DAEWOO

Service Manual

XGA COLOR MONITOR

Model : CMC-518X

DAEWOO ELECTRONICS CO., LTD.

OVERSEAS SERVICE DEPT.

Service Manual

DAEWOO ELECTRONICS CO., LTD.

CONTENTS

SAFETY PRECAUTIONS

CAUTION: No modifications of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety check and servicing guidelines.

Safety Check

Care should be taken while servicing this analog color display because of the high voltages used in the deflection circuits. These voltages are exposed in such areas as the associated flyback and yoke circuits.

Fire & Shock Hazard

- Insert an isolation transformer between the analog color display and AC power line before servicing chassis.
- In servicing, pay attention to original lead dress especially in the high voltage circuit. If a short circuit is found, replace all parts which have been overheated as a result of the short circuit.
- All the protective devices must be reinstalled per original design.
- Soldering must be inspected for possible cold solder points, frayed leads, damaged insulation, solder splashes or sharp solder points. Be certain to remove all foreign materials.

Implosion Protection

Picture tube in this monitor employs integral implosion protection system, but care should be taken to avoid damage and scratching during installation.
Use only same type replacement picture tubes.

IMPORTANT SAFETY NOTICE : There are special components used in analog color display, which are important for safety. These parts are shaded on the schematic diagram and on the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-radiation, shock, fire or other hazards. Do not modify the original design without getting a written permission from DAEWOO ELECTRONICS CO. or this will void the original parts and labor warranty.

X-Radiation

WARNING : The only potential source of X-Radiation is the picture tube. However when the high voltage circuitry is operating properly, there is no possibility of an X-Radiation problem. The basic precaution which must be exercised is to keep the high voltage at the following factory recommended level.

NOTE : It is important to use an accurate, periodically calibrated high voltage meter.

- To measure the high voltage, use a high-impedance high-voltage meter.
  Connect(-) to chassis and (+) to the CRT anode button.
- Turn the Contrast & Brightness control fully counterclockwise.
- Measure the high voltage. The high voltage meter should indicate the following factory recommended level.
- If the upper meter indication exceeds the maximum level, immediate service is required to prevent the possibility of premature component failure.
- To prevent X-Radiation possibility, it is essential to use the specified picture tube.
- The nominal high voltage is 25.5KV or below, and must not exceed 29KV at zero beam current at rated voltage.

GENERAL SAFETY INFORMATION

Terms in the manual

CAUTION Statements identify conditions or practices that could result in damage to the equipment or other property.

WARNING Statements identify conditions or practices that could result in personal injury or loss of life.

Terms as marked on equipment

CAUTION Statements indicate a personal injury hazard not immediately accessible as one reads the marking, or a hazard to properly including the equipment itself.

WARNING Statements indicate a personal injury hazard immediately accessible as one reads the marking

Symbols in the manual

This symbol indicates where applicable cautionary or other information is to be found.

Symbols as marked on equipment

Protective GROUND terminal

High Voltage Warning And Critical Component Warning Label

Following warning label is on the CRT PWB shield case inside the unit.

Warning : This product includes critical mechanical and electrical parts which are essential for X radiation safety. For continued safety, replace critical components indicated in the service manual only with exact replacement parts given in the parts list. Operating high voltage for this product is 25KV at minimum brightness. Refer to service manual for measurement procedures and proper service adjustments.

SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service manual, its supplements and addenda, read and follow the SAFETY PRECAUTIONS of this manual.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 1 of this manual, always follow the safety precautions.
Remember: Safety First.

General Servicing Precautions

1. Always unplug the AC power cord from the AC power source before:
   a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.
   b. Disconnecting or reconnecting any electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.

   CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in a explosion hazard.

   d. Discharging the picture tube anode.

2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM. etc.) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc".

3. Discharge the picture tube anode only by: (a) first connecting one end of an insulated clip lead to the degaussing or line grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touching the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.

4. Do not any spray chemicals on or near this instrument or any or its assemblies.

5. Unless specified otherwise in this service manual, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Aceton and 90% (by volume) isopropyl alcohol (90% - 99% strength).

   CAUTION: This is a flammable mixture. Unless specified otherwise in this service manual, lubrication of contacts is not required.

6. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service manual might be equipped.

7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid -state device heat sinks are correctly installed.

8. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

9. Use only the test fixtures specified in this service manual with this instrument.

   CAUTION: Do not connect the test fixture ground strap to any heatsink in this instrument.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity.
Such components commonly are called Electrostatically Sensitive (ES) Devices.
The examples of typical ES devices are integrated circuits, some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate enough electrical charges to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate enough electrical charges to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

> **CAUTION :** Be sure that no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmful motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate enough static electricity to damage an ES devices).

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron with appropriate tip size and shape that will maintain tip temperature within a 550¢ -600¢ (288¡ -316¡) range.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean.
4. Thoroughly clean the surface to be soldered. Use a small wire-bristle(0.5 inch or 1.25cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following soldering technique:
   a. Allow the soldering iron tip to reach normal temperature (550¢ to 600¢ or 288¡ to 316¡)
   b. Hold the soldering iron tip and solder strand against the component lead until the solder melts.
   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

> **CAUTION:** Work quickly to avoid overheating the circuit board printed foil.

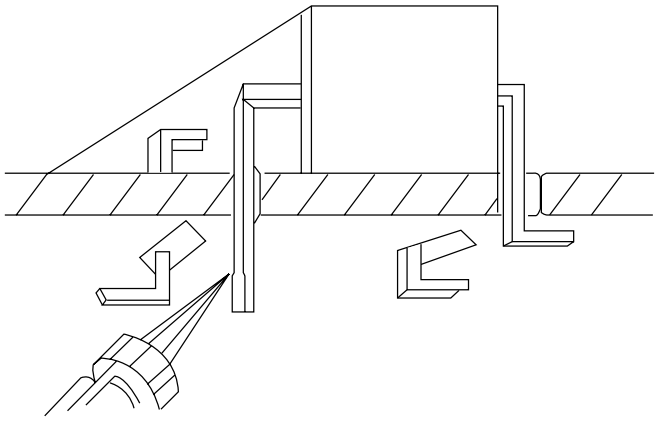


FIGURE 1. USE SOLDERING IRON TO PRY LEADS

IC Removal/Replacement

Some utilized chassis circuit boards have slotted (oblong) holes through which the IC leads are inserted and then bent flat against the circuit foil. When holes are slotted, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 on the page under the title of general soldering guidelines.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with desoldering braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the area).

"Small-Signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend the end of each of three leads remaining on the circuit board into a "U" shape.
3. Bend the replacement transistor leads into a "U" shape.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal-to-metal contact, then solder each connection.

Power IC, Transistor or Devices Removal/Replacement

1. Heat and remove all solders from the device leads.
2. Remove the heatsink mounting screw(if applicable).
3. Carefully remove the device from the circuit board.
4. Insert new device in circuit board.
5. Solder each device lead, and clip off excess lead.
6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicularly to the circuit board.
3. Observing diode polarity, wrap each lead out of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect the solder joints of the two "original" leads on the circuit board copper side. If they are not shiny, reheat them and apply additional solder if necessary.

TECHNICAL INFORMATION

Electrical

CRT dot pitch	0.28mm dot pitch
Horizontal frequency	30KHz to 54KHz (Automatically)
Vertical frequency	50Hz to 120Hz (Automatically)
Operating temperature	10-40¡ /50-104¢
Operating humidity	8-80%

Mechanical

Cabinet	Molded Plastic Cabinet with detachable tilt & swivel base
Dimension (set with stand)	381.5(H)x368(W)x394(D) mm
Weight (net)	12.5 Kg
Controls	Power Switch
	OSD Key
	Contrast
	Brightness
	Horizontal Position
	Horizontal Size
	Vertical Position
	Vertical Size
	Pincushion
	Trapezoid
	R Gain, B Gain
	Color Temp
	Recall
	Degauss
	System Spec

GENERAL INFORMATION

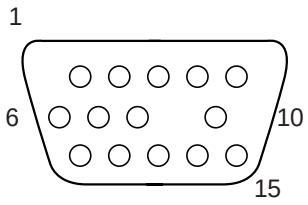
This color monitor automatically scans all horizontal frequencies from 30KHz to 64KHz, and all vertical frequencies from 50Hz to 120Hz. This color monitor adopted the OSD (On Screen Display), it shows the sync polarity and frequency and it provides that easily adjust control. This color monitor supports IBM PC, PC/XT, PC/AT, personal System/2 (PS/2), Apple Macintosh, and compatible users crisp text and vivid color graphics diaplay when using the following graphics adapters : (VGA, 8514/A, Supper VGA, VESA and XGA and Apple Macintosh Video Card). And so, this color monitor has a maximum horizontal resolution of 1024 dots and a maximum vertical resolution of 768 lines for superior clarity of display.
By accepting analog signal inputs which level is zero to 0.7 Volts. This color monitor can display an unlimited palette of colors depending on the graphics adapter and software being used.

Abbreviations

ADJ	Adjustment
AFC	Automatic Frequency Control
CRT	Cathode Ray Tube
Def	Deflection
D.Y	Deflection Yoke
FBT	Flyback Transformer
H.SYNC	Horizontal Synchronization
OSC	Oscillator
P.S.U	Power Supply Unit
PWA	Printed Circuit Board Wiring Assembly
R.G.B	Red, Green, Blue
V.Sync	Vertical Synchronization

PIN CONNECTOR

Pin	Signal
1	Red
2	Green
3	Blue
4	GND
5	GND(Self-Test)
6	GND-Red
7	GND-Green
8	GND-Blue
-	No Pin
10	GND-H.Sync
11	GND
12	Bi-directional Data (SDA)
13	Horizontal Sync
14	Vertical Sync (VCLK)
15	Data clock (SCL)



Arrangement of 15-pin D-sub connector

CAUTIONS FOR ADJUSTMENT AND REPAIR

- Degaussing is always required when adjusting purity or convergence.
- The white balance adjustment has been done by a color analyzer in factroy. The adjustment procedure, described in the service manual is made by a visual check.
- Allow 20 minutes warm-up time for the display before checking or adjusting only electrical specification or function.
- Reform the leadwire after any repair work.

Caution For Servicing

- In case of servicing or replacing CRT, high voltage sometimes remains in the anode of the CRT. Completely discharge high voltage before servicing or replacing CRT to prevent a shock to the serviceman.

ALIGNMENT PROCEDURE

Standard Adjustment Conditions

1. Power source voltage : 100~240Vac 50/60Hz
2. Aging : Take at least 20 minutes warm-up time.
3. Signals
   Video : Analog 0.7Vpp 75Ω terminal positive polarity
   Synchronizing : TTL level Negative/Positive Separate/Composite
   Deflection frequency
   Horizontal Frequency : 30 KHz - 54KHz
   Vertical Frequency : 50Hz - 120Hz

Pre-Adjustment

1. B+ Adjustment
   Adjust 27.3Vdc ¡ 0.2Vdc between TP1 and ground at 31.5KHz mode, varying VR501.

Main Adjustment

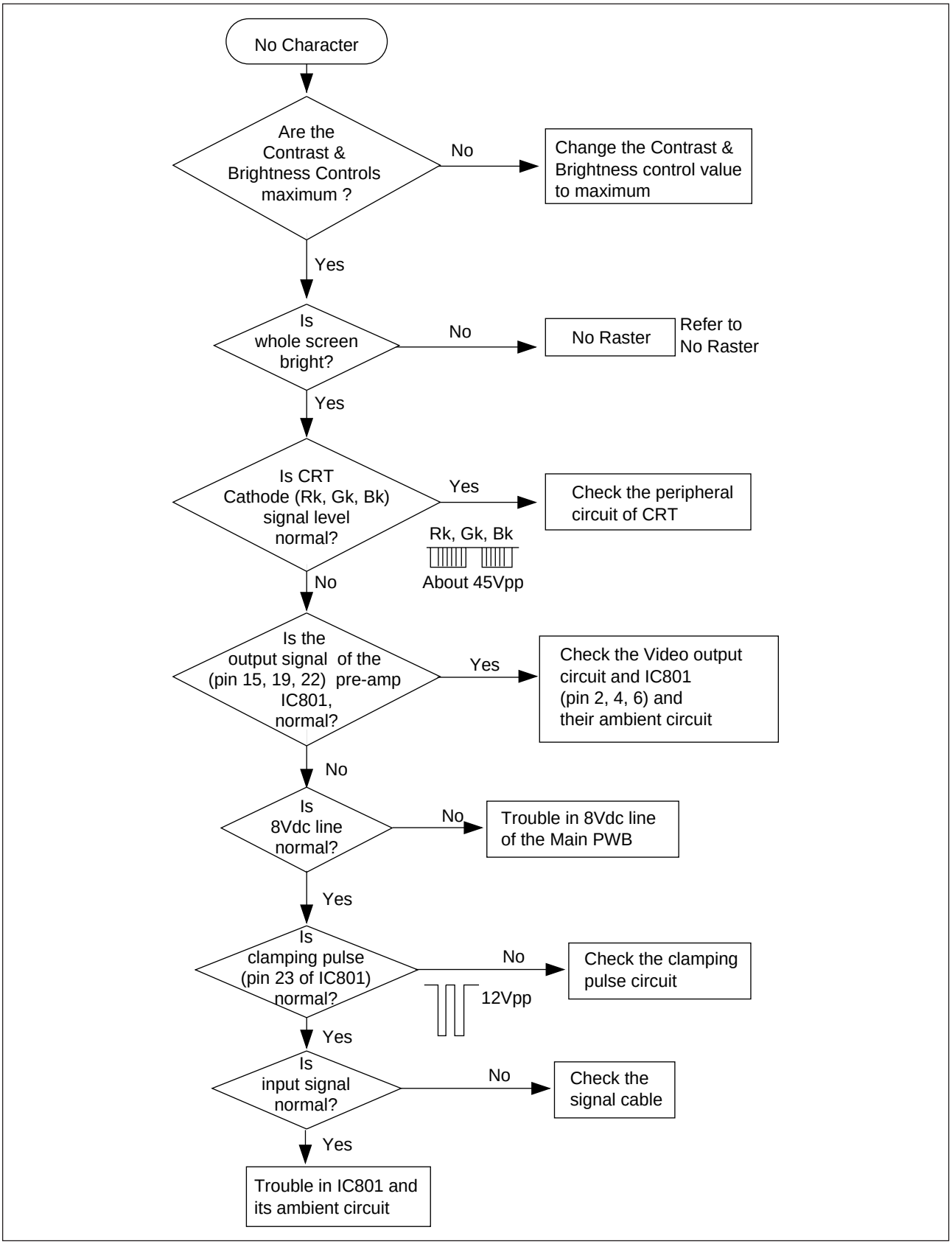
1. Setting the Controls
   Set the value of items as following.
   Contrast : Max. (OSD value up to MAX)
   Brightness : Center (Set the OSD value to center)
2. H.size, V.size, H.phase, V.position, Pincushion, Trapezoid
   Receive the cross hatch pattern of Factory preset mode.
   H.Size, V.size, H.phase, V.position, Pincushion, Trapezoid are adjusted at each mode.
   In Factory, Auto Alignment was done at each mode. Therefore, Factory preset mode has it's own value according to each control.
3. Focus
   (a) Set brightness control to center and contrast control to MAX.
   (b) Receive all "H" character pattern of 54KHz mode signal.
   (c) Adjust the Focus control of FBT to obtain best Focus (static focus and Dynamic focus).
4. Geometric Distortion Adjustment.
   (a) Receive the cross hatch pattern of 54KHz mode signal.
   (b) Pin balance, Pin center, Pin corner, Parallelogram are adjusted the best geometric status.
5. White Balance Adjustment
   (a) Select 9300 ¡K on the OSD Menu.
   (b) Receive a cross hatch pattern of 54KHz mode signal by using the signal generator.
   (c) Set the brightness control to the center, the contrast control to the maximum and sub contrast control VR to the center.
   (d) Cut off the FBT screen VR.
   (e) Set the brightness control to the maximum and receive all the black patterms.
   (f) Select the R-BIAS, G-BIAS and B-BIAS on the OSD menu and adjust the DATA +/- key to get the color coordinates in x=0.281, y=0.311.
   (g) Receive al full white pattern.
   (h) Select the R-GAIN, G-GAIN and B-GAIN and adjust Data +/- key to get the color coordinates in x=0.281 ¡ 0.05, y=0.311 ¡ 0.05
   (i) Set the brightness control to the center and adjust the sub contrast control to get the screen luminosity to 30t/L(a full white pattern over 30Ft/l).
   (j) Check if the x,y coordinates of color analyzer is in X=0.281 ¡ 0.05, Y=0.311 ¡ 0.05.
   If the color coordinates is out of range, adjust the R. G. B BIAS & GAIN to get the coorinates in X=0.281, Y=0.311. Make sure that the coordinates is in range by using contrast control.

(k) Select 6550 ¡K on the OSD Menu and set the color coordinates in X=0.313, Y=0.329 at the maximum contrast control and center brightness control.
(l) Check if the a full white pattern is over 30Ft/L. If you satisfied with the result, readjust the internal sub contrast VR.

