2.2U K 630V	C930	VCKFDF7BY222MX3	C 2200P M 125V
C831	VCSFDU1HY104Z-P	C 0.1U Z 50V	C934	VCKBEF3DY221K--	C 220P K 2KV
C832	VCMEIU1HG105JNP	M 1U J 50V	C935	VCEACF2CH227MI-	E 220U M 160V
C832A	VCSFDU1HY104Z-P	C 0.1U Z 50V	C936	VCEACF2CH227MI-	E 220U M 160V
C833	VCSFDU1HY104Z-P	C 0.1U Z 50V	C937	VCKFDU2HY103Z-P	C 0.01U Z 500V
C833A	VCEACU1EG106M-P	E 10U M 25V	C938	VCEACF2AG227M--	E 220U M 100V
C834	VCEACU1CH227MIP	E 220U M 16V	C939	VCKEDF2HY103P--	C 0.01U P 500V
C838	VCMEHF2EG103KN-	M 0.01U K 250V	C940	VCEACF2AG227M--	E 220U M 100V
C838A	VCSFDU1HY104Z-P	C 0.1U Z 50V	C941	VCEACF1VH477MI-	E 470U M 35V
C839	VCENCU1HG225M-P	E 2.2U M 50V	C943	VCKBDU2HY271K-P	C 270P K 500V
C840	VCDSDU1HL221J-P	C 220P J 50V	C945	VCEACF1EH477MI-	E 470U M 25V 105°C
C840A	VCKFDU1HY103Z-P	C 0.01U Z 50V	C946	VCEACF1EH477MI-	E 470U M 25V 105°C
C841	VCSFDU1HY104Z-P	C 0.1U Z 50V	C951	VCEACU1EH227MIP	E 220U M 25V 105°C
C842	VCEACU1EG226M-P	E 22U M 25V	C952	VCEACU1EH227MIP	E 220U M 25V 105°C
C843	VCEACU1CG476M-P	E 47U M 16V	C953	VCEACU1HG474M-P	E 47U M 50V
C845	VCEACU1HG336M-P	E 33U M 50V	C955	VCDSEF3DL470J--	C 47P J 2KV
C901	VCMEBF7EG474MX2	M 0.47U M 250V	C956	VCKEDU2HY472P-P	C 4700P P 500V
C901	VCMPBF7EG474MX2	M 0.47U M 250V	C957	VCEACF2WY335M--	E 3.3U M 450V
C903	VCKFDF7BY222MX-	C 2200P M 125V	C958	VCEACU1VG476M-P	E 47U M 35V
C904	VCKFDF7BY222MX-	C 2200P M 125V	C960	VCKFDU1HY103Z-P	C 0.01U Z 50V
C905	VCEALS2EH337MX-	E 330U M 250V 105°C	C961	VCPBU2AK272J9P	P 2700P J 100V
C906	VCEALS2EH337MX-	E 330U M 250V 105°C	C961	VCPSEF1HG272G--	P 2700P G 50V
C907	VCEACF2WY335M--	E 3.3U M 450V	C962	VCSFDU1HY104Z-P	C 0.1U Z 50V
C908	VCMEHF2GG473K--	M 0.047U K 400V	C963	VCKBDU1HY102K-P	C 1000P K 50V
C911	VCSFDU1HY104Z-P	C 0.1U Z 50V	C965	VCKBDU1HY471K-P	C 470P K 50V
C912	VCEACU1HH107MIP	E 100U M 50V 105°C	C966	VCKBDU1HY102K-P	C 1000P K 50V
C913	VCKBEF3DY221K--	C 220P K 2KV	C967	VCEACU1HG225M-P	E 2.2U M 50V
C915	VCKKEEF3TY103Z--	C 0.01U Z 1.5KV	C968	VCEACU1HG474M-P	E 47U M 50V
C916	VCEACU1VG476M-P	E 47U M 35V	C970	VCEICF1CH108MI-	E 1000U M 16V 105°C

C971	VCEACU1EH227MIP	E 220U M 25V 105°C	D712	VSD1N4448—U	DIODE
C972	VCSFDU1HY104Z-P	C 0.1U Z 50V	D712	VSDLYSF37—H	DIODE
C973	VCEICF1CH108MI-	E 1000U M 16V 105°C	D713	VSD1N4448—U	DIODE
C975	VCKKDF7BY222MX3	C 2200P M 125V	D713	VSDLYSF37—H	DIODE
C976	VCKKDF7BY222MX3	C 2200P M 125V	D714	VSD1N4531—U	DIODE
C977	VCSFDU1HY104Z-P	C 0.1U Z 50V	D715	VSD1N4531—U	DIODE
C978	VCEACU1EG476M-P	E 47U M 25V	D716	VSD1N4448—U	DIODE
C979	VCKBDU1HY222K-P	C 2200P K 50V	D717	VSD1N4531—U	DIODE
C980	VCSFDU1HY104Z-P	C 0.1U Z 50V	D718	VSD1N4531—U	DIODE
C981	VCEACU1VG476M-P	E 47U M 35V	D719	VSEDEM01Z—2U	DIODE
D001	VCNCP0043-JJST-	CONNECTOR 3 PIN	D720	PRDAA6260D8W—	RADIATOR
D002	VSD1N4148—U	DIODE	D720	VSD5TUZ52—D-	DIODE
D004	VSD1N4148—U	DIODE	D720	XJASD30P10000-	SCREW
D005	VSD1N4148—U	DIODE	D721	VSD1N5819—U	DIODE
D006	VSD1N4148—U	DIODE	D721	VSDERA81-004-VU	DIODE
D007	VSD1N4148—U	DIODE	D722	VSD1N4148—U	DIODE
D008	VSD1N4148—U	DIODE	D722A	VSDUF4004—U	DIODE
D009	VSD1N4148—U	DIODE	D723	VSD1N4148—U	DIODE
D010	VSD1N4148—U	DIODE	D724	VSD1N4531—U	DIODE
D011	VSD1N4148—U	DIODE	D726	VSD1N4148—U	DIODE
D012	VSD1N4148—U	DIODE	D727	VSD1N4448—U	DIODE
D013	VSD1N4148—U	DIODE	D728	VSDRGP10G—U	DIODE
D014	VSD1N4148—U	DIODE	D729	VSD1N4531—U	DIODE
D015	VSD1N4148—U	DIODE	D730	VSDUF4004—U	DIODE
D016	VSD1N4148—U	DIODE	D7A3	VSD1N4531—U	DIODE
D501	VSDBYT42G—U	DIODE	D803	VSD1N4531—U	DIODE
D502	VSD1N4148—U	DIODE	D804	VSD1N4531—U	DIODE
D503	VSD1N4148—U	DIODE	D805	VSD1N4448—U	DIODE
D504	VSD1N4148—U	DIODE	D807	VSDRGP10G—U	DIODE
D505	VSD1N4148—U	DIODE	D808	VSDUF4004—U	DIODE
D506	VSD1N4148—U	DIODE	D809	VSDRU1P—2U	DIODE
D602	VSD1N4148—U	DIODE	D810	VSDRU1P—2U	DIODE
D603	VSD1N4148—U	DIODE	D811	VSDEU02Z—2U	DIODE
D604	VSD1N4001—U	DIODE	D812	VSD1N4448—U	DIODE
D701	VSD1N4148—U	DIODE	D813	VSD1N4148—U	DIODE
D702	VSD1N4148—U	DIODE	D815	VSDRGP10G—U	DIODE
D703	VSDRGP10D—U	DIODE	D815	VSDVR1G—DU	DIODE
D705	VSD1N4148—U	DIODE	D817	VSD1N4148—U	DIODE
D706	VSD1N4148—U	DIODE	D818	VSD1N4148—U	DIODE
D711	VSD1N4148—U	DIODE	D819	VSD1N4148—U	DIODE

D820	VSD1N4148---U	DIODE	I007	VSI74HC374---	IC 20PIN
D821	VSD1N4148---U	DIODE	I007	VSI74HC374-3-	IC 20PIN
D822	VSD1N4148---U	DIODE	I008	VSI74HC374---	IC 20PIN
D823	VSD1N4148---U	DIODE	I008	VSI74HC374-3-	IC 20PIN
D901	VSD1N4007---U	DIODE	I501	VSIHC5238---	IC 8PIN
D905	VSDLYHER108--U	DIODE	I601	VSILM1295N--N-	IC 24PIN
D906	VSDLYHER104--U	DIODE	I602	PCUSP1369D8F-A	CUSHION
D907	VSD1N4148---U	DIODE	I602	PISLM0047D8---	INSULATOR
D908	VSD1N4148---U	DIODE	I602	PRDAA6103T8A-I	RADIATOR
D914	VSDLYSF27----U	DIODE	I602	VSITEA8172---	IC 7PIN
D916	VSDLYSF15----U	DIODE	I602	XJISD30P12000-	SCREW
D917	VSDLYSF35----H	DIODE	I701	VSILM1292N--N-	IC 28PIN
D918	VSDLYSF35----H	DIODE	I702	VSIAN5767K--6-	IC 13PIN
D920	VSDLYHER303G--H	DIODE	I704	VSIUC3843AN---	IC 8PIN
D925	VSDLYHER108--U	DIODE	I704	VSIUC3843AN--M-	IC 8PIN
D926	VSDLYHER104--U	DIODE	I705	VSI74HC221P-3-	IC 16PIN
D927	VSD1N4148---U	DIODE	I706	VSILM358N-----	IC 8PIN
D928	VSDLYSF13----U	DIODE	I708	VSILM358N-----	IC 8PIN
D929	VSD1N4148---U	DIODE	I709	VSILM358N-----	IC 8PIN
D930	VSDLYHER303G--H	DIODE	I710	VSIAN6531---6-	IC 4PIN
D931	VSD1N4148---U	DIODE	I801	VSILM393N---M-	IC 8PIN
D932	VSDLYSR360---H	DIODE	I801	VSILM393N---Y-	IC 8PIN
F901	QFS-D402SD82XH-	FUSE	I802	VSIUC3843AN---	IC 8PIN
G2	RCORF1011D8---	FERRITE CORE	I802	VSIUC3843AN--M-	IC 8PIN
G4	RCORF1011D8---	FERRITE CORE	I803	VSILM324N-----	IC 14PIN
I001	QSOCI1220T840-	IC SOCKET 40 PIN	I803	VSILM324N---M-	IC 14PIN
I001	VSI89C52-----	IC 40PIN	I803	VSILM324N---N-	IC 14PIN
I001	VSIC80C52D9A--	40PIN MASK IC	I901	PRDAA6217D8W--A	RADIATOR
I002	QSOCI1214T808-	IC SOCKET 8 PIN	I901	VSISTR81145A--	IC 5PIN
I002	VSI24LC04B----	IC 8PIN	I901	XJASD30P10000-	SCREW
I002	VSIAT24C04----	IC 8PIN	I902	VSIKA3842A--8-	IC 8PIN
I003	PRDAA6242D8W--D	RADIATOR	I903	VSIKA431AZ--8P	IC 3PIN
I003	VSIL7805CV---Y-	IC 3PIN	I903	VSITL431CLP--P	IC 3PIN
I003	VSILM7805CT---	IC 3PIN	I904	VSPPC123FY2---	PHOTO DEVICE
I003	VSIMC7805CT---	IC 3PIN	I904	VSPTLP721F-GRD-	PHOTO DEVICE
I003	XJASD30P06000-	SCREW	I905	VSPPC827-----	PHOTO DEVICE
I005	VSIM62358P--L-	IC 22PIN	I906	VSPPC827-----	PHOTO DEVICE
I006	VSILM324N-----	IC 14PIN	I907	VSIKA3842A--8-	IC 8PIN
I006	VSILM324N---M-	IC 14PIN	I908	VSIKA431AZ--8P	IC 3PIN
I006	VSILM324N--N-	IC 14PIN	I908	VSITL431CLP--P	IC 3PIN

I909	PRDAA6242D8W-B	RADIATOR	J122	QJUM-1045D8100-	JUMPER
I909	VSICA7812CT-8-	IC 3PIN	J123	QJUM-1045D8100-	JUMPER
I909	VSIL7812CV--Y-	IC 3PIN	J124	QJUM-1045D8100-	JUMPER
I909	VSILM7812CT---	IC 3PIN	J125	QJUM-1045D8075-	JUMPER
I909	VSIMC7812CT---	IC 3PIN	J126	QJUM-1045D8100-	JUMPER
I909	XJASD30P06000--	SCREW	J127	QJUM-1045D8100-	JUMPER
I910	PISLM0038D8---	INSULATOR	J128	QJUM-1045D8075-	JUMPER
I910	PRDAA6208D8W-B	RADIATOR	J13	QJUM-1045D8050-	JUMPER
I910	VSISK3122V---	IC 3PIN	J130	QJUM-1045D8050-	JUMPER
I910	XJASD30P10000--	SCREW	J131	QJUM-1045D8050-	JUMPER
I911	PRDAA6104D8W---	RADIATOR	J132	QJUM-1045D8075-	JUMPER
I911	VSICA7824---8-	IC 3PIN	J133	QJUM-1045D8075-	JUMPER
I911	VSIMC7824---M-	IC	J134	QJUM-1045D8050-	JUMPER
I911	XJASD30P06000--	SCREW	J135	QJUM-1045D8100-	JUMPER
J1	QJUM-1045D8100-	JUMPER	J136	QJUM-1045D8100-	JUMPER
J10	QJUM-1045D8100-	JUMPER	J137	QJUM-1045D8100-	JUMPER
J100	QJUM-1045D8100-	JUMPER	J138	QJUM-1045D8100-	JUMPER
J101	QJUM-1045D8100-	JUMPER	J139	QJUM-1045D8100-	JUMPER
J102	QJUM-1045D8125-	JUMPER	J14	QJUM-1045D8100-	JUMPER
J103	QJUM-1045D8075-	JUMPER	J140	QJUM-1045D8100-	JUMPER
J104	QJUM-1045D8100-	JUMPER	J141	QJUM-1045D8100-	JUMPER
J105	QJUM-1045D8125-	JUMPER	J142	QJUM-1045D8100-	JUMPER
J105	QJUM-1045D8150-	JUMPER	J143	QJUM-1045D8150-	JUMPER
J106	QJUM-1045D8100-	JUMPER	J144	QJUM-1045D8050-	JUMPER
J107	QJUM-1045D8100-	JUMPER	J145	QJUM-1045D8100-	JUMPER
J108	QJUM-1045D8100-	JUMPER	J146	QJUM-1045D8050-	JUMPER
J109	QJUM-1045D8100-	JUMPER	J147	QJUM-1045D8100-	JUMPER
J11	QJUM-1045D8100-	JUMPER	J148	QJUM-1045D8075-	JUMPER
J111	QJUM-1045D8125-	JUMPER	J149	QJUM-1045D8050-	JUMPER
J112	QJUM-1045D8125-	JUMPER	J15	QJUM-1045D8100-	JUMPER
J113	QJUM-1045D8050-	JUMPER	J150	QJUM-1045D8200-	JUMPER
J114	QJUM-1045D8050-	JUMPER	J152	QJUM-1045D8075-	JUMPER
J115	QJUM-1045D8100-	JUMPER	J153	QJUM-1045D8100-	JUMPER
J116	QJUM-1045D8050-	JUMPER	J154	QJUM-1045D8100-	JUMPER
J117	QJUM-1045D8100-	JUMPER	J155	QJUM-1045D8200-	JUMPER
J118	QJUM-1045D8100-	JUMPER	J156	QJUM-1045D8200-	JUMPER
J119	QJUM-1045D8100-	JUMPER	J157	QJUM-1045D8100-	JUMPER
J12	QJUM-1045D8100-	JUMPER	J158	QJUM-1045D8100-	JUMPER
J120	QJUM-1045D8150-	JUMPER	J159	QJUM-1045D8100-	JUMPER
J121	QJUM-1045D8150-	JUMPER	J16	QJUM-1045D8050-	JUMPER

