Website:http://biz.LGservice.com
E-mail:http://www.LGEservice.com/techsup.html

COLOR MONITOR
SERVICE MANUAL

CHASSIS NO. : CL-82

MODEL: FLATRON L1719S (L1719S-*FQ.A*EP)**
FLATRON L1919S (L1919S-*FQ.A*EP)**
( ) **Same model for Service

CAUTION
BEFORE SERVICING THE UNIT,
READ THE **SAFETY PRECAUTIONS** IN THIS MANUAL.

*To apply the **MSTAR Chip**.

CONTENTS

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type	: TFT Color LCD Module
Active Display Area	: 17 inch **- L1719S**
	: 19 inch **- L1919S**
Pixel Pitch	: 0.264 (H) x 0.264 (V) **- L1719S**
	: 0.294 (H) x 0.294 (V) **- L1919S**
Color Depth	: 8bits, 16.2M colors
Size	: 358.5 (H) x 296.5 (V) x 17.0(D) **- L1719S**
	: 396 (H) x 324 (V) x 17.5(D) **- L1919S**
Electrical Interface	: LVDS
Surface Treatment	: Hard-coating(3H), Anti-Glare
Operating Mode	: Normally White, Transmissive mode
Backlight Unit	: 4-CCFL

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

Left : -60° min., -70°(Typ) Right : +60° min., +70°(Typ)
Top :+60° min., +75°(Typ) Bottom : -50° min., -65°(Typ)

2-2. Luminance : 230(min), 300(Typ) (Full White pattern, 0.70V) **-6500K**
: 150(min) (Full White pattern, 0.70V) **-9300K**
75%(min)

2-3. Contrast Ratio : 1400:1 (DFC)

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal
• Type : Separate Sync, SOG

3-2. Video Input Signal
1) Type : R, G, B Analog
2) Voltage Level : 0~0.71 V
a) Color 0, 0 : 0 Vp-p
b) Color 7, 0 : 0.467Vp-p
c) Color 15, 0 : 0.714Vp-p
3) Input Impedance : 75Ω

3-3. Operating Frequency
Horizontal : 30 ~ 83kHz
Vertical : 56 ~ 75Hz

4. Max. Resolution

D-sub Analog : 1280 x 1024@75Hz

5. POWER SUPPLY

5-1. Power : AC 100~240V, 50/60Hz , 0.6A

5-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 33 W **-L1719S**	or GREEN
			less than 37 W **-L1919S**	
STAND-BY	OFF/ON	OFF	less than 1 W	AMBER
SUSPEND	ON/OFF	OFF	less than 1 W	AMBER
DPMS OFF	OFF/OFF	OFF	less than 1 W	AMBER
POWER S/W Off	-	-	less than 1 W	OFF

6. ENVIRONMENT

6-1. Operating Temperature : 10°C~35°C (50°F~95°F)
(Ambient)
6-2. Relative Humidity : 10%~80% (Non-condensing)
6-3. MTBF : 50,000 HRS with 90% Confidence
Lamp Life : 50,000 Hours(Min)

7. DIMENSIONS (with TILT/SWIVEL)

L1719S
Width : 364.0 mm (14.33')
Depth : 180 mm (7.09")
Height : 378.0 mm (14.88")

L1919S
Width : 418 mm (16.46")
Depth : 180 mm (7.09")
Height : 412.7 mm (16.25")

8. WEIGHT (with TILT/SWIVEL)

L1719S
Net. Weight : 3.45 kg (7.61 lbs)
Gross Weight : 4.4 kg (9.70 lbs)

L1919S
Net. Weight : 4.3 kg (9.26 lbs)
Gross Weight : 5.4 kg (11.91 lbs)

PRECAUTION

WARNING FOR THE SAFETY-RELATED COMPONENT.

- There are some special components used in LCD monitor that are important for safety. ***These parts are marked ⚠ on the schematic diagram and the replacement parts list.*** It is essential that these critical parts should be replaced with the manufacturer's specified parts to prevent electric shock, fire or other hazard.
- Do not modify original design without obtaining written permission from manufacturer or you will void the original parts and labor guarantee.

TAKE CARE DURING HANDLING THE LCD MODULE WITH BACKLIGHT UNIT.

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body are grounded through wrist band.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- The module not be exposed to the direct sunlight.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel become dirty, please wipe it off with a softmaterial. (Cleaning with a dirty or rough cloth may damage the panel.)

⚠ CAUTION

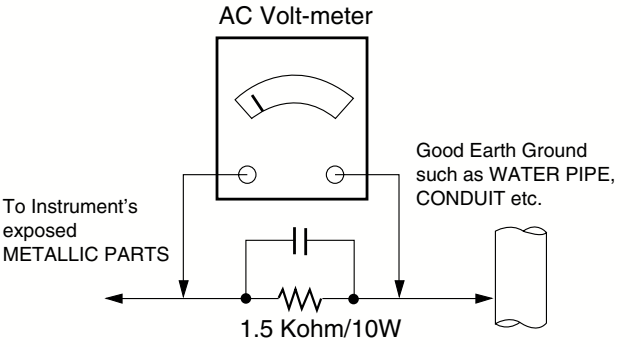
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ WARNING

BE CAREFUL ELECTRIC SHOCK !

- If you want to replace with the new backlight (CCFL) or inverter circuit, must disconnect the AC adapter because high voltage appears at inverter circuit about 650Vrms.
- Handle with care wires or connectors of the inverter circuit. If the wires are pressed cause short and may burn or take fire.

Leakage Current Hot Check Circuit



SERVICING PRECAUTIONS

CAUTION: Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the ***SAFETY PRECAUTIONS*** on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
   a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
   b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.
   CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an 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 kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch 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 spray chemicals on or near this receiver or any of its assemblies.
5. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone 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 in not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which receivers 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 receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.
   Always remove the test receiver ground lead last.
9. *Use with this receiver only the test fixtures specified in this service manual.*
   CAUTION: Do not connect the test fixture ground strap to any heat sink in this receiver.

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.* Examples of typical ES devices are integrated circuits and 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 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 to prevent 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 electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient 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 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 harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range or 500° F to 600° F.
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 and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a mall 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 unsoldering technique
   a. Allow the soldering iron tip to reach normal temperature.
      (500° F to 600° F)
   b. Heat the component lead until the solder melts.
   c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
      CAUTION: Work quickly to avoid overheating the circuitboard printed foil.
6. Use the following soldering technique.
   a. Allow the soldering iron tip to reach a normal temperature (500° F to 600° F)
   b. First, hold the soldering iron tip and solder the 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.
      CAUTION: Work quickly to avoid overheating the circuit board printed foil.
   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

IC Remove/Replacement

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, 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 and 6 above.

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 solder 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 areas).

"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 into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
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 Output, Transistor Device Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heat sink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heat sink.

Diode Removal/Replacement

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

Fuse and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.
   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

At IC Connections

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

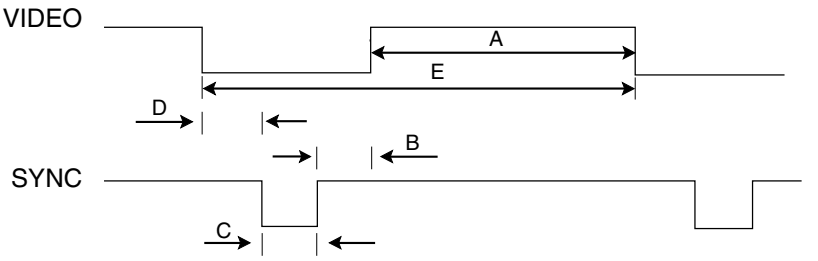
1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife.
   Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side.
   Carefully crimp and solder the connections.
   CAUTION: Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

TIMING CHART



MODE	H / V	Sync Polarity	Dot Clock	Frequency	Total Period (E)	Video Active Time (A)	Sync Duration (D)	Front Porch (C)	Blanking Time (B)	Resolution
1	H(Pixels)	+	25.175	31.469	800	640	16	96	48	640 x 350
	V(Lines)	-		70.09	449	350	37	2	60	
2	H(Pixels)	-	28.321	31.468	900	720	18	108	54	720 X 400
	V(Lines)	+		70.08	449	400	12	2	35	
3	H(Pixels)	-	25.175	31.469	800	640	16	96	48	640 x 480
	V(Lines)	-		59.94	525	480	10	2	33	
4	H(Pixels)	-	31.5	37.5	840	640	16	64	120	640 x 480
	V(Lines)	-		75	500	480	1	3	16	
5	H(Pixels)	+	40.0	37.879	1056	800	40	128	88	800 x 600
	V(Lines)	+		60.317	628	600	1	4	23	
6	H(Pixels)	+	49.5	46.875	1056	800	16	80	160	800 x 600
	V(Lines)	+		75.0	625	600	1	3	21	
7	H(Pixels)	+/-	57.283	49.725	1152	832	32	64	224	832 x 624
	V(Lines)	+/-		74.55	667	624	1	3	39	
8	H(Pixels)	-	65.0	48.363	1344	1024	24	136	160	1024 x 768
	V(Lines)	-		60.0	806	768	3	6	29	
9	H(Pixels)	-	78.75	60.123	1312	1024	16	96	176	1024 x 768
	V(Lines)	-		75.029	800	768	1	3	28	
10	H(Pixels)	+/-	100.0	68.681	1456	1152	32	128	144	1152 x 870
	V(Lines)	+/-		75.062	915	870	3	3	39	
11	H(Pixels)	+/-	92.978	61.805	1504	1152	18	134	200	1152 x 900
	V(Lines)	+/-		65.96	937	900	2	4	31	
12	H(Pixels)	+	108.0	63.981	1688	1280	48	112	248	1280 x 1024
	V(Lines)	+		60.02	1066	1024	1	3	38	
13	H(Pixels)	+	135.0	79.976	1688	1280	16	144	248	1280 x 1024
	V(Lines)	+		75.035	1066	1024	1	3	38	

DISASSEMBLY-Set

 # 1

Disassembly Like a picture.

 # 2

Remove the screws.

 # 3-1

 # 3-2

1. Pull the front cover upward.
2. Then, let the all latches are separated.(#3-1~3-2)
3. Put the front face down.

 # 4

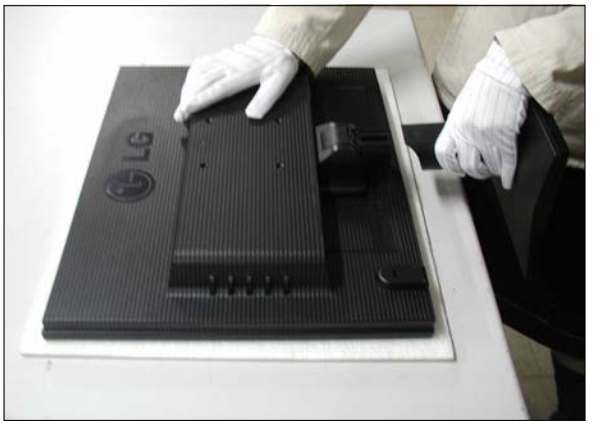
Disassemble back cover.

DISASSEMBLY-Stand

 # 1

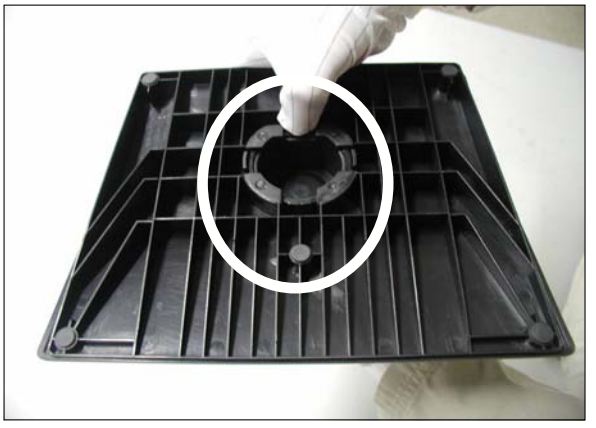
1. In assembly state, Twist Stand Body to Right side.