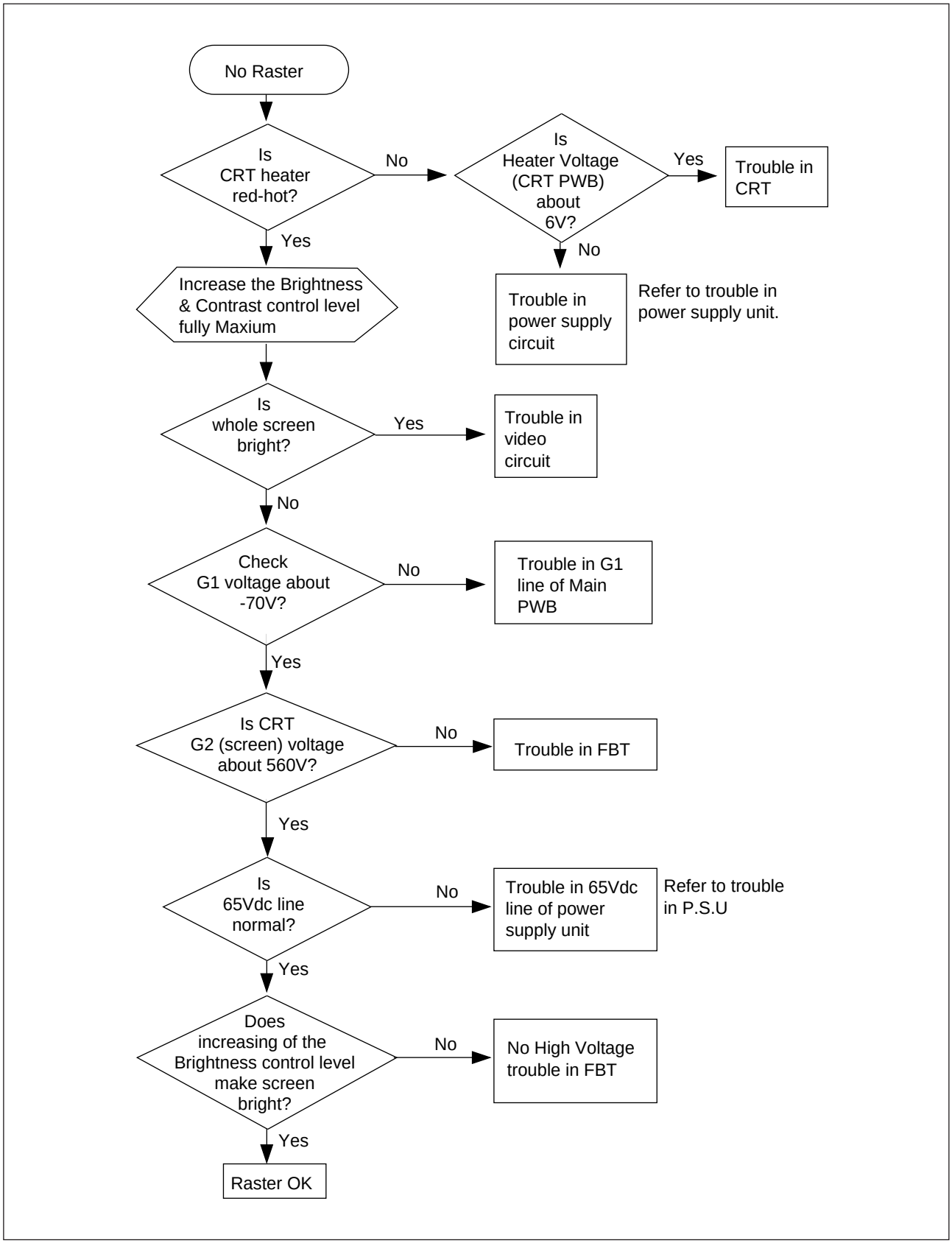
6. Static Convergence Adjustment
(a) Apply a magenta cross hatch pattern on display
(b) Adjust the focus from the best over all focus on the display.
Also adjust the brightness to the desired condition
(c) Vertical red and blue lines are converged by varying the angle between the two tabs of the 4-pole magnets.
(d) Horizontal red and blue lines are converged by varing the tabs together, keeping the angle between them constant.
(e) Apply a white cross hatch pattern on display.
(f) Vertical green and magenta lines are converged by varing the the angle between the two tabs of the 6-pole magnets.
(g) Horizontal green and magenta lines are converged by varing the tabs together, keeping the angle between them constant.

TROUBLESHOOTING HINTS

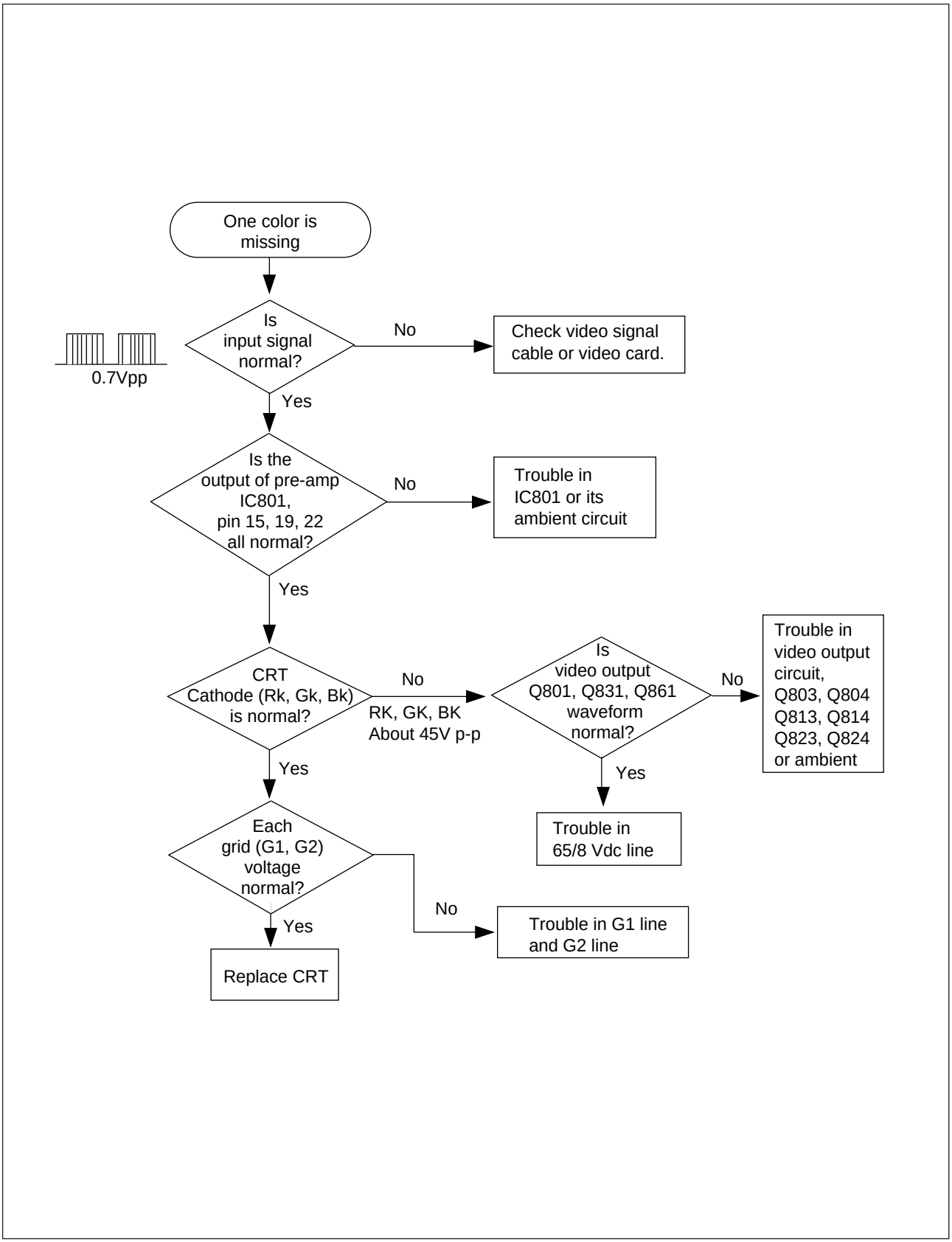
1. No Character



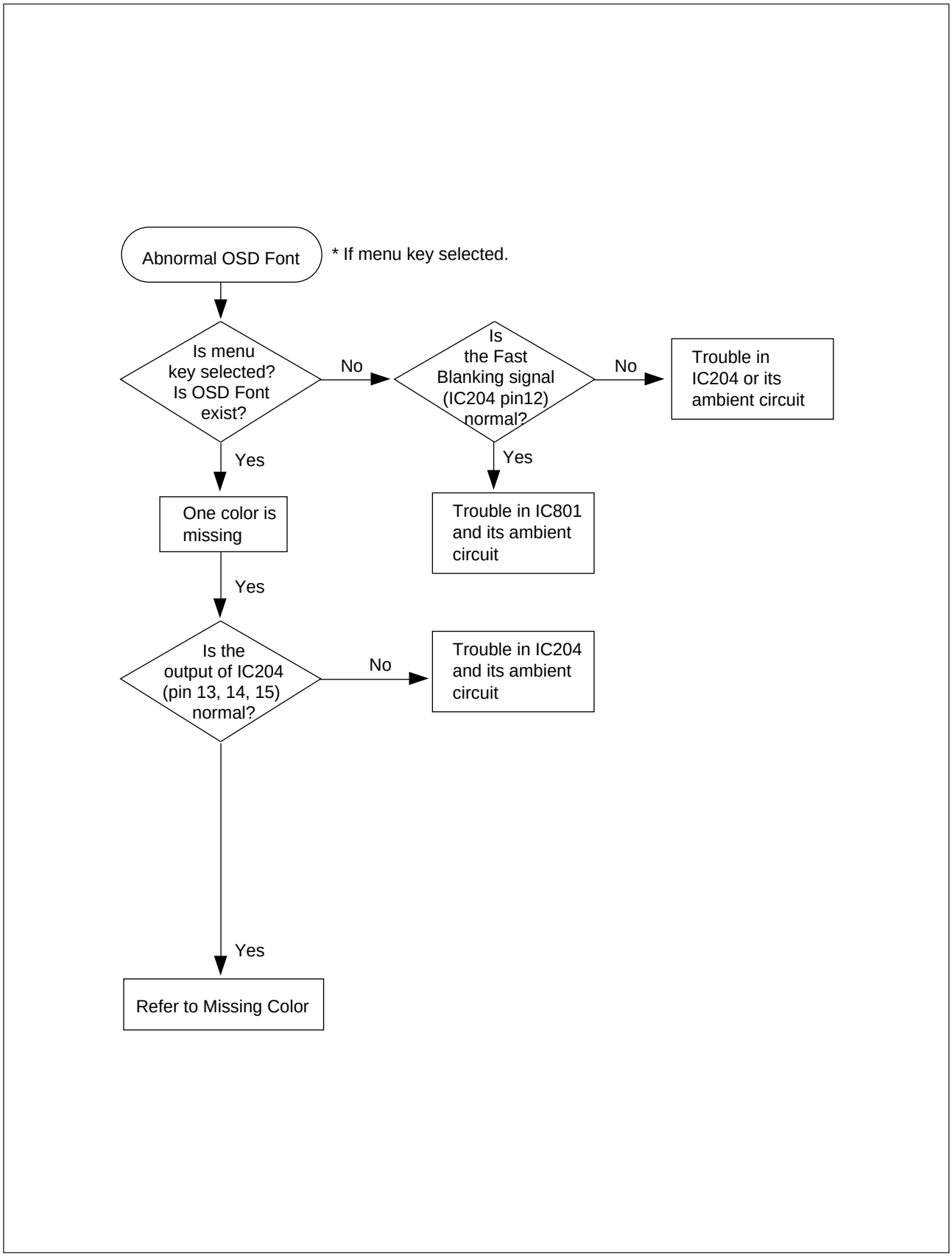
2. No Raster


No Raster
Is CRT heater red-hot?
No
Is Heater Voltage (CRT PWB) about 6V?
Yes
Trouble in CRT
No
Trouble in power supply circuit
Refer to trouble in power supply unit.
Yes
Increase the Brightness & Contrast control level fully Maxium
Is whole screen bright?
Yes
Trouble in video circuit
No
Check G1 voltage about -70V?
No
Trouble in G1 line of Main PWB
Yes
Is CRT G2 (screen) voltage about 560V?
No
Trouble in FBT
Yes
Is 65Vdc line normal?
No
Trouble in 65Vdc line of power supply unit
Refer to trouble in P.S.U
Yes
Does increasing of the Brightness control level make screen bright?
No
No High Voltage trouble in FBT
Yes
Raster OK