J160	QJUM-1045D8200-	JUMPER	J198	QJUM-1045D8200-	JUMPER
J161	QJUM-1045D8150-	JUMPER	J199	QJUM-1045D8150-	JUMPER
J162	QJUM-1045D8100-	JUMPER	J2	QJUM-1045D8150-	JUMPER
J163	QJUM-1045D8100-	JUMPER	J20	QJUM-1045D8150-	JUMPER
J165	QJUM-1045D8100-	JUMPER	J200	QJUM-1045D8100-	JUMPER
J166	QJUM-1045D8150-	JUMPER	J201	QJUM-1045D8100-	JUMPER
J167	QJUM-1045D8150-	JUMPER	J202	QJUM-1045D8150-	JUMPER
J168	QJUM-1045D8150-	JUMPER	J203	QJUM-1045D8150-	JUMPER
J169	QJUM-1045D8175-	JUMPER	J204	QJUM-1045D8100-	JUMPER
J17	QJUM-1045D8100-	JUMPER	J205	QJUM-1045D8075-	JUMPER
J170	QJUM-1045D8125-	JUMPER	J207	QJUM-1045D8150-	JUMPER
J171	QJUM-1045D8100-	JUMPER	J208	QJUM-1045D8150-	JUMPER
J172	QJUM-1045D8150-	JUMPER	J21	QJUM-1045D8050-	JUMPER
J173	QJUM-1045D8100-	JUMPER	J215	QJUM-1045D8125-	JUMPER
J173A	QJUM-1045D8100-	JUMPER	J22	QJUM-1045D8100-	JUMPER
J173B	QJUM-1045D8100-	JUMPER	J220	QJUM-1045D8075-	JUMPER
J174	QJUM-1045D8100-	JUMPER	J221	QJUM-1045D8100-	JUMPER
J175	QJUM-1045D8100-	JUMPER	J223	QJUM-1045D8100-	JUMPER
J176	QJUM-1045D8100-	JUMPER	J224	QJUM-1045D8100-	JUMPER
J177	QJUM-1045D8100-	JUMPER	J225	QJUM-1045D8125-	JUMPER
J178	QJUM-1045D8150-	JUMPER	J226	QJUM-1045D8125-	JUMPER
J179	QJUM-1045D8100-	JUMPER	J227	QJUM-1045D8125-	JUMPER
J18	QJUM-1045D8100-	JUMPER	J228	QJUM-1045D8125-	JUMPER
J180	QJUM-1045D8100-	JUMPER	J229	QJUM-1045D8100-	JUMPER
J181	QJUM-1045D8100-	JUMPER	J23	QJUM-1045D8100-	JUMPER
J182	QJUM-1045D8100-	JUMPER	J230	QJUM-1045D8100-	JUMPER
J183	QJUM-1045D8100-	JUMPER	J231	QJUM-1045D8100-	JUMPER
J184	QJUM-1045D8100-	JUMPER	J232	QJUM-1045D8100-	JUMPER
J185	QJUM-1045D8100-	JUMPER	J233	QJUM-1045D8100-	JUMPER
J186	QJUM-1045D8100-	JUMPER	J234	QJUM-1045D8050-	JUMPER
J187	QJUM-1045D8100-	JUMPER	J235	QJUM-1045D8100-	JUMPER
J188	QJUM-1045D8100-	JUMPER	J236	QJUM-1045D8150-	JUMPER
J189	QJUM-1045D8100-	JUMPER	J237	QJUM-1045D8100-	JUMPER
J19	QJUM-1045D8050-	JUMPER	J238	QJUM-1045D8075-	JUMPER
J192	QJUM-1045D8050-	JUMPER	J239	QJUM-1045D8100-	JUMPER
J193	QJUM-1045D8200-	JUMPER	J24	QJUM-1045D8050-	JUMPER
J194	QJUM-1045D8150-	JUMPER	J240	QJUM-1045D8100-	JUMPER
J195	QJUM-1045D8100-	JUMPER	J241	QJUM-1045D8100-	JUMPER
J196	QJUM-1045D8100-	JUMPER	J242	QJUM-1045D8100-	JUMPER
J197	QJUM-1045D8150-	JUMPER	J243	QJUM-1045D8100-	JUMPER

J244	QJUM-1045D8150-	JUMPER	J47	QJUM-1045D8100-	JUMPER
J245	QJUM-1045D8100-	JUMPER	J48	QJUM-1045D8100-	JUMPER
J247	QJUM-1045D8100-	JUMPER	J49	QJUM-1045D8100-	JUMPER
J248	QJUM-1045D8150-	JUMPER	J5	QJUM-1045D8150-	JUMPER
J249	QJUM-1045D8075-	JUMPER	J51	QJUM-1045D8075-	JUMPER
J25	QJUM-1045D8050-	JUMPER	J52	QJUM-1045D8075-	JUMPER
J250	QJUM-1045D8050-	JUMPER	J53	QJUM-1045D8150-	JUMPER
J251	QJUM-1045D8100-	JUMPER	J54	QJUM-1045D8100-	JUMPER
J252	QJUM-1045D8150-	JUMPER	J55	QJUM-1045D8100-	JUMPER
J253	QJUM-1045D8050-	JUMPER	J56	QJUM-1045D8100-	JUMPER
J255	QJUM-1045D8100-	JUMPER	J57	QJUM-1045D8050-	JUMPER
J256	QJUM-1045D8075-	JUMPER	J58	QJUM-1045D8075-	JUMPER
J257	QJUM-1045D8075-	JUMPER	J59	QJUM-1045D8075-	JUMPER
J259	QJUM-1045D8100-	JUMPER	J6	QJUM-1045D8100-	JUMPER
J26	QJUM-1045D8075-	JUMPER	J60	QJUM-1045D8100-	JUMPER
J260	QJUM-1045D8050-	JUMPER	J61	QJUM-1045D8100-	JUMPER
J261	QJUM-1045D8075-	JUMPER	J62	QJUM-1045D8100-	JUMPER
J27	QJUM-1045D8050-	JUMPER	J63	QJUM-1045D8100-	JUMPER
J28	QJUM-1045D8075-	JUMPER	J64	QJUM-1045D8100-	JUMPER
J29	QJUM-1045D8150-	JUMPER	J65	QJUM-1045D8200-	JUMPER
J3	QJUM-1045D8100-	JUMPER	J67	QJUM-1045D8100-	JUMPER
J30	QJUM-1045D8075-	JUMPER	J68	QJUM-1045D8150-	JUMPER
J31	QJUM-1045D8125-	JUMPER	J69	QJUM-1045D8075-	JUMPER
J32	QJUM-1045D8075-	JUMPER	J7	QJUM-1045D8100-	JUMPER
J33	QJUM-1045D8050-	JUMPER	J70	QJUM-1045D8100-	JUMPER
J34	QJUM-1045D8100-	JUMPER	J71	QJUM-1045D8100-	JUMPER
J35	QJUM-1045D8050-	JUMPER	J72	QJUM-1045D8100-	JUMPER
J36	QJUM-1045D8075-	JUMPER	J73	QJUM-1045D8175-	JUMPER
J37	QJUM-1045D8100-	JUMPER	J74	QJUM-1045D8075-	JUMPER
J38	QJUM-1045D8100-	JUMPER	J75	QJUM-1045D8050-	JUMPER
J39	QJUM-1045D8100-	JUMPER	J76	QJUM-1045D8050-	JUMPER
J4	QJUM-1045D8150-	JUMPER	J77	QJUM-1045D8075-	JUMPER
J40	QJUM-1045D8100-	JUMPER	J78	QJUM-1045D8100-	JUMPER
J41	QJUM-1045D8100-	JUMPER	J79	VSD1N4148—U	DIODE
J42	QJUM-1045D8050-	JUMPER	J8	QJUM-1045D8050-	JUMPER
J42A	QJUM-1045D8125-	JUMPER	J80	QJUM-1045D8075-	JUMPER
J43	QJUM-1045D8050-	JUMPER	J81	QJUM-1045D8125-	JUMPER
J44	QJUM-1045D8050-	JUMPER	J82	QJUM-1045D8100-	JUMPER
J45	QJUM-1045D8125-	JUMPER	J83	QJUM-1045D8100-	JUMPER
J46	QJUM-1045D8050-	JUMPER	J84	QJUM-1045D8150-	JUMPER

J85	QJUM-1045D8150-	JUMPER	P106	QCNWP4806-8001-	CONNECTOR 6 PIN
J86	QJUM-1045D8125-	JUMPER	P107	QCNWP0804-8008-	CONNECTOR 4 PIN
J87	QJUM-1045D8125-	JUMPER	P201	QCNWP0804-8008-	CONNECTOR 4 PIN
J88	QJUM-1045D8100-	JUMPER	P202	QCNWP0807-8007-	CONNECTOR 7 PIN
J89	QJUM-1045D8100-	JUMPER	P901	QCNWP0806-8006-	CONNECTOR 6 PIN
J9	QJUM-1045D8050-	JUMPER	P902	QCNC1600D8---	CONNECTOR 3P(1P+1P)
J90	QJUM-1045D8150-	JUMPER	Q001	VST2SC1815Y--P	TRANSISTOR
J91	QJUM-1045D8100-	JUMPER	Q001	VSTKSC1815Y--8P	TRANSISTOR
J92	QJUM-1045D8100-	JUMPER	Q002	VST2SC1815Y--P	TRANSISTOR
J93	QJUM-1045D8100-	JUMPER	Q002	VSTKSC1815Y--8P	TRANSISTOR
J94	QJUM-1045D8125-	JUMPER	Q003	VST2SC1815Y--P	TRANSISTOR
J95	QJUM-1045D8150-	JUMPER	Q003	VSTKSC1815Y--8P	TRANSISTOR
J96	QJUM-1045D8100-	JUMPER	Q004	VST2SC1815Y--P	TRANSISTOR
J97	VSD1N4148---U	DIODE	Q004	VSTKSC1815Y--8P	TRANSISTOR
J98	QJUM-1045D8150-	JUMPER	Q006	VST2SC1815Y--P	TRANSISTOR
J99	QJUM-1045D8150-	JUMPER	Q006	VSTKSC1815Y--8P	TRANSISTOR
L701	RCHO-2716D8---	CHOKE	Q501	VST2SA673C---P	TRANSISTOR
L702	RCILL1122D8---	COIL	Q502	VST2SC1815Y--P	TRANSISTOR
L703	RCHO-2717D8---	CHOKE	Q502	VSTKSC1815Y--8P	TRANSISTOR
L704	RCHO-2697D8---	CHOKE	Q503	VST2SC1815Y--P	TRANSISTOR
L705	RCHO-2696D8---	CHOKE	Q503	VSTKSC1815Y--8P	TRANSISTOR
L802	RCHO-2698D8---	CHOKE	Q504	PCUSP1369D8F-A	CUSHION
L803	RCHO-2698D8---	CHOKE	Q504	PISLM0047D8---	INSULATOR
L804	VCNCP0102-PJST-	CONNECTOR 2 PIN	Q504	PRDAA6260D8W---	RADIATOR
L805	VCNCP0873-JJST-	CONNECTOR 3 PIN	Q504	VST2SC2238---	TRANSISTOR
L901	RCILF1085D8---	COIL	Q504	VST2SD1138C---	TRANSISTOR
L902	RCHO-1108D8---	CHOKE	Q504	XJISD30P12000-	SCREW
L903	RCHO-1108D8---	CHOKE	Q505	PRDAA6260D8W---	RADIATOR
L905	RCHOL1052D8---	CHOKE	Q505	VST2SA968-----	TRANSISTOR
L906	RCHOL1052D8---	CHOKE	Q505	XJASD30P08000-	SCREW
L910	RCHO-1051D8--A	CHOKE	Q506	VSTMPSA06---MP	TRANSISTOR
L911	RCHO-1051D8--A	CHOKE	Q507	VST2SC4152--6-	TRANSISTOR
NR901	VSHJNR15S100L--	THERMISTOR	Q710	VSTDTC114ES--RP	TRANSISTOR
P001	VCNCP0908SEJST-	CONNECTOR 8 PIN	Q713	VST2SK2015--6-	TRANSISTOR
P002	QCNWP0806-8010-	CONNECTOR 6 PIN	Q713	VSTIRF610-----	TRANSISTOR
P003	QCNWP4806-8001-	CONNECTOR 6 PIN	Q713	VSTIRF610---Q-	TRANSISTOR
P005	VCNCP0904SEJST-	CONNECTOR 4 PIN	Q714	VST2SC1473QR-6P	TRANSISTOR
P101	QCNWP0806-8010-	CONNECTOR 6 PIN	Q715	PISLM0038D8---	SILICON RUBBER
P102	QCNWP0806-8006-	CONNECTOR 6 PIN	Q715	PRDAA6231D8W--F	RADIATOR
P104	QCNWP0807-8007-	CONNECTOR 7 PIN	Q715	VST2SD1641--6-	TRANSISTOR

Q715	XBMSD30P10000-	SCREW	Q804	PRDAA6260D8W-	RADIATOR
Q715	XWUSN32-4F065-	WASHER	Q804	VST2SK1358-D-	TRANSISTOR
Q716	LANGF1631D8-	LANGLE	Q804	VSTIRFPF50-Q-	TRANSISTOR
Q716	PISLM0052D8-	INSULATOR	Q804	XBMSD30P10000-	SCREW
Q716	PRDAA6231D8W-F	RADIATOR	Q804	XWUSN32-4F065-	WASHER
Q716	VST2SC5331-D-	TRANSISTOR	Q805	VSTMPS3646-P	TRANSISTOR
Q716	XBMSD30P10000-	SCREW	Q806	VSTMPS3646-P	TRANSISTOR
Q716	XWUSN32-4F065-	WASHER	Q807	VSTMPS3646-P	TRANSISTOR
Q717	VSTDTC114ES-RP	TRANSISTOR	Q808	VST2SC4212H-6-	TRANSISTOR
Q718	VSTIRF640-	TRANSISTOR	Q809	VST2SD667C-HP	TRANSISTOR
Q719	VSTDTC114ES-RP	TRANSISTOR	Q810	VST2SB647-HP	TRANSISTOR
Q720	PRDAA6104D8W-	RADIATOR	Q811	PRDAA6260D8W-	RADIATOR
Q720	VSTIRF640-	TRANSISTOR	Q811	VSTIRFS634-8-	TRANSISTOR
Q720	XJASD30P06000-	SCREW	Q811	XJASD30P08000-	SCREW
Q721	VSTDTC114ES-RP	TRANSISTOR	Q813	VSTDTA114ES-RP	TRANSISTOR
Q722	VSTIRF640-	TRANSISTOR	Q814	VSTAC05F-4-	TRANSISTOR
Q723	VSTDTC114ES-RP	TRANSISTOR	Q815	VST2SC1162C-	TRANSISTOR
Q724	VSTIRF640-	TRANSISTOR	Q816	VST2SA715C-	TRANSISTOR
Q725	VSTMPS3646-P	TRANSISTOR	Q818	VST2SA1370DE-EP	TRANSISTOR
Q726	VSTMPS3646-P	TRANSISTOR	Q819	VST2SC3811Q-P	TRANSISTOR
Q728	VSTMPS3646-P	TRANSISTOR	Q820	VST2SC1815Y-P	TRANSISTOR
Q730	PRDAA0010D8W-	RADIATOR	Q820	VSTKSC1815Y-8P	TRANSISTOR
Q730	VST2SC4212H-6-	TRANSISTOR	Q821	VSTDTC114ES-RP	TRANSISTOR
Q730	XJASD30P08000-	SCREW	Q902	VST2SA844D-P	TRANSISTOR
Q731	VST2SD667C-HP	TRANSISTOR	Q903	PISLM0038D8-	SILICON RUBBER
Q732	VST2SB647-HP	TRANSISTOR	Q903	PRDAA6133D8W-N	RADIATOR
Q733	PRDAA6260D8W-	RADIATOR	Q903	VST2SK2078-D-	TRANSISTOR
Q733	VSTIRFS634-8-	TRANSISTOR	Q903	VST2SK956-01-V-	TRANSISTOR
Q733	XJASD30P08000-	SCREW	Q903	VSTIRFPE50-Q-	TRANSISTOR
Q735	VSTDTC114ES-RP	TRANSISTOR	Q903	XJASD30P10000-	SCREW
Q736	VST2SC1815Y-P	TRANSISTOR	Q905	VSTDTC114ES-RP	TRANSISTOR
Q736	VSTKSC1815Y-8P	TRANSISTOR	Q907	VST2SA1625MLT4P	TRANSISTOR
Q737	VST2SC1815Y-P	TRANSISTOR	Q908	PRDAA6242D8W-B	RADIATOR
Q737	VSTKSC1815Y-8P	TRANSISTOR	Q908	VST2SK2647-01-V-	TRANSISTOR
Q738	VSTMPS2907-M-	TRANSISTOR	Q908	XJASD30P06000-	SCREW
Q739	VSTDTC114ES-RP	TRANSISTOR	Q910	VST2SC1162C-	TRANSISTOR
Q801	VSTMPS3646-P	TRANSISTOR	Q911	VST2SA1015Y-P	TRANSISTOR
Q802	VST2SC1213C-P	TRANSISTOR	R001	VRMPTV6-471J-U	M 470 J 1/6W
Q803	VST2SA673C-P	TRANSISTOR	R002	VRMPTV6-471J-U	M 470 J 1/6W
Q804	PISLM0038D8-	SILICON RUBBER	R003	VRMPTV6-471J-U	M 470 J 1/6W