 # 2



2. Pull Stand and Separate Stand from Monitor set.

 # 3-1

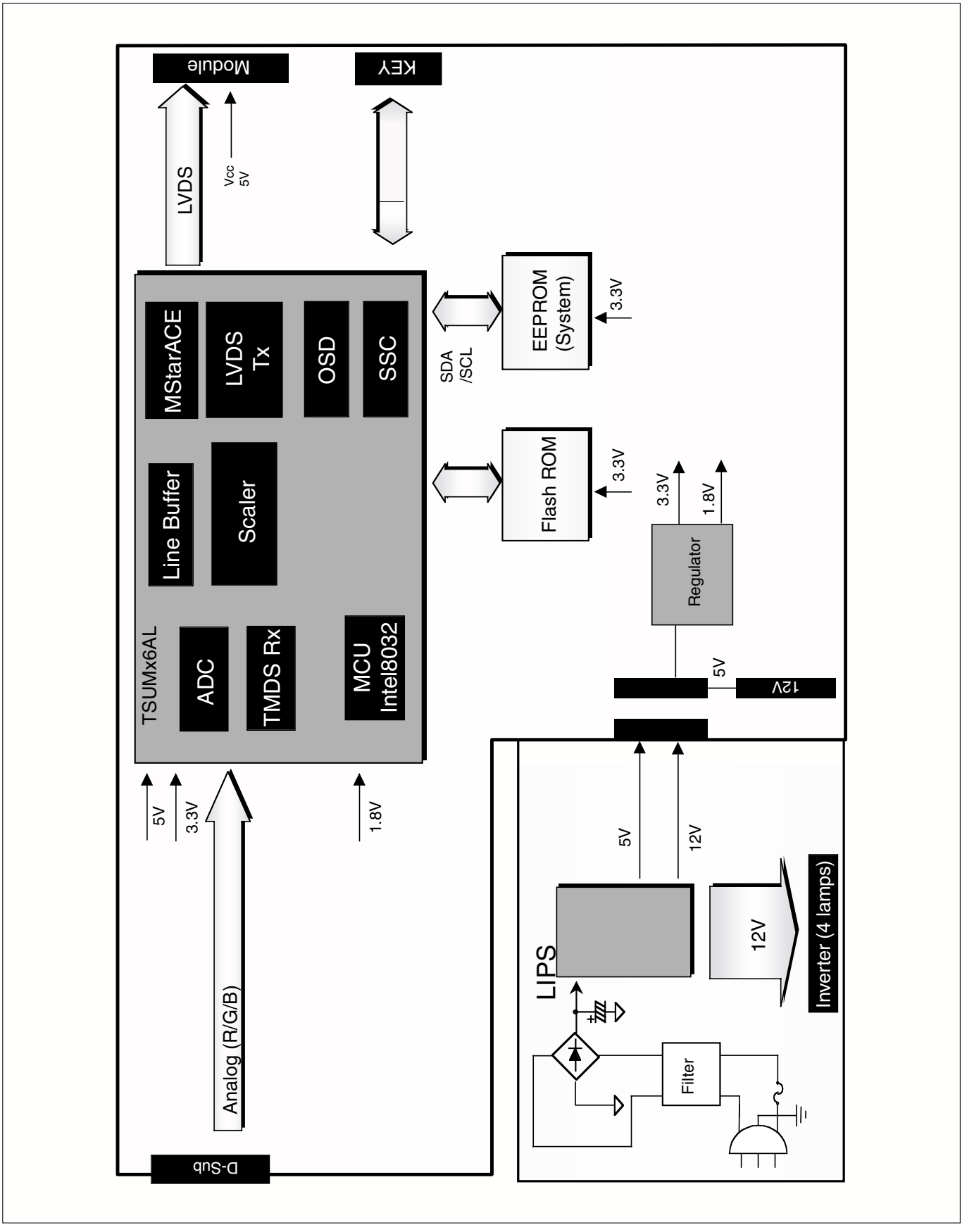


3. Push the four latches on the bottom to the outside and Separate Stand Body & Base. (Reference the #3-2)

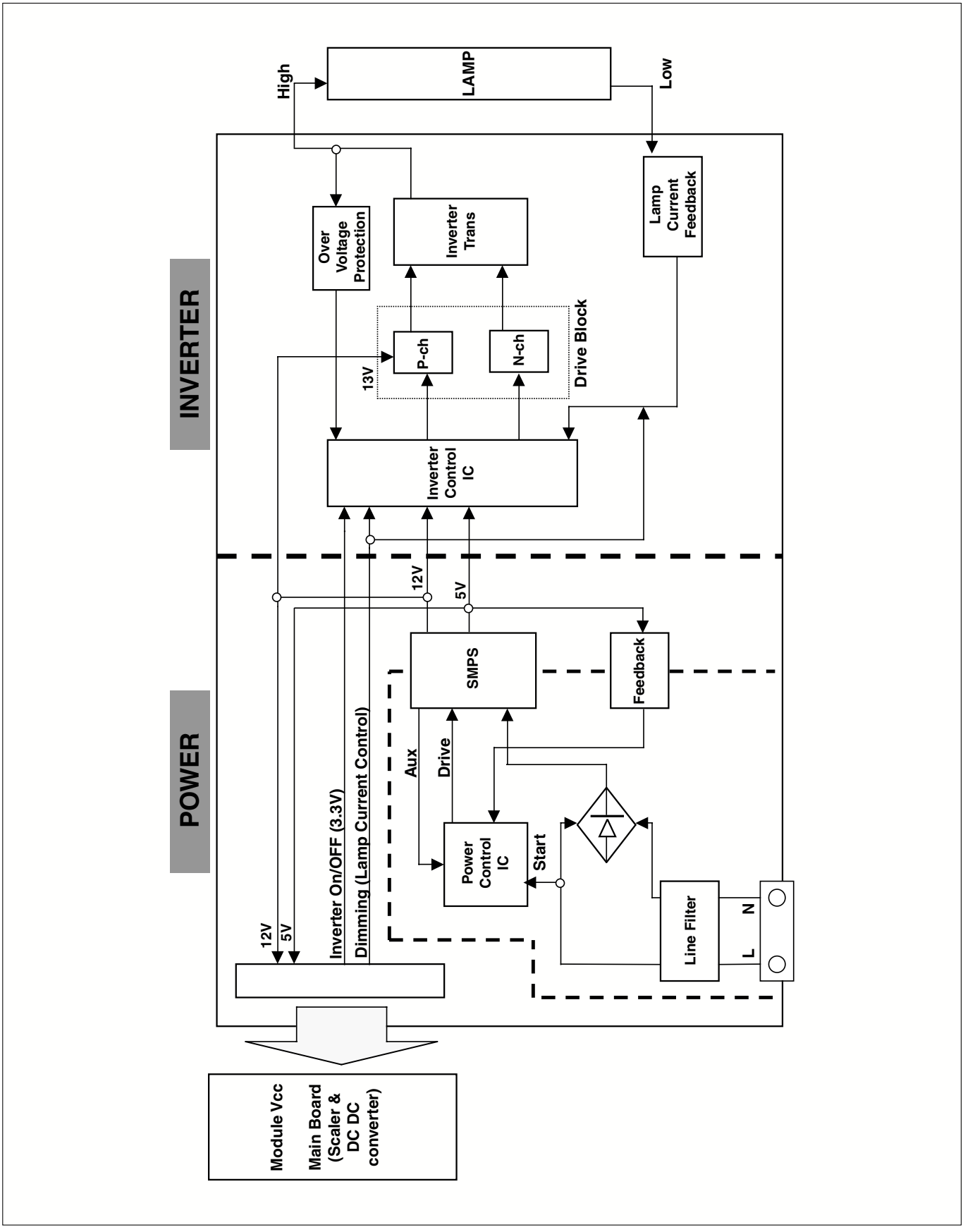
 # 3-2

 # 4

BLOCK DIAGRAM



BLOCK DIAGRAM-POWER



DESCRIPTION OF BLOCK DIAGRAM

1. Video Controller Part.

This part amplifies the level of video signal for the digital conversion and converts from the analog video signal to the digital video signal using a pixel clock.
The pixel clock for each mode is generated by the PLL.
The range of the pixel clock is from 25MHz to 135MHz.
This part consists of the Scaler, ADC convertor, TMDS receiver and LVDS transmitter.
The Scaler gets the video signal converted analog to digital, interpolates input to 1280 X 1024 resolution signal and outputs 8-bit R, G, B signal to transmitter.

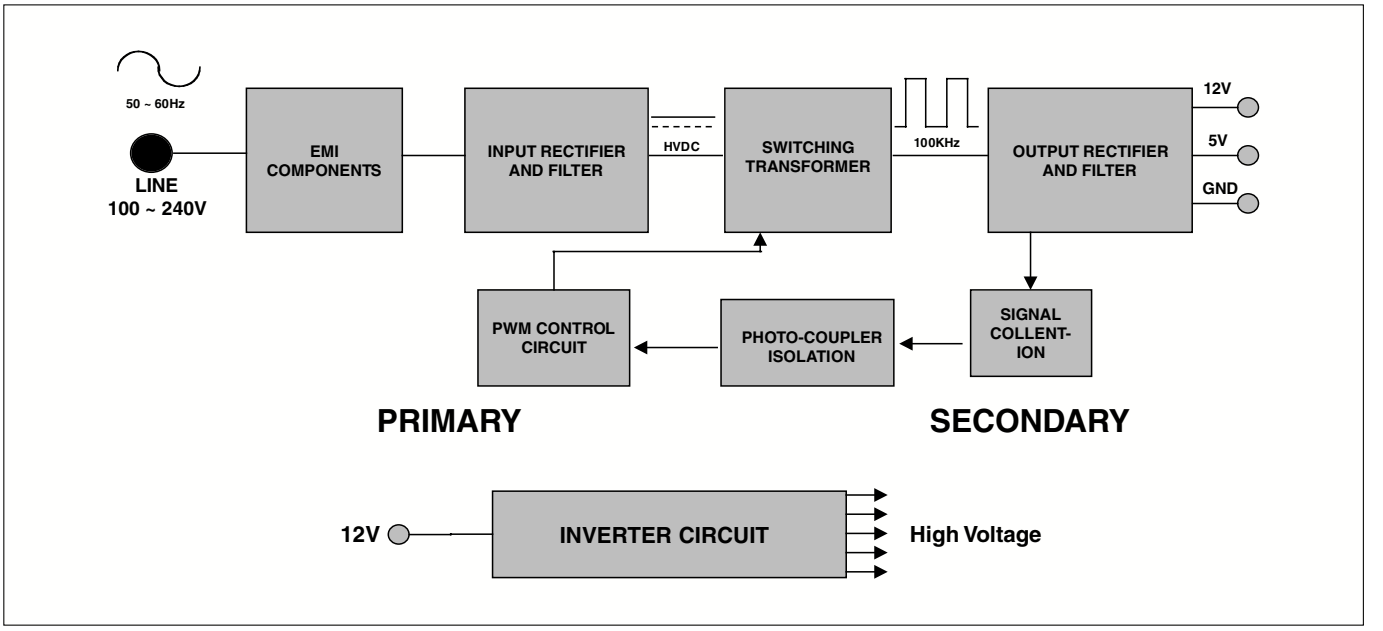
2. Power Part.