3. A Missing Color

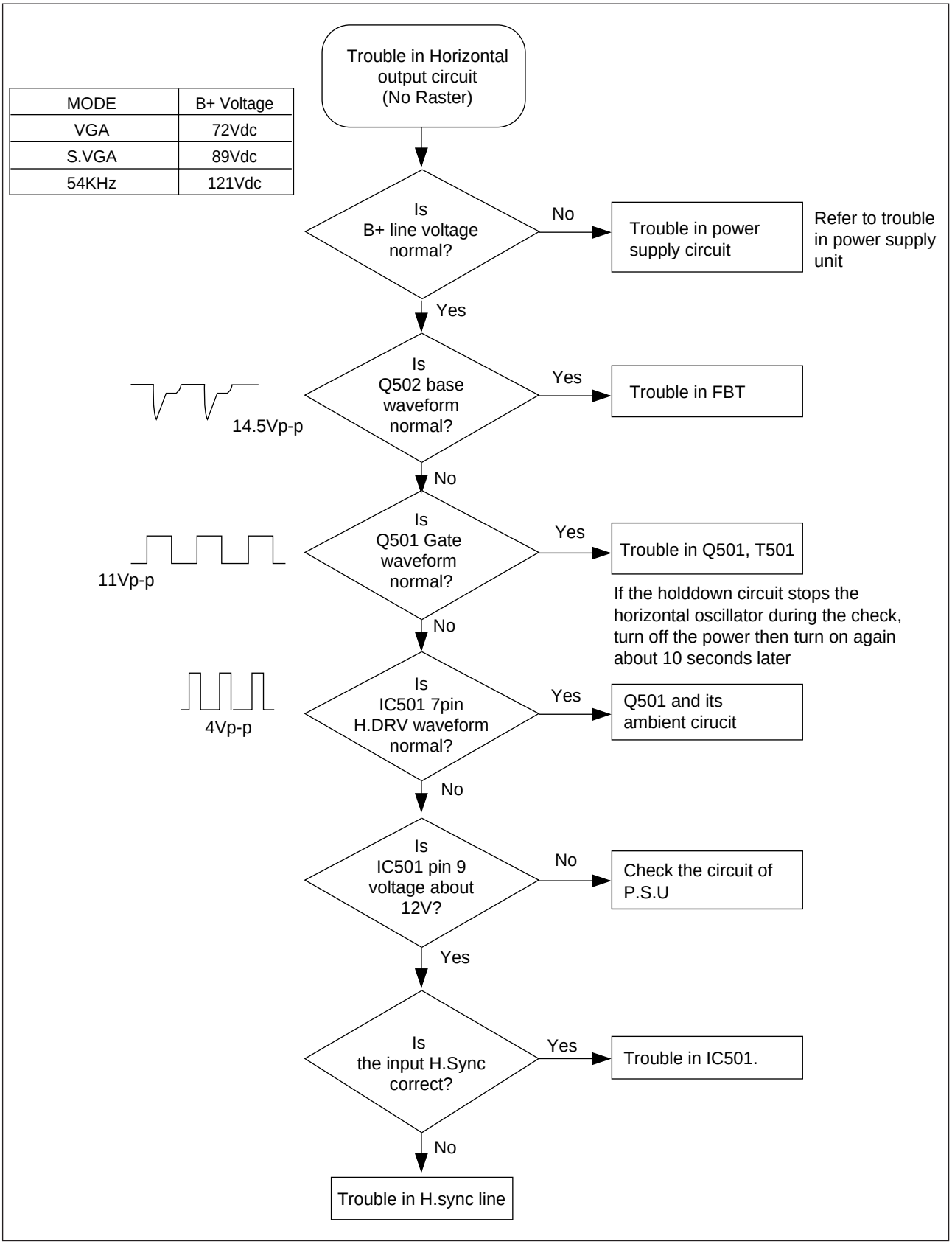


4. Abnormal OSD Font



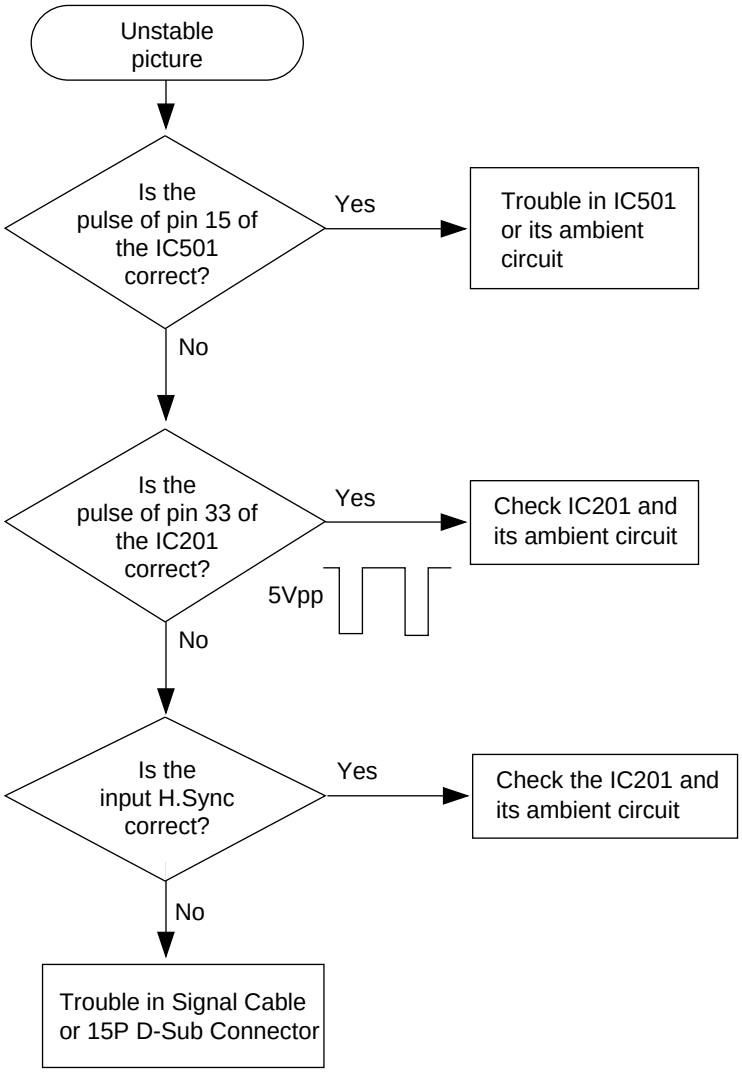
5. Horizontal Output Circuit

MODE	B+ Voltage
VGA	72Vdc
S.VGA	89Vdc
54KHz	121Vdc

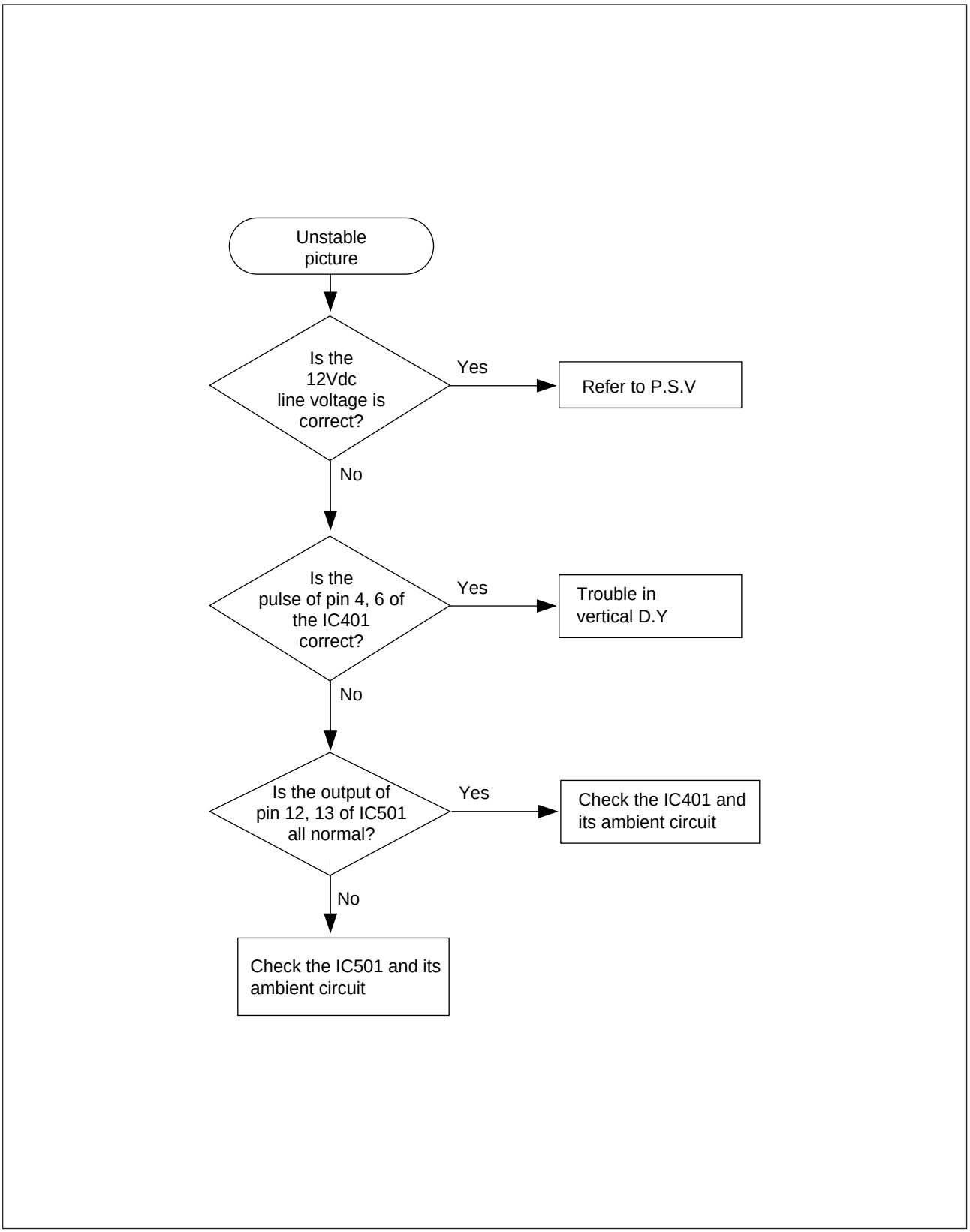


6. Unstable Picture

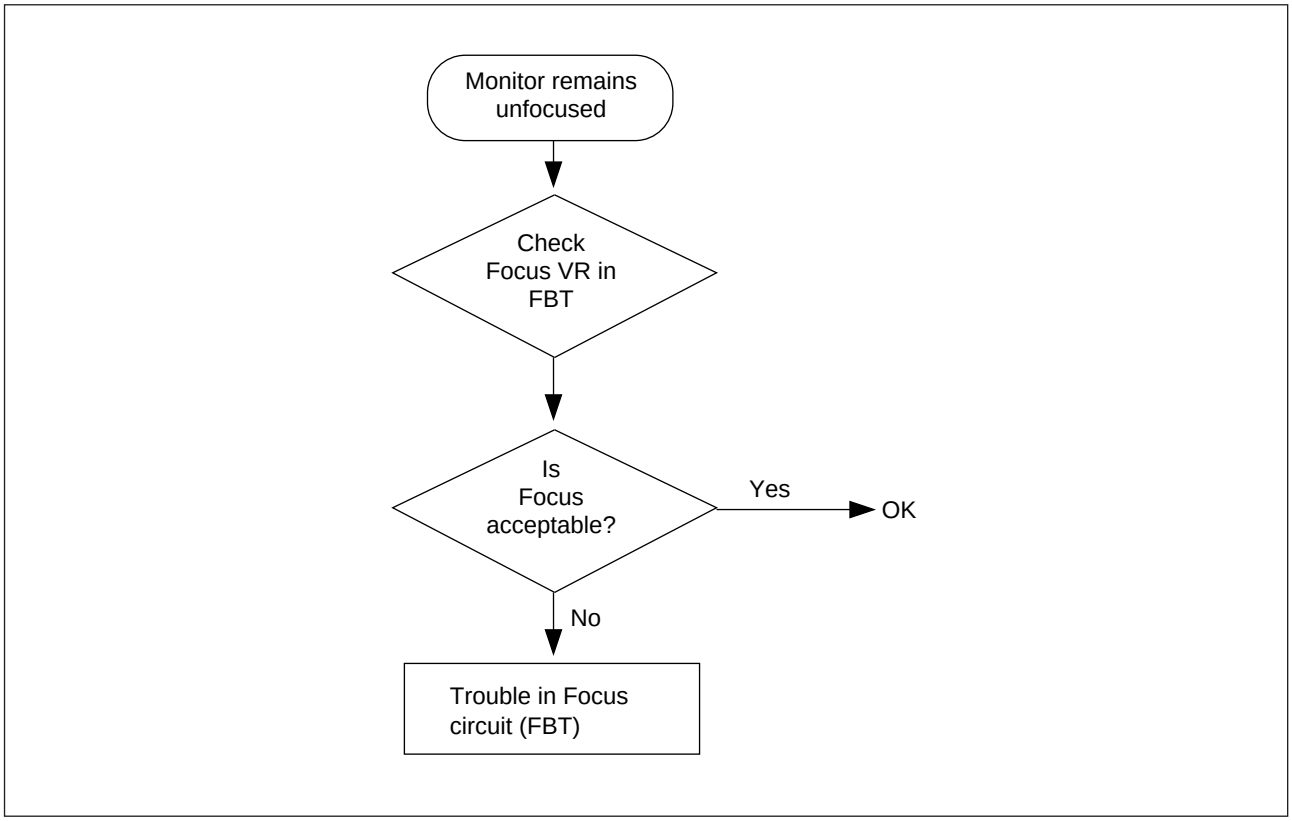
6.1 Horizontal



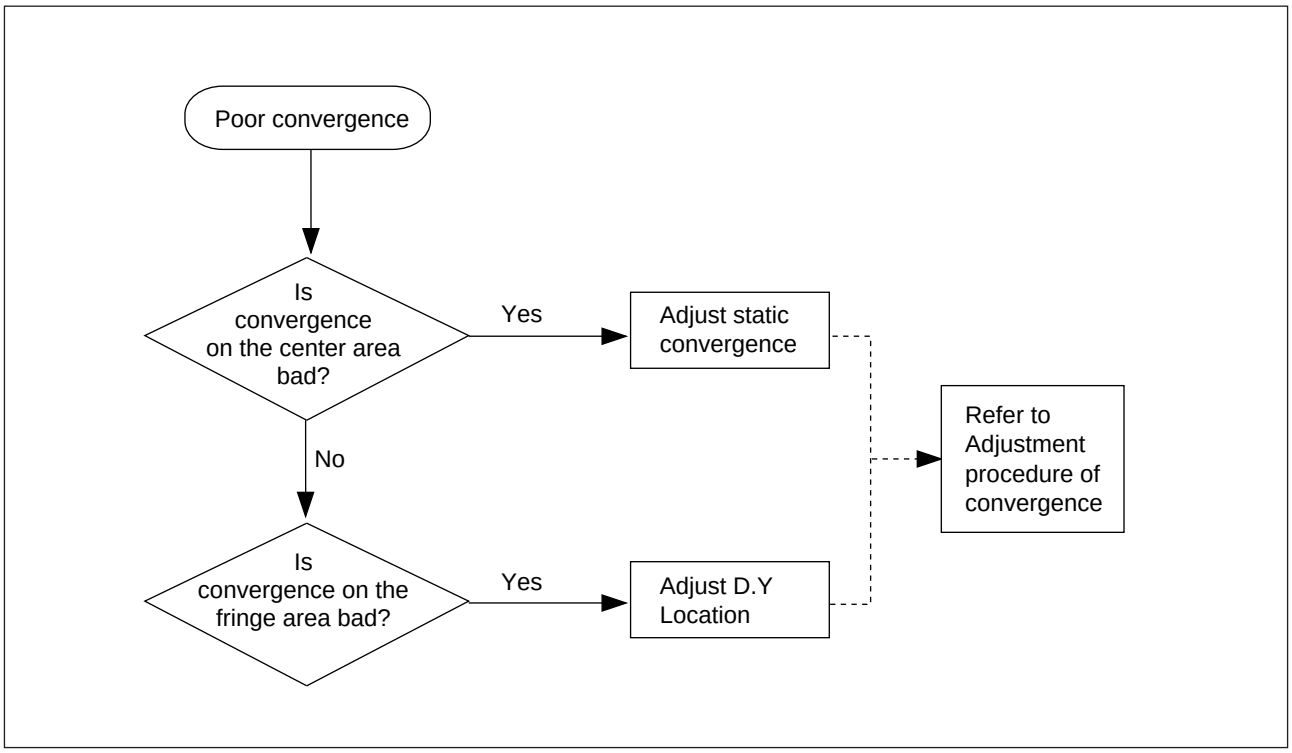
6-2.Vertical


Unstable picture
Is the 12Vdc line voltage is correct?
Yes
Refer to P.S.V
No
Is the pulse of pin 4, 6 of the IC401 correct?
Yes
Trouble in vertical D.Y
No
Is the output of pin 12, 13 of IC501 all normal?
Yes
Check the IC401 and its ambient circuit
No
Check the IC501 and its ambient circuit

7. Focus


Monitor remains unfocused
Check Focus VR in FBT
Is Focus acceptable?
Yes
OK
No
Trouble in Focus circuit (FBT)

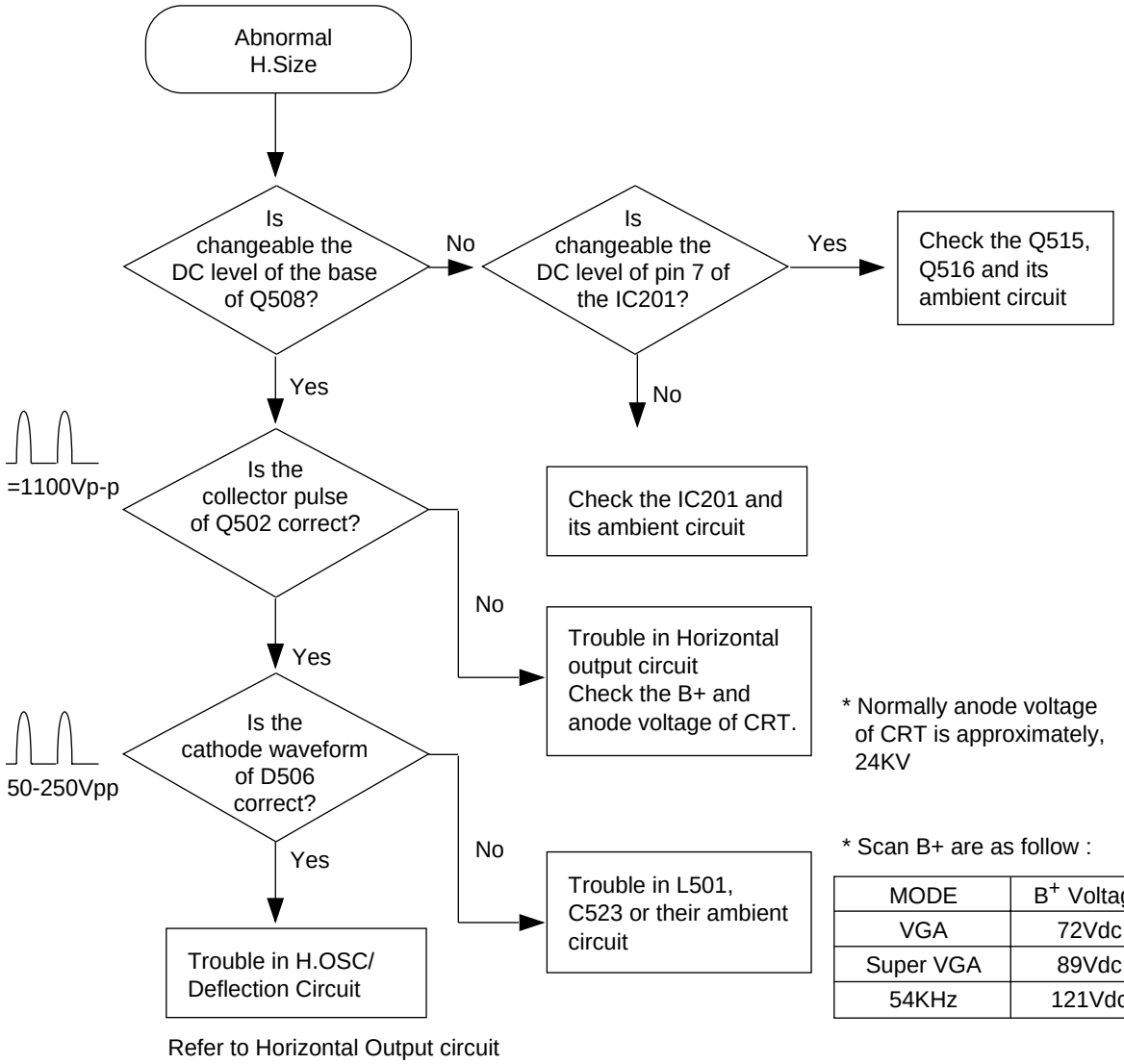
8. Convergence



9. Abnormal Picture

9.1 Horizontal Size

* At first, adjust controls in the OSD Menu

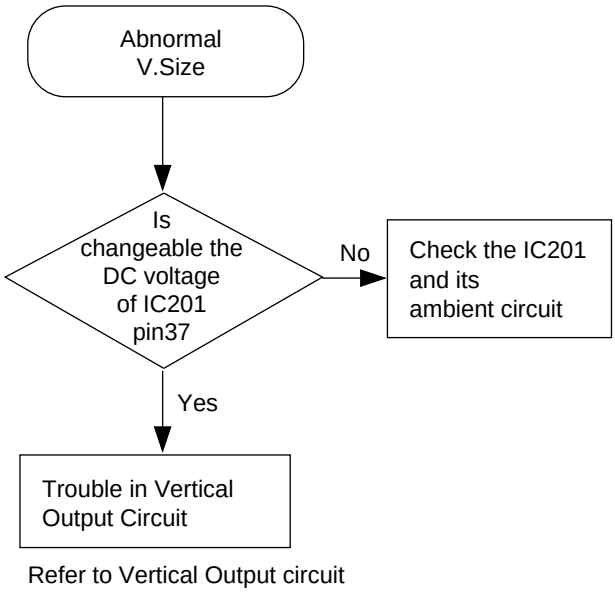


* Normally anode voltage of CRT is approximately, 24KV

* Scan B+ are as follow :