R004	VRMPTV6-471J-U	M 470 J 1/6W	R045	VRMPTV6-103J-U	M 10K J 1/6W
R005	VRMPTV6-471J-U	M 470 J 1/6W	R046	VRMPTV6-103J-U	M 10K J 1/6W
R006	VRMPTV6-471J-U	M 470 J 1/6W	R047	VRMPTV4-223J-U	M 22K J 1/4W
R007	VRMPTV6-471J-U	M 470 J 1/6W	R048	VRMPTV4-183J-U	M 18K J 1/4W
R008	VRMPTV6-471J-U	M 470 J 1/6W	R049	VRMPTV4-392J-U	M 3.9K J 1/4W
R009	VRMPTV6-471J-U	M 470 J 1/6W	R050	VRMPTV6-153J-U	M 15K J 1/6W
R010	VRMPTV6-471J-U	M 470 J 1/6W	R051	VRMPTV4-104J-U	M 100K J 1/4W
R011	VRMPTV4-471J-U	M 470 J 1/4W	R052	VRMPTV4-103J-U	M 10K J 1/4W
R012	VRMPTV4-102J-U	M 1K J 1/4W	R053	VRMPTV4-153J-U	M 15K J 1/4W
R013	VRMPTV6-471J-U	M 470 J 1/6W	R054	VRMPTV4-221J-U	M 220 J 1/4W
R014	VRMPTV6-471J-U	M 470 J 1/6W	R055	VRMPTV4-221J-U	M 220 J 1/4W
R015	VRMPTV6-221J-U	M 220 J 1/6W	R056	VRMPTV4-471J-U	M 470 J 1/4W
R016	VRMPTV4-221J-U	M 220 J 1/4W	R057	VRMPTV6-102J-U	M 1K J 1/6W
R017	VRMPTV6-471J-U	M 470 J 1/6W	R060	VRMPTV6-472J-U	M 4.7K J 1/6W
R018	VRMPTV6-471J-U	M 470 J 1/6W	R062	VRMPTV6-102J-U	M 1K J 1/6W
R019	VRMPTV6-471J-U	M 470 J 1/6W	R063	VRMPTV6-102J-U	M 1K J 1/6W
R020	VRMPTV6-471J-U	M 470 J 1/6W	R064	VRMPTV6-102J-U	M 1K J 1/6W
R021	VRMPTV4-331J-U	M 330 J 1/4W	R065	VRMPTV6-102J-U	M 1K J 1/6W
R022	VRMPTV4-331J-U	M 330 J 1/4W	R066	VRMPTV6-102J-U	M 1K J 1/6W
R023	VRMPTV4-331J-U	M 330 J 1/4W	R067	VRMPTV6-103J-U	M 10K J 1/6W
R024	VRMPTV4-331J-U	M 330 J 1/4W	R068	VRMPTV6-104J-U	M 100K J 1/6W
R025	VRMPTV4-331J-U	M 330 J 1/4W	R069	VRMPTV4-102J-U	M 1K J 1/4W
R026	VRMPTV4-331J-U	M 330 J 1/4W	R072	VRMPTV4-102J-U	M 1K J 1/4W
R027	VRMPTV4-223J-U	M 22K J 1/4W	R073	VRMPTV6-102J-U	M 1K J 1/6W
R028	VRMPTV6-331J-U	M 330 J 1/6W	R077	VRMPTV6-103J-U	M 10K J 1/6W
R029	VRMPTV6-331J-U	M 330 J 1/6W	R078	VRMPTV4-104J-U	M 100K J 1/4W
R030	VRMPTV4-221J-U	M 220 J 1/4W	R079	VRMPTV4-103J-U	M 10K J 1/4W
R031	VRMPTV4-471J-U	M 470 J 1/4W	R080	VRMPTV4-563J-U	M 56K J 1/4W
R032	VRMPTV4-471J-U	M 470 J 1/4W	R081	VRMPTV4-103J-U	M 10K J 1/4W
R033	VRMPTV6-331J-U	M 330 J 1/6W	R082	VRMPTV4-102J-U	M 1K J 1/4W
R035	VRMPTV6-471J-U	M 470 J 1/6W	R083	VRMPTV6-272J-U	M 2.7K J 1/6W
R036	VRMPTV6-471J-U	M 470 J 1/6W	R084	VRMPTV6-153J-U	M 15K J 1/6W
R037	VRMPTV6-471J-U	M 470 J 1/6W	R085	VRMPTV6-303J-U	M 30K J 1/6W
R038	VRMPTV6-223J-U	M 22K J 1/6W	R086	VRMPTV4-103J-U	M 10K J 1/4W
R039	VRMPTV4-472J-U	M 4.7K J 1/4W	R087	VRMPTV4-822J-U	M 8.2K J 1/4W
R040	VRMPTV4-472J-U	M 4.7K J 1/4W	R088	VRMPTV6-103J-U	M 10K J 1/6W
R041	VRMPTV6-103J-U	M 10K J 1/6W	R092	VRMPTV6-103J-U	M 10K J 1/6W
R042	VRMPTV4-473J-U	M 47K J 1/4W	R093	VRMPTV4-103J-U	M 10K J 1/4W
R043	VRMPTV4-753J-U	M 75K J 1/4W	R096	VRMPTV4-472J-U	M 4.7K J 1/4W
R044	VRMPTV4-221J-U	M 220 J 1/4W	R097	VRMPTV4-472J-U	M 4.7K J 1/4W

R098	VRMPTV4-472J-U	M 4.7K J 1/4W	R535	VRMPTV6-470J-U	M 47 J 1/6W
R099	VRMPTV4-472J-U	M 4.7K J 1/4W	R601	VRMPTV6-822J-U	M 8.2K J 1/6W
R0A0	VRMPTV4-472J-U	M 4.7K J 1/4W	R602	VRMPTV6-103J-U	M 10K J 1/6W
R0A1	VRMPTV4-472J-U	M 4.7K J 1/4W	R603	VRMPTV6-223J-U	M 22K J 1/6W
R0A2	VRMPTV4-472J-U	M 4.7K J 1/4W	R604	VRMPTV4-4702F-U	M 47K F 1/4W
R0A3	VRMPTV4-472J-U	M 4.7K J 1/4W	R605	VRMPTV6-1202F-U	M 12K F 1/6W
R0A4	VRMPTV4-102J-U	M 1K J 1/4W	R606	VRMPTV6-183J-U	M 18K J 1/6W
R0A5	VRMPTV4-202J-U	M 2K J 1/4W	R607	VRMPTV6-223J-U	M 22K J 1/6W
R501	VRMPTV6-104J-U	M 100K J 1/6W	R608	VRMPTV4-104J-U	M 100K J 1/4W
R502	VRMPTV6-102J-U	M 1K J 1/6W	R609	VRMPTV6-752J-U	M 7.5K J 1/6W
R503	VRMPTV6-822J-U	M 8.2K J 1/6W	R610	VRMPTV6-223J-U	M 22K J 1/6W
R504	VRMPTV6-104J-U	M 100K J 1/6W	R611	VRMPTV6-153J-U	M 15K J 1/6W
R505	VRMPTV6-4702F-U	M 47K F 1/6W	R612	VRCMTV2-1R8J-U	C 1.8 J 1/2W
R506	VRMPTV6-224J-U	M 220K J 1/6W	R613	VRMPTV4-102J-U	M 1K J 1/4W
R507	VRMPTV6-392J-U	M 3.9K J 1/6W	R614	VRMPTV6-103J-U	M 10K J 1/6W
R508	VRMPTV6-182J-U	M 1.8K J 1/6W	R615	VRCMTV2-471J-U	C 470 J 1/2W
R509	VRMPTV6-105J-U	M 1M J 1/6W	R616	VRCMTV2-1R1J-U	C 1.1 J 1/2W
R511	VRMPTV6-103J-U	M 10K J 1/6W	R617	VRCMTV2-R50J-U	C 0.5 J 1/2W
R512	VRMPTV6-103J-U	M 10K J 1/6W	R618	VRCMTV2-1R8J-U	C 1.8 J 1/2W
R513	VRMPTV6-272J-U	M 2.7K J 1/6W	R619	VRMPTV6-102J-U	M 1K J 1/6W
R514	VRMPTV6-822J-U	M 8.2K J 1/6W	R619A	VRMPTV6-472J-U	M 4.7K J 1/6W
R515	VRNMK02-220J--	N 22 J 2W	R620	VRMPTV6-101J-U	M 100 J 1/6W
R516	VRMPTV6-393J-U	M 39K J 1/6W	R621	VRMPTV6-304J-U	M 300K J 1/6W
R517	VRMPTV4-393J-U	M 39K J 1/4W	R622	VRMPTV4-683J-U	M 68K J 1/4W
R518	VRCMTV2-100J-U	C 10 J 1/2W	R622A	VRMPTV6-393J-U	M 39K J 1/6W
R519	VRCMTV2-100J-U	C 10 J 1/2W	R623	VRMPTV6-102J-U	M 1K J 1/6W
R520	VRMPTV6-2202F-U	M 22K F 1/6W	R701	VRMPTV6-1802F-U	M 18K F 1/6W
R521	VRMPTV6-222J-U	M 2.2K J 1/6W	R701A	VRMPTV6-102J-U	M 1K J 1/6W
R522	VRMPTV4-562J-U	M 5.6K J 1/4W	R702	VRMPTV6-273J-U	M 27K J 1/6W
R523	VRMPTV4-562J-U	M 5.6K J 1/4W	R702A	VRMPTV6-472J-U	M 4.7K J 1/6W
R524	VRCMTV2-564J-U	C 560K J 1/2W	R702B	VRMPTV6-1332F-U	M 13.3 F 1/6W
R525	VRCMTV2-564J-U	C 560K J 1/2W	R702C	VRMPTV6-4702F-U	M 47K F 1/6W
R526	VRCMTV2-334J-U	C 330K J 1/2W	R702D	VRMPTV6-1072F-U	M 10.7K F 1/6W
R527	VRCMTV2-334J-U	C 330K J 1/2W	R702E	VRMPTV6-2491F-U	M 2.49K F 1/6W
R528	VRCMTV2-184J-U	C 180K J 1/2W	R703	VRMPTV4-103J-U	M 10K J 1/4W
R529	VRMPTV6-432J-U	M 4.3K J 1/6W	R703A	VRMPTV4-3R3J-U	M 3.3 J 1/4W
R531	VRMPTV6-183J-U	M 18K J 1/6W	R704	VRMPTV6-223J-U	M 22K J 1/6W
R532	VRMPTV6-182J-U	M 1.8K J 1/6W	R704	VRMPTV6-913J-U	M 91K J 1/6W
R533	VRNMK01-680J--	N 68 J 1W	R705	VRMPTV6-202J-U	M 2K J 1/6W
R534	VRMPTV6-470J-U	M 47 J 1/6W	R705	VRMPTV6-392J-U	M 3.9K J 1/6W

R705A	VRMPTV6-2402F-U	M 24K F 1/6W	R749	VRNMK01--561J--	N 560 J 1W
R705B	VRMPTV6--752J-U	M 7.5K J 1/6W	R750	VRMPTV4--470J-U	M 47 J 1/4W
R705C	VRMPTV6--183J-U	M 18K J 1/6W	R751	VRMPTV4--332J-U	M 3.3K J 1/4W
R706	VRMPTV4--105J-U	M 1M J 1/4W	R752	VCMEHF2AG105J--	M 1U J 100V
R706A	VRMPTV4--363J-U	M 36K J 1/4W	R752	VRNMK02--1R2J--	N 1.2 J 2W
R706B	VRMPTV6--753J-U	M 75K J 1/6W	R753	VRNMK02--1R2J--	N 1.2 J 2W
R707	VRNMK01--221J--	N 220 J 1W	R754	VRMPTV6--104J-U	M 100K J 1/6W
R708	VRMPTV4-1242F-U	M 12.4K F 1/4W	R755	VRMPTV6-5620F-U	M 562 F 1/6W
R708B	VRMPTV6--333J-U	M 33K J 1/6W	R756	VRMPTV4-1541F-U	M 1.54K F 1/4W
R709	VRMPTV6-8202F-U	M 82K F 1/6W	R757	VRCMTV2--332J-U	C 3.3K J 1/2W
R709A	VRMPTV4--202J-U	M 2K J 1/4W	R758	VRCMTV2--332J-U	C 3.3K J 1/2W
R709B	VRMPTV6--102J-U	M 1K J 1/6W	R759	VRNMK03--6R8J--	N 6.8 J 3W
R710	VRMPTV6--203J-U	M 20K J 1/6W	R760	VRCMTV2--472J-U	C 4.7K J 1/2W
R711	VRMPTV4--822J-U	M 8.2K J 1/4W	R761	VRMPTV6--100J-U	M 10 J 1/6W
R712	QJUM-1045D8050-	JUMPER	R762	VRCMTV2--472J-U	C 4.7K J 1/2W
R713	VRMPTV6--154J-U	M 150K J 1/6W	R762A	VRCMTV2--2R2J-U	C 2.2 J 1/2W
R714	VRMPTV6--272J-U	M 2.7K J 1/6W	R763	VRCMTV2--472J-U	C 4.7K J 1/2W
R715	QJUM-1045D8100-	JUMPER	R764	VRMPTV6--100J-U	M 10 J 1/6W
R716	QJUM-1045D8100-	JUMPER	R765	VRMPTV6--100J-U	M 10 J 1/6W
R717	VRMPTV6--272J-U	M 2.7K J 1/6W	R766	VRCMTV2--472J-U	C 4.7K J 1/2W
R718	VRCMTV2--271J-U	C 270 J 1/2W	R767	VRMPTV6--100J-U	M 10 J 1/6W
R720	VRMPTV6--104J-U	M 100K J 1/6W	R768	VRFPK01--220J--	F 22 J 1W
R721	VRMPTV6--104J-U	M 100K J 1/6W	R769	VRNMK01--161J--	N 160 J 1W
R722	VRMPTV4--222J-U	M 2.2K J 1/4W	R770	VRMPTV6--123J-U	M 12K J 1/6W
R723	VRMPTV4--471J-U	M 470 J 1/4W	R771	VRMPTV6--103J-U	M 10K J 1/6W
R724	VRMPTV4--100J-U	M 10 J 1/4W	R773	VRMPTV6--103J-U	M 10K J 1/6W
R725	VRMPTV6--104J-U	M 100K J 1/6W	R774	VRMPTV6--113J-U	M 11K J 1/6W
R726	VRMPTV6--104J-U	M 100K J 1/6W	R775	VRMPTV6--103J-U	M 10K J 1/6W
R727A	VCMEHF2AG105J--	M 1U J 100V	R776	VRMPTV6--182J-U	M 1.8K J 1/6W
R729	VRMPTV6--752J-U	M 7.5K J 1/6W	R778	VRMPTV6-2202F-U	M 22K F 1/6W
R730	VRMPTV6--104J-U	M 100K J 1/6W	R779	VRMPTV6-1502F-U	M 15K F 1/6W
R731	VRMPTV6--513J-U	M 51K J 1/6W	R780	VRMPTV6-4702F-U	M 47K F 1/6W
R732	VRMPTV6--104J-U	M 100K J 1/6W	R780A	VRMPTV6--103J-U	M 10K J 1/6W
R734	VRMPTV6--101J-U	M 100 J 1/6W	R781	VRMPTV6--223J-U	M 22K J 1/6W
R743	VRNMK01--1R0J--	N 1 J 1W	R781A	VRMPTV6--224J-U	M 220K J 1/6W
R745	VRNMK05--151J--	N 150 J 5W	R782	VRMPTV6--683J-U	M 68K J 1/6W
R746	VRMPTV6-2201F-U	M 2.2K F 1/6W	R783	VRMPTV6--103J-U	M 10K J 1/6W
R747	VRMPTV6--563J-U	M 56K J 1/6W	R783A	VRMPTV6--104J-U	M 100K J 1/6W
R748	VRMPTV6-1332F-U	M 13.3 F 1/6W	R784	VRMPTV6--303J-U	M 30K J 1/6W
R749	VRCMTV2--122J-U	C 1.2K J 1/2W	R785	VRCMTV2--681J-U	C 680 J 1/2W