This part consists of the one 3.3V, and one 1.8V regulators to convert power which is provided 5V in Power board.
12V is provided for inverter, 5V is provided for LCD panel.
Also, 5V is converted 3.3V and 1.8V by regulator. Converted power is provided for IC in the main board.
The inverter converts from DC12V to AC 700Vrms and operates back-light lamps of module.

3. MICOM Part.

This part is include video controller part. And this part consists of EEPROM IC which stores control data, Reset IC and the Micom.
The Micom distinguishes polarity and frequency of the H/V sync are supplied from signal cable.
The controlled data of each modes is stored in EEPROM.

LIPS Board Block Diagram



Operation description_LIPS

1. EMI components.
   This part contains of EMI components to comply with global marketing EMI standards like FCC,VCCI CISPR, the circuit included a line-filter, across line capacitor and of course the primary protection fuse.

2. Input rectifier and filter.
   This part function is for transfer the input AC voltage to a DC voltage through a bridge rectifier and a bulk capacitor.

3. Energy Transfer.
   This part function is for transfer the primary energy to secondary through a power transformer.

4. Output rectifier and filter.
   This part function is to make a pulse width modulation control and to provide the driver signal to power switch, to adjust the duty cycle during different AC input and output loading condition to achieve the dc output stabilized, and also the over power protection is also monitor by this part.

5. Photo-Coupler isolation.
   This part function is to feed back the DC output changing status through a photo transistor to primary controller to achieve the stabilized DC output voltage.

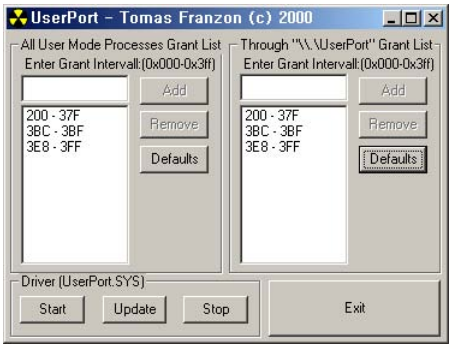
6. Signal collection.
   This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.

ADJUSTMENT

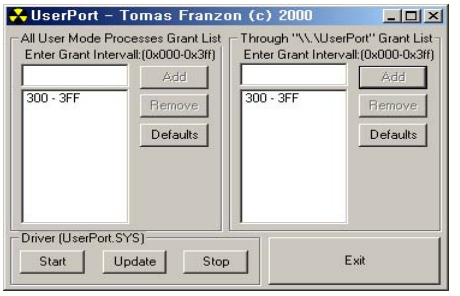
Windows EDID V1.0 User Manual

Operating System: MS Windows 98, 2000, XP
Port Setup: Windows 98 => Don't need setup
Windows 2000, XP => Need to Port Setup.
This program is available to LCD Monitor only.

1. Port Setup
   a) Copy "UserPort.sys" file to
   "c:\WINNT\system32\drivers" folder
   b) Run Userport.exe

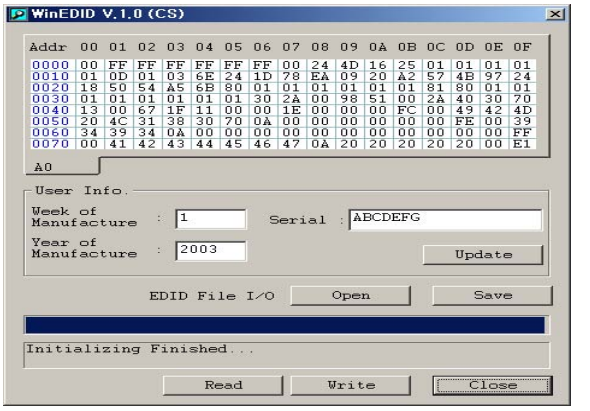


   c) Remove all default number
   d) Add 300-3FF

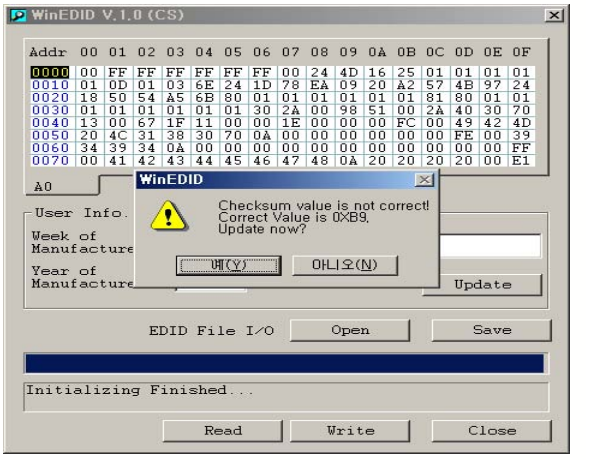


   e) Click Start button.
   f) Click Exit button.

2. EDID Read & Write
   1) Run WinEDID.exe



   2) Edit Week of Manufacture, Year of Manufacture, Serial Number
      a) Input User Info Data
      b) Click "Update" button
      c) Click " Write" button



SERVICE OSD

1) Turn off the power switch at the front side of the display.

2) Wait for about 5 seconds and press MENU, POWER switch with 1 second interval.

3) The SVC OSD menu contains additional menus that the User OSD menu as described below.

a) Auto Color : W/B balance and Automatically sets the gain and offset value.
b) NVRAM INIT : EEPROM initialize.(24C08)
c) CLEAR ETI : To initialize using time.
d) AGING : Select Aging mode(on/off).
e) R/G/B-9300K : Allows you to set the R/G/B-9300K value manually.
f) R/G/B-6500K : Allows you to set the R/G/B-6500K value manually.
g) R/G/B-Offset : Allows you to set the R/G/B-Offset value manually.(Analog Only)
h) R/G/B-Gain : Allows you to set the R/G/B-Gain value manually.(Analog Only)
i) MODULE : To select applied module.

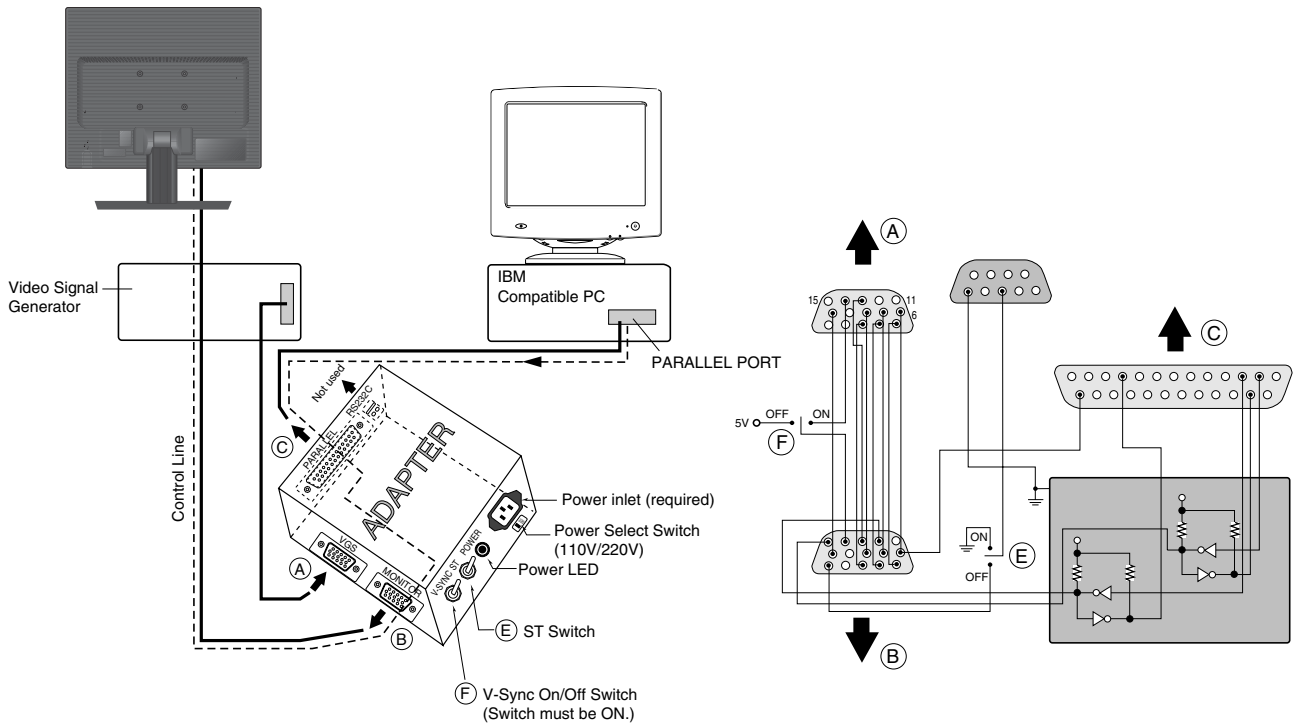
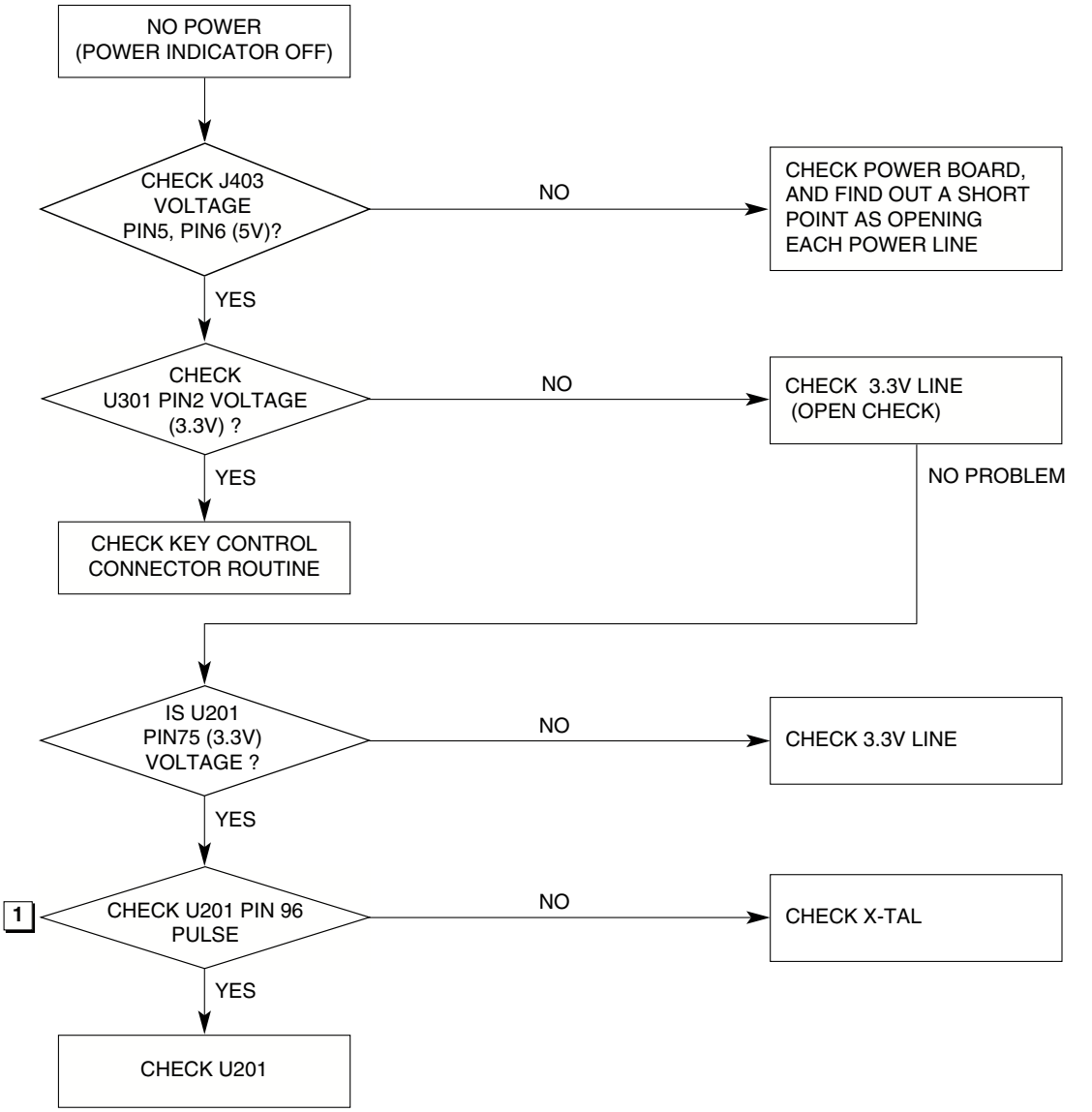