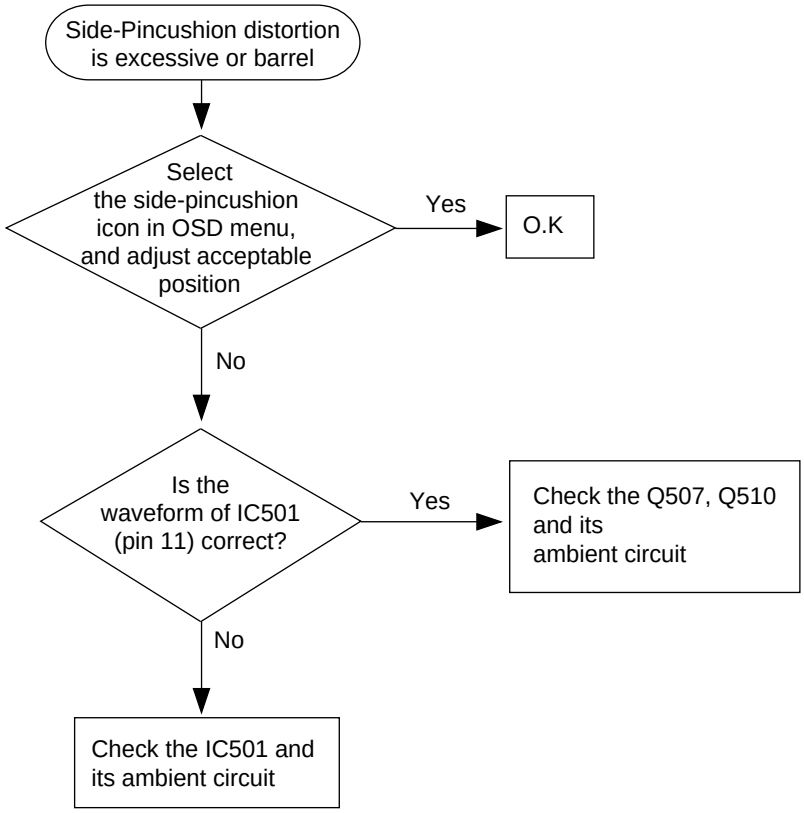
MODE	B^+ Voltage
VGA	72Vdc
Super VGA	89Vdc
54KHz	121Vdc

9.2 Vertical Size

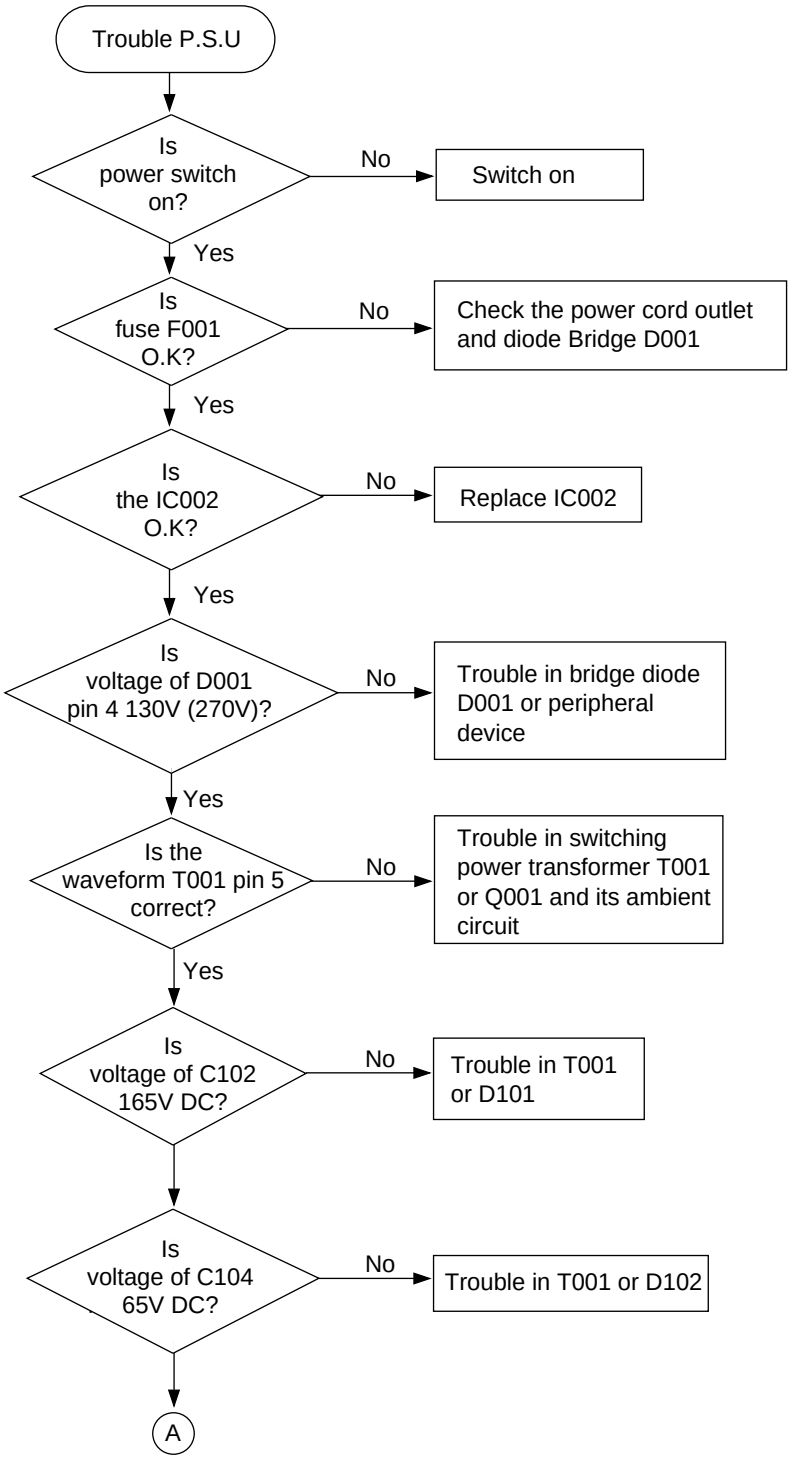


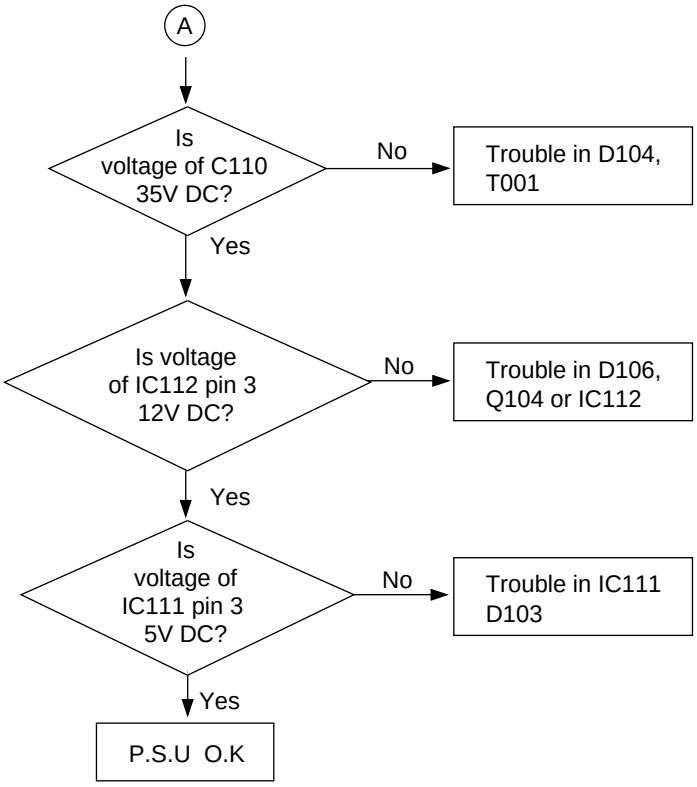
Refer to Vertical Output circuit

10. Side-Pincushion Circuit

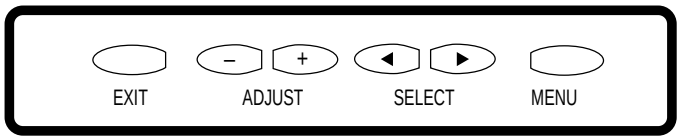


11. Power Supply Unit (P.S.U)




A
Is
voltage of C110
35V DC?
No
Trouble in D104,
T001
Yes
Is voltage
of IC112 pin 3
12V DC?
No
Trouble in D106,
Q104 or IC112
Yes
Is
voltage of
IC111 pin 3
5V DC?
No
Trouble in IC111
D103
Yes
P.S.U O.K

OPERATION & ADJUSTMENT



MENU : Launch OSD(On-Screen Display) Menus

▶ : Select the next function

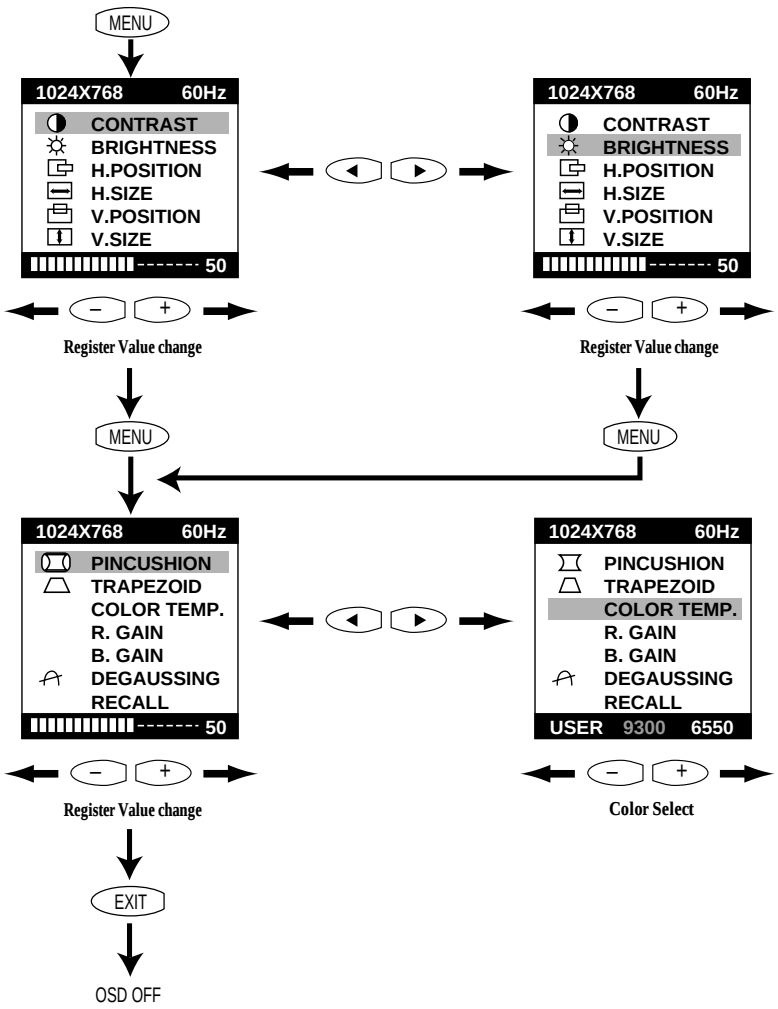
◀ : Select the previous function

\+ : Increase the value of any selected function

– : Decrease the value of any selected function

EXIT : Exit OSD Menus & Launch OSD Menus, when no OSD

Key Process



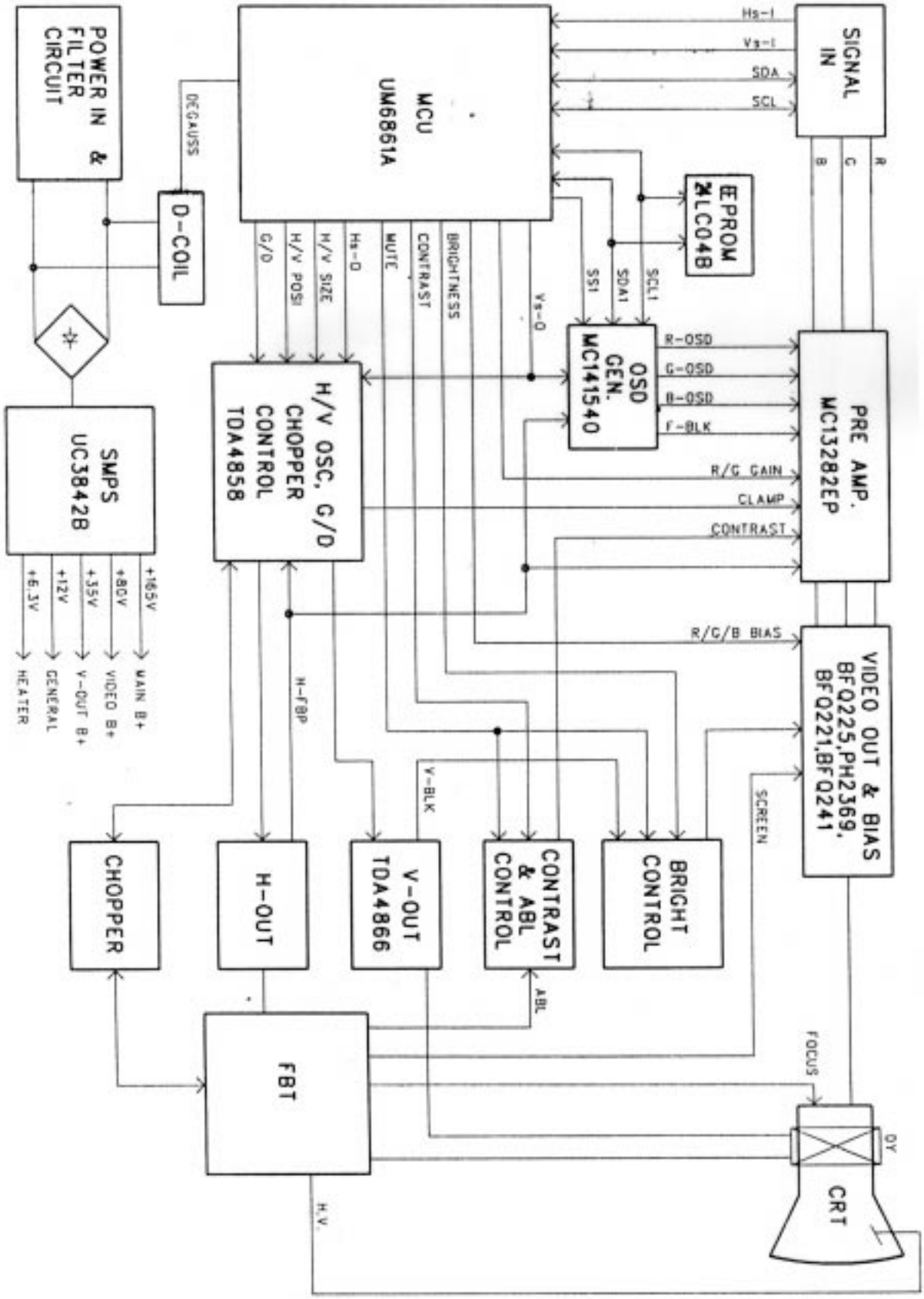
1. OSD(On-Screen Display) Menu 1

	Adjust the contrast of image, the difference between light and dark areas on the screen.
	Adjust the brightness of the entire display.
	Adjust the position of the display horizontally (left or right).
	Adjust the display width (horizontal size).
	Adjust the position of the display vertically (up or down).
	Adjust the display height (vertical size).