R786	VRMPTV6-100J-U	M 10 J 1/6W	R816	VRMPTV6-472J-U	M 4.7K J 1/6W
R787	VRMPTV6-472J-U	M 4.7K J 1/6W	R817	VRMPTV6-102J-U	M 1K J 1/6W
R787A	VRMPTV4-103J-U	M 10K J 1/4W	R818	VRMPTV6-472J-U	M 4.7K J 1/6W
R788	VRMPTV6-102J-U	M 1K J 1/6W	R819	VRMPTV4-103J-U	M 10K J 1/4W
R789	VRMPTV6-472J-U	M 4.7K J 1/6W	R820	VRCMTV2-681J-U	C 680 J 1/2W
R790	VRMPTV4-472J-U	M 4.7K J 1/4W	R821	VRMPTV6-3002F-U	M 30K F 1/6W
R791	VRMPTV6-102J-U	M 1K J 1/6W	R822	VRMPTV6-6800F-U	M 680 F 1/6W
R792	VRCMTV2-391J-U	C 390 J 1/2W	R823	VRMPTV6-753J-U	M 75K J 1/6W
R793	VRCMTV2-101J-U	C 100 J 1/2W	R824	VRMPTV6-103J-U	M 10K J 1/6W
R794	VRCMTV2-101J-U	C 100 J 1/2W	R825	VRMPTV6-103J-U	M 10K J 1/6W
R795	VRCMTV2-220J-U	C 22 J 1/2W	R825A	VRMPTV6-102J-U	M 1K J 1/6W
R796	VRMPTV6-104J-U	M 100K J 1/6W	R826	VRCMTV2-391J-U	C 390 J 1/2W
R797	VRNMK01-683J--	N 68K J 1W	R827	VRCMTV2-101J-U	C 100 J 1/2W
R798	VRMPTV6-1211F-U	M 1.21K F 1/6W	R828	VRCMTV2-101J-U	C 100 J 1/2W
R799	VRMPTV6-1541F-U	M 1.54K F 1/6W	R829	VRMPTV4-220J-U	M 22 J 1/4W
R7A1	VRMPTV6-103J-U	M 10K J 1/6W	R830	VRMPTV6-104J-U	M 100K J 1/6W
R7A2	VRMPTV6-103J-U	M 10K J 1/6W	R831	VRMPTV6-104J-U	M 100K J 1/6W
R7A3	VRMPTV6-472J-U	M 4.7K J 1/6W	R833	VRMPTV6-512J-U	M 5.1K J 1/6W
R7A4	VRMPTV6-104J-U	M 100K J 1/6W	R834	VRMPTV4-563J-U	M 56K J 1/4W
R7A5	VRMPTV4-101J-U	M 100 J 1/4W	R835	VRMPTV6-204J-U	M 200K J 1/6W
R7A6	VRMPTV6-102J-U	M 1K J 1/6W	R836	VRMPTV4-102J-U	M 1K J 1/4W
R7A7	VRMPTV6-153J-U	M 15K J 1/6W	R837	VRNMK02-151J--	N 150 J 2W
R7A8	VRMPTV6-101J-U	M 100 J 1/6W	R838	VRNMK01-104J--	N 100K J 1W
R7F1	QFS-N252F-81UAU	FUSE 2500mA	R839	VRNMK01-474J--	N 470K J 1W
R7F1	VRFPKV2-1R0J--	F 1 J 1/2W	R840	VRMPTV6-110J-U	M 11 J 1/6W
R801	VRMPTV6-183J-U	M 18K J 1/6W	R841	VRMPTV6-102J-U	M 1K J 1/6W
R802	VRMPTV6-472J-U	M 4.7K J 1/6W	R842	VRMPTV6-8202F-U	M 82K F 1/6W
R803	VRMPTV6-101J-U	M 100 J 1/6W	R843	VRMPTV6-2203F-U	M 220K F 1/6W
R804	VRMPTV6-5361F-U	M 5.36K F 1/6W	R844	VRMPTV6-2203F-U	M 220K F 1/6W
R805	VRMPTV6-1582F-U	M 15.8K F 1/6W	R845	VRCMTV2-103J-U	C 10K J 1/2W
R806	VRMPTV6-4641F-U	M 4.64K F 1/6W	R846	VRCMTV2-104J-U	C 100K J 1/2W
R807	VRMPTV6-1002F-U	M 10K F 1/6W	R847	VRCMTV2-104J-U	C 100K J 1/2W
R808	VRMPTV6-222J-U	M 2.2K J 1/6W	R848	VRMPTV4-303J-U	M 30K J 1/4W
R809	VRMPTV6-101J-U	M 100 J 1/6W	R850	VRMPTV6-223J-U	M 22K J 1/6W
R810	VRMPTV6-101J-U	M 100 J 1/6W	R852	VRCMTV2-100J-U	C 10 J 1/2W
R811	VRMPTV6-100J-U	M 10 J 1/6W	R853	VRMPTV6-753J-U	M 75K J 1/6W
R812	VRMPTV6-100J-U	M 10 J 1/6W	R854	VRCMTV2-224J-U	C 220K J 1/2W
R813	VRMPTV6-220J-U	M 22 J 1/6W	R855	VRCMTV2-224J-U	C 220K J 1/2W
R814	VRMPTV6-104J-U	M 100K J 1/6W	R856	VRCMTV2-334J-U	C 330K J 1/2W
R815	VRMPTV6-472J-U	M 4.7K J 1/6W	R857	VRCMTV2-334J-U	C 330K J 1/2W

R858	VRCMTV2--334J-U	C 330K J 1/2W	R920	VRCMTV2--684J-U	C 680K J 1/2W
R859	VRNMK01--472J--	N 4.7K J 1W	R921	VRLBK10--102J--	W 1K J 10W
R860	VRMPTV6--221J-U	M 220 J 1/6W	R922	VRLBK10--102J--	W 1K J 10W
R860A	VRMPTV6--363J-U	M 36K J 1/6W	R923	VRNMK03--333J--	N 33K J 3W
R861	VRMPTV6--471J-U	M 470 J 1/6W	R925	VRNMK03--333J--	N 33K J 3W
R862	VRMPTV6--562J-U	M 5.6K J 1/6W	R926	VRCMTV2--120J-U	C 12 J 1/2W
R863	VRCMTV2--823J-U	C 82K J 1/2W	R927	VRCMTV2--220J-U	C 22 J 1/2W
R864	VRCMTV2--331J-U	C 330 J 1/2W	R928	VRCMTV2--120J-U	C 12 J 1/2W
R865	VRCMTV2--100J-U	C 10 J 1/2W	R930	VRMPTV4--1R0J-U	M 1 J 1/4W
R865A	VRMPTV6--181J-U	M 180 J 1/6W	R931	VRMPTV4--104J-U	M 100K J 1/4W
R866	VRNMK01--220J--	N 22 J 1W	R932	VRLLK02--R22J--	W 0.22 J 2W
R867	VRMPTV6--103J-U	M 10K J 1/6W	R933	VRMPTV4--152J-U	M 1.5K J 1/4W
R868	VRMPTV6--123J-U	M 12K J 1/6W	R935	VRMPTV4--102J-U	M 1K J 1/4W
R869	VRMPTV6--223J-U	M 22K J 1/6W	R936	VRMPTV6--103J-U	M 10K J 1/6W
R870	VRMPTV6-2002F-U	M 20K F 1/6W	R937	VRMPTV6--104J-U	M 100K J 1/6W
R877	VRMPTV6--434J-U	M 430K J 1/6W	R938	VRMPTV6-3002F-U	M 30K F 1/6W
R878	VRMPTV6--104J-U	M 100K J 1/6W	R940	VRMPTV4--101J-U	M 100 J 1/4W
R879	VRMPTV6--104J-U	M 100K J 1/6W	R941	VRMPTV4--101J-U	M 100 J 1/4W
R880	VRMPTV6--333J-U	M 33K J 1/6W	R942	VRCMTV2--101J-U	C 100 J 1/2W
R881	VRMPTV6-1302F-U	M 13K F 1/6W	R943	VRMPTV6--332J-U	M 3.3K J 1/6W
R882	VRMPTV6--102J-U	M 1K J 1/6W	R945	VRMPTV6--272J-U	M 2.7K J 1/6W
R883	VRMPTV6--103J-U	M 10K J 1/6W	R946	VRMPTV6-3902F-U	M 39K F 1/6W
R884	VRMPTV6--102J-U	M 1K J 1/6W	R947	VRMPTV4--222J-U	M 2.2K J 1/4W
R886	VRCMTV2--106J-U	C 10M J 1/2W	R948	VRMPTV6--222J-U	M 2.2K J 1/6W
R887	VRMPTV6--223J-U	M 22K J 1/6W	R949	VRMPTV6-3902F-U	M 39K F 1/6W
R888	VRCMTV2--391J-U	C 390 J 1/2W	R955	VRMPTV4--104J-U	M 100K J 1/4W
R889	VRMPTV6--332J-U	M 3.3K J 1/6W	R956	VRMPTV4-8872F-U	M 88.7K F 1/4W
R890	VRMPTV6--153J-U	M 15K J 1/6W	R957	VRMPTV6--222J-U	M 2.2K J 1/6W
R891	VRMPTV6--102J-U	M 1K J 1/6W	R958	VRMPTV4--122J-U	M 1.2K J 1/4W
R892	VRMPTV6--822J-U	M 8.2K J 1/6W	R960	VRMPTV4--152J-U	M 1.5K J 1/4W
R892A	VRMPTV6--302J-U	M 3K J 1/6W	R961	VRMPTV4--332J-U	M 3.3K J 1/4W
R894	VRMPTV6--222J-U	M 2.2K J 1/6W	R963	VRNMK02--104J--	N 100K J 2W
R895	VRMPTV6--104J-U	M 100K J 1/6W	R964	VRNMK02--333J--	N 33K J 2W
R899A	VRCMTV2--101J-U	C 100 J 1/2W	R965	VRMPTV4--274J-U	M 270K J 1/4W
R901	VRCMTV2--564J-U	C 560K J 1/2W	R966	VRMPTV4--274J-U	M 270K J 1/4W
R902	VRNMK01--101J--	N 100 J 1W	R967	VRMPTV4--123J-U	M 12K J 1/4W
R903	VRMPTV4--4R7J-U	M 4.7 J 1/4W	R968	VRMPTV4--562J-U	M 5.6K J 1/4W
R917	VRNMK01--224J--	N 220K J 1W	R970	VRCMTV2--224J-U	C 220K J 1/2W
R918	VRCMTV2--684J-U	C 680K J 1/2W	R971	VRNMK03--562J--	N 5.6K J 3W
R919	VRNMK01--224J--	N 220K J 1W	R973	VRCMTV2--120J-U	C 12 J 1/2W

R974	VRMPTV4-102J-U	M 1K J 1/4W	VL2	VXVDBA5-5-070-	WIRE
R975	VRCMTV2-220J-U	C 22 J 1/2W	VR501	RVRSH6022D8503-	VR 50K
R976	VRMPTV4-120J-U	M 12 J 1/4W	VR502	RVRSH6022D8104-	VR 100K
R977	VRMPTV6-4R7J-U	M 4.7 J 1/6W	VR703	RVRSV6022D8102-	VR 1K
R978	VRMPTV6-473J-U	M 47K J 1/6W	VR801	RVRSH6021D8104-	VR 100K
R979	VRMPTV4-101J-U	M 100 J 1/4W	VR901	RVRSH6022D8501-	VR 500
R980	VRMPTV4-152J-U	M 1.5K J 1/4W	VR902	RVRSV6022D8301-	VR 300
R981	VRLK02-1R8J-	W 1.8 J 2W	X001	RCRSL1115D8---	CRYSTAL 12MHZ
R982	VRMPTV6-102J-U	M 1K J 1/6W	ZD001	VSZMTZJ5.6C---U	ZENER DIODE
R983	VRMPTV4-303G-U	M 30K G 1/4W	ZD001	VSZRD5.6EB---U	ZENER DIODE
R984	VRMPTV4-101J-U	M 100 J 1/4W	ZD002	VSZRD6.2EB---U	ZENER DIODE
R985	VRMPTV6-104J-U	M 100K J 1/6W	ZD003	VSZRD5.1EB---U	ZENER DIODE
R986	VRMPTV6-103J-U	M 10K J 1/6W	ZD004	VSZRD5.1EB---U	ZENER DIODE
R987	VRMPTV6-332J-U	M 3.3K J 1/6W	ZD005	VSZRD5.1EB---U	ZENER DIODE
R988	VRMPTV6-272J-U	M 2.7K J 1/6W	ZD006	VSZRD5.1EB---U	ZENER DIODE
R989	VRMPTV6-152J-U	M 1.5K J 1/6W	ZD007	VSZRD5.1EB---U	ZENER DIODE
R990	VRMPTV6-122J-U	M 1.2K J 1/6W	ZD008	VSZRD5.1EB---U	ZENER DIODE
R991	VRMPTV6-332J-U	M 3.3K J 1/6W	ZD009	VSZRD5.1EB---U	ZENER DIODE
R992	VRMPTV6-682J-U	M 6.8K J 1/6W	ZD010	VSZRD5.1EB---U	ZENER DIODE
R994	VRMPTV6-122J-U	M 1.2K J 1/6W	ZD011	VSZRD5.1EB---U	ZENER DIODE
R996	VRMPTV6-103J-U	M 10K J 1/6W	ZD703	VSZMTZJ15B---U	ZENER DIODE
R997	VRMPTV4-103J-U	M 10K J 1/4W	ZD703	VSZRD15EB2---U	ZENER DIODE
R998	VRCMTV2-681J-U	C 680 J 1/2W	ZD704	VSZMTZJ15B---U	ZENER DIODE
R999	VRMPTV4-153J-U	M 15K J 1/4W	ZD704	VSZRD15EB2---U	ZENER DIODE
RL701	RRLYD1078D8DZJ-	RELAY 12V 10A	ZD705	VSZRD22EB1---U	ZENER DIODE
S801	QSPG-1020D8---P	SPARK-GAP	ZD801	VSZMTZJ15B---U	ZENER DIODE
SR901	VSSBT169B---3P	THYRISTER	ZD801	VSZRD15EB2---U	ZENER DIODE
SR902	VSSBT169B---3P	THYRISTER	ZD802	VSZRD20EB3---U	ZENER DIODE
SV901	VSQENB461D14A--	POSISTOR	ZD803	VSZMTZJ15B---U	ZENER DIODE
SW901	QCNCPI600D8---	CONNECTOR 3P(1P+1P)	ZD803	VSZRD15EB2---U	ZENER DIODE
T501	RTRNL1008D8---	TRANSFORMER	ZD804	VSZMTZJ13C---U	ZENER DIODE
T701	RTRND1072D8---	TRANSFORMER	ZD804	VSZRD13EB3---U	ZENER DIODE
T702	RTRND1071D8---A	TRANSFORMER	ZD805	VSZRD15EB2---U	ZENER DIODE
T801	DFBTEC001-8001A	FBT	ZD806	VSZRD15EB2---U	ZENER DIODE
T901	RCVTP3103D8---B	CONVERTER	ZD807	VSZMTZJ27A---U	ZENER DIODE
T903	RCVTP3117D8---	CONVERTER	ZD807	VSZRD27EB1---U	ZENER DIODE
TP1	QPIN-1084D8---	PIN	ZD808	VSZRD5.1EB---U	ZENER DIODE
TP2	QPIN-0992-1---	PIN	ZD902	VSZRD22EB3---U	ZENER DIODE
TP3	QCNWS0021-8174-	CONNECTOR 1P	ZD903	VSZRD24EB---U	ZENER DIODE
VL1	VXVDBA5-5-070-	WIRE	ZD905	VSZMTZJ39C---U	ZENER DIODE