Figure 1. Cable Connection

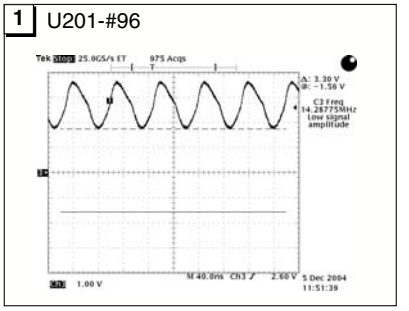
TROUBLESHOOTING GUIDE

1. NO POWER

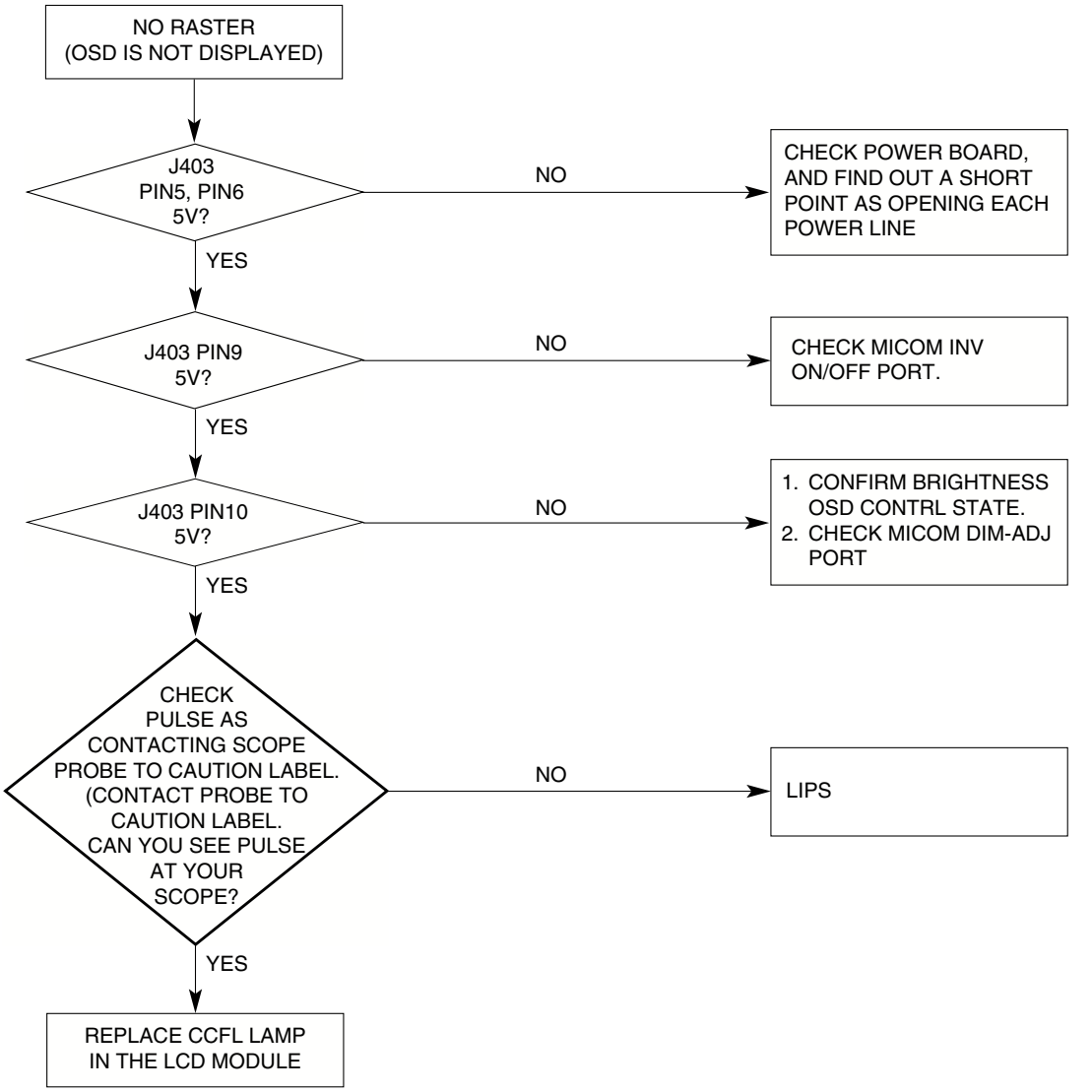


Waveforms

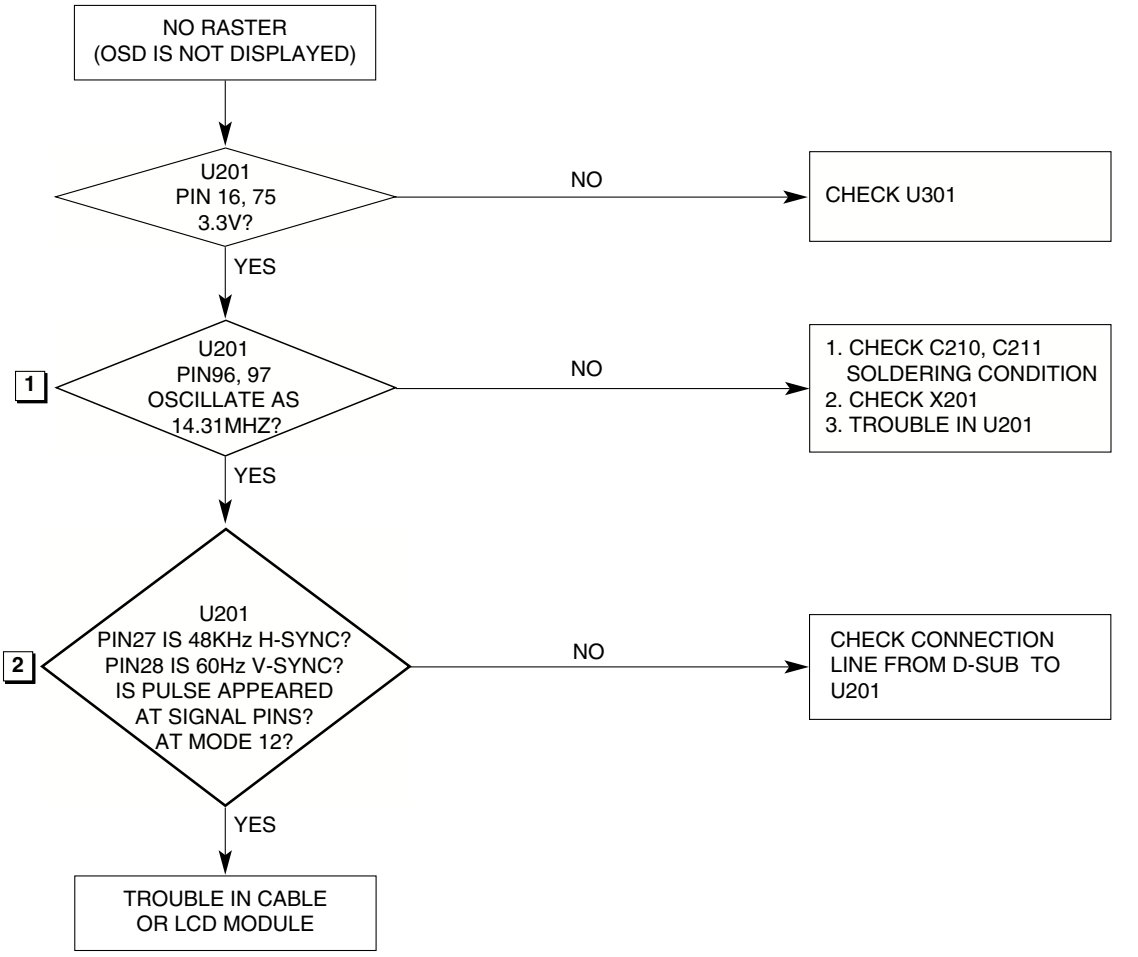
1 U201-#96



2. NO RASTER (OSD IS NOT DISPLAYED) – LIPS

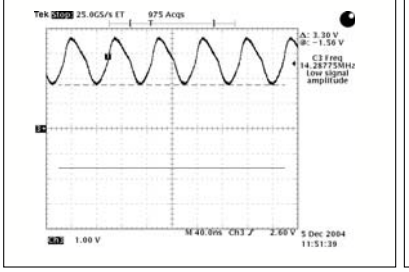


3. NO RASTER (OSD IS NOT DISPLAYED) – MSTAR

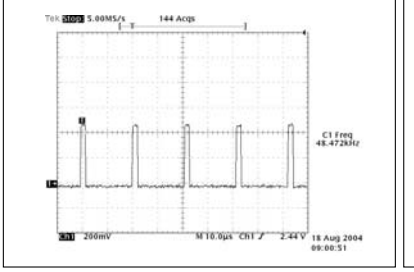


Waveforms

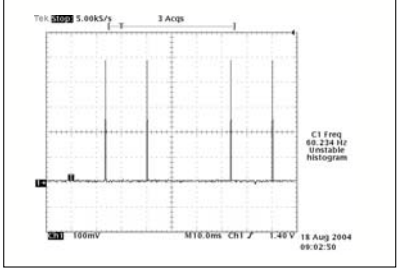
1 U201-#96, 97



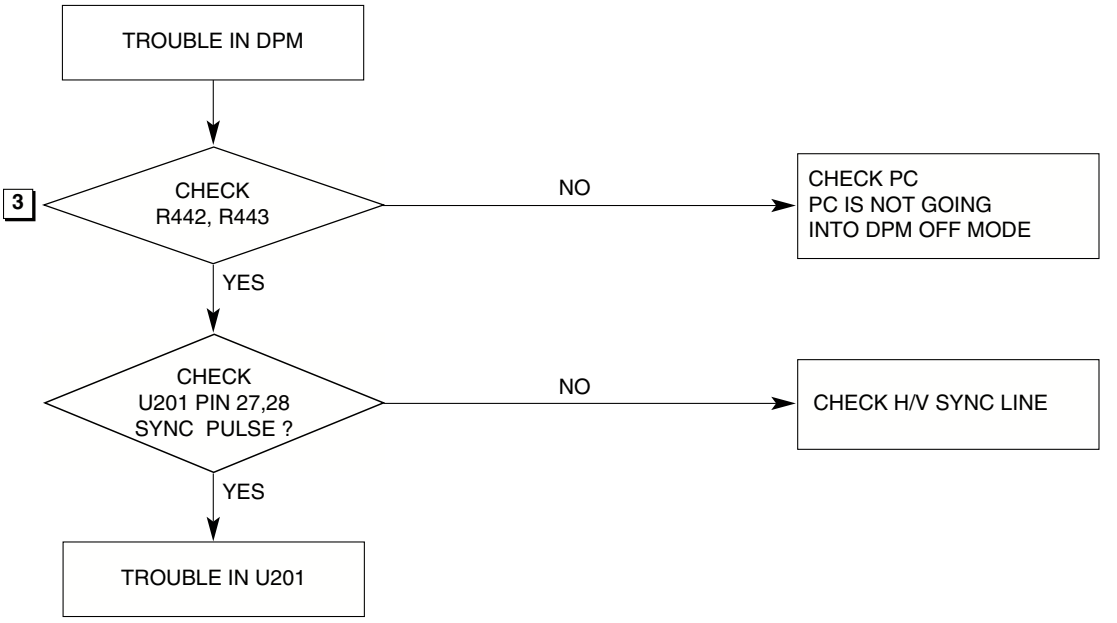
2 U201-#27 H-SYNC



2 U201-#28 V-SYNC

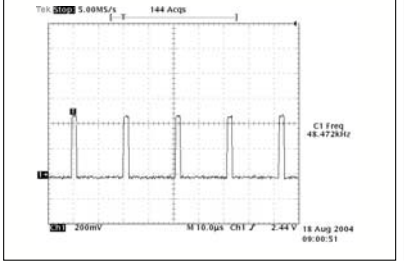


4. TROUBLE IN DPM

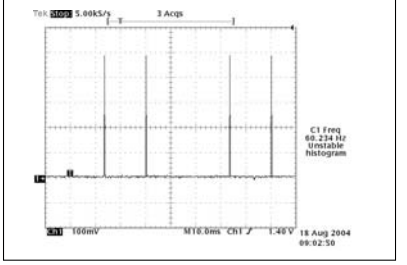


Waveforms

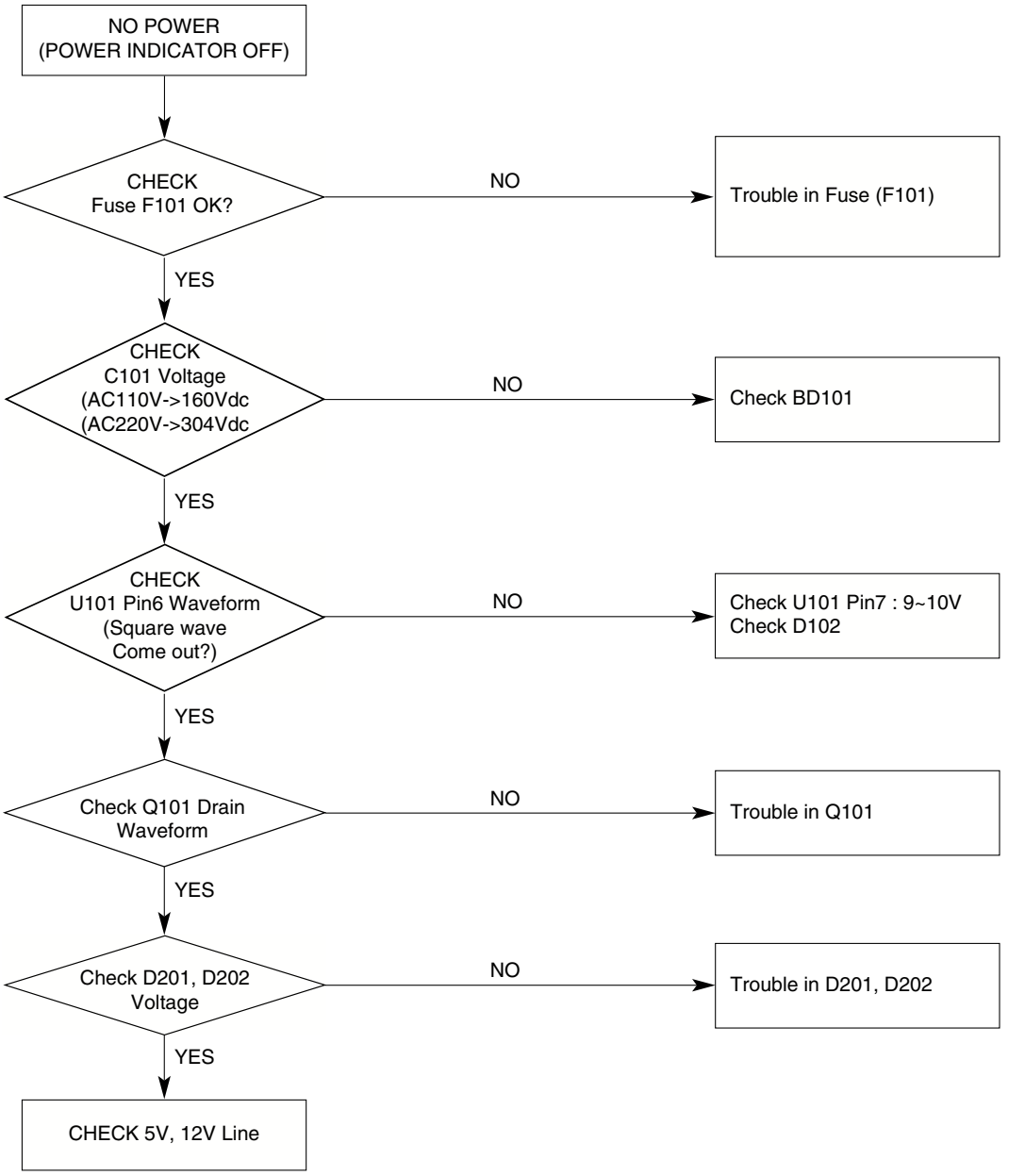
3 R442 H-Sync



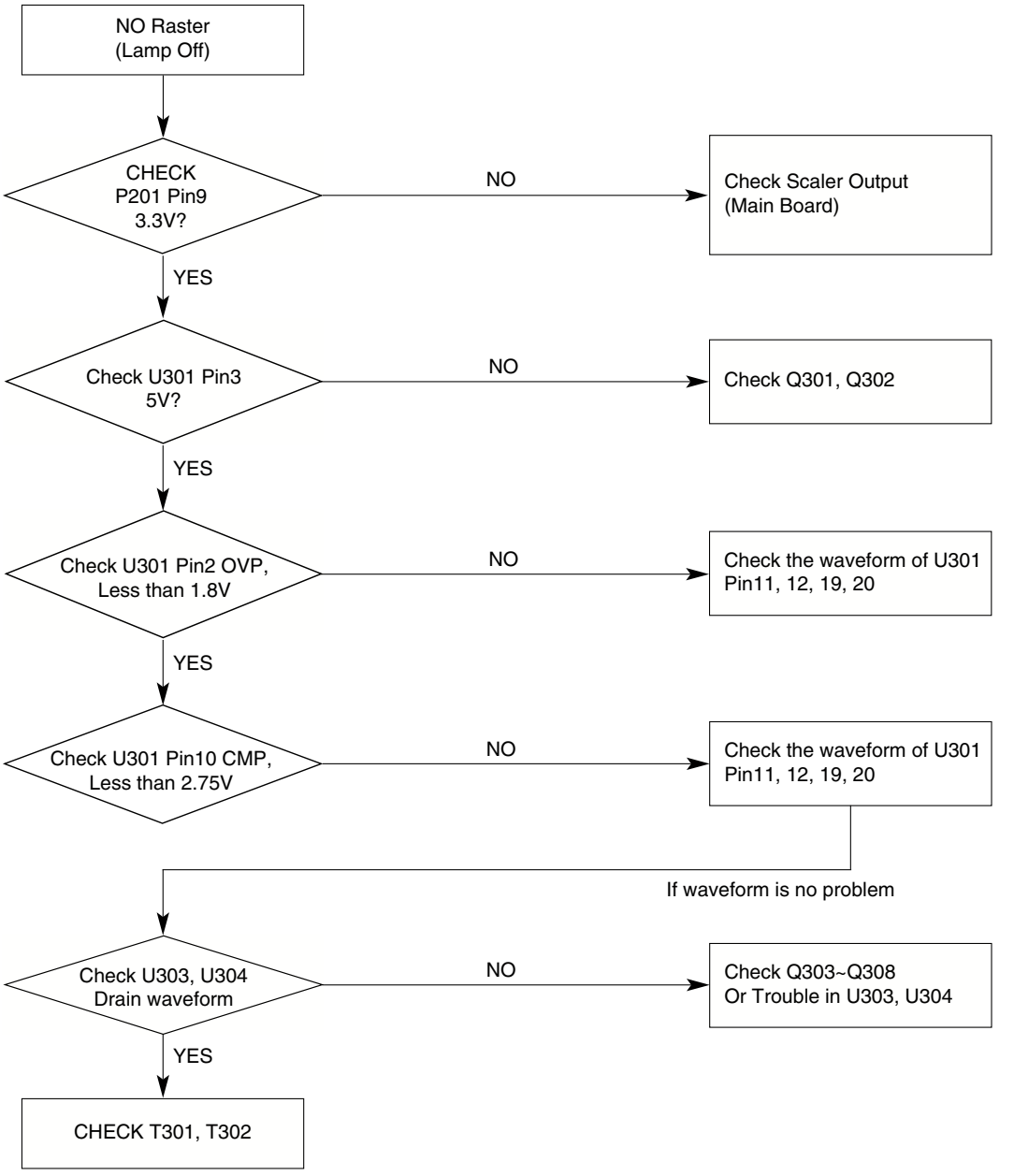
3 R443 V-Sync



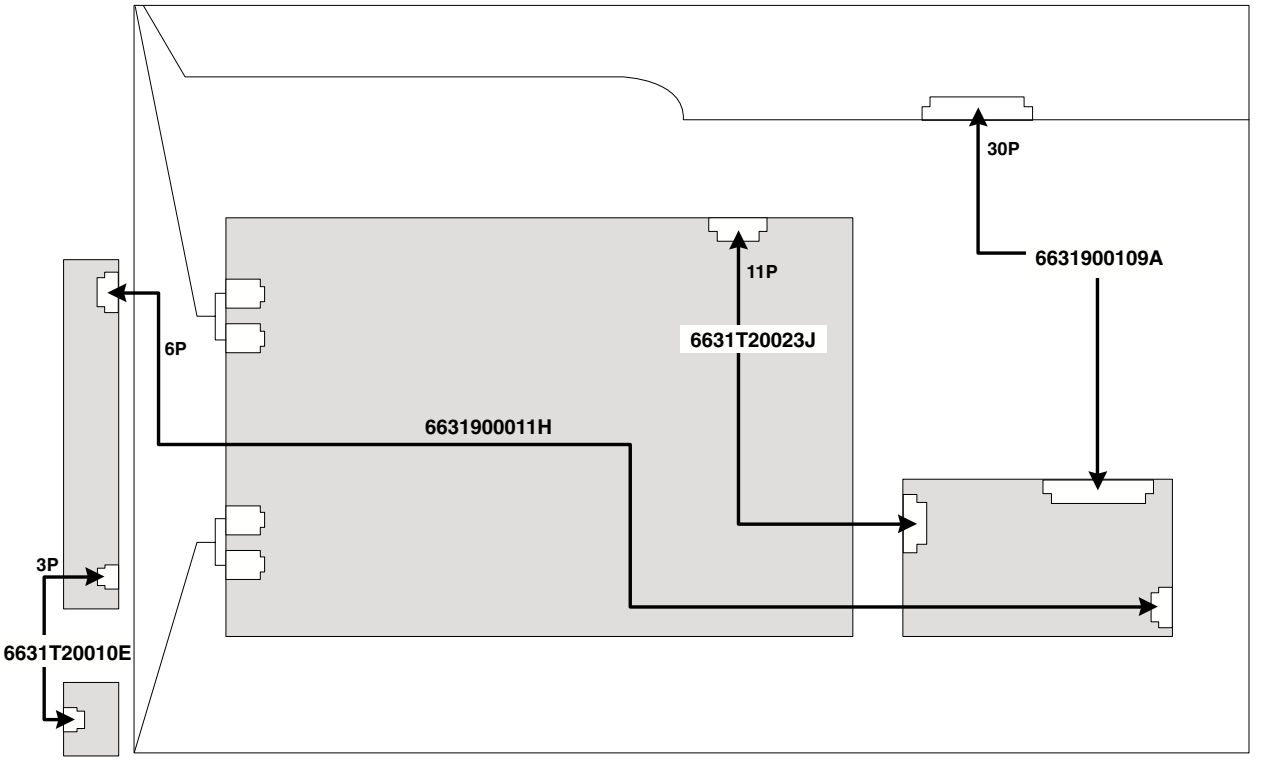
5. POWER


NO POWER
(POWER INDICATOR OFF)
CHECK
Fuse F101 OK?
NO
Trouble in Fuse (F101)
YES
CHECK
C101 Voltage
(AC110V->160Vdc
(AC220V->304Vdc
NO
Check BD101
YES
CHECK
U101 Pin6 Waveform
(Square wave
Come out?)
NO
Check U101 Pin7 : 9~10V
Check D102
YES
Check Q101 Drain
Waveform
NO
Trouble in Q101
YES
Check D201, D202
Voltage
NO
Trouble in D201, D202
YES
CHECK 5V, 12V Line

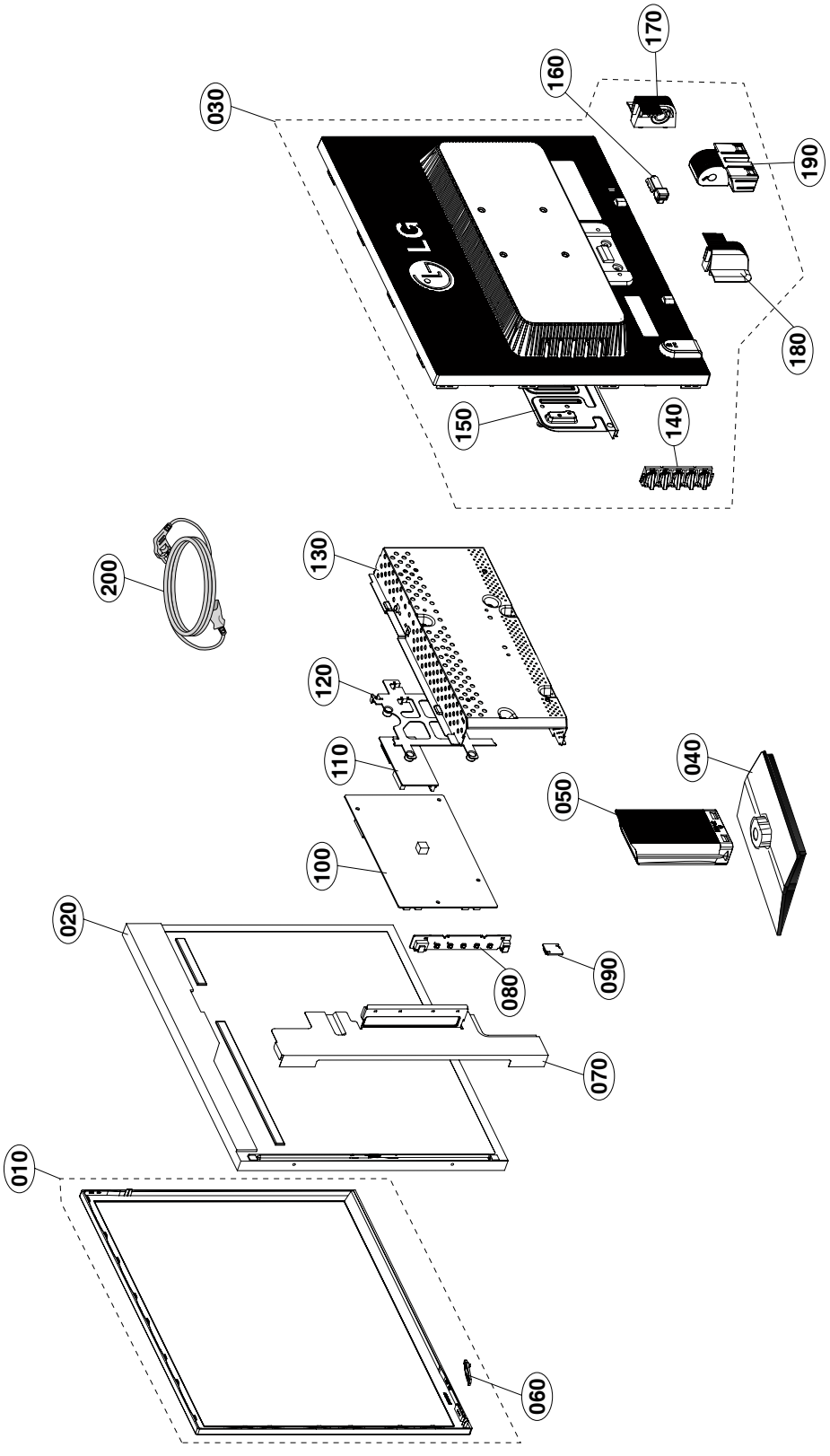
6. Raster


NO Raster
(Lamp Off)
CHECK
P201 Pin9
3.3V?
NO
Check Scaler Output
(Main Board)
YES
Check U301 Pin3
5V?
NO
Check Q301, Q302
YES
Check U301 Pin2 OVP,