2. OSD (On-Screen Display) Menu 2

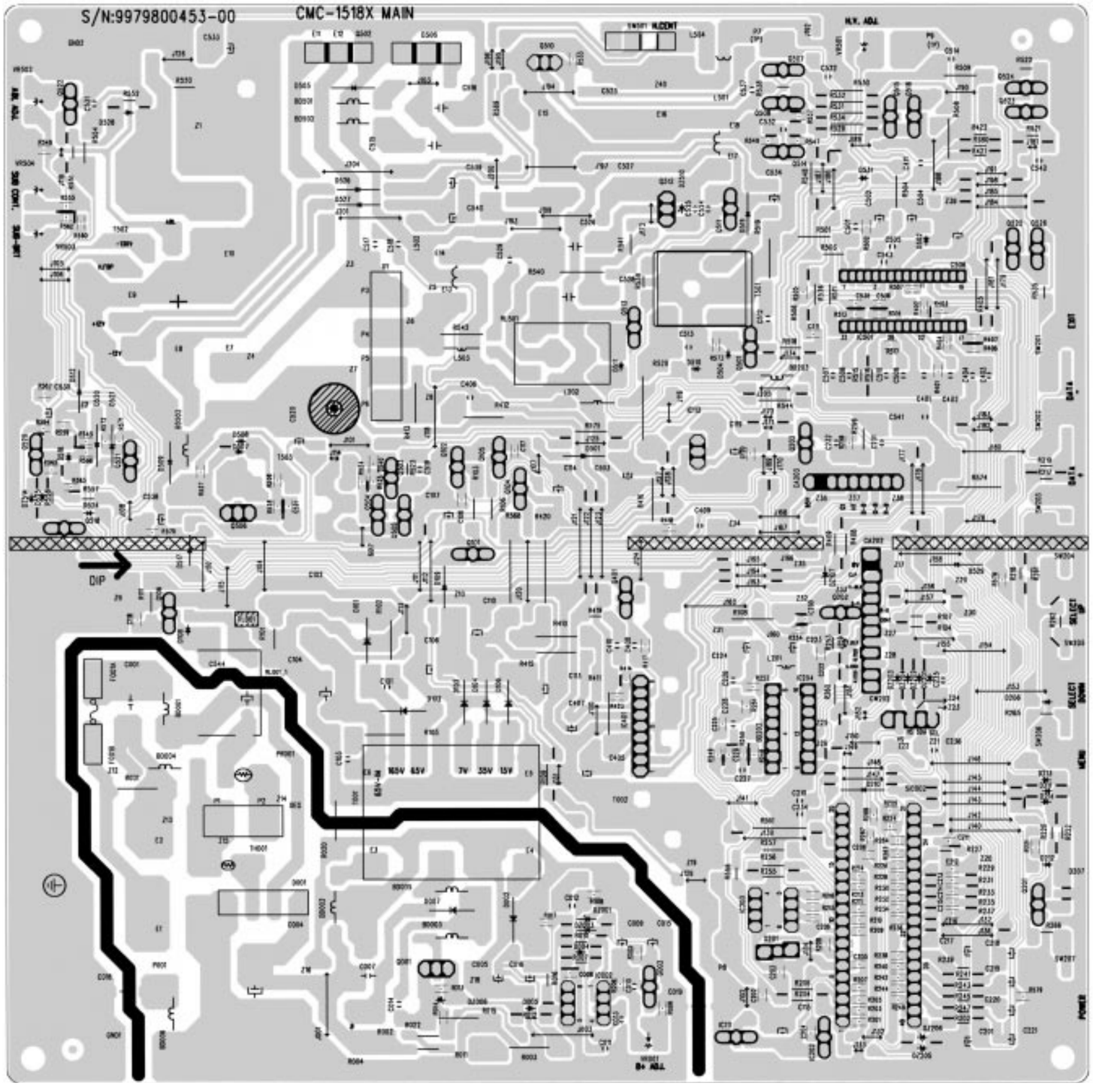
	Adjust the left and right margins for more convex or more concave margins. ƒUImage turns to ▢ by ⊕. ƒUImage turns to ⧖ by ⊖.
	Adjust the trapezoid of the screen by moving the lines inward or outward. ƒUImage turns to ⏢ by ⊕. ƒUImage turns to ⏛ by ⊖.
	Choose different preset color temperatures or set your own customized color parameters.
	Adjust the red gain.
	Adjust the blue gain.
	Degauss the display and restore image quality
	Reset the screen to the Factory Preset Display settings.