ZD905	VSZRD39EB3—U	ZENER DIODE	C113	VCDSDU1HL271J-P	C 270P J 50V
ZD906	VSZRD22EB3—U	ZENER DIODE	C115	VCDSDU2HL270J-P	C 27P J 500V
ZD907	VSZRD22EB3—U	ZENER DIODE	C120	VCEACU2CH105MIP	E 1U M 160V 105°C
ZD909	VSZRD12EB2—U	ZENER DIODE	C121	VCKBDU2HY222K-P	V 2200P K 500V
	LHLDP1282D8E—	HOLDER PCB	C122	VCKBDU2HY102K-P	C 1000P K 500V
	LHLDP1296D8—	HOLDER PCB	C204	VCSFDU1HY104Z-P	C 0.1U Z 50V
	PRDAA6261D8W—	RADIATOR	C205	VCSFDU1HY104Z-P	C 0.1U Z 50V
	PRDAA6266D8W—	RADIATOR	C206	VCEACU1HH105M-P	E 1U M 50V 105°C
	QCNWP1619-8010-	CONNECTOR 9 PIN	C207	VCSFDU1HY104Z-P	C 0.1U Z 50V
	QCNEWS1619-8006-	CONNECTOR 9 PIN	C211	VCDSDU1HL180J-P	C 18P J 50V
	QEAR-1125D8—	EARTH PARTS	C212	VCDSDU1HL220J-P	C 22P J 50V
	QFSHC1002D8—A	FUSE HOLDER	C213	VCDSDU1HL271J-P	C 270P J 50V
	QFSHC1002D8—JA	FUSE HOLDER	C215	VCDSDU2HL270J-P	C 27P J 500V
	QTMLW0002-8189-	TERMINAL WITE WIRE	C220	VCEACU2CH105MIP	E 1U M 160V 105°C
	VCNCP0024—A	CONNECTOR 4 PIN	C221	VCKBDU2HY222K-P	V 2200P K 500V
	VTUBV1R00D-H3D-	WIRE	C222	VCKBDU2HY102K-P	C 1000P K 500V
	VTUBV2R30T-H3D-	WIRE	C304	VCSFDU1HY104Z-P	C 0.1U Z 50V
	VXHRRC5V5V345—	WIRE	C305	VCSFDU1HY104Z-P	C 0.1U Z 50V
	VXVDAD5V5V260—	WIRE	C306	VCEACU1HH105M-P	E 1U M 50V 105°C
	VXVDAD5V5V350—	WIRE	C307	VCSFDU1HY104Z-P	C 0.1U Z 50V
	VXVDAD5V5V365—	WIRE	C311	VCDSDU1HL220J-P	C 22P J 50V
	VXVDBA3-3-040—	WIRE	C312	VCDSDU1HL270J-P	C 27P J 50V
	VXVDBA5-5-110—	WIRE	C313	VCDSDU1HL271J-P	C 270P J 50V
	VXVDBA5-5-150—	WIRE	C315	VCDSDU2HL270J-P	C 27P J 500V
	VXVDBC3-3-025—	WIRE	C320	VCEACU2CH105MIP	E 1U M 160V 105°C
	VXVDBC3-3-055—	WIRE	C321	VCKBDU2HY222K-P	V 2200P K 500V
	VXVDBC5V5V070—	WIRE	C322	VCKBDU2HY102K-P	C 1000P K 500V
	VXVDBC5V5V080—	WIRE	C408	VCSFDU1HY104Z-P	C 0.1U Z 50V
	QPWB-2983D8-2-	VIDEO BOARD	C409	VCEACF1EH477M—	E 470U M 25V 105°C
B402	RCORA1021D8—HU	BEAD CORE	C410	VCSFDU1HY104Z-P	C 0.1U Z 50V
B403	RCORA1018T8—A	BEAD CORE	C411	VCKBDU1HY103K-P	C 0.01U K 50V
B404	RCORA1018T8—	BEAD CORE	C412	VCEACU1HH106M-P	E 10U M 50V 105°C
B404	RCORA1018T8—H-	BEAD CORE	C413	VCEACF2CH226MI-	E 22U M 160V 105°C
C105	VCSFDU1HY104Z-P	C 0.1U Z 50V	C414	VCKFDU2HY103Z-P	C 0.01U Z 500V
C106	VCEACU1HH105M-P	E 1U M 50V	C415	VCKBDU1HY103K-P	C 0.01U K 50V
C107	VCSFDU1HY104Z-P	C 0.1U Z 50V	C416	VCSFDU1HY104Z-P	C 0.1U Z 50V
C111	VCDSDU1HL180J-P	C 18P J 50V	C417	VCEACU1EH227MIP	E 220U M 25V 105°C
C112	VCDSDU1HL220J-P	C 22P J 50V	C418	VCSFDU1HY104Z-P	C 0.1U Z 50V
			C419	VCEACU1EG107M-P	E 100U M 25V
			C420	VCSFDU1HY104Z-P	C 0.1U Z 50V

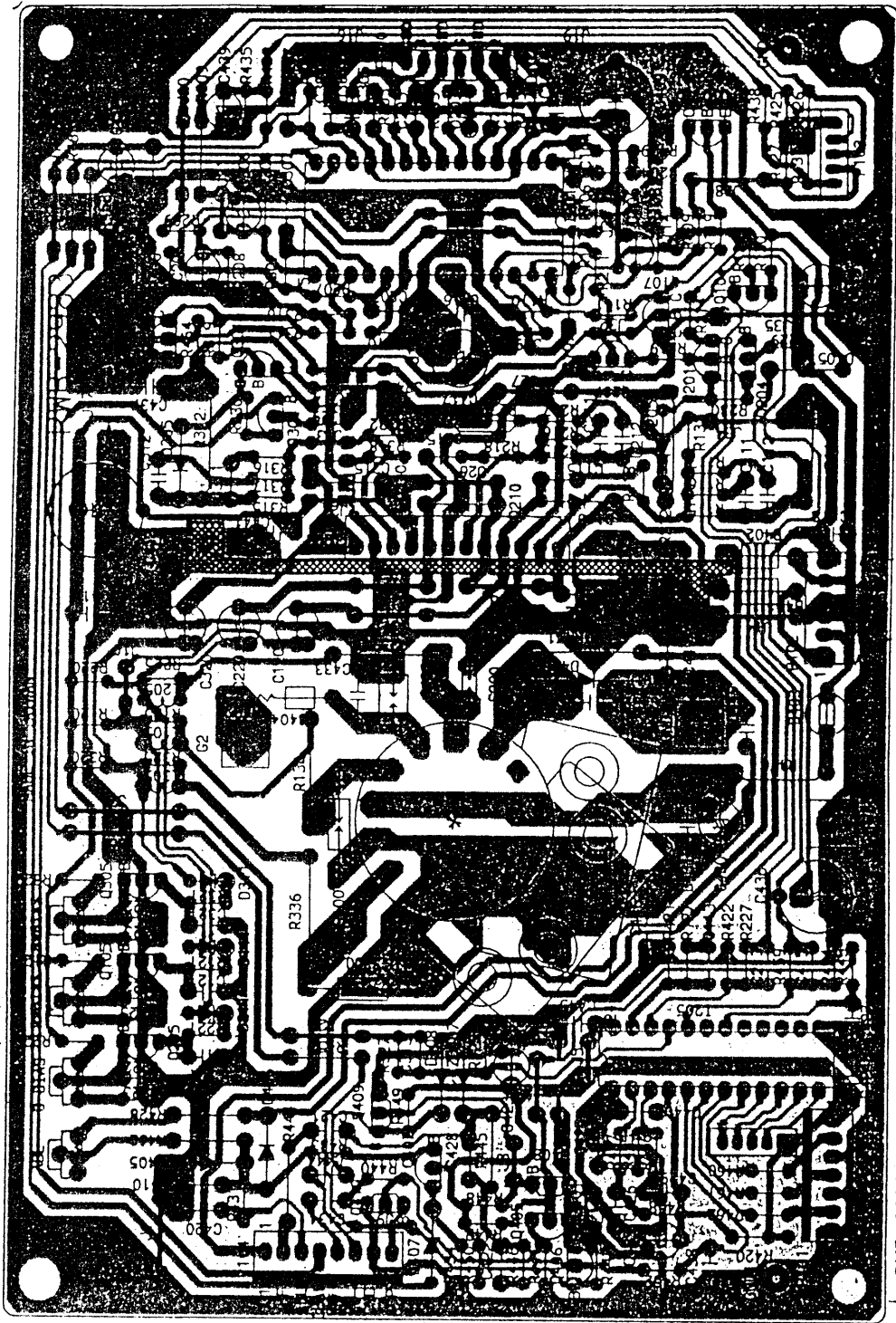
C421	VCKBDUIHY103K-P	C 0.01U K 50V	D406	VSD1N4148—U	DIODE
C422	VCDSDU1HL271J-P	C 270P J 50V	D407	VSD1N4148—U	DIODE
C423	VCEACU1AG227M-P	E 220U M 10V	D408	VSD1N4148—U	DIODE
C424	VCSFDU1HY104Z-P	C 0.1U Z 50V	D410	VSDRGP10G—U	DIODE
C425	VCKBDUIHY103K-P	C 0.01U K 50V	D410	VSDVR1G—DU	DIODE
C426	VCKBDUIHY103K-P	C 0.01U K 50V	G2	VCNCP4201—U	CONNECTOR 1 PIN
C427	VCKBDUIHY102K-P	C 1000P K 50V	I201	VSILM1205N—N-	IC 28PIN
C428	VCKBDUIHY103K-P	C 0.01U K 50V	I202	PRDAA6246D8W—A	RADIATOR
C429	VCKBDUIHY103K-P	C 0.01U K 50V	I202	VSICR6927—3-	IC 12PIN
C430	VCEACU1EG107M-P	E 100U M 25V	I202	XJASD30P08000—	SCREW
C431	VCSFDU1HY104Z-P	C 0.1U Z 50V	I205	VSIMTV011—	IC 24PIN
C432	VCKBEF3AY561K—	C 560P K 1KV	I205	VSIMTV011N-01—	IC 24PIN
C433	VCKBEF3DY102K—	C 1000P K 2KV	J10	QJUM-1045D8050-	JUMPER
C434	VCSFDU1HY104Z-P	C 0.1U Z 50V	J13	QJUM-1045D8100-	JUMPER
C435	VCEACU1AG227M-P	E 220U M 10V	J15	QJUM-1045D8050-	JUMPER
C436	VCEACU1EH227MIP	E 220U M 25V 105°C	J2	QJUM-1045D8100-	JUMPER
C437	VCSFDU1HY104Z-P	C 0.1U Z 50V	J20	QJUM-1045D8100-	JUMPER
C438	VCDSDU1HL101J-P	C 100P J 50V	J23	QJUM-1045D8050-	JUMPER
C439	VCEACU1HH105M-P	E 1U M 50V 105°C	J24	QJUM-1045D8100-	JUMPER
C440	VCSFDU1HY104Z-P	C 0.1U Z 50V	J25	QJUM-1045D8100-	JUMPER
C441	VCKFDU2HY103Z-P	C 0.01U Z 500V	J26	QJUM-1045D8100-	JUMPER
C442	VCKFDU2HY103Z-P	C 0.01U Z 500V	J27	QJUM-1045D8100-	JUMPER
C444	VCSFDU1HY104Z-P	C 0.1U Z 50V	J28	QJUM-1045D8100-	JUMPER
C445	VCSFDU1HY104Z-P	C 0.1U Z 50V	J29	QJUM-1045D8050-	JUMPER
C446	VCSFDU1HY104Z-P	C 0.1U Z 50V	J3	QJUM-1045D8075-	JUMPER
C448	VCKBEF3DY103Z—	C 0.01U Z 2KV	J30	QJUM-1045D8100-	JUMPER
C449	VCKBDUIHY103K-P	C 0.01U K 50V	J31	QJUM-1045D8100-	JUMPER
D103	VSD1N4531—U	DIODE	J32	QJUM-1045D8050-	JUMPER
D105	VSD1N4148—U	DIODE	J33	QJUM-1045D8100-	JUMPER
D110	VSD1SS83—U	DIODE	J35	QJUM-1045D8150-	JUMPER
D111	VSD1N4531—U	DIODE	J4	QJUM-1045D8100-	JUMPER
D203	VSD1N4531—U	DIODE	J5	QJUM-1045D8050-	JUMPER
D205	VSD1N4148—U	DIODE	J6	QJUM-1045D8150-	JUMPER
D210	VSD1SS83—U	DIODE	J7	QJUM-1045D8150-	JUMPER
D211	VSD1N4531—U	DIODE	J9	QJUM-1045D8075-	JUMPER
D303	VSD1N4531—U	DIODE	L105	VL-EHR33M0000-U	PEAKING COIL
D305	VSD1N4148—U	DIODE	L205	VL-EHR33M0000-U	PEAKING COIL
D310	VSD1SS83—U	DIODE	L305	VL-EHR33M0000-U	PEAKING COIL
D311	VSD1N4531—U	DIODE	P100	QCNWP0806-8009-	CONNECTOR WIRE 6 PIN
D405	VSD1N4148—U	DIODE	P101	VCNCP5006SJJAM-	CONNECTOR 6 PIN

P101	VCNCP5007SJJAM-	CONNECTOR 7 PIN	R119	VRMPTV6-220J-U	M 22 J 1/6W
P102	VCNCP5006SJJAM-	CONNECTOR 6 PIN	R120	VRMPTV6-105J-U	M 1M J 1/6W
P103	QCNWP4805-8001-	CONNECTOR WIRE 5 PIN	R121	VRMPTV6-101J-U	M 100 J 1/6W
P104	VCNCP5005SJJAM-	CONNECTOR 5 PIN	R122	VRMPTV6-103J-U	M 10K J 1/6W
Q101	VSTMPS3646---P	TRANSISTOR	R123	VRMPTV6-303J-U	M 30K J 1/6W
Q104	VST2SC1906---P	TRANSISTOR	R125	VRMPTV6-561J-U	M 560 J 1/6W
Q105	VST2SA1123---6P	TRANSISTOR	R127	VRMPTV6-102J-U	M 1K J 1/6W
Q105	VST2SB716D---HP	TRANSISTOR	R129	VRMPTV6-101J-U	M 100 J 1/6W
Q107	VST2SC3811Q---P	TRANSISTOR	R130	VRMPTV6-390J-U	M 39 J 1/6W
Q201	VSTMPS3646---P	TRANSISTOR	R132	VRMPTV6-4701F-U	M 4.7K F 1/6W
Q204	VST2SC1906---P	TRANSISTOR	R136	VRSPTV2-101J-U	S 100 J 1/2W
Q205	VST2SA1123---6P	TRANSISTOR	R205	VRMPTV6-101J-U	M 100 J 1/6W
Q205	VST2SB716D---HP	TRANSISTOR	R207	VRMPTV6-104J-U	M 100K J 1/6W
Q207	VST2SC3811Q---P	TRANSISTOR	R208	VRMPTV6-1503F-U	M 150K F 1/6W
Q301	VSTMPS3646---P	TRANSISTOR	R209	VRMPTV6-5102F-U	M 51K F 1/6W
Q304	VST2SC1906---P	TRANSISTOR	R210	VRMPTV6-271J-U	M 270 J 1/6W
Q305	VST2SA1123---6P	TRANSISTOR	R211	VRMPTV6-470J-U	M 47 J 1/6W
Q305	VST2SB716D---HP	TRANSISTOR	R212	VRNMK02-391J--	N 390 J 2W
Q307	VST2SC3811Q---P	TRANSISTOR	R214	VRMPTV6-101J-U	M 100 J 1/6W
Q405	VST2SC945Q---P	TRANSISTOR	R215	VRMPTV6-3300F-U	M 330 F 1/6W
Q406	VST2SC1815Y---P	TRANSISTOR	R216	VRMPTV6-331J-U	M 330 J 1/6W
Q406	VSTKSC1815Y--8P	TRANSISTOR	R217	VRMPTV6-331J-U	M 330 J 1/6W
Q407	VST2SC1815Y---P	TRANSISTOR	R218	VRMPTV6-1803F-U	M 180K F 1/6W
Q407	VSTKSC1815Y--8P	TRANSISTOR	R219	VRMPTV6-220J-U	M 22 J 1/6W
Q408	VSTDTC114ES--RP	TRANSISTOR	R220	VRMPTV6-105J-U	M 1M J 1/6W
Q409	VSTDTC114ES--RP	TRANSISTOR	R221	VRMPTV6-101J-U	M 100 J 1/6W
Q410	VSTDTC114ES--RP	TRANSISTOR	R222	VRMPTV6-103J-U	M 10K J 1/6W
R105	VRMPTV6-101J-U	M 100 J 1/6W	R223	VRMPTV6-303J-U	M 30K J 1/6W
R106	VRMPTV6-1802F-U	M 18K F 1/6W	R225	VRMPTV6-561J-U	M 560 J 1/6W
R107	VRMPTV6-104J-U	M 100K J 1/6W	R227	VRMPTV6-102J-U	M 1K J 1/6W
R108	VRMPTV6-1803F-U	M 180K F 1/6W	R229	VRMPTV6-101J-U	M 100 J 1/6W
R109	VRMPTV6-5102F-U	M 51K F 1/6W	R230	VRMPTV6-390J-U	M 39 J 1/6W
R110	VRMPTV6-271J-U	M 270 J 1/6W	R232	VRMPTV6-4701F-U	M 4.7K F 1/6W
R111	VRMPTV6-470J-U	M 47 J 1/6W	R236	VRSPTV2-101J-U	S 100 J 1/2W
R112	VRNMK02-391J--	N 390 J 2W	R305	VRMPTV6-101J-U	M 100 J 1/6W
R114	VRMPTV6-101J-U	M 100 J 1/6W	R306	VRMPTV6-1801F-U	M 1.8K F 1/6W
R115	VRMPTV6-3300F-U	M 330 F 1/6W	R307	VRMPTV6-104J-U	M 100K J 1/6W
R116	VRMPTV6-331J-U	M 330 J 1/6W	R308	VRMPTV6-1503F-U	M 150K F 1/6W
R117	VRMPTV6-331J-U	M 330 J 1/6W	R309	VRMPTV4-5102F-U	M 51K F 1/4W
R118	VRMPTV6-1803F-U	M 180K F 1/6W	R310	VRMPTV6-271J-U	M 270 J 1/6W