Less than 1.8V
NO
Check the waveform of U301
Pin11, 12, 19, 20
YES
Check U301 Pin10 CMP,
Less than 2.75V
NO
Check the waveform of U301
Pin11, 12, 19, 20
If waveform is no problem
Check U303, U304
Drain waveform
NO
Check Q303~Q308
Or Trouble in U303, U304
YES
CHECK T301, T302

WIRING DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST(L1719S)

*** Note:** Safety mark ⚠

Ref.No.		Part No.	Decription
010	⚠	30919C0021A	Cover Assembly,L1719 BRAND 30909C0009 CABINET ASSY ANALOG SILVER
		30919C0021B	Cover Assembly,L1719 BRAND 30909C0009 CABINET ASSY ANALOG (BK)
		30919C0021E	Cover Assembly,L1719 . 17" L1719 BRAND 30909C0009 CABINET ASSY ANALOG (GLASS- SILVER)
		30919C0021H	Cover Assembly,L1719 . 17" L1719 BRAND 30909C0009 CABINET ASSY ANALOG (BK) FOR CANADA
020	⚠	6304FLP278A	LCD,Module-TFT, LM170E01-TLB1 DRIVER 17.0INCH1280X1024 300CD COLOR 72% - - -
		6304FLP339A	LCD,Module-TFT, LM170E01-TLB5 DRIVER 17.0INCH1280X1024 300CD COLOR 72% - - -
030	⚠	3809900184A	Cover Assembly,L1719 NON BACK COVER ANALOG
		3809900184B	Cover Assembly,L1719 NON BACK COVER ANALOG-BLACK (LPL/CPT,NON GLASS)
		3809900184C	Cover Assembly,L1719 NON BACK COVER ANALOG-BLACK (AUO)
		3809900184D	Cover Assembly,L1719 NON BACK COVER ANALOG-BLACK (CMO)
		3809900184E	Cover Assembly,L1719 NON BACK COVER ANALOG-BLACK (HYDIS)
040	⚠	3043900045A	Base Assembly,LX19S 35509K0262 COVER STAND BASE ASSY