BLOCK DIAGRAM

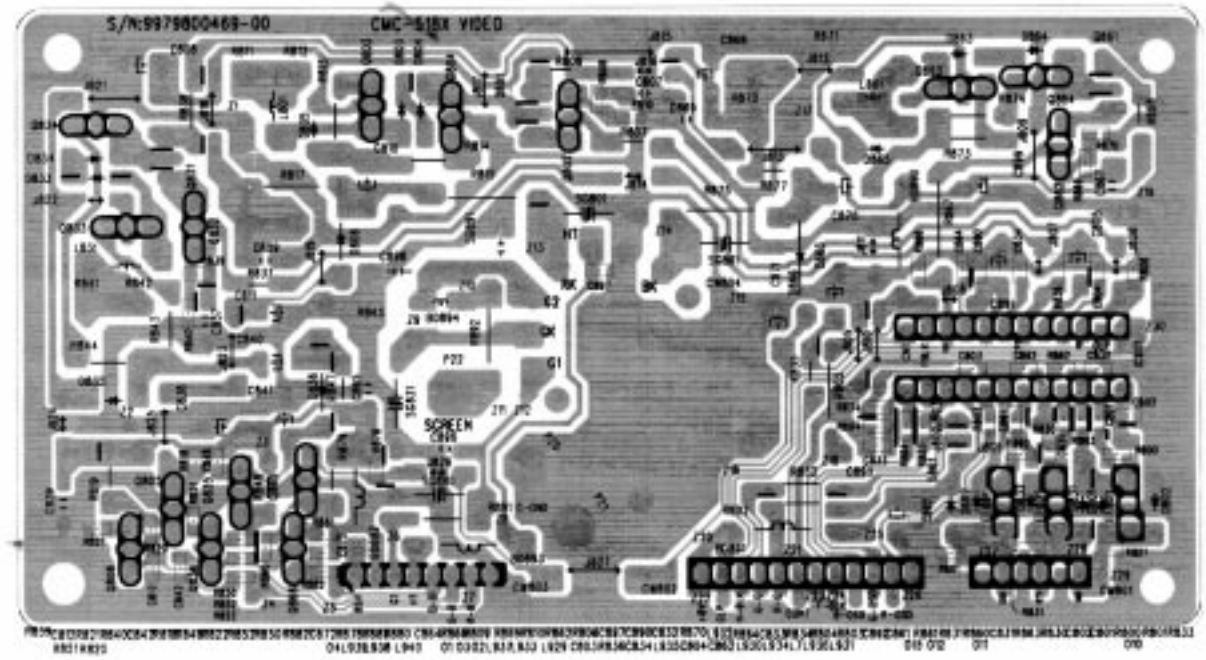


PCB LAYOUT

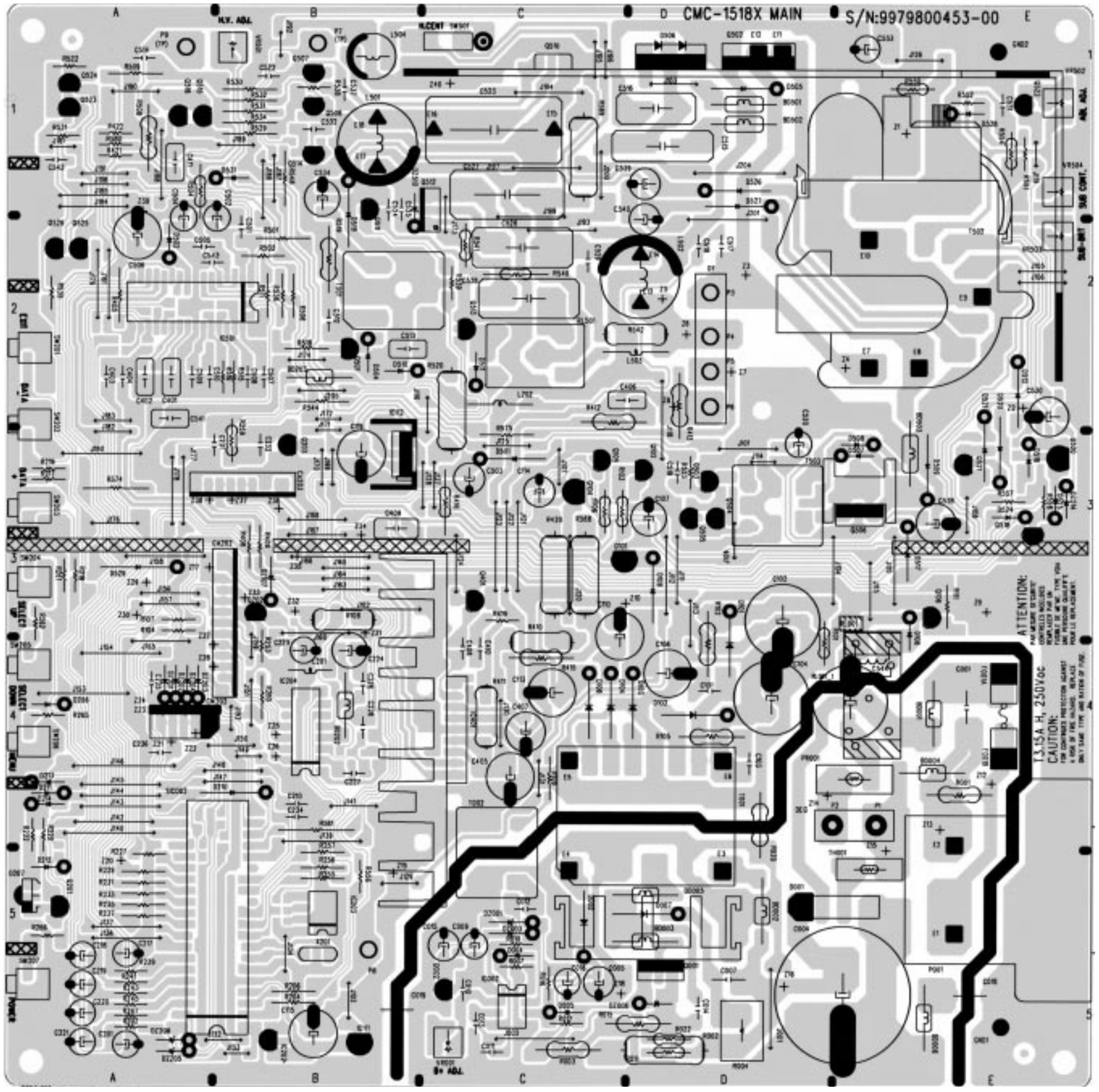
Main PCB Solder Side



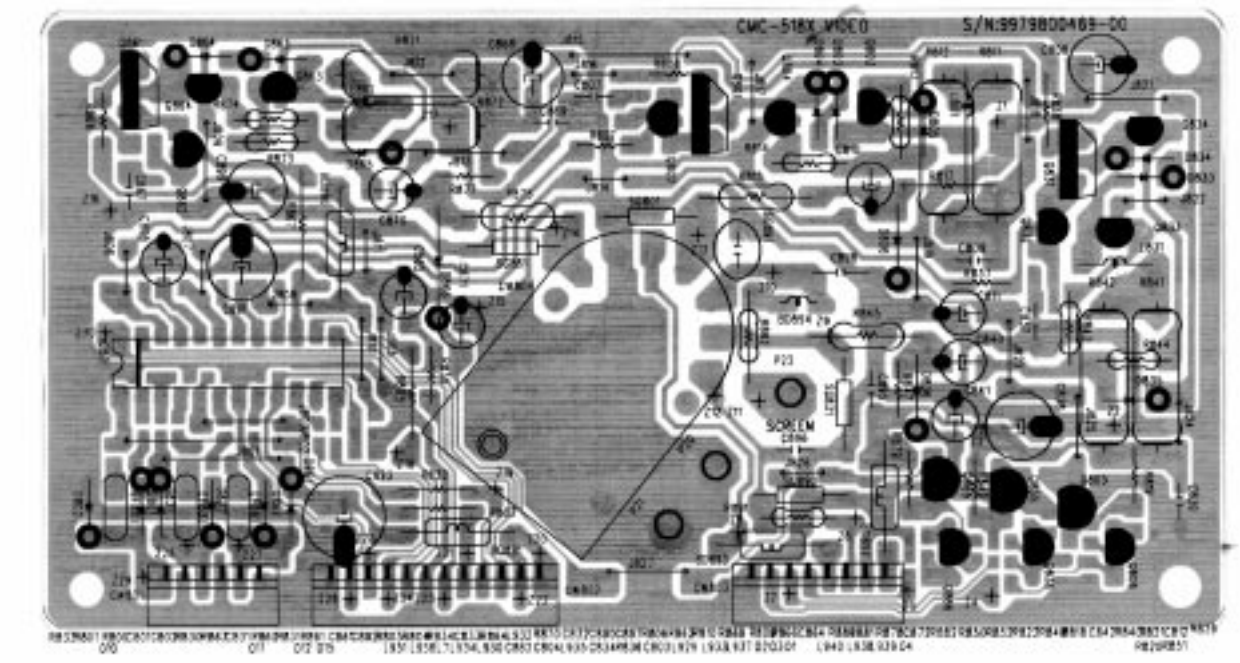
Video PCB Solder Side



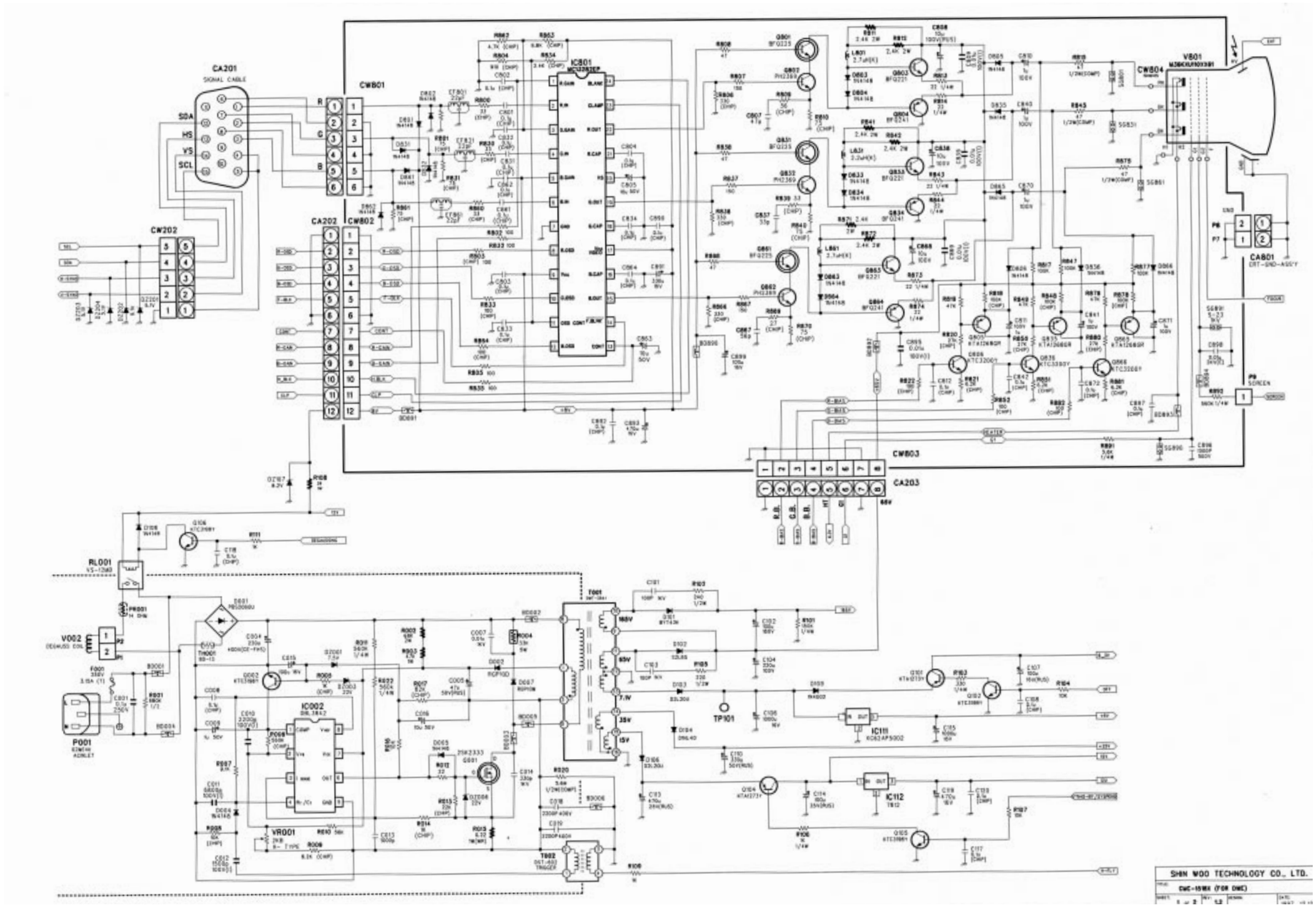
Main PCB Component Side

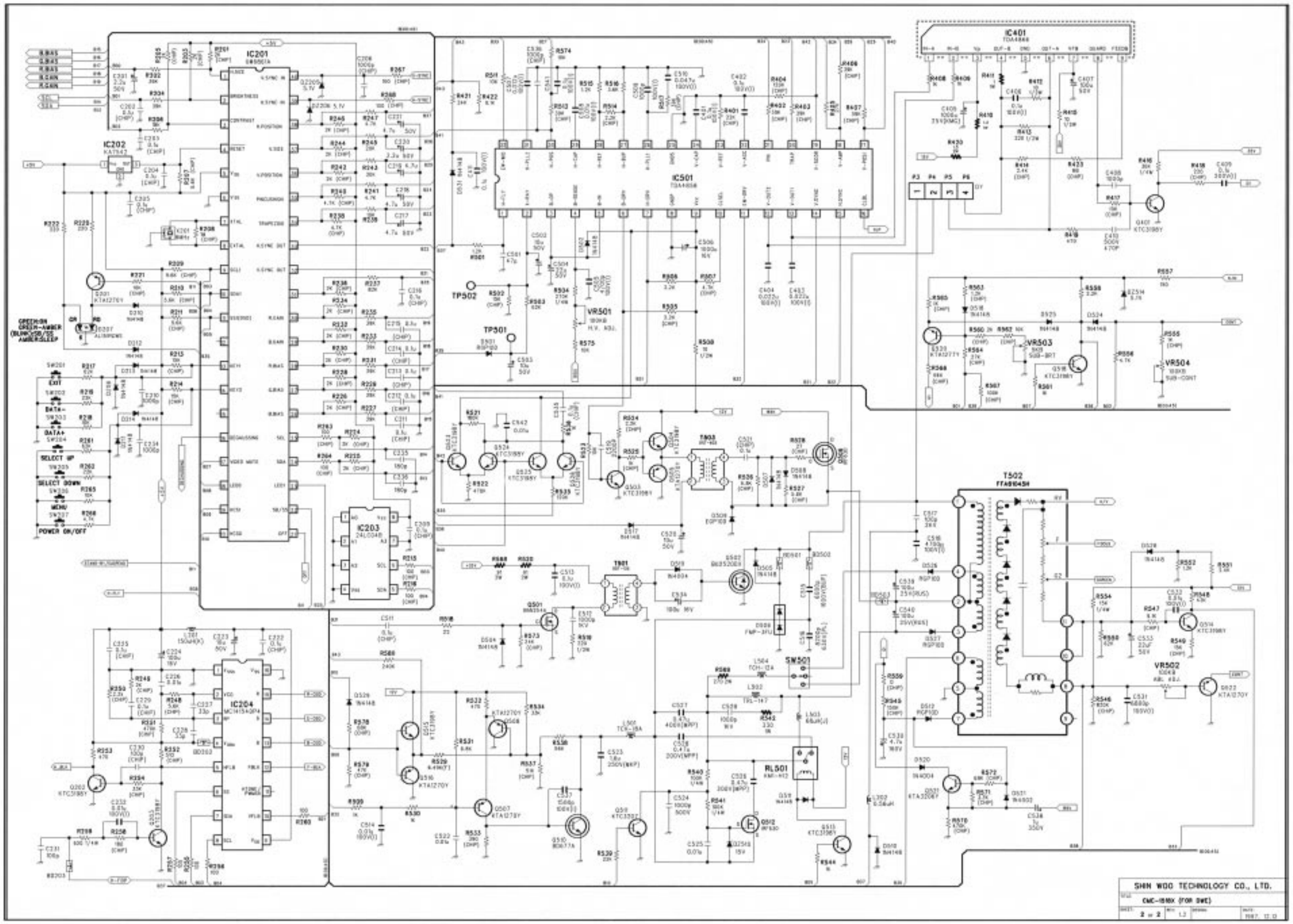


Video PCB Component Side

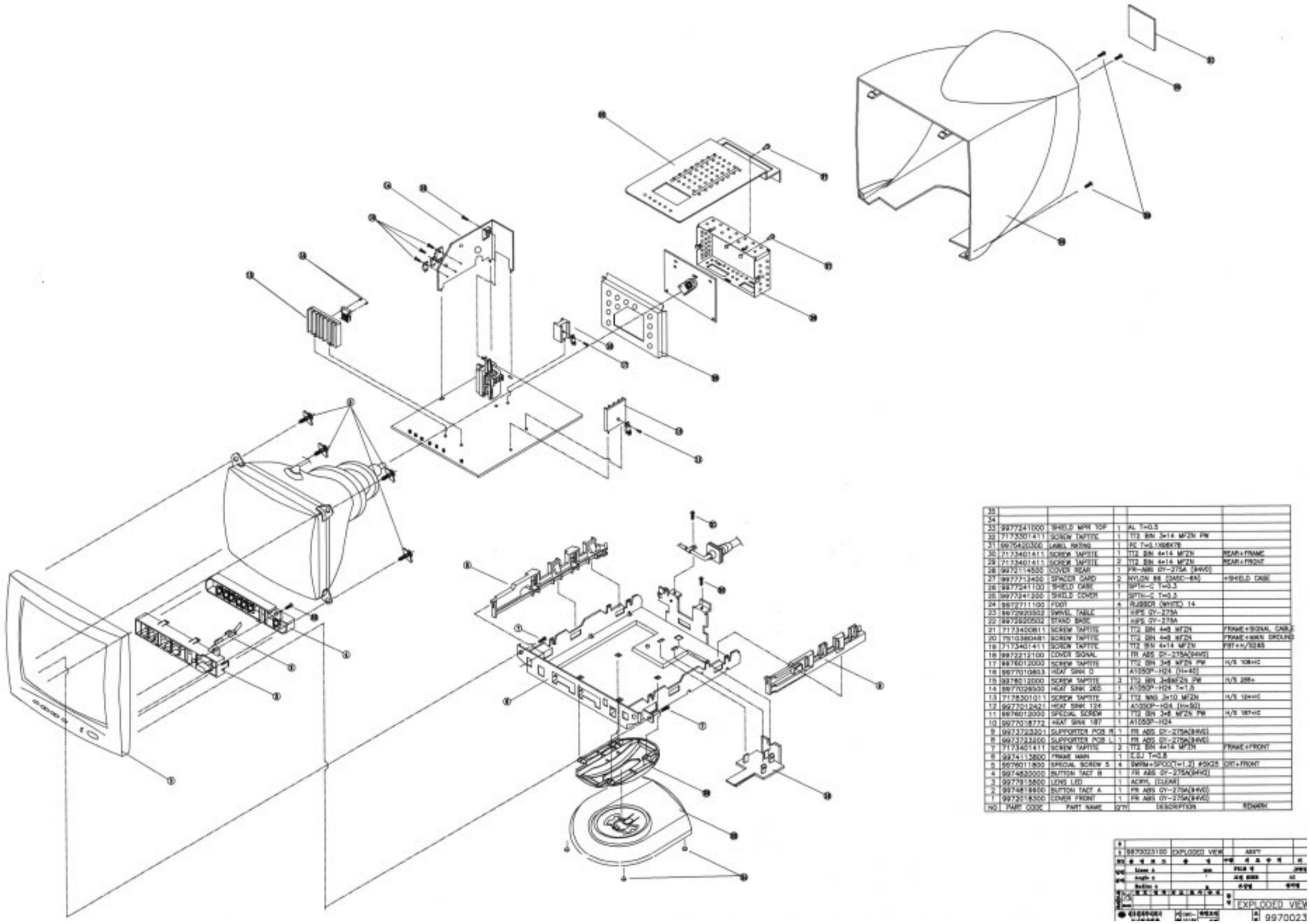


SCHEMATIC DIAGRAM




IC201
IC202
IC203
IC204
IC401
IC501
T502
VR501
VR502
VR503
VR504
SW501
RL501
SHIN WOO TECHNOLOGY CO., LTD.
CMC-1500X (FOR DVE)

EXPLODED VIEW DIAGRAM



NO	PART CODE	PART Name	Q'TY	DESCRIPTION	REMARK
35					
34					
33	9977241000	SHIELD MPR TOP	1	AL T=0.5	
32	7173301411	SCREW TAPTITE	1	TT2 BIN 3x14 MFZN PW	
31	9975420300	LABEL RATING	1	PC T=0.1X66X78	
30	7173401411	SCREW TAPTITE	1	TT2 BIN 4x14 MFZN	REAR+FRAME
29	7173401411	SCREW TAPTITE	2	TT2 BIN 4x14 MFZN	REAR+FRONT
28	9972114500	COVER REAR	1	PA-A66 GY-275A [94V0]	
27	9977713400	SPACER CARD	2	NYLON 66 (3ARC-BK)	+SHIELD CASE
26	9977241100	SHIELD CASE	1	SPTI-C T=0.3	
25	9977241200	SHIELD COVER	1	SPTI-C T=0.3	
24	9977711100	FOOT	4	RUBBER (WHITE) 14	
23	9972920503	SWIVEL TABLE	1	HIPS GY-275A	
22	9979320502	STAND BASE	1	HIPS GY-275A	
21	7173400811	SCREW TAPTITE	1	TT2 BIN 4x8 MFZN	FRAME+SHIAL CASE
20	7510380481	SCREW TAPTITE	1	TT2 BIN 4x8 MFZN	FRAME+MAIN GROUND
19	7173401411	SCREW TAPTITE	1	TT2 BIN 4x14 MFZN	FBT+H/SIBS
18	9972121100	COVER SIGNAL	1	TR ABS GY-275A[94V0]	
17	9978012000	SCREW TAPTITE	1	TT2 BIN 3x8 MFZN PW	H/S 108+IC
16	9977010853	HEAT SINK D	1	A1050P-H24 (H=40)	
15	9978012000	SCREW TAPTITE	3	TT2 BIN 3x8MFZN PW	H/S 268+
14	9977028500	HEAT SINK 265	1	A1050P-H24 T=1.5	
13	7178301011	SCREW TAPTITE	2	TT2 WNS 3x10 MFZN	H/S 124+IC
12	9977012421	HEAT SINK 124	1	A1050P-H24 (H=50)	
11	9978012000	SPECIAL SCREW	1	TT2 BIN 3x8 MFZN PW	H/S 187+IC
10	9977018773	HEAT SINK 187	1	A1050P-H24	
9	9972723021	SUPPORTER POS R	1	TR ABS GY-275A[94V0]	
8	9972723200	SUPPORTER POS L	1	TR ABS GY-275A[94V0]	
7	7173401411	SCREW TAPTITE	2	TT2 BIN 4x14 MFZN	FRAME+FRONT
6	9974113800	FRAME MAIN	1	C.R.U T=0.8	
5	9978011800	SPECIAL SCREW S	4	SWRM+SPCD(T=1.2) #5X25	CRT+FRONT
4	9974830000	BUTTON TACT B	1	FR ABS GY-275A[94V0]	
3	9977913800	LENS LED	1	ACRYL [CLEAR]	
2	9974819800	BUTTON TACT A	1	FR ABS GY-275A[94V0]	
1	9972218300	COVER FRONT	1	FR ABS GY-275A[94V0]	

REPLACEMENT PARTS LIST

Important Safety Notice

Components identified with the International Symbol have special characteristics important for safety.
When replacing any components, use only manufacturer's specified parts.

Abbreviation of Description

RESISTOR Description

Allowance	
F	¡ 1%
J	¡ 5%
K	¡ 10%
M	¡ 20%
G	¡ 2%

Example:

Fig & Index	Part No	Description
R101	Resistors	
	RE-4Z820J	Cabron : 82J

CAPACITOR Description

Allowance	
C	¡ 0.25pF
D	¡ 0.5%
F	¡ 1pF
J	¡ 5%
K	¡ 10%
P	¡ 100% ~ 0%
Z	¡ 80% ~ -

Example:

Fig & Index	Part No	Description
	Capacitors	
C102	CCXF1H104Z	Ceramic 50V Z
C105	CBSLH200J	Ceramic 50V J
C402	CCXB1H331K	Ceramic 50V K

PART LIST

The components identified by mark ⚠ have special characteristics important for safety and x-ray radiation.
These should be replaced only with the types specified in the parts list.

LOC	PART-CODE	PART-NAME	PART-DESC
10010	PCFMCAG067	COVER FRONT AS	CMC-518X
CGND	9970710164	CRT GND AS	0.12*6*16+BL102NG=630
! CRT	9979615003	CDT	M36KXU110XX61(T)
DG001	5MG0000050	COIL DEGAUSSING	HP-1512B
00010	99720183A0	COVER FRONT AS	CMC-518B COVER FRONT
00010	9972018300	COVER FRONT	FR-ABS GY-258A
00010	2221080957	RESIN ABS	LG AF-312 88328B(GY-275A)
00020	9974819900	BUTTON TACT A	FR-ABS GY-258A
00010	2221080957	RESIN ABS	LG AF-312 88328B(GY-275A)
00030	9974820000	BUTTON TACT B	FR-ABS GY-258A
00010	2221080957	RESIN ABS	LG AF-312 88328B(GY-275A)
00040	9977915800	LENS LED	ACRYL
00050	9976011800	SPECIAL SCREW 5	TT2 BIN 5*25 MFZN SPW
00060	9976012900	SCREW SPECIAL	TT2 HEX 5*25 SCREW+BAND
00070	7173401411	SCREW TAPPTITE	TT2 BIN 4X14 MFZN
00080	4856812001	TIE CABLE	NYLON66 DA100
20010	PCMPM1G067	PCB MAIN MANUAL AS	CMC-518X
CA201	9970800012	CABLE SIGNAL AS	15P+2C/DDC=1.5M (IVY)
CA202	99707C0006	CONN AS	5264-12+51088-13=330
CA203	9970780024	CONN AS	5264-8+51088-9#24=330
! C001	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47
C004	CEYP2G221Z	C ELECTRO	400V SMH 220MF (25.4*40)
! C515	CMXH3C602J	C MYLAR	BUP 1.6KV 6000PF J
C523	CMXF2D165J	C MYLAR	200V MPP 1.6MF J
C526	CMXF2D474J	C MYLAR	MPP 200V 0.47MF J
C527	CMXF2G474J	C MYLAR	MPP 400V 0.47MF J
C528	CMXF2D474J	C MYLAR	MPP 200V 0.47MF J
! D001	DPBS206GU-	DIODE BRIDGE	PBS206GU
D207	DAL151RGWS	LED	AL-151RGWS
EMI	9970K00010	CORE FERRITE	RING-18
! F001	5F3CB3122L	FUSE CERA	SEMKO TL 3.15A 250V MF51
GND1	9970710166	CONN AS	35718-0810+1015#18=90
GND2	9970710166	CONN AS	35718-0810+1015#18=90
IC112	1K1A7812P1	IC REGULATOR	KIA7812PI
IC201	1DWM207---	IC MICOM	UM6861A
IC401	PCHBSWG067	HEAT SINK B AS	CMC-518X
I401A	1TDA4866--	IC V.OUT	TDA4866

LOC	PART-CODE	PART-NAME	PART-DESC
I401B	9977012421	HEAT SINK 124	A1050P-H24
I401C	9976012100	SCREW SPECIAL	TT2 BIN 3*10 MFZN PW
IC501	1TDA4858--	IC H.OSC	TDA4858
L501	5MC0000060	COIL CHOCK	TCH-18A
L502	5MH0000059	COIL H-LINEARITY	TRL-147
L504	5MC0000061	COIL CHOCK	TCH-12A
PR001	DECPAC140M	POSISTOR	ECPAC140M290
P001	9979500012	RECEPTACLE	02ME4E1/FILTER EMI
Q001	PCHCSWG067	HEAT SINK C AS	CMC-518X
Q001A	T2SK2333--	FET	2SK2333
Q001B	9977018772	HEAT SINK 187	A1050P-H24 42X40
Q001C	9976012100	SCREW SPECIAL	TT2 BIN 3*10 MFZN PW
! Q502	PCHASWG067	HEAT SINK A AS	CMC-518X
D506A	DFMP3FU---	DIODE	FMP-3FU
D506B	9976012000	SCREW SPECIAL	TT2 BIN 3*8 MFZN PW
LOC	PART-CODE	PART-NAME	PART-DESC
Q502A	TBU2520DX-	TR	BU2520DX
Q502B	9977026500	HEAT SINK 265	A1050P-H24 T=1.5
Q510	TBD677A---	TR	BD677A
Q506	PCHDSWG067	HEAT SINK D AS	CMC-518X
Q506A	T1RF630---	FET	IRF630
Q506B	9977010803	HEAT SINK D	A1050P-H24 EK (39MM)
Q506C	9976012100	SCREW SPECIAL	TT2 BIN 3*10 MFZN PW
Q512	T1RF630---	FET	IRF630
RL001	5SC0101030	SW RELAY	KM1-H12
RL501	5SC0101030	SW RELAY	KM1-H12
R004	RX05V333J-	R CEMENT	5W 33K OHM J VERTICAL
SW501	5S80303001	SW LEVER	P12T21
TH001	DTP8D13---	THERMISTOR	TP8D13
! T001	5RM0000085	TRANS SMPS	DWT-35A1
! T002	5RY0000003	TRANS SYNC	DST-602
! T501	5RD0000034	TRANS DRIVE	DDT-130
T502	5RH0000096	FBT	FFA81045H
T503	5RY0000003	TRANS SYNC	DST-602
00010	99741138A0	FRAME AS	CMC-518B
00010	9974113800	FRAME MAIN	E.G.I T=0.8
00020	9973723200	SUPPORTER PCB L	FR-ABS GY-258A
00010	2221080957	RESIN ABS	LG AF-312 88328B(GY-275A)
00030	9973723201	SUPPORTER PCB R	FR-ABS GY-258A

LOC	PART-CODE	PART-NAME	PART-DESC
00010	2221080957	RESIN ABS	LG AF-312 88328B(GY-275A)
00040	9972212100	COVER SIGNAL	FR-ABS GY-258A
00010	2221080957	RESIN ABS	LG AF-312 88328B(GY-275A)
00050	9977713400	SPACER CARD	NYLON 6.6 DASC-6N
00030	7173401011	SCREW TAPPTITE	TT2 BIN 4X10 MFZN
00040	7S103B4081	SCREW SPECIAL	M/C BIN 4*8 MFZN
30010	PCMPJ1G067	PCB SMD AS	CMC-518X
C008	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C108	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C117	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C118	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C120	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C202	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C203	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C204	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C205	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C206	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
C209	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C211	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C212	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C213	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C214	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C215	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C216	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C222	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C225	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C229	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C511	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C521	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C535	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C536	HCQK102JCA	C CHIP CERA	50V CH 1000PF J 2012
R005	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R006	HRFT564JCA	R CHIP	1/10 560K OHM J 2012
R008	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R009	HRFT822JCA	R CHIP	1/10 8.2K OHM J 2012
R013	HRFT223JCA	R CHIP	1/10 22K OHM J 2012
R014	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R017	HRFT823JCA	R CHIP	1/10 82K OHM J 2012
R201	HRFT202JCA	R CHIP	1/10 2K OHM J 2012