R311	VRMPTV6-470J-U	M 47 J 1/6W	R447	VRMPTV6-303J-U	M 30K J 1/6W
R312	VRNMK02-391J-	N 390 J 2W	R448	VRMPTV6-103J-U	M 10K J 1/6W
R314	VRMPTV6-101J-U	M 100 J 1/6W	R449	VRMPTV6-393J-U	M 39K J 1/6W
R315	VRMPTV6-3300F-U	M 330 F 1/6W	R450	VRMPTV6-102J-U	M 1K J 1/6W
R316	VRMPTV6-221J-U	M 220 J 1/6W	R451	VRMPTV4-102J-U	M 1K J 1/4W
R317	VRMPTV6-271J-U	M 270 J 1/6W	R452	VRMPTV6-102J-U	M 1K J 1/6W
R318	VRMPTV6-1803F-U	M 180K F 1/6W	R453	VRMPTV4-102J-U	M 1K J 1/4W
R319	VRMPTV6-220J-U	M 22 J 1/6W	R455	VRMPTV6-562J-U	M 5.6K J 1/6W
R320	VRMPTV6-105J-U	M 1M J 1/6W	R456	VRMPTV6-103J-U	M 10K J 1/6W
R321	VRMPTV6-101J-U	M 100 J 1/6W	R457	VRMPTV6-562J-U	M 5.6K J 1/6W
R322	VRMPTV6-103J-U	M 10K J 1/6W	R458	VRMPTV6-105J-U	M 1M J 1/6W
R323	VRMPTV6-303J-U	M 30K J 1/6W	R459	VRMPTV6-331J-U	M 330 J 1/6W
R325	VRMPTV6-561J-U	M 560 J 1/6W	R460	VRMPTV6-101J-U	M 100 J 1/6W
R327	VRMPTV6-102J-U	M 1K J 1/6W	R461	VRMPTV6-101J-U	M 100 J 1/6W
R329	VRMPTV6-101J-U	M 100 J 1/6W	R462	VRMPTV6-101J-U	M 100 J 1/6W
R330	VRMPTV6-390J-U	M 39 J 1/6W	R463	VRMPTV4-101J-U	M 100 J 1/4W
R332	VRMPTV6-4701F-U	M 4.7K F 1/6W	R464	VRMPTV6-103J-U	M 10K J 1/6W
R336	VRSPTV2-101J-U	S 100 J 1/2W	R470	VRNMK01-R47J-	N 0.47 J 1W
R420	VRMPTV6-151J-U	M 150 J 1/6W	R471	VRSPTV2-101J-U	S 100 J 1/2W
R425	VRMPTV6-4701F-U	M 4.7K F 1/6W	R472	VRSPTV2-564J-U	S 560K J 1/2W
R426	VRMPTV6-4701F-U	M 4.7K F 1/6W	S100	QSPG-1020D8-U	SPARK-GAP
R427	VRMPTV6-4701F-U	M 4.7K F 1/6W	S200	QSPG-1020D8-P	SPARK-GAP
R428	VRMPTV4-562J-U	M 5.6K J 1/4W	S300	QSPG-1020D8-U	SPARK-GAP
R429	VRMPTV6-330J-U	M 33 J 1/6W	S400	QSPG-1008D8-U	SPARK-GAP
R430	VRMPTV6-103J-U	M 10K J 1/6W	TP3	VCNCP4201-U	CONNECTOR-1 PIN
R431	VRMPTV6-103J-U	M 10K J 1/6W	VR124	RVRSV6012-1203-	VR 20K
R432	VRMPTV4-392J-U	M 3.9K J 1/4W	VR124	RVRSV6021D8203-	VR 20K
R433	VRMPTV6-223J-U	M 22K J 1/6W	VR224	RVRSV6012-1203-	VR 20K
R434	VRMPTV6-102J-U	M 1K J 1/6W	VR224	RVRSV6021D8203-	VR 20K
R435	VRMPTV6-1203F-U	M 120K F 1/6W	VR324	RVRSV6012-1203-	VR 20K
R436	VRMPTV6-331J-U	M 330 J 1/6W	VR324	RVRSV6021D8203-	VR 20K
R437	VRMPTV6-4701F-U	M 4.7K F 1/6W	VR400	RVRSV6022D8203-	VR 20K
R438	VRMPTV6-5102F-U	M 51K F 1/6W	ZD407	VSZRD5.1EB2-U	ZENER DIODE
R440	VRMPTV6-103J-U	M 10K J 1/6W		PCUSG0016D8FW-	CUSHION
R441	VRMPTV6-104J-U	M 100K J 1/6W		PCUSG1378D8F-	CUSHING
R442	VRMPTV6-102J-U	M 1K J 1/6W		PRDAA6235D8W-	RADIATOR
R443	VRMPTV6-472J-U	M 4.7K J 1/6W		PSLDM1645D8-	SHIELD
R444	VRCMTV2-102J-U	C 1K J 1/2W			
R445	VRCMTV2-102J-U	C 1K J 1/2W		QSOCC1346D8-	CRT SOCKET
R446	VRMPTV6-223J-U	M 22K J 1/6W		VTUBH6R00D-J6D-	PVC TUBE

	VWTR60V1-SW—	0.6 TIN	R7B1	VRMPTV4—471J-U	M 470 J 1/4W
	XHISD30P06000--	SCREW	R7B2	VRMPTV4—471J-U	M 470 J 1/4W
	QPWB-3009D8—	D-SUB BOARD	ZD011	VSZMTZJ13—U	ZENER DIODE
			ZD011	VSZRD13EB—U	ZENER DIODE
			ZD012	VSZMTZJ5.6—U	ZENER DIODE
B200	RCORA1016T8—	BEAD CORE	ZD012	VSZRD5.6EB—U	ZENER DIODE
B300	RCORA1016T8—	BEAD CORE	ZD013	VSZMTZJ5.6—U	ZENER DIODE
C015	VCSFDU1HY104Z-P	C 0.1U Z 50V	ZD013	VSZRD5.6EB—U	ZENER DIODE
C100	VCKBDU1HY102K-P	C 1000P K 50V	ZD014	VSZMTZJ5.6—U	ZENER DIODE
C101	VCEACU1CH476M-P	E 47U M 16V 105°C	ZD014	VSZRD5.6EB—U	ZENER DIODE
C200	VCKBDU1HY102K-P	C 1000P K 50V	ZD7B1	VSZMTZJ6.2—U	ZENER DIODE
C201	VCEACU1CH476M-P	E 47U M 16V 105°C	ZD7B2	VSZMTZJ6.2—U	ZENER DIODE
C300	VCKBDU1HY102K-P	C 1000P K 50V		LANG-1710D8—	ANGLE
C301	VCEACU1CH476M-P	E 47U M 16V 105°C		LANGF1744D8—A	ANGLE
C7B1	VCKBDU1HY101K-P	C 100P K 50V		LANGF1744D8—E	ANGLE
D100	VSD1N4148—U	DIODE		QCNC1142D8—	D-SUB
D200	VSD1N4148—U	DIODE		RFILN1037D8—	FILTER
D300	VSD1N4148—U	DIODE		XNESD30-24000--	NUT
I009	QSOCI1214T808--	IC SOCKET 8 PIN		QPWB-2930D8—	LED BOARD
I009	VSI24C21—	IC 8PIN		QPWB-2984D8—	KEY PAD BOARD
I009	VSI24LC21—	IC 8PIN			
I009	VSIPCB2421P--3-	IC			
I010	VSIKIA7045P--P	IC 3PIN	D001	QCNWS0043-8613-	CONNECTOR WIRE 3 PIN
I101	VSI74HC00N—3-	IC 14PIN	D956	VSP2535FYSG—	PHOTO DEVICE
I101	VSIMM74HC00N-N-	IC 14PIN	GND1	QTMLW0002-8188-	TERMINAL WITE WIRE
I7B1	VSI74LS00—	IC 14PIN	GND2	QTMLW0002-8188-	TERMINAL WITE WIRE
J1	QJUM-1045D8050-	JUMPER	P001	QCNWS0908-8008-	CONNECTOR WIRE 8 PIN
J2	QJUM-1045D8050-	JUMPER	P005B	VCNCP0904REJST-	CONNECTOR 4 PIN
J3	QJUM-1045D8050-	JUMPER	P009	QCNWS0904-8008-	CONNECTOR WIRE 4 PIN
P106	VCNCP0055-JJST-	CONNECTOR 5 PIN	SW1	QSW-A1073D8—	TACT SWITCH
P107	VCNCP0054-JJST-	CONNECTOR 4 PIN	SW10	QSW-A1073D8—	TACT SWITCH
R058	VRMPTV6—472J-U	M 4.7K J 1/6W	SW2	QSW-A1073D8—	TACT SWITCH
R059	VRMPTV6—472J-U	M 4.7K J 1/6W	SW3	QSW-A1073D8—	TACT SWITCH
R061	VRMPTV6—101J-U	M 100 J 1/6W	SW4	QSW-A1073D8—	TACT SWITCH
R074	VRMPTV4—471J-U	M 470 J 1/4W	SW5	QSW-A1073D8—	TACT SWITCH
R075	VRMPTV6—101J-U	M 100 J 1/6W	SW6	QSW-A1073D8—	TACT SWITCH
R076	VRMPTV6—101J-U	M 100 J 1/6W	SW7	QSW-A1073D8—	TACT SWITCH
R100	VRMPTV4-75R0F-U	M 75 F 1/4W	SW8	QSW-A1073D8—	TACT SWITCH
R200	VRMPTV4-75R0F-U	M 75 F 1/4W	SW9	QSW-A1073D8—	TACT SWITCH
R300	VRMPTV4-75R0F-U	M 75 F 1/4W		QCNWS0103-8021A	CONNECTOR WIRE 3 PIN

QSW-P1267D8--A	POWER SWITCH	QCODB0120-8-19-	EARTH WIRE
		QCODS1163D8D--	SAME AS 1146
GCABA1395D8F--G	FRONT COVER	QEAR-1128D8---	EARTH PARTS
GCABB1357D8F--O	REAR COVER	QEAR-1136D8W---	EARTH PARTS
GCOVD1165D8F--D	ADJ COVER	RCILG1090D8---	ADG COIL
GSTN-1062D8F--G	STAND	SPAKA2460D8F---	POLY FOAM
HDECP1817D8F--	DECORATION	SPAKC2485D8--G	CARTON
JKNBP1766D8F--G	FUNCTION KNOB	SSAKD0010-1-T-	SACK
JKNBP1767D8F--D	POWER KNOB	SSAKH0007D8-T-	SACK
LANGF1776D8---	CHASSIS ANGLE	TCAD-1146D8---	WARRANTY PAPER
LANGF1793D8---	FOR CRT SUPPORT ANGLE	TCAD-1149D8---	FCC DECLARTION PAPER
LANGF1794D8---	FOR CRT SUPPORT ANGLE	TCAD-1157D8---	TCO95 STATMENT
LANGH0016D8--A	CRT & BEZEL ANGLE	TINSE2065D8---	USER'S MANUAL
LANGH0018D8---	ANGLE	TLABZ3774D8B---	BAR CODE LABEL
LANGH0019D8---	ANGLE	VBM46LLQ683X01S	CRT
LHLDC1320D8---	RAIL HOLDER	XBMSD30P06000--	SCREW
LHLDP1281D8---	GUIDE HOLDER	XEASD30P10000--	SCREW
LHLDW0006-1---	HOLDER WIRE	XETSD40P12000--	SCREW
LX-HZ0011-1---	SCREW	XETSD40P16000--	SCREW
PCUSS1092D8---	SPONGE	XHISE40P08TV0--	SCREW
PCUSS1092D8--D	SPONGE	XJTSD40P06000--	SCREW
PISLV0150D8---	INSULATOR	XJTSD40P08TV0--	SCREW
PISLV0160D8---	INSULATOR	XJTSD40P12000--	SCREW
PSLDM6151D8--A	SHIELD	XJTSD40P14000--	SCREW
PSLDM6158D8---	SHIELD	XNESD50-40000--	SCREW
PSPAG0004D8PD-	SPACER	XWHSD65-16180--	WASHER
PSPAG0004D8PD-A	SPONGE		
QACC-1092D8D-D-	POWER CORD		
QCNWP1619-8009-	CONNECTOR WIRE 9 PIN		
QCNWS1619-8009-	CONNECTOR WIRE 9 PIN		