050	⚠	35509K0267A	Cover,L1719 STAND BODY COVER
060		3520900044A	Indicator,LED LX19 PC NON LENS
070		49509K0266A	Plate,SHIELD L719 LAMP
080		68719STA24C	PCB Assembly,Sub, SUB T.T LM57A LX52 KXRDQPT NT CKD CONTROL-L1752S
090		0DLLT0089AA	LED,DIP, LTL-1BEDJ-0C2 ROUND 3MM YELLOW/GREEN WHITE DIFFUSED 2.6V 20mA 30mA 19mCD - 2.54MM TP 3P
100	⚠	68719PT298A	PCB Assembly,Power, POWER T.T LM57A L1752S KNRDQPT TOTAL
		6709900027A	SMPS,AC/DC, AIVP 100.0VTO240.0V 40W 50TO60HZ UL/CSA/VDE/SEV/SEMKO/FIMKO/IMQ/OVE/BSI WORLD WIDE
110		33139L7032C	Main Total Assembly, L1752S-BFQ.KXRDQPT BRAND NT CKD LM57A TSUM16AWL 14LANGUAGE
120		35509K0247A	Cover,LX52 PIECE COVER VESA
130		49509S0034A	Plate,SHIELD LX52 REAR SHIELD
140		4940900023A	Knob,MAIN/SMPS 5 KEY L1919 CONTROL KNOB
150		49509K0262A	Plate,SUPPORT L1752 BRACKET
		49509K0262B	Plate,SUPPORT L1752 BRACKET (NO GLASS)
160		49519K0137A	Plate Assembly,STAND HINGE ASSY FOR LX52S/T
170		35509K0263A	Cover,LX19 HINGE COVER R
180		35509K0264A	Cover,LX19 HINGE COVER L
190		35509K0265A	Cover,LX19 HINGE BODY
200		6410TEW010A	Power Cord, CEE,LP-34A&H05VV-FX3C,LS-60_1.87M_BLK LP-34A LS-60 1.87M NONE 250V 16A H05VV-F 3X0.75MM2 BLACK VDE SEMKO N**- For Europe**
		6410TSW003A	Power Cord, LP-23A+SAG18N<B10A&LS-13_1.87M_BLK LP-23A LS-13 1.87M NONE 250V 7.5A GFC-3R 3X0.75MM2 BLACK SAA N**-For Australia**

EXPLODED VIEW PARTS LIST(L1919S)