LOC	PART-CODE	PART-NAME	PART-DESC
R203	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R205	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R207	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012
R208	HRFT105JCA	R CHIP	1/10 1M OHM J 2012
R209	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012
R210	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012
R211	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012
R213	HRFT153JCA	R CHIP	1/10 15K OHM J 2012
R214	HRFT153JCA	R CHIP	1/10 15K OHM J 2012
R215	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R216	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R221	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R224	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R225	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R226	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R228	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R230	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R232	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R234	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R236	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R238	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R240	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R242	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R244	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R246	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R248	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012
R249	HRFT202JCA	R CHIP	1/10 2K OHM J 2012
R250	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
R251	HRFT474JCA	R CHIP	1/10 470K OHM J 2012
R252	HRFT511JCA	R CHIP	1/10 510 OHM J 2012
R258	HRFT181JCA	R CHIP	1/10 180 OHM J 2012
R263	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R264	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R267	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R268	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R401	HRFT223JCA	R CHIP	1/10 22K OHM J 2012
R402	HRFT393JCA	R CHIP	1/10 39K OHM J 2012
R403	HRFT393JCA	R CHIP	1/10 39K OHM J 2012
R404	HRFT124JCA	R CHIP	1/10 120K OHM J 2012

LOC	PART-CODE	PART-NAME	PART-DESC
R406	HRFT393JCA	R CHIP	1/10 39K OHM J 2012
R407	HRFT393JCA	R CHIP	1/10 39K OHM J 2012
R414	HRFT272JCA	R CHIP	1/10 2.7K OHM J 2012
R417	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R418	HRFT221JCA	R CHIP	1/10 220 OHM J 2012
R502	HRFT153JCA	R CHIP	1/10 15K OHM J 2012
R505	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
R507	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R513	HRFT393JCA	R CHIP	1/10 39K OHM J 2012
R514	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
R517	HRFT393JCA	R CHIP	1/10 39K OHM J 2012
R524	HRFT222JCA	R CHIP	1/10 2.2K OHM J 2012
R525	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R526	HRFT682JCA	R CHIP	1/10 6.8K OHM J 2012
R527	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012
R528	HRFT270JCA	R CHIP	1/10 27 OHM J 2012
R533	HRFT391JCA	R CHIP	1/10 390 OHM J 2012
R537	HRFT513JCA	R CHIP	1/10 51K OHM J 2012
R545	HRFT154JCA	R CHIP	1/10 150K OHM J 2012
R546	HRFT824JCA	R CHIP	1/10 820K OHM J 2012
R547	HRFT912JCA	R CHIP	1/10 9.1K OHM J 2012
R549	HRFT153JCA	R CHIP	1/10 15K OHM J 2012
R555	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R562	HRFT103JCA	R CHIP	1/10 10K OHM J 2012
R563	HRFT122JCA	R CHIP	1/10 1.2K OHM J 2012
R564	HRFT273JCA	R CHIP	1/10 27K OHM J 2012
R565	HRFT102JCA	R CHIP	1/10 1K OHM J 2012
R566	HRFT563JCA	R CHIP	1/10 56K OHM J 2012
R567	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R570	HRFT474JCA	R CHIP	1/10 470K OHM J 2012
R571	HRFT332JCA	R CHIP	1/10 3.3K OHM J 2012
R572	HRFT683JCA	R CHIP	1/10 68K OHM J 2012
R573	HRFT243JCA	R CHIP	1/10 24K OHM J 2012
R578	HRFT683JCA	R CHIP	1/10 68K OHM J 2012
R579	HRFT473JCA	R CHIP	1/10 47K OHM J 2012
40010	PCMPJ0G067	PCB MAIN ODD SHAPE A	CMC-518X
CW202	485923262S	CONN WAFER	5267-05A STICK TYPE
C007	CCYB3A103K	C CERA	1KV B 0.01MF K
C014	CCXB3A331K	C CERA	1KV B 330PF K (TAPPING)

LOC	PART-CODE	PART-NAME	PART-DESC
C018	CH1FDF222M	C CERA AC	HIKB AC400V 222M
C019	CH1FDF222M	C CERA AC	HIKB AC400V 222M
C101	CCXB3A101K	C CERA	1KV B 100PF K
C102	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP
C103	CCXB3A101K	C CERA	1KV B 100PF K
C104	CEYF2A221V	C ELECTRO	100V RSS 220MF (16X25)
C106	CEXF1C102C	C ELECTRO	16V RUS 1000MF (10X20) TP
C110	CEXF1H331C	C ELECTRO	50V RUS 330MF 10*20
C113	CEXF1E471C	C ELECTRO	25V RUS 470MF (10X16) TP
C115	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP
C119	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP
C405	CEXF1E102C	C ELECTRO	25V RUS 1000MF (13X20) TP
C506	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP
C512	CCXB3A102K	C CERA	1KV B 1000PF K (TAPPING)
C516	CMXE2J822J	C MYLAR	PL 630V 8200PF J
C517	CCXB3D101K	C CERA	2KV B 100PF K (TAPPING)
C529	CCXB3A102K	C CERA	1KV B 1000PF K (TAPPING)
C530	CEXF2C479V	C ELECTRO	160V RSS 4.7MF (8X16) TP
D002	DRGP10D---	DIODE	RGP 10-D (TAPPING)
D007	DRGP10M---	DIODE	RGP10M
D101	DBYT43M---	DIODE	BYT43M
D102	DS2L60---R	DIODE	S2L60
D103	DD2L20U---	DIODE	D2L20U
D104	DD1NL40---	DIODE	D1NL40
D106	DD2L20U---	DIODE	D2L20U
D109	D1N4002A--	DIODE	1N4002
D501	DRGP10D---	DIODE	RGP 10-D (TAPPING)
D509	DEGP10D---	DIODE	EGP10D
D512	DRGP10D---	DIODE	RGP 10-D (TAPPING)
D519	D1N4004---	DIODE	1N4004
D520	D1N4004---	DIODE	1N4004
D521	D1N4002A--	DIODE	1N4002
D526	DRGP10D---	DIODE	RGP 10-D (TAPPING)
D527	DRGP10D---	DIODE	RGP 10-D (TAPPING)
! IC002	1DBL3842--	IC POWER	DBL3842
IC203	124LC04B--	IC MEMORY	24LC04B
IC204	1MC141540P	IC OSD	MC141540P4
P1	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
P2	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)

LOC	PART-CODE	PART-NAME	PART-DESC
P3	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
P4	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
P5	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
P6	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
R002	RS02Z683J-	R M-OXIDE FILM	2W 68K OHM J (TAPPING)
R003	RS01Z473J-	R M-OXIDE FILM	1W 47K OHM J (TAPPING)
R015	RW01Z228JN	R WIRE WOUND	1W 0.22 OHM J NON-INDUCT
R108	RS01Z390J-	R M-OXIDE FILM	1W 39 OHM J (TAPPING)
R410	RS01Z129J-	R M-OXIDE FILM	1W 1.2 OHM J (TAPPING)
R411	RS01Z109J-	R M-OXIDE FILM	1W 1 OHM J (TAPPING)
R420	RS02Z159J-	R M-OXIDE FILM	2W 1.5 OHM J
R520	RS02Z910J-	R M-OXIDE FILM	2W 91 OHM J (TAPPING)
R542	RS01Z331J-	R M-OXIDE FILM	1W 330 OHM J (TAPPING)
R568	RS02Z910J-	R M-OXIDE FILM	2W 91 OHM J (TAPPING)
R569	RS02Z271J-	R M-OXIDE FILM	2W 270 OHM J (TAPPING)
SW201	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
SW202	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
SW203	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
SW204	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
SW205	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
SW206	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
SW207	5S50101Z01	SW TACT	KPT-1115VM 1C-1P
TP101	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
TP501	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
TP502	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
VR001	RV6421202P	R SEMI FIXED	CCT 065AT 2K OHM B TAP
VR501	RV6121104P	R SEMI FIXED	CCT 063BT 100K OHM B TAP
VR502	RV6121104P	R SEMI FIXED	CCT 063BT 100K OHM B TAP
VR503	RV6121502P	R SEMI FIXED	CCT 063BT 5K OHM B TAP
VR504	RV6121104P	R SEMI FIXED	CCT 063BT 100K OHM B TAP
50010	PCMPJRG067	PCB MAIN RADIAL AS	CMC-518X
C005	CEXF1H470C	C ELECTRO	50V RUS 47MF (6.3X11) TP
C009	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP
C010	CMXM2A222J	C MYLAR	100V 2200PF J (TP)
C011	CMXM2A682J	C MYLAR	100V 6800PF J (TP)
C012	CMXM2A152J	C MYLAR	100V 1500PF J (TP)
C013	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C015	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP
C016	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP

LOC	PART-CODE	PART-NAME	PART-DESC
C107	CEXF1C101C	C ELECTRO	16V RUS 100MF (6.3X11) TP
C114	CEXF1E101C	C ELECTRO	25V RUS 100MF (6.3X11) TP
C201	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP
C210	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C217	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
C218	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
C219	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
C220	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP
C221	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP
C223	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C224	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP
C226	CCXB1H103K	C CERA	50V B 0.01MF K
C227	CXCH1H330J	C CERA	50V CH 33PF J (TAPPING)
C228	CXCH1H330J	C CERA	50V CH 33PF J (TAPPING)
C230	CCXB1H101K	C CERA	50V B 100PF K (TAPPING)
C231	CCXB1H101K	C CERA	50V B 100PF K (TAPPING)
C232	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
C234	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C235	CCXB1H181K	C CERA	50V B 180PF K (TAPPING)
C236	CCXB1H181K	C CERA	50V B 180PF K (TAPPING)
C401	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)
C402	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)
C403	CMXM2A223J	C MYLAR	100V 0.022MF J TP
C404	CMXM2A223J	C MYLAR	100V 0.022MF J TP
C406	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)
C407	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP
C408	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
C409	CMXM2D104J	C MYLAR	200V 0.1MF J
C410	CCXB2H471K	C CERA	500V B 470PF K (TAPPING)
C411	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)
C501	CXCH1H470J	C CERA	50V CH 47PF J (TAPPING)
C502	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C503	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C504	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
C505	CMXM2A472J	C MYLAR	100V 4700PF J (TP)
C507	CMXM2A123J	C MYLAR	100V 0.012MF J (TP)
C508	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
C509	CMXM2A102J	C MYLAR	100V 1000PF J (TP)
C510	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)

LOC	PART-CODE	PART-NAME	PART-DESC
C513	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)
C514	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
C518	CMXM2A472J	C MYLAR	100V 4700PF J (TP)
C519	CCXB1H222K	C CERA	50V B 2200PF K (TAPPING)
C520	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C522	CCXB1H103K	C CERA	50V B 0.01MF K
C524	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)
C525	CCXB1H103K	C CERA	50V B 0.01MF K
C531	CMXM2A682J	C MYLAR	100V 6800PF J (TP)
C532	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
C533	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
C534	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP
C537	CMXM2A152J	C MYLAR	100V 1500PF J (TP)
C538	CEXF2V109V	C ELECTRO	350V RSS 1MF(8*11.5)
C539	CEXF1E101C	C ELECTRO	25V RUS 100MF (6.3X11) TP
C540	CEXF1E101C	C ELECTRO	25V RUS 100MF (6.3X11) TP
C541	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)
F001A	4857415000	FUSE CLIP	BSP3-H T0.4 SN 5.2
F001B	4857415000	FUSE CLIP	BSP3-H T0.4 SN 5.2
IC111	1XC62A500-	IC REGULATOR	XC62AP5002TH
IC202	1KA7542---	IC VOTAGE DETECTOR	KA7542
Q002	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q101	TKTA1273Y-	TR	KTA1273-Y
Q102	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q104	TKTA1273Y-	TR	KTA1273-Y
Q105	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q106	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q201	TZTA1270Y-	TR	KTA1270Y(AUTO)(562Y)
Q202	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q203	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q401	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q501	TBSN254A--	FET	TBSN254A
Q503	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q504	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q505	TZTA1270Y-	TR	KTA1270Y(AUTO)(562Y)
Q507	TZTA1270Y-	TR	KTA1270Y(AUTO)(562Y)
Q508	TZTA1270Y-	TR	KTA1270Y(AUTO)(562Y)
Q511	TZTC3207--	TR	KTC3207 (AUTO)
Q513	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)

LOC	PART-CODE	PART-NAME	PART-DESC
Q514	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q515	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q516	TZTA1270Y-	TR	KTA1270Y(AUTO)(562Y)
Q518	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q520	TKTA1277Y-	TR	KTA1277Y
Q521	TZTC3206Y-	TR	KTC3206Y (2229Y)
Q522	TZTA1270Y-	TR	KTA1270Y(AUTO)(562Y)
Q523	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q524	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q525	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
Q526	TZTC3198Y-	TR	KTC3198Y-(1815Y) (AUTO)
X201	5PEF0EC8T4	RESONATOR	EFOEC8004T4
60010	PCMPJAG067	PCB MAIN AXIAL AS	CMC-518X
BD001	5PB13890--	COIL BEAD	BI3890
BD002	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD003	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD004	5PB13890--	COIL BEAD	BI3890
BD005	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD006	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD202	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD203	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD501	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD502	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD503	5PB13857--	COIL BEAD	BI3857(AXIAL)
DZ001	DDZ7R5BM--	DIODE ZENER	DZ7.5BM
DZ003	DDZ22BM---	DIODE ZENER	DZ22BM
DZ006	DDZ22BM---	DIODE ZENER	DZ22BM
DZ107	DDZ8R2BM--	DIODE ZENER	DZ8.2BM
DZ201	DDZ5R1B---	DIODE ZENER	DZ-5.1B
DZ202	DDZ5R1B---	DIODE ZENER	DZ-5.1B
DZ203	DDZ5R1B---	DIODE ZENER	DZ-5.1B
DZ204	DDZ5R1B---	DIODE ZENER	DZ-5.1B
DZ205	DDZ5R1B---	DIODE ZENER	DZ-5.1B
DZ206	DDZ5R1B---	DIODE ZENER	DZ-5.1B
DZ510	DDZ15BM---	DIODE ZENER	DZ15BM
DZ514	DDZ5R1B---	DIODE ZENER	DZ-5.1B
D004	DZN4148---	DIODE	1N4148 AUTO 52MM
D005	DZN4148---	DIODE	1N4148 AUTO 52MM
D108	DZN4148---	DIODE	1N4148 AUTO 52MM

LOC	PART-CODE	PART-NAME	PART-DESC
D206	DZN4148---	DIODE	1N4148 AUTO 52MM
D210	DZN4148---	DIODE	1N4148 AUTO 52MM
D211	DZN4148---	DIODE	1N4148 AUTO 52MM
D212	DZN4148---	DIODE	1N4148 AUTO 52MM
D213	DZN4148---	DIODE	1N4148 AUTO 52MM
D214	DZN4148---	DIODE	1N4148 AUTO 52MM
D502	DZN4148---	DIODE	1N4148 AUTO 52MM
D504	DZN4148---	DIODE	1N4148 AUTO 52MM
D505	DZN4148---	DIODE	1N4148 AUTO 52MM
D507	DZN4148---	DIODE	1N4148 AUTO 52MM
D508	DZN4148---	DIODE	1N4148 AUTO 52MM
D510	DZN4148---	DIODE	1N4148 AUTO 52MM
D511	DZN4148---	DIODE	1N4148 AUTO 52MM
D517	DZN4148---	DIODE	1N4148 AUTO 52MM
D518	DZN4148---	DIODE	1N4148 AUTO 52MM
D524	DZN4148---	DIODE	1N4148 AUTO 52MM
D525	DZN4148---	DIODE	1N4148 AUTO 52MM
D528	DZN4148---	DIODE	1N4148 AUTO 52MM
D529	DZN4148---	DIODE	1N4148 AUTO 52MM
D531	DZN4148---	DIODE	1N4148 AUTO 52MM
E1	4856310200	EYE LET	BSR T0.2 (R2.0)
E10	4856310200	EYE LET	BSR T0.2 (R2.0)
E11	4856310300	EYE LET	BSR T0.2 (R1.6)
E12	4856310300	EYE LET	BSR T0.2 (R1.6)
E13	4856310300	EYE LET	BSR T0.2 (R1.6)
E14	4856310300	EYE LET	BSR T0.2 (R1.6)
E15	4856310300	EYE LET	BSR T0.2 (R1.6)
E16	4856310300	EYE LET	BSR T0.2 (R1.6)
E17	4856310300	EYE LET	BSR T0.2 (R1.6)
E18	4856310300	EYE LET	BSR T0.2 (R1.6)
E2	4856310200	EYE LET	BSR T0.2 (R2.0)
E3	4856310200	EYE LET	BSR T0.2 (R2.0)
E4	4856310200	EYE LET	BSR T0.2 (R2.0)
E5	4856310200	EYE LET	BSR T0.2 (R2.0)
E6	4856310200	EYE LET	BSR T0.2 (R2.0)
E7	4856310200	EYE LET	BSR T0.2 (R2.0)
E8	4856310200	EYE LET	BSR T0.2 (R2.0)
E9	4856310200	EYE LET	BSR T0.2 (R2.0)
J001	85801052GY	WIRE COPPER	1/0.52 TIN COATING