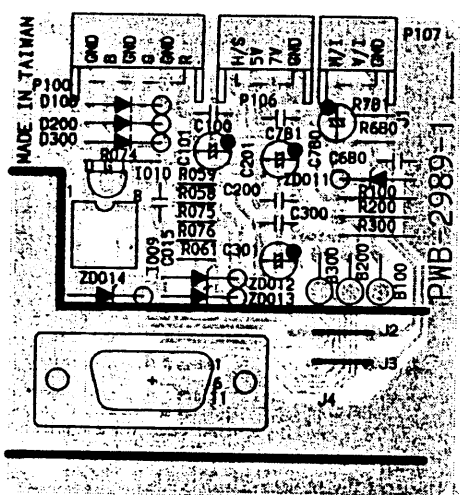
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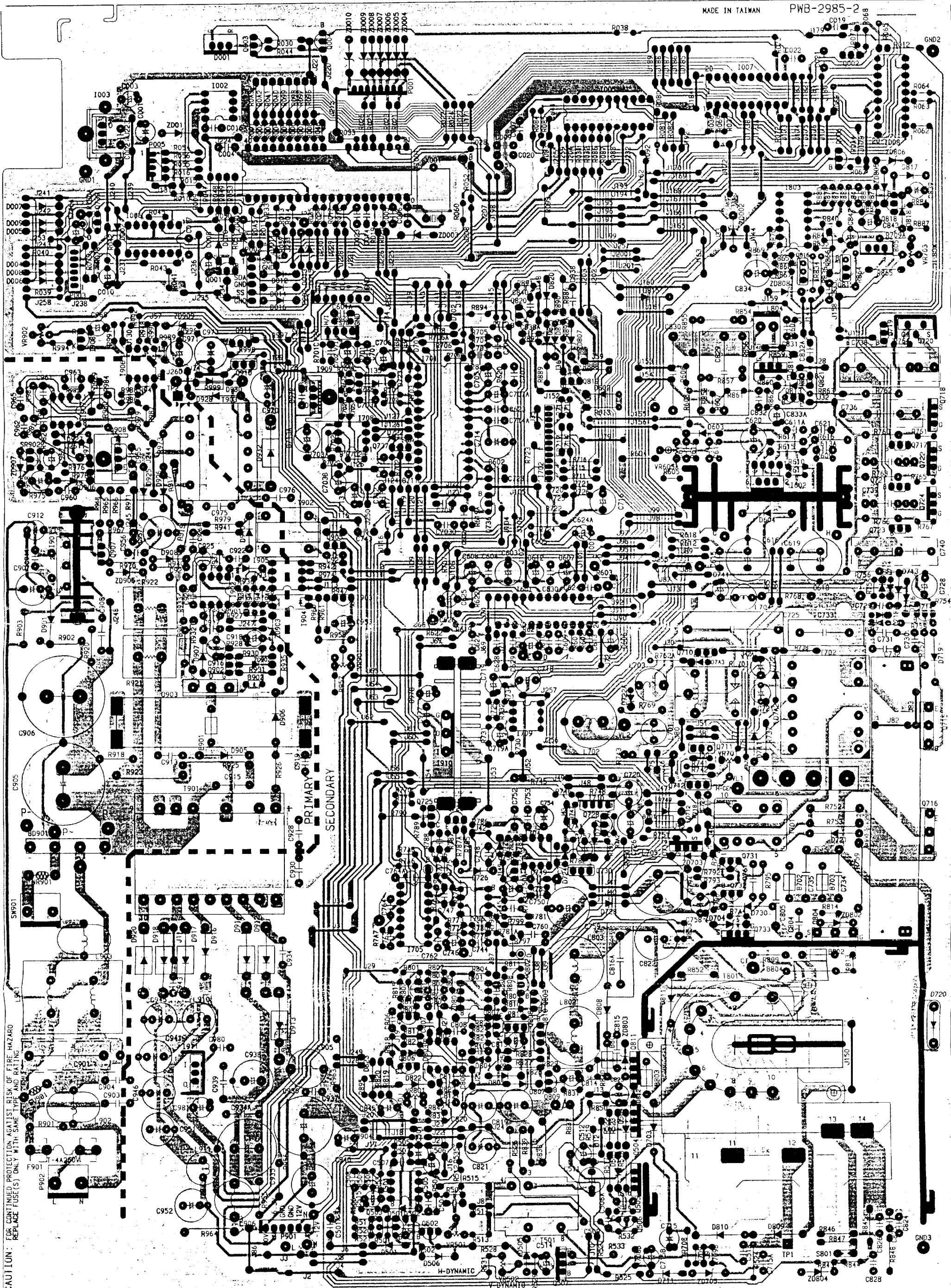
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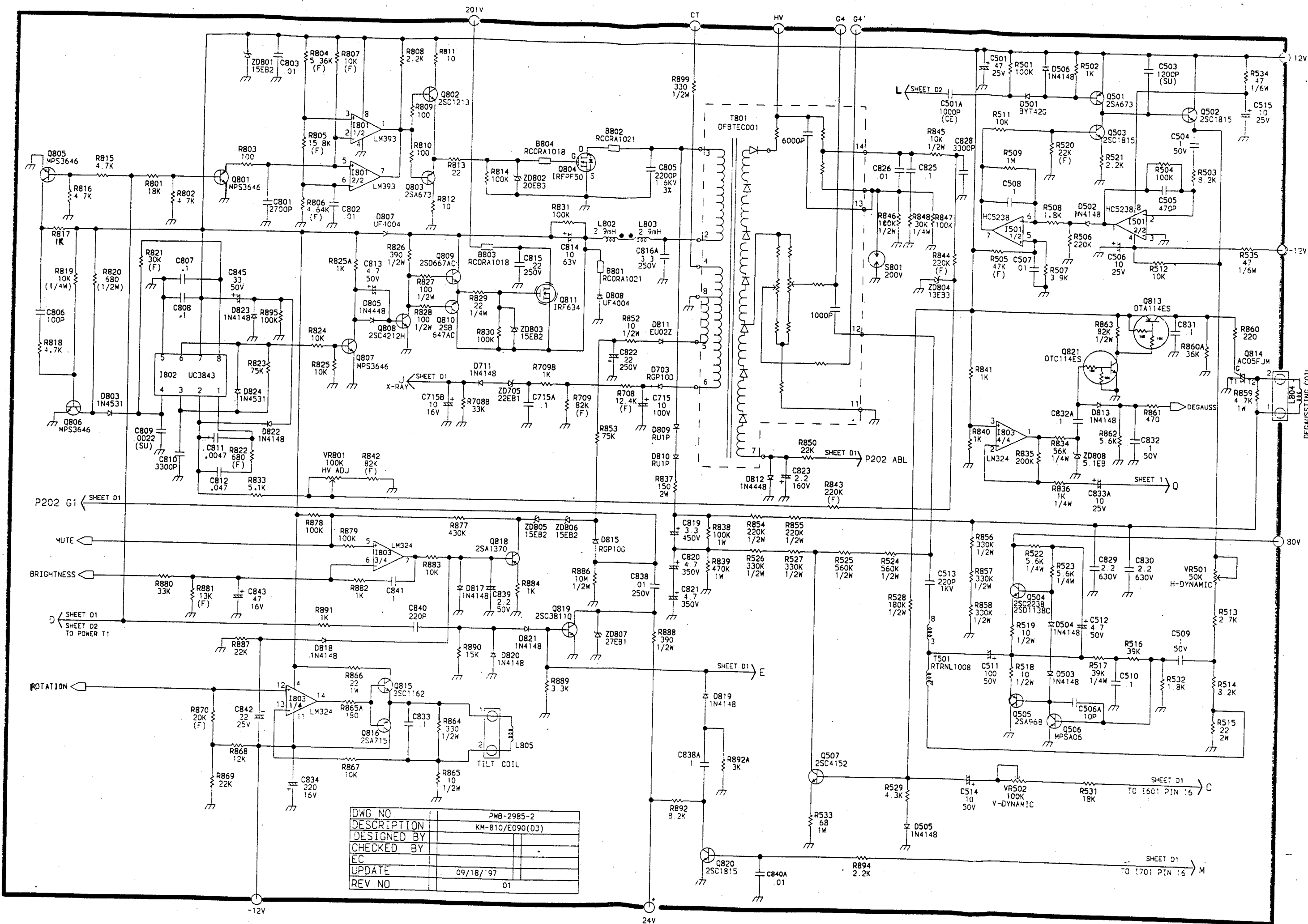
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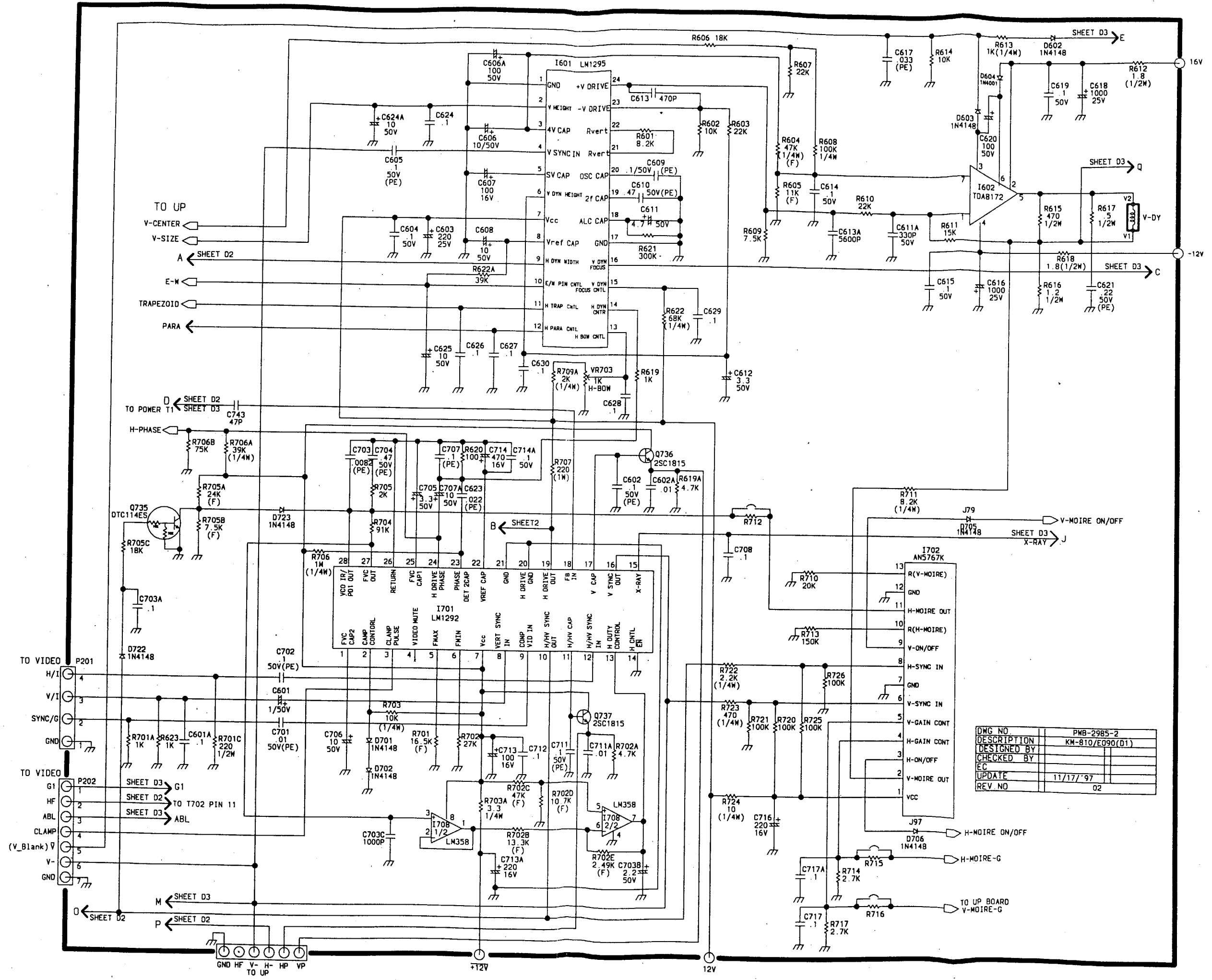




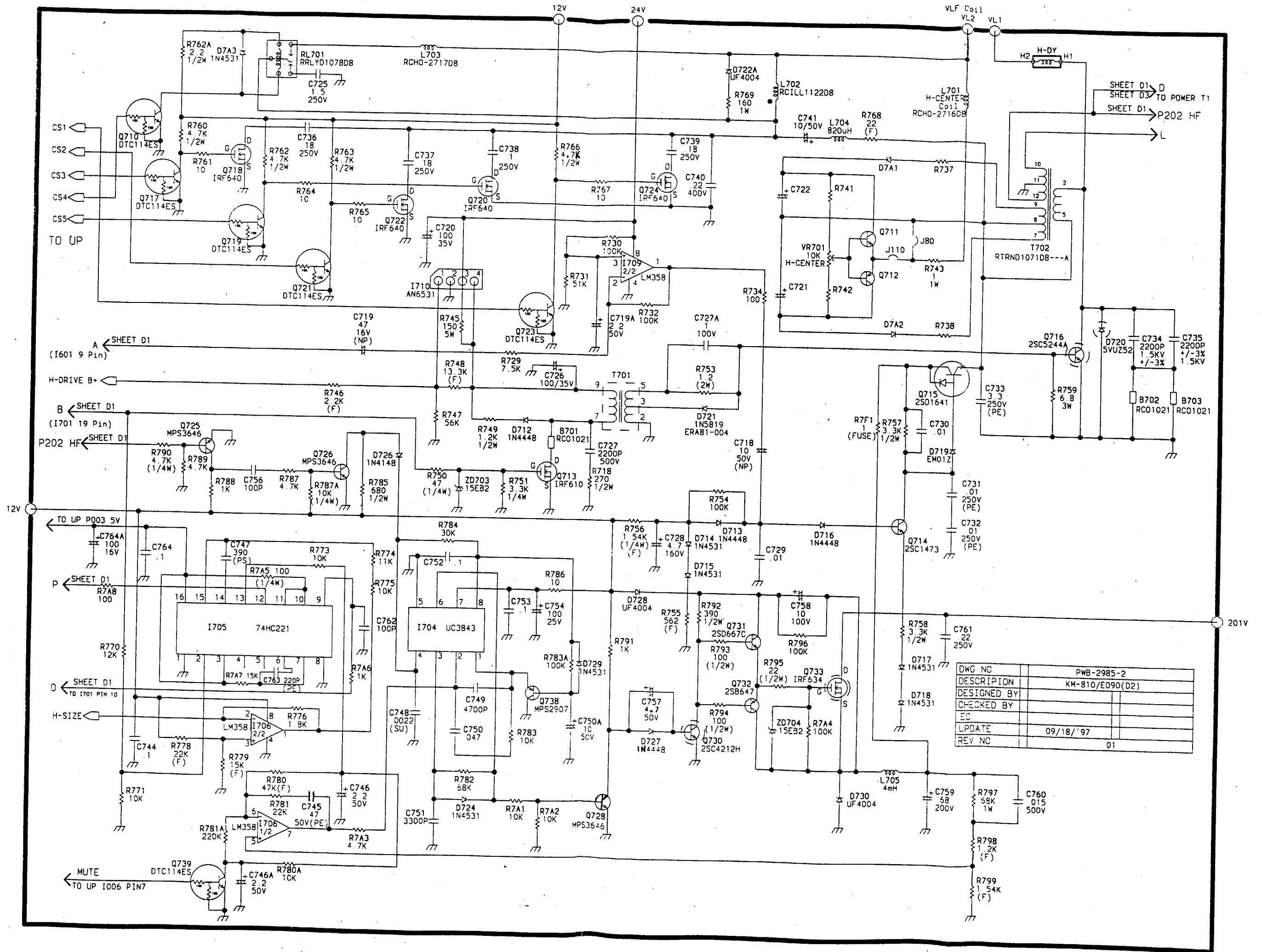
CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE HAZARD
REPLACE FUSE(S) ONLY WITH SAME TYPE AND RATING



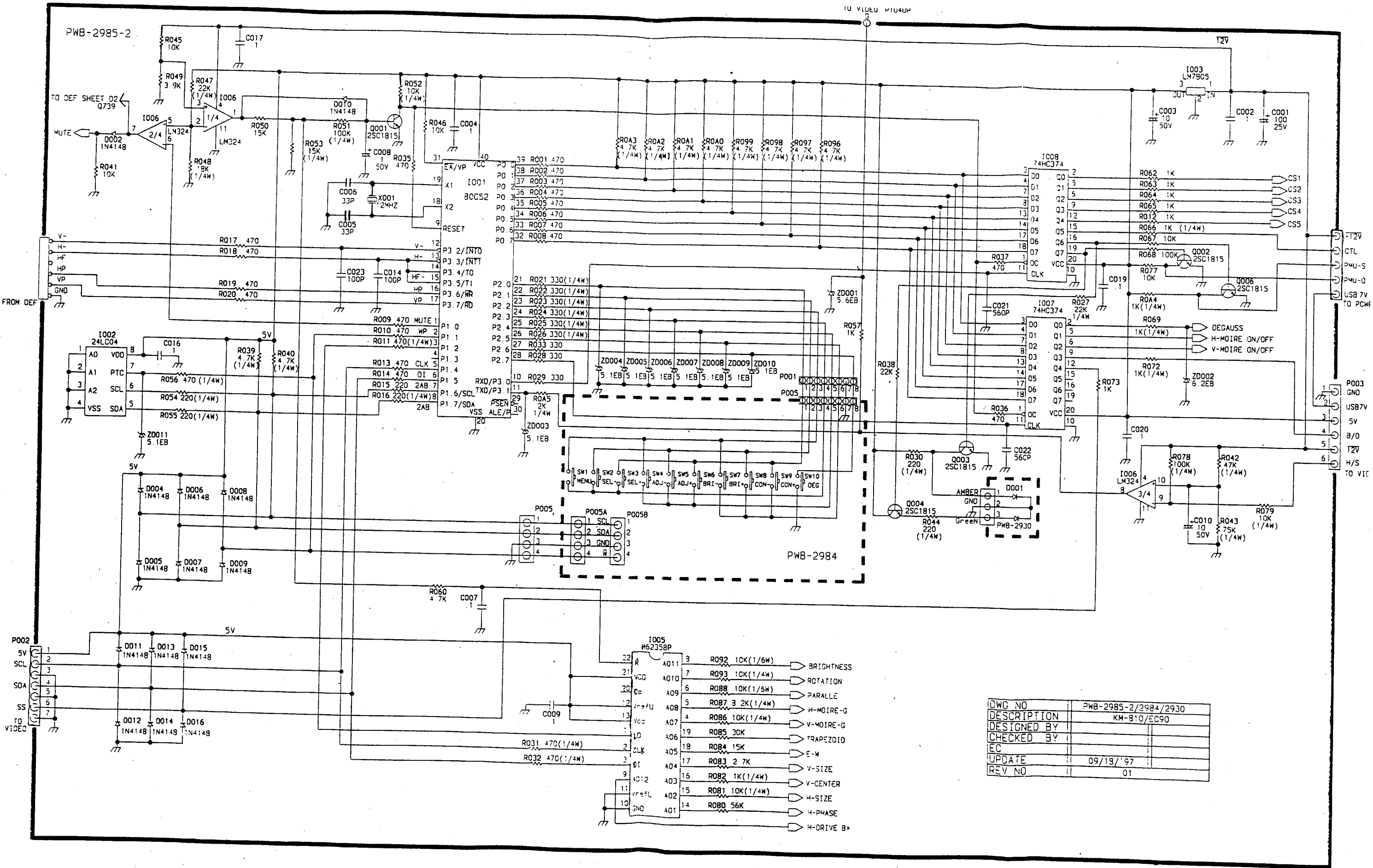
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DESCRIPTION	KM-810/E090(03)
DESIGNED BY	
CHECKED BY	
EC	
UPDATE	09/18/'97
REV NO	01



DWG NO.	PWB-2985-2
DESCRIPTION	KM-810/E090(D1)
DESIGNED BY	EC
CHECKED BY	
UPDATE	11/17/97
REV NO.	02

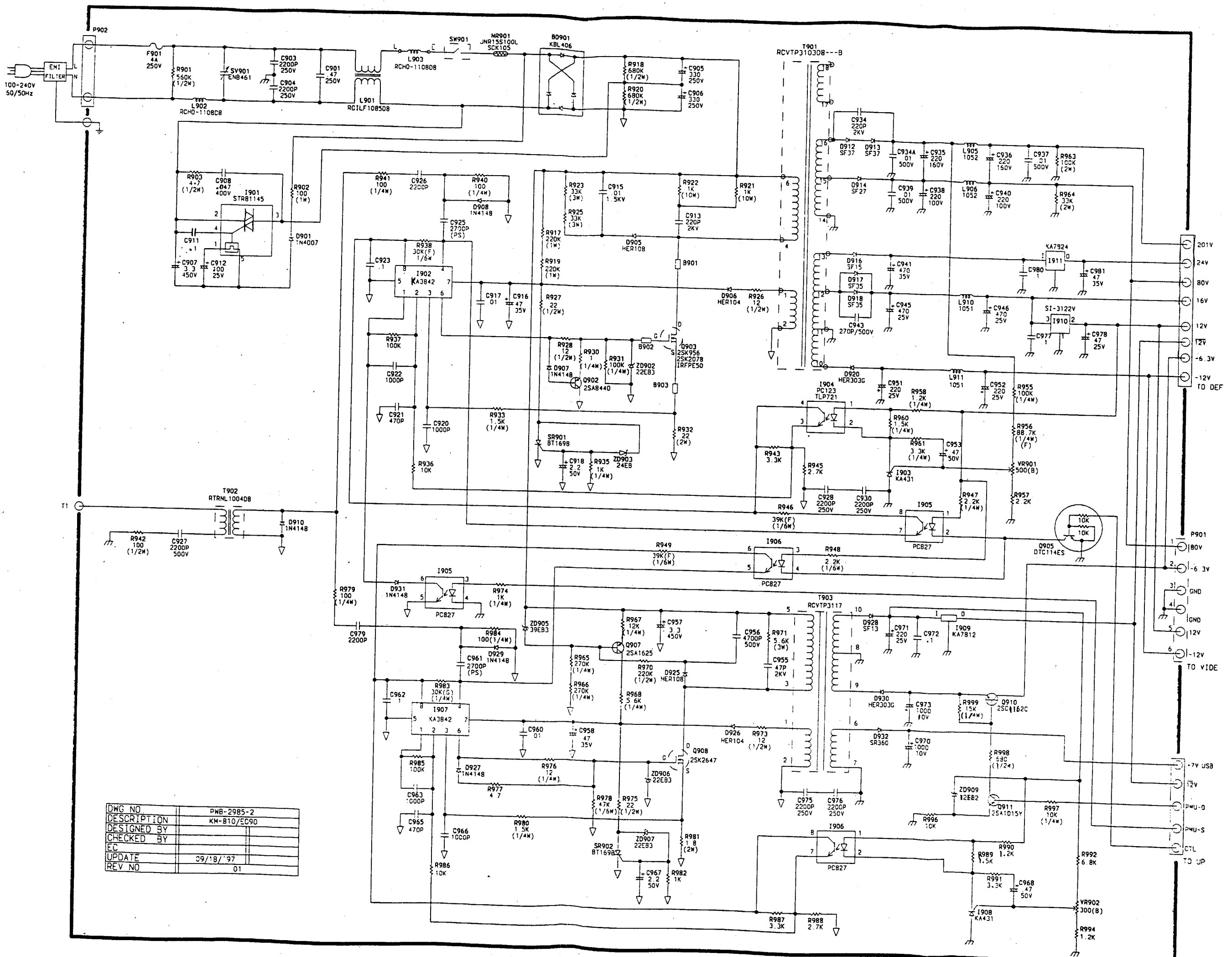


DWG NO		PWB-2985-2	
DESCRIPTION		KM-810/E090(D2)	
DESIGNED BY			
CHECKED BY			
UPDATE		09/18/'97	
REV NC		01	



DWG NO	PWB-2985-2/2984/2930
DESCRIPTION	KM-810/EC90
DESIGNED BY	
CHECKED BY	
IEC	
UPDATE	09/19/97
REV NO	01

- I005 M62358P
- 32 R R A011 3 R092 10K(1/5W) BRIGHTNESS
 - 21 VCC A010 7 R093 10K(1/4W) ROTATION
 - 20 GND A09 6 R088 10K(1/5W) PARALLE
 - 12 VrefL A08 5 R087 3.2K(1/4W) H-MOIRE-G
 - 13 VCC A07 4 R086 10K(1/4W) V-MOIRE-G
 - 10 A06 19 R085 30K TRAPEZOID
 - 2 CLK A05 18 R084 15K E-W
 - 3 DI A04 17 R083 2.7K V-SIZE
 - 9 A0:2 A03 16 R082 1K(1/4W) V-CENTER
 - 11 VrefL A02 15 R081 10K(1/4W) H-SIZE
 - 10 GND A01 14 R080 56K H-PHASE
 - H-DRIVE B+

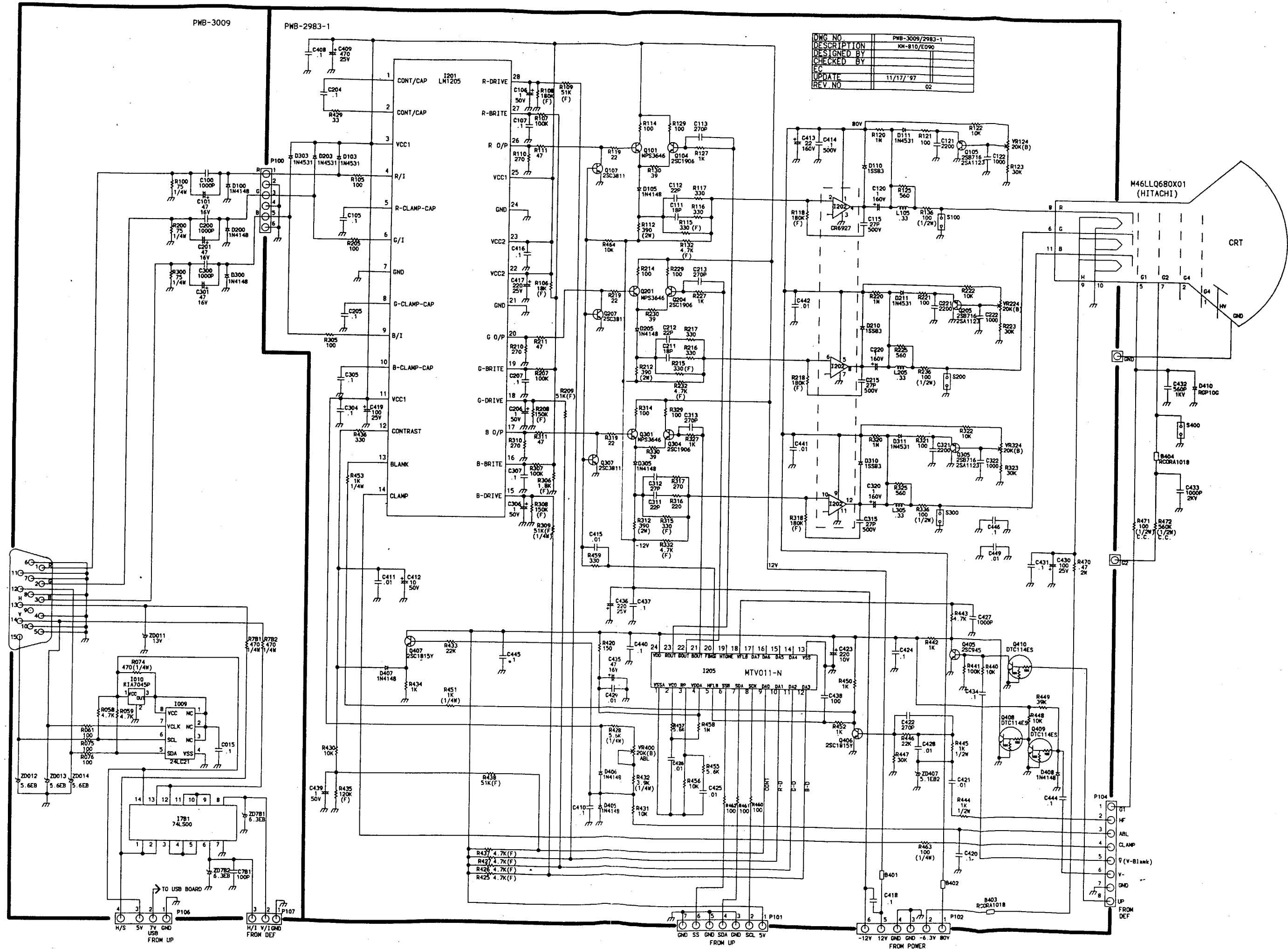


DWG NO	PWB-2985-2
DESCRIPTION	KM-B10/EC90
DESIGNED BY	
CHECKED BY	
EC	
UPDATE	09/18/97
REV NO	01

PWB-3009

PWB-2983-1

DWG NO	PWB-3009/2983-1
DESCRIPTION	KM-810/E090
DESIGNED BY	
CHECKED BY	
DATE	11/17/97
REV NO	02



M46LLQ680X01 (HITACHI)

CRT

1 G1
 2 G2
 3 G4
 4 G4
 5 G4
 6 G
 7 G
 8 G
 9 G
 10 G
 11 B
 12 GND

1 G1
 2 IF
 3 ABL
 4 CLAMP
 5 V(V-Blank)
 6 V-
 7 GND
 8 UP
 9 FROM DEF

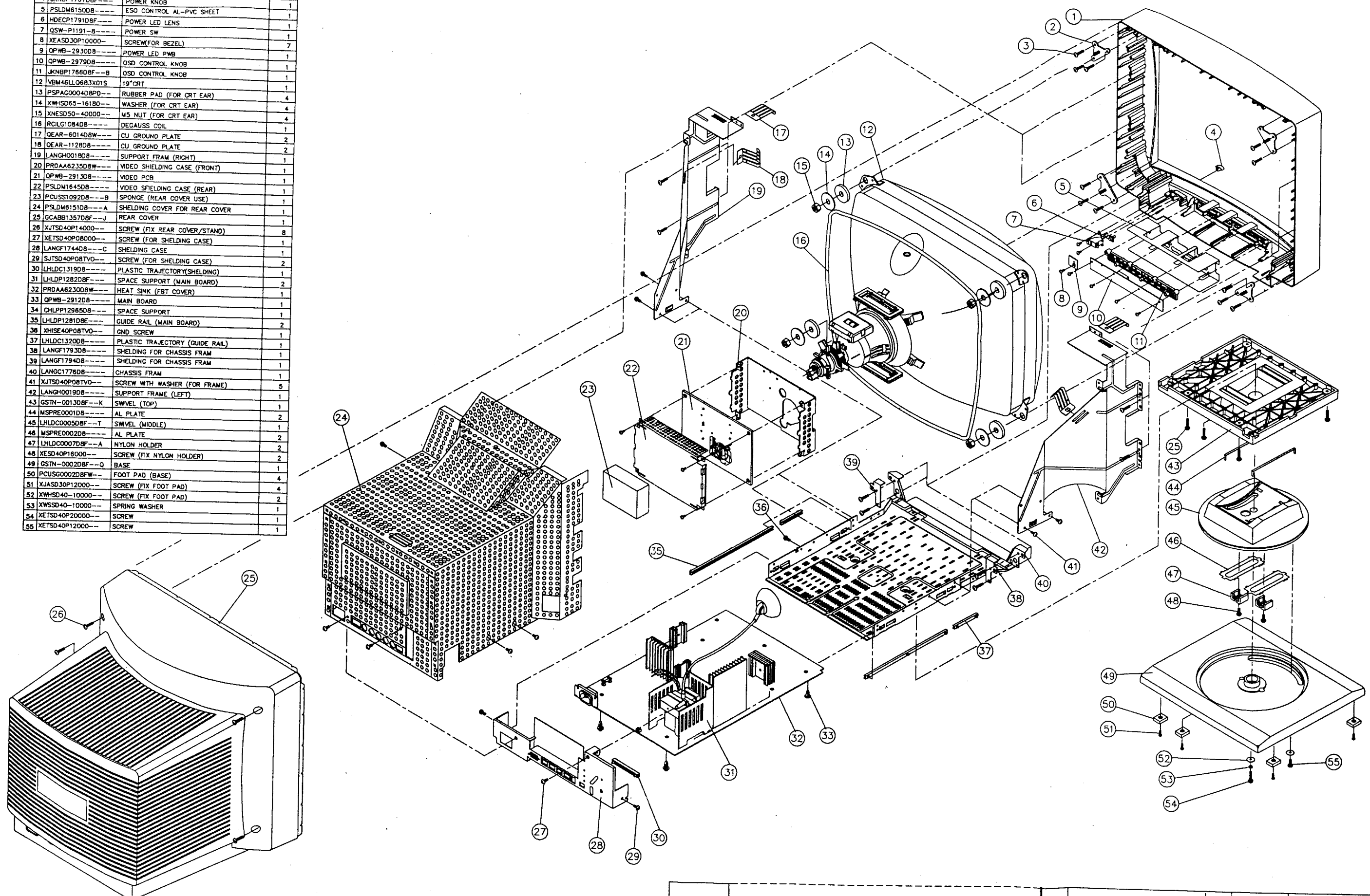
1 H/S
 2 5V
 3 7V
 4 USB
 5 GND
 6 FROM UP

1 H/1
 2 V/1
 3 GND
 4 FROM DEF

1 GND
 2 SS
 3 GND
 4 SDA
 5 GND
 6 SCL
 7 5V
 8 FROM UP

1 -12V
 2 12V
 3 GND
 4 GND
 5 -6.3V
 6 80V
 7 FROM POWER

NO	PART NO	PART NAME	Q'TY
1	GCABA139508F---	FRONT BEZEL	1
2	LANGH0018DB---	FIX CRT EAR FRAM	4
3	XETSD40P16000---	SCREW (FOR BEZEL)	20
4	JKNBP1767DBF---	POWER KNOB	1
5	PSLDM61500B---	ESO CONTROL AL-PVC SHEET	1
6	HDECP1791DBF---	POWER LED LENS	1
7	QSW-P1191-8---	POWER SW	1
8	XEASD30P10000---	SCREW(FOR BEZEL)	7
9	QPWB-29300B---	POWER LED PWB	1
10	QPWB-2979DB---	OSD CONTROL KNOB	1
11	JKNBP1768DBF--B	OSD CONTROL KNOB	1
12	VEM46LLQ683X01S	19" CRT	1
13	PSPAG000408PD---	RUBBER PAD (FOR CRT EAR)	4
14	XWHS065-16180---	WASHER (FOR CRT EAR)	4
15	XNESD50-40000---	M5 NUT (FOR CRT EAR)	4
16	RCILG1084DB---	DEGAUSS COIL	1
17	QEAR-601408W---	CU GROUND PLATE	2
18	QEAR-1128DB---	CU GROUND PLATE	2
19	LANGH0019DB---	SUPPORT FRAM (RIGHT)	1
20	PRDAA6235DBW---	VIDEO SHIELDING CASE (FRONT)	1
21	QPWB-29130B---	VIDEO PCB	1
22	PSLDM1645DB---	VIDEO SHIELDING CASE (REAR)	1
23	PCUSS1092DB---	B SPONGE (REAR COVER USE)	1
24	PSLDM6151DB---	A SHIELDING COVER FOR REAR COVER	1
25	GCABB1357DBF--J	REAR COVER	1
26	XJTS040P14000---	SCREW (FIX REAR COVER/STAND)	8
27	XETSD40P08000---	SCREW (FOR SHIELDING CASE)	1
28	LANGF1744DB---	C SHIELDING CASE	1
29	SJTS040P08TV0---	SCREW (FOR SHIELDING CASE)	2
30	LHLDC1319DB---	PLASTIC TRAJECTORY(SHIELDING)	1
31	LHLDP1282DBF---	SPACE SUPPORT (MAIN BOARD)	2
32	PRDAA62300BW---	HEAT SINK (FBT COVER)	1
33	QPWB-2912DB---	MAIN BOARD	1
34	CHLPP12965DB---	SPACE SUPPORT	1
35	LHLDP1281DBE---	GUIDE RAIL (MAIN BOARD)	2
36	XHISE40P08TV0---	GND SCREW	1
37	LHLDC1320DB---	PLASTIC TRAJECTORY (GUIDE RAIL)	1
38	LANGF1793DB---	SHIELDING FOR CHASSIS FRAM	1
39	LANGF1794DB---	SHIELDING FOR CHASSIS FRAM	1
40	LANGC1776DB---	CHASSIS FRAM	1
41	XJTS040P08TV0---	SCREW WITH WASHER (FOR FRAME)	5
42	LANGH0019DB---	SUPPORT FRAME (LEFT)	1
43	GSTN-00130BF--K	SWIVEL (TOP)	1
44	MSPRE0001DB---	AL PLATE	2
45	LHLDC00050BF--T	SWIVEL (MIDDLE)	1
46	MSPRE0002DB---	AL PLATE	2
47	LHLDC0007DBF--A	NYLON HOLDER	2
48	XESD40P16000---	SCREW (FIX NYLON HOLDER)	2
49	GSTN-0002DBF--Q	BASE	1
50	PCUSG0002DBFW---	FOOT PAD (BASE)	4
51	XJASD30P12000---	SCREW (FIX FOOT PAD)	4
52	XWHS040-10000---	SCREW (FIX FOOT PAD)	2
53	XWSSD40-10000---	SPRING WASHER	1
54	XETSD40P20000---	SCREW	1
55	XETSD40P12000---	SCREW	1



REVISIONS	CHK. NO.	PART CODE		Q'TY	MATERIAL	TREATMENT	REMARKS
	DESIGN	CHECK	APPROVED		UNIT	NAME	KM-810Az? μ
	SHOW HER 97.05.20				SCALE	DWG. NO.	