LOC	PART-CODE	PART-NAME	PART-DESC
J003	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J014	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J101	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J102	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J103	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J105	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J106	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J107	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J108	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J109	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J110	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J111	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J112	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J113	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J114	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J115	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J118	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J119	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J120	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J121	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J122	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J123	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J124	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J125	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J126	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J127	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J128	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J129	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J130	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J131	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J132	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J133	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J134	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J136	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J137	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J139	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J140	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J141	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J142	85801052GY	WIRE COPPER	1/0.52 TIN COATING

LOC	PART-CODE	PART-NAME	PART-DESC
J143	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J144	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J145	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J146	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J147	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J148	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J149	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J150	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J151	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J152	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J153	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J154	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J155	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J156	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J157	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J158	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J159	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J160	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J161	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J162	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J163	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J164	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J165	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J166	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J167	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J168	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J169	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J170	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J171	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J172	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J173	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J174	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J176	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J177	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J178	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J179	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J180	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J181	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J182	85801052GY	WIRE COPPER	1/0.52 TIN COATING

LOC	PART-CODE	PART-NAME	PART-DESC
J183	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J184	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J185	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J186	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J187	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J188	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J189	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J190	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J191	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J192	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J193	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J194	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J195	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J196	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J197	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J198	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J199	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J200	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J201	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J204	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J205	85801052GY	WIRE COPPER	1/0.52 TIN COATING
L201	5CPZ151K03	COIL PEAKING	150UH 7MM K (LAL03TB)
L202	5CPZ568K03	COIL PEAKING	0.56UH 7MM K(LAL03TB)
L503	5CPZ680K04	COIL PEAKING	68UH K 10.5MM (LA04TB)
R001	RD-2Z684J-	R CARBON FILM	1/2 680K OHM J
R007	RD-AZ912J-	R CARBON FILM	1/6 9.1K OHM J
R010	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J
R011	RD-4Z564J-	R CARBON FILM	1/4 560K OHM J
R012	RD-AZ220J-	R CARBON FILM	1/6 22 OHM J
R016	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R020	RC-2Z565J-	R CARBON COMP	1/2 5.6M OHM J
R022	RD-4Z564J-	R CARBON FILM	1/4 560K OHM J
R101	RD-4Z154J-	R CARBON FILM	1/4 150K OHM J
R102	RD-2Z241J-	R CARBON FILM	1/2 240 OHM J
R103	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J
R104	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R105	RD-2Z221J-	R CARBON FILM	1/2 220 OHM J
R106	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J
R107	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J

LOC	PART-CODE	PART-NAME	PART-DESC
R109	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R110	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J
R111	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R202	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
R204	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
R206	RD-AZ183J-	R CARBON FILM	1/6 18K OHM J
R217	RD-AZ623J-	R CARBON FILM	1/6 62K OHM J
R218	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R219	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J
R220	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R222	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J
R227	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
R229	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
R231	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
R233	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
R235	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
R237	RD-AZ823J-	R CARBON FILM	1/6 82K OHM J
R239	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R241	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R243	RD-AZ512J-	R CARBON FILM	1/6 5.1K OHM J
R245	RD-AZ183J-	R CARBON FILM	1/6 18K OHM J
R247	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J
R253	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J
R254	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J
R255	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R256	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R257	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R259	RD-4Z621J-	R CARBON FILM	1/4 620 OHM J
R260	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R261	RD-AZ623J-	R CARBON FILM	1/6 62K OHM J
R262	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J
R265	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R266	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R405	RD-AZ273J-	R CARBON FILM	1/6 27K OHM J
R408	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R409	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R412	RD-2Z100J-	R CARBON FILM	1/2 10 OHM J
R413	RD-2Z221J-	R CARBON FILM	1/2 220 OHM J
R415	RD-2Z100J-	R CARBON FILM	1/2 10 OHM J

LOC	PART-CODE	PART-NAME	PART-DESC
R416	RD-4Z363J-	R CARBON FILM	1/4 36K OHM J
R419	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J
R421	RD-AZ243J-	R CARBON FILM	1/6 24K OHM J
R422	RD-AZ912J-	R CARBON FILM	1/6 9.1K OHM J
R501	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J
R503	RD-AZ623J-	R CARBON FILM	1/6 62K OHM J
R504	RD-4Z274J-	R CARBON FILM	1/4 270K OHM J
R506	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J
R508	RD-2Z100J-	R CARBON FILM	1/2 10 OHM J
R509	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R511	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R515	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J
R516	RD-AZ362J-	R CARBON FILM	1/6 3.6K OHM J
R518	RD-AZ220J-	R CARBON FILM	1/6 22 OHM J
R519	RD-2Z221J-	R CARBON FILM	1/2 220 OHM J
R521	RD-AZ184J-	R CARBON FILM	1/6 180K OHM J
R522	RD-AZ474J-	R CARBON FILM	1/6 470K OHM J
R523	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R529	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHM J
R530	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R531	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J
R532	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J
R534	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J
R535	RD-AZ124J-	R CARBON FILM	1/6 120K OHM J
R536	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R538	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J
R539	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J
R540	RD-4Z104J-	R CARBON FILM	1/4 100K OHM J
R541	RD-4Z104J-	R CARBON FILM	1/4 100K OHM J
R543	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J
R544	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R548	RD-AZ433J-	R CARBON FILM	1/6 43K OHM J
R550	RD-AZ623J-	R CARBON FILM	1/6 62K OHM J
R551	RD-AZ242J-	R CARBON FILM	1/6 2.4K OHM J
R552	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J
R554	RD-4Z153J-	R CARBON FILM	1/4 15K OHM J
R556	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J
R557	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J
R558	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J

LOC	PART-CODE	PART-NAME	PART-DESC
R561	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J
R574	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
R575	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J
00001	9979800453	PCB MAIN	T1.6*330*246
30020	PCCTSWG067	PCB CRT AS	CMC-518X
BD894	5MBFD3512R	EMI BEAD FILTER	BFD 3512 R2
CA801	9970710165	CONN AS	35718-0810+1015#22=160
CW801	9979220021	CONN WAFER	SMAW250-06 (ANGLE)
CW802	9979200216	CONN WAFER	5268-12A
CW803	4859234320	CONN WAFER	5268-08A
CW804	9979300002	SOCKET CRT	ISHM10S
C898	CCXE3D103P	C CERA	HIKE 2KV 0.01MF P
IC801	1MC13282EP	IC VIDEO PREAMP	MC13282EP
Q801	TBFQ225---	TR	BFQ225
Q831	TBFQ225---	TR	BFQ225
Q861	TBFQ225---	TR	BFQ225
SG891	ZEW295804A	SPARK GAP	S-23 1KV (LEAD 4.5M/M)
00010	9977241100	SHIELD CASE	SPTH-C T=0.3
00020	9977241200	SHIELD COVER	SPTH-C T=0.3
00030	9977713400	SPACER CARD	NYLON 6.6 DASC-6N
00040	9975816100	LABEL DHHS	STICKER 120P*70*45
40010	PCCTJ1G067	PCB CRT CHIP AS	CMC-518X
C801	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C802	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C803	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C804	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C812	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C831	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C832	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C833	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C834	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C842	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C861	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C862	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C864	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C872	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C890	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C892	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012
C897	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012

LOC	PART-CODE	PART-NAME	PART-DESC
R800	HRFT330JCA	R CHIP	1/10 33 OHM J 2012
R801	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R803	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R804	HRFT911JCA	R CHIP	1/10 910 OHM J 2012
R806	HRFT331JCA	R CHIP	1/10 330 OHM J 2012
R809	HRFT560JCA	R CHIP	1/10 56 OHM J 2012
R810	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R818	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R820	HRFT273JCA	R CHIP	1/10 27K OHM J 2012
R821	HRFT622JCA	R CHIP	1/10 6.2K OHM J 2012
R822	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R830	HRFT330JCA	R CHIP	1/10 33 OHM J 2012
R831	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R833	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R834	HRFT242JCA	R CHIP	1/10 2.4K OHM J 2012
R836	HRFT331JCA	R CHIP	1/10 330 OHM J 2012
R839	HRFT330JCA	R CHIP	1/10 33 OHM J 2012
R840	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R848	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R850	HRFT273JCA	R CHIP	1/10 27K OHM J 2012
R851	HRFT622JCA	R CHIP	1/10 6.2K OHM J 2012
R852	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R860	HRFT330JCA	R CHIP	1/10 33 OHM J 2012
R861	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R862	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012
R863	HRFT682JCA	R CHIP	1/10 6.8K OHM J 2012
R864	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
R866	HRFT331JCA	R CHIP	1/10 330 OHM J 2012
R869	HRFT270JCA	R CHIP	1/10 27 OHM J 2012
R870	HRFT750JCA	R CHIP	1/10 75 OHM J 2012
R878	HRFT104JCA	R CHIP	1/10 100K OHM J 2012
R880	HRFT273JCA	R CHIP	1/10 27K OHM J 2012
R881	HRFT622JCA	R CHIP	1/10 6.2K OHM J 2012
R882	HRFT101JCA	R CHIP	1/10 100 OHM J 2012
50010	PCCTJ0G067	CRT PCB ODD ASS¡Ÿ	CMC-518X
C893	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP
P7	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
P8	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)
P9	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)

LOC	PART-CODE	PART-NAME	PART-DESC
R811	RS02Z242J-	R M-OXIDE FILM	2W 2.4K OHM J (TAPPING)
R812	RS02Z242J-	R M-OXIDE FILM	2W 2.4K OHM J (TAPPING)
R841	RS02Z242J-	R M-OXIDE FILM	2W 2.4K OHM J (TAPPING)
R842	RS02Z242J-	R M-OXIDE FILM	2W 2.4K OHM J (TAPPING)
R871	RS02Z242J-	R M-OXIDE FILM	2W 2.4K OHM J (TAPPING)
R872	RS02Z242J-	R M-OXIDE FILM	2W 2.4K OHM J (TAPPING)
60010	PCCTJRG067	PCB CRT RADIAL AS	CMC-518X
C805	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C807	CXCH1H470J	C CERA	50V CH 47PF J (TAPPING)
C808	CEXF2A100C	C ELECTRO	RUS 100V 10MF 5*11
C809	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
C810	CEXF2A109V	C ELECTRO	100V RSS 1MF (5*11) TP
C811	CEXF2A109V	C ELECTRO	100V RSS 1MF (5*11) TP
C837	CXCH1H330J	C CERA	50V CH 33PF J (TAPPING)
C838	CEXF2A100V	C ELECTRO	100V RSS 10MF (6.3X11) TP
C839	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
C840	CEXF2A109V	C ELECTRO	100V RSS 1MF (5*11) TP
C841	CEXF2A109V	C ELECTRO	100V RSS 1MF (5*11) TP
C863	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP
C867	CXCH1H560J	C CERA	50V CH 56PF J (TAPPING)
C868	CEXF2A100V	C ELECTRO	100V RSS 10MF (6.3X11) TP
C869	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
C870	CEXF2A109V	C ELECTRO	100V RSS 1MF (5*11) TP
C871	CEXF2A109V	C ELECTRO	100V RSS 1MF (5*11) TP
C891	CEXF1C331V	C ELECTRO	16V RSS 330MF (8X11.5) TP
C895	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)
C896	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)
C899	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP
EF801	5PF1BH220M	FILTER LC	CFI-06-B-1H-220M
EF831	5PF1BH220M	FILTER LC	CFI-06-B-1H-220M
EF861	5PF1BH220M	FILTER LC	CFI-06-B-1H-220M
Q802	TPH2369---	TR	PH2369
Q803	TBFQ221---	TR	BFQ221
Q804	TBFQ241---	TR	BFQ241
Q805	TKTA1268GR	TR	KTA1268GR
Q806	TKTC3200Y-	TR	KTC3200Y
Q832	TPH2369---	TR	PH2369
Q833	TBFQ221---	TR	BFQ221
Q834	TBFQ241---	TR	BFQ241

LOC	PART-CODE	PART-NAME	PART-DESC
Q835	TKTA1268GR	TR	KTA1268GR
Q836	TKTC3200Y-	TR	KTC3200Y
Q862	TPH2369---	TR	PH2369
Q863	TBFQ221---	TR	BFQ221
Q864	TBFQ241---	TR	BFQ241
Q865	TKTA1268GR	TR	KTA1268GR
Q866	TKTC3200Y-	TR	KTC3200Y
70010	PCCTJAG067	PCB CRT AXIAL AS	CMC-518X
BD890	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD891	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD892	5PB13857--	COIL BEAD	BI3857(AXIAL)
BD893	5PB13857--	COIL BEAD	BI3857(AXIAL)
D801	DZN4148---	DIODE	1N4148 AUTO 52MM
D802	DZN4148---	DIODE	1N4148 AUTO 52MM
D803	DZN4148---	DIODE	1N4148 AUTO 52MM
D804	DZN4148---	DIODE	1N4148 AUTO 52MM
D805	DZN4148---	DIODE	1N4148 AUTO 52MM
D806	DZN4148---	DIODE	1N4148 AUTO 52MM
D831	DZN4148---	DIODE	1N4148 AUTO 52MM
D832	DZN4148---	DIODE	1N4148 AUTO 52MM
D833	DZN4148---	DIODE	1N4148 AUTO 52MM
D834	DZN4148---	DIODE	1N4148 AUTO 52MM
D835	DZN4148---	DIODE	1N4148 AUTO 52MM
D836	DZN4148---	DIODE	1N4148 AUTO 52MM
D861	DZN4148---	DIODE	1N4148 AUTO 52MM
D862	DZN4148---	DIODE	1N4148 AUTO 52MM
D863	DZN4148---	DIODE	1N4148 AUTO 52MM
D864	DZN4148---	DIODE	1N4148 AUTO 52MM
D865	DZN4148---	DIODE	1N4148 AUTO 52MM
D866	DZN4148---	DIODE	1N4148 AUTO 52MM
J801	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J802	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J803	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J805	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J806	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J807	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J808	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J809	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J810	85801052GY	WIRE COPPER	1/0.52 TIN COATING

LOC	PART-CODE	PART-NAME	PART-DESC
J811	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J812	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J813	85801052GY	WIRE COPPER	1/0.52 TIN COATING
LOC	PART-CODE	PART-NAME	PART-DESC
J814	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J815	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J816	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J817	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J818	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J819	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J821	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J822	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J823	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J824	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J825	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J826	85801052GY	WIRE COPPER	1/0.52 TIN COATING
J827	85801052GY	WIRE COPPER	1/0.52 TIN COATING
L801	5CPZ279K03	COIL PEAKING	2.7UH 7MM K (LAL03TB)
L831	5CPZ229M03	COIL PEAKING	2.2UH M (AXIAL 7MM)
L861	5CPZ279K03	COIL PEAKING	2.7UH 7MM K (LAL03TB)
R802	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R805	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R807	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J
R808	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J
R813	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J
R814	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J
R815	RC-2Z470J-	R CARBON COMP	1/2 47 OHM J
R817	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R819	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R832	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R835	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
R837	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J
R838	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J
R843	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J
R844	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J
R845	RC-2Z470J-	R CARBON COMP	1/2 47 OHM J
R847	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R849	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R867	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J

LOC	PART-CODE	PART-NAME	PART-DESC
R868	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J
R873	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J
R874	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J
R875	RC-2Z470J-	R CARBON COMP	1/2 47 OHM J
R877	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J
R879	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
R891	RD-4Z562J-	R CARBON FILM	1/4 5.6K OHM J
R892	RD-4Z564J-	R CARBON FILM	1/4 560K OHM J
SG801	DWSP201M--	SURGE ABSORBER	WSP-201M
SG831	DWSP201M--	SURGE ABSORBER	WSP-201M
SG861	DWSP201M--	SURGE ABSORBER	WSP-201M
SG890	DWSP201M--	SURGE ABSORBER	WSP-201M
00001	9979800469	PCB CRT	T1.6*175*92
10020	PCBCCPG067	COVER REAR AS	CMC-518X
00010	9972115200	COVER REAR	FR-ABS GY-258A
00010	2221080957	RESIN ABS	LG AF-312 88328B(GY-275A)
00020	9975420500	LABEL RATING	P.E T=0.1*98*78
00030	7173401411	SCREW TAPPTITE	TT2 BIN 4X14 MFZN
10030	PCPKCPG067	PACKING AS	CMC-518X
00010	9978131200	CUSHION	EPS
00020	9978036100	BOX CARTON	SW-3
00030	9978212800	BAG POLY	P.E FILM T0.03*900*900
00040	9978212900	BAG POLY	PE FILM T0.05*250*350
00050	2TP00075CL	TAPE OPP	50X75 CLEAR
00060	9975822500	LABEL BARCODE	80*22 ART PAPER
00065	9978213700	BAG CARGO	LIGHT 1000*1850
00070	99729205A3	BASE STAND AS	HIPS GY-275A
00010	9972920503	BASE STAND	HIPS GY-275A
00010	2221110233	RESIN PS	LG HIPS 55WC GY-275A
00020	9972920403	SWIVEL TABLE	HIPS GY-275A
00010	2221110233	RESIN PS	LG HIPS 55WC GY-275A
00030	9972711100	FOOT	RUBBER(WHT) 14
00040	9978212601	BAG POLY	PE FILM T0.05*375*360
00050	2TU08024CL	TAPE VINYL	0.08TX24MM CLEAR

SERVICE MANUAL

OVERSEAS SERVICE DEPT.

DAEWOO

DAEWOO ELECTRONICS CO., LTD.

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