*** Note:** Safety mark ⚠

Ref.No.		Part No.	Decription
010		30919C0022A	Cover Assembly,L1919 BRAND 30909C0010 CABINET ASSY ANALOG-BLACK (OTHERS) FOR CIS
		30919C0022B	Cover Assembly,L1919 BRAND 30909C0010 CABINET ASSY ANALOG-BLACK (HSD-ME12) FOR CIS
	⚠	30919C0022C	Cover Assembly,L1919 BRAND 30909C0010 CABINET ASSY ANALOG-SILVER (OTHERS) FOR CIS
		30919C0022D	Cover Assembly,L1919S . 19" L1919 CABINET ASSY HSD ME12 SILVER (ANALOG) NT- LOCAL
		30919C0022G	Cover Assembly,L1919S . 19" L1919 CABINET ASSY ANALOG SILVER (OTHERS) NT - LOCAL
		30919C0022J	Cover Assembly,L1919S . 19" L1919 CABINET ASSY (GLASS) SILVER
		30919C0022K	Cover Assembly,L1919 . 19" L1919_CABINET ASSY ANALOG BK (OTHERS)
		30919C0022M	Cover Assembly,L1919S - 19" L1919S CABINET ASSY (ANALOG - BK) NT LOCAL , FOR CANADA
020		6304FLP310A	LCD,Module-TFT, LM190E03-TLB5 DRIVER 19.0INCH1280X1024 300CD COLOR - - - -
	⚠	6304FLP337A	LCD,Module-TFT, LM190E03-TLBB DRIVER 19.0INCH1280X1024 300CD COLOR - - - -
030		3809900185A	Cover Assembly,L1919 NON BACK COVER ASSY ANALOG
		3809900185B	Cover Assembly,L1919 NON BACK COVER ASSY ANALOG-BLACK (AUO-EG02)
		3809900185C	Cover Assembly,L1919 NON BACK COVER ASSY ANALOG-BLACK (AUO-EN04)
	⚠	3809900185D	Cover Assembly,L1919 NON BACK COVER ASSY ANALOG-BLACK (CMO)
		3809900185E	Cover Assembly,L1919 NON BACK COVER ASSY ANALOG-BLACK (HSD-ME12)
		3809900185F	Cover Assembly,L1919 NON BACK COVER ASSY ANALOG-BLACK (HSD-ME13)
		3809900185G	Cover Assembly,L1919 NON BACK COVER ASSY ANALOG-BLACK (HYDIS)
		3809900185H	Cover Assembly,L1919 NON BACK COVER ASSY ANALOG-BLACK (GLASS-LPL,CMO)
040	⚠	3043900045A	Base Assembly,LX19S 35509K0262 COVER STAND BASE ASSY
050	⚠	35509K0268A	Cover,L1919 STAND BODY COVER
060		3520900044A	Indicator,LED LX19 PC NON LENS
070		49509K0267A	Plate,SHIELD L1952 LAMP
		49509K0267B	Plate,SHIELD L1919 LAMP MODULE-AUOM190EG02
		49509K0267C	Plate,SHIELD L1919 LAMP MODULE-HSD190ME12
		49509K0313A	Plate,SHIELD L1919 LAMP MODULE-HSD190ME13
080		68719STA24D	PCB Assembly,Sub, SUB T.T LM57A L1919S KXRDQPT NT CKD CONTROL-L1952S
090		0DLLT0089AA	LED,DIP, LTL-1BEDJ-0C2 ROUND 3MM YELLOW/GREEN WHITE DIFFUSED 2.6V 20mA 30mA 19mCD - 2.54MM TP 3P
100	⚠	68719PT298A	PCB Assembly,Power, POWER T.T LM57A L1752S KNRDQPT TOTAL
		6709900027A	SMPS,AC/DC, AIVP 100.0VTO240.0V 40W 50TO60HZ UL/CSA/VDE/SEV/SEMKO/FIMKO/IMQ/OVE/BSI WORLD WIDE
110		33139L9040C	Main Total Assembly, L1952S-BFQ.KXRDQPT NT CKD BRAND LM57A TSUM16AWL 14LANGUAGE
120		35509K0247A	Cover,LX52 PIECE COVER VESA
130		49509S0034A	Plate,SHIELD LX52 REAR SHIELD
140		4940900023A	Knob,MAIN/SMPS 5 KEY L1919 CONTROL KNOB
150		49509K0263A	Plate,SUPPORT L1952S BRACKET
		49509K0263B	Plate,SUPPORT L1919S BRACKET MODULE-HSD190ME12
160		49519K0137A	Plate Assembly,STAND HINGE ASSY FOR LX52S/T
170		35509K0263A	Cover,LX19 HINGE COVER R
180		35509K0264A	Cover,LX19 HINGE COVER L
190		35509K0265A	Cover,LX19 HINGE BODY
200		6410TEW010A	Power Cord, CEE,LP-34A&H05VV-FX3C,LS-60_1.87M_BLK LP-34A LS-60 1.87M NONE 250V 16A H05VV-F 3X0.75MM2 BLACK VDE SEMKO N**- For Europe**
		6410TSW003A	Power Cord, LP-23A+SAG18N<B10A&LS-13_1.87M_BLK LP-23A LS-13 1.87M NONE 250V 7.5A GFC-3R 3X0.75MM2 BLACK SAA N**-For Australia**

REPLACEMENT PARTS LIST

CAUTION : BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THESAFETY PRECAUTIONS IN THIS MANUAL.
*** NOTE : S** SAFETY Mark ⚠
AL ALTERNATIVE PARTS

DATE: 2006-4-18

*S	*AL	LOC.NO.	PART NO.	DESCRIPTION / SPECIFICATION
MAIN BOARD				
CAPACITORs				
		C201	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C203	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V X7R -55TO+125C 1608 TP
		C204	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V X7R -55TO+125C 1608 TP
		C205	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V X7R -55TO+125C 1608 TP
		C206	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V X7R -55TO+125C 1608 TP
		C207	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 1608 TP
		C208	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V X7R -55TO+125C 1608 TP
		C209	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V X7R -55TO+125C 1608 TP
		C210	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C 1608 TP
		C211	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C 1608 TP
		C213	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C215	0CE106CF638	SHL5.0TP16VB10M 10uF 20% 16V 0A -40TO+85C GP 2000HR 5X11MM 5MM FORMING TP
		C216	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C217	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C218	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C219	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C220	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C221	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C222	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C223	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C224	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C225	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C226	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C227	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C228	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C229	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP

DATE: 2006-4-18

*S	*AL	LOC.NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C230	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C301	0CE107EF610	KMG16VB100M 100uF 20% 16V 125MA -55TO+105C WT 1000HR 5X11MM 2MM STRAIGHT BK
		C302	0CK103CK51A	0603B103K500CT 10nF 10% 50V Y5P -30TO+85C 1608 TP
		C303	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 1608 TP
		C304	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C 1608 TP
		C305	0CE107EF610	KMG16VB100M 100uF 20% 16V 125MA -55TO+105C WT 1000HR 5X11MM 2MM STRAIGHT BK
		C306	0CE477EF638	KMG5.0TP16VB470M 470uF 20% 16V 366MA -55TO+105C WT 2000HR 8X11.5MM 5MM FORMING TP
		C408	0CK103CK51A	0603B103K500CT 10nF 10% 50V Y5P -30TO+85C 1608 TP
		C409	0CK103CK51A	0603B103K500CT 10nF 10% 50V Y5P -30TO+85C 1608 TP
		C410	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1608 TP
		C411	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C 1608 TP
		C412	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125C 1608 TP
		C425	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V C0G -55TO+125C 1608 TP
		C426	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V C0G -55TO+125C 1608 TP
		C427	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V C0G -55TO+125C 1608 TP
		C428	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V C0G -55TO+125C 1608 TP
DIODEs				
		D416	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150MW SOT23 R/TP 3P 2
		D417	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150MW SOT23 R/TP 3P 2
		D418	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150MW SOT23 R/TP 3P 2
		ZD410	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OHM 200MW SOD323 R/TP 2P 1
		ZD411	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OHM 200MW SOD323 R/TP 2P 1
		ZD412	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OHM 200MW SOD323 R/TP 2P 1
		ZD414	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OHM 200MW SOD323 R/TP 2P 1

DATE: 2006-4-18

*S	*AL	LOC.NO.	PART NO.	DESCRIPTION / SPECIFICATION
		ZD415	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OHM 200MW SOD323 R/TP 2P 1
		ICs		
		U201	0IPRP00704A	FE2041-LF(TSUM16AWL) 3.3TO5V 0A 14.3181MHZ QFP TR 100P
		U202	0IMMR00227A	AT25F2048N-10SU-2.7 2MBIT 256KX8BIT 2.7VTO3.6V 20NSEC TOP BOOT BLOCK SOIC(JEDEC) ST 8P
		U203	0ISG240860B	M24C08-WMN6TP 8KBIT 1KX8BIT 2.5TO5.5 10MSEC SO R/TP 8P
		U301	0IPMGA0010A	AZ1117H-3.3 4.75TO10V 3.3V - SOT223 R/TP 3P
		U303	0IPMG00049A	AZ1117H-1.8TRE1(EH13A),LF 3.2TO10V 1.8V - SOT223 R/TP 3P
		TRANSISTORs		
		Q201	0TR390409AE	KST3904 NPN 6V 60V 40V 200MA 50NA 100TO300 350MW SOT23 R/TP 3P
		Q401	0TR390609FA	KST3906-MTF PNP -5V -40V -40V -0.2A -0.00000005A 100TO300 350MW SOT23 R/TP 3P
		Q402	0TR390609FA	KST3906-MTF PNP -5V -40V -40V -0.2A -0.00000005A 100TO300 350MW SOT23 R/TP 3P
		RESISTORs		
		R201	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W 1608 R/TP
		R202	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W 1608 R/TP
		R203	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W 1608 R/TP
		R204	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W 1608 R/TP
		R205	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP
		R206	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W 1608 R/TP
		R207	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W 1608 R/TP
		R211	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP
		R212	0RJ3900D677	MCR03EZPJ391 390OHM 5% 1/10W 1608 R/TP
		R213	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 1608 R/TP
		R215	0RJ2002D677	MCR03EZPJ203. 20KOHM 5% 1/10W 1608 R/TP
		R216	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP
		R217	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP
		R218	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP
		R219	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP
		R222	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP
		R223	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP

DATE: 2006-4-18

*S	*AL	LOC.NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R224	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP
		R225	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP
		R226	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R/TP
		R227	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R/TP
		R228	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP
		R231	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP
		R232	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP
		R302	0RJ5600D677	MCR03EZPJ561 560OHM 5% 1/10W 1608 R/TP
		R303	0RJ2202D677	MCR03EZPJ223 22KOHM 5% 1/10W 1608 R/TP
		R305	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP
		R307	0RX0681K668	RSD02F36R80J 6.8OHM 5% 2W 12.0X4.0MM 15.0MM FORMING BK
		R308	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP
		R412	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP
		R413	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP
		R414	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP
		R415	0RJ1200D677	MCR03EZPJ121 120OHM 5% 1/10W 1608 R/TP
		R416	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP
		R417	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP
		R418	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP
		R419	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP
		R420	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP
		R422	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP
		R423	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP
		R438	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP
		R439	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP
		R440	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R/TP
		R441	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP
		R442	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608 R/TP
		R443	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608 R/TP
		R444	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R/TP
		R445	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP
		R446	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP
		R448	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP

DATE: 2006-4-18

*S	*AL	LOC.NO.	PART NO.	DESCRIPTION / SPECIFICATION
		OTHERs		
		U302	0TFVI80067A	SI3865BDV(E3) N-CHANNEL MOSFET 8V +-8V 2.9A 0.06OHM 830MW TSOP6 R/TP 6P
		J401	6630TGA004F	KCN-DS-3-0062 D-SUB 15P 2.29MM ANGLE FEMALE DIP TR LOCKING -
		X201	6212AA2004F	HC-49/U 14.31818MHZ 30PPM 14.31818MHZ 30PPM 18pF HC-49U DIP BK
		CONTROL BOARD		
		R1	0RD7501Q609	RDM94T1J7K50 7.5KOHM 5% 1/4W 3.2X1.8MM - AXIAL TA52
		R2	0RD7501Q609	RDM94T1J7K50 7.5KOHM 5% 1/4W 3.2X1.8MM - AXIAL TA52
		R3	0RD1801Q609	RDM94T1J1K80 1.8KOHM 5% 1/4W 3.2X1.8MM - AXIAL TA52
		R4	0RD1201Q609	RDM94T1J1K20 1.2KOHM 5% 1/4W 3.2X1.8MM 26.0MM AXIAL TA52
		R5	0RD1201Q609	RDM94T1J1K20 1.2KOHM 5% 1/4W 3.2X1.8MM 26.0MM AXIAL TA52
		SW1	140-058E	THVV502GBC 1C1P 12VDC 0.05A HORIZONTAL 160GF R/TP
		SW2	140-058E	THVV502GBC 1C1P 12VDC 0.05A HORIZONTAL 160GF R/TP
		SW3	140-058E	THVV502GBC 1C1P 12VDC 0.05A HORIZONTAL 160GF R/TP
		SW4	140-058E	THVV502GBC 1C1P 12VDC 0.05A HORIZONTAL 160GF R/TP
		SW5	140-058E	THVV502GBC 1C1P 12VDC 0.05A HORIZONTAL 160GF R/TP
		ZD1	0DZ560009AG	GDZJ5.6B 5.6V 5.45TO5.73V 60OHM 500MW DO34 TP 2P 1
		ZD2	0DZ560009AG	GDZJ5.6B 5.6V 5.45TO5.73V 60OHM 500MW DO34 TP 2P 1
		LED1	0DLLT0089AA	LTL-1BEDJ-0C2 ROUND 3MM YELLOW/GREEN WHITE DIFFUSED 2.6V 20mA 30mA 19mCD - 2.54MM TP 3P
		POWER BOARD		
		CAPACITORs		
		C101	0CZZ9ST017A	EKM107M2WL35P6 100uF 20% 450V 750MA -25TO+105C GP 2000HR 18X35.5MM 12.5MM STRAIGHT BK
		C102	0CKZTTA002Q	DCH222M46YRN65L0A0 2200pF 20% 1000V Y5R -25TO+125C 11.5X4MM 10MM BK
		C103	0CZZ9ST014A	EGF336R1HE11TCSA 33uF 20% 50V 105MA -25TO+105C GP 2000HR 6.3X11MM 5MM FORMING TP
		C104	0CH5271K416	0805N271J500LT 270pF 5% 50V C0G -55TO+125C 2012 TP
		C105	0CZZ9ST013A	EKM474M1HD11TC 470nF 20% 50V 7MA -25TO+105C GP 2000HR 5X11MM 5MM FORMING TP
		C106	0CK222DK4DA	UMK212CG222JG-T 2.2nF 5% 50V C0G -55TO+125C 2012 TP
		C107	0CK1040K945	DCS104Z30Y5VF6FJ5A 100nF -20TO+80% 50V Y5V -25TO+85C 8X3MM 7.5MM TP
		C201	0CKZTTA002E	DG3AHR102K959 1nF 10% 1000V Y5R -25TO+85C 9.5X4.5MM 5MM TP
		C202	0CZZ9ST021A	EGF108M1EG20TCSA 1000uF 20% 25V 1.4A -40TO+105C GP 2000HR 10X20MM 5MM STRAIGHT TP
		C203	0CZZ9ST020A	EGF687M1EG20TCSA 680uF 20% 25V 1.4A -40TO+105C GP 2000HR 10X20MM 5MM STRAIGHT TP
		C204	0CZZ9ST018A	0CZZ9ST018A(LGE) 1000uF 20% 16V 1.4A -40TO+105C GP 2000HR 10X20MM 5MM STRAIGHT TP
		C205	0CZZ9ST018A	0CZZ9ST018A(LGE) 1000uF 20% 16V 1.4A -40TO+105C GP 2000HR 10X20MM 5MM STRAIGHT TP
		C206	0CZZ9ST021A	EGF108M1EG20TCSA 1000uF 20% 25V 1.4A -40TO+105C GP 2000HR 10X20MM 5MM STRAIGHT TP
		C207	0CZZ9ST019A	EGF477M1EG16TCSA 470uF 20% 25V 1.21A -40TO+105C GP 2000HR 10X16MM 5MM STRAIGHT TP
		C208	0CKZTTA002B	DG3AHR331K959 330pF 10% 1000V Y5R -25TO+85C 7.5X4.5MM 5MM TP
		C210	0CH3104K566	0805B104K500CT 100nF 10% 50V X7R -55TO+125C 2012 TP
		C301	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C301	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C303	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C303	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C304	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C304	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C305	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C305	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C306	0CK224DH56A	0805B224K250CT 220nF 10% 25V X7R -55TO+125C 2012 TP
		C306	0CK224DH56A	0805B224K250CT 220nF 10% 25V X7R -55TO+125C 2012 TP
		C307	0CH3104K566	0805B104K500CT 100nF 10% 50V X7R -55TO+125C 2012 TP
		C308	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C 2012 TP
		C309	0CK224DH56A	0805B224K250CT 220nF 10% 25V X7R -55TO+125C 2012 TP
		C309	0CK224DH56A	0805B224K250CT 220nF 10% 25V X7R -55TO+125C 2012 TP
		C310	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C 2012 TP
		C313	0CH2393K516	0805B393K500CT 39nF 10% 50V Y5P -30TO+85C 2012 TP
		C314	0CK152DK51A	UMK212 B152KG-T 1.5nF 10% 50V Y5P -30TO+85C 2012 TP
		C315	0CH3103K516	C2012Y5P1H103KT 10nF 10% 50V Y5P -30TO+85C 2012 TP
		C317	0CH5221K416	0805N221J500LT 220pF 5% 50V C0G -55TO+125C 2012 TP
		C320	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C320	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V X7R -55TO+125C 3216 TP
		C402	0CK22201510	DCH222K43Y5PN6DK0A 2.2nF 10% 1000V Y5P -25TO+85C 10X5MM 11MM BK

DATE: 2006-4-18

*S	*AL	LOC.NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C403	0CZZ9ST028A	ECO3J100J09BS1 10pF 5% 6KV S2L -25TO+85C 9X5MM 10MM TP
		C404	0CH2153K516	0805B153K500CT 15nF 10% 50V Y5P -30TO+85C 2012 TP
		C405	0CK22201510	DCH222K43Y5PN6DK0A 2.2nF 10% 1000V Y5P -25TO+85C 10X5MM 11MM BK
		C406	0CZZ9ST028A	ECO3J100J09BS1 10pF 5% 6KV S2L -25TO+85C 9X5MM 10MM TP
		C407	0CH2153K516	0805B153K500CT 15nF 10% 50V Y5P -30TO+85C 2012 TP
		C409	0CK22201510	DCH222K43Y5PN6DK0A 2.2nF 10% 1000V Y5P -25TO+85C 10X5MM 11MM BK
		C410	0CZZ9ST028A	ECO3J100J09BS1 10pF 5% 6KV S2L -25TO+85C 9X5MM 10MM TP
		C411	0CH2153K516	0805B153K500CT 15nF 10% 50V Y5P -30TO+85C 2012 TP
		C412	0CK22201510	DCH222K43Y5PN6DK0A 2.2nF 10% 1000V Y5P -25TO+85C 10X5MM 11MM BK
		C413	0CZZ9ST028A	ECO3J100J09BS1 10pF 5% 6KV S2L -25TO+85C 9X5MM 10MM TP
		C414	0CH2153K516	0805B153K500CT 15nF 10% 50V Y5P -30TO+85C 2012 TP
		C415	0CH2222K516	0805B222K500CT 2.2nF 10% 50V Y5P -30TO+85C 2012 TP
		C417	0CH2222K516	0805B222K500CT 2.2nF 10% 50V Y5P -30TO+85C 2012 TP
		C418	0CH2222K516	0805B222K500CT 2.2nF 10% 50V Y5P -30TO+85C 2012 TP
		C419	0CH2222K516	0805B222K500CT 2.2nF 10% 50V Y5P -30TO+85C 2012 TP
		CX101	0CZZ9ST025A	PCX233712474 470nF 10% 275V PE -40TO+100C NON-IND 11X18.5X18MM 15MM BK
		CY101	0CZZ9ST024A	DCF101K26Y5PG63L0E0 100pF 10% 250V Y5P -25TO+85C 6.5X5MM 10MM TP
		CY102	0CZZ9ST024A	DCF101K26Y5PG63L0E0 100pF 10% 250V Y5P -25TO+85C 6.5X5MM 10MM TP
		CY104	0CZZ9ST023A	DCF472M46Y5VG63L0E0 4.7nF 20% 250V Y5V -25TO+85C 11.5X5MM 10MM TP
	DIODEs & COILs			
		BD101	0DRTW00121A	D2SB60-1121 600V 1.05V 10UA 80A GBL ST 4P 4
		D101	0DRDI00234A	PR1007 1KV 1300MV 5UA 30A 500NSEC DO41 TA52 2P 1
		D102	0DRDI00244A	IN4007/L 1KV 1V 5UA 30A 500NSEC DO41 TA52 2P 1
		D103	0DSGF00019A	1N4148 1V 100V 150MA 500MA 4NSEC 500MW DO35 TP 2P 1
		D201	0DRNH00140A	FCH10U15 150V 880MV 1MA 120A 5NSEC TO220 BK 3P 2
		D202	0DRNH00130A	FCH10U10 100V 850MV 1MA 120A 5NSEC TO220 BK 3P 2
		D306	0DSGD00048A	MM4148 1V 75V 150MA 500MA 4NSEC 500MW LL34 R/TP 2P 1
		D401	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D402	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D403	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2

DATE: 2006-4-18

*S	*AL	LOC.NO.	PART NO.	DESCRIPTION / SPECIFICATION
		D404	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D404	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D405	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D405	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D406	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D406	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D407	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D407	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D408	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		D408	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2A 4NSEC 350MW SOT23 R/TP 3P 2
		ZD101	0DZ330009CC	MTZJ3.3B 3.3V 3.32TO3.5V 120OHM 500MW DO34 TP 2P 1
		ZD301	0DZGD00128A	ZMM5231B 5.1V 4.85TO5.35V 17OHM 500MW LL34 R/TP 2P 1
		L202	61409B0009A	HL-1520S 7.0uH 5V 2A 8X15.5MM LEAD L1752 LIPS
	ICs			
		U101	0IPMG78425A	FAN7601 20V 5V 1W DIP BK 8P
		U201	0IPMG78424A	AZ431-A 20V_40V 2.5V 1W TO-92 TP 3P
		U301	0IPMG78426A	OZL68GN 4.7V_5.5V 5V 1W SOP BK 20P
		PC201	0IPMG78432A	LTV-817M-V(C) 6V 6V 200MW DIP BK 4P
	TRANSISTORs			
		Q301	0TR144009AI	DTA144EK PNP -40V -0.1V -50V -0.1A -0.0000005A 68 200MW SMT3 R/TP 3P
		Q302	0TR144009AH	DTC144EK NPN 40V 100MV 50V 100MA 500NA 68 200MW SMT3 R/TP 3P
		Q303	0TRKE80046A	2N3904S NPN 6V 60V 40V 200MA 50NA 100TO300 350MW SOT23 R/TP 3P
		Q304	0TR390609DC	2N3906S-RTK PNP -5V -40V -40V -0.2A -0.00000005A 100TO300 350MW SOT23 R/TP 3P
		Q305	0TFDI80001A	2N7002 N-CHANNEL EMFET 60V +-20V 115MA 7.5OHM 300MW SOT23 R/TP 3P
		Q306	0TFDI80001A	2N7002 N-CHANNEL EMFET 60V +-20V 115MA 7.5OHM 300MW SOT23 R/TP 3P
		Q307	0TR390609DC	2N3906S-RTK PNP -5V -40V -40V -0.2A -0.00000005A 100TO300 350MW SOT23 R/TP 3P
		Q308	0TRKE80046A	2N3904S NPN 6V 60V 40V 200MA 50NA 100TO300 350MW SOT23 R/TP 3P
	RESISTORs			
		R101	0RJ4703G676	MCR18EZHJ474 470KOHM 5% 1/4W 3216 R/TP

DATE: 2006-4-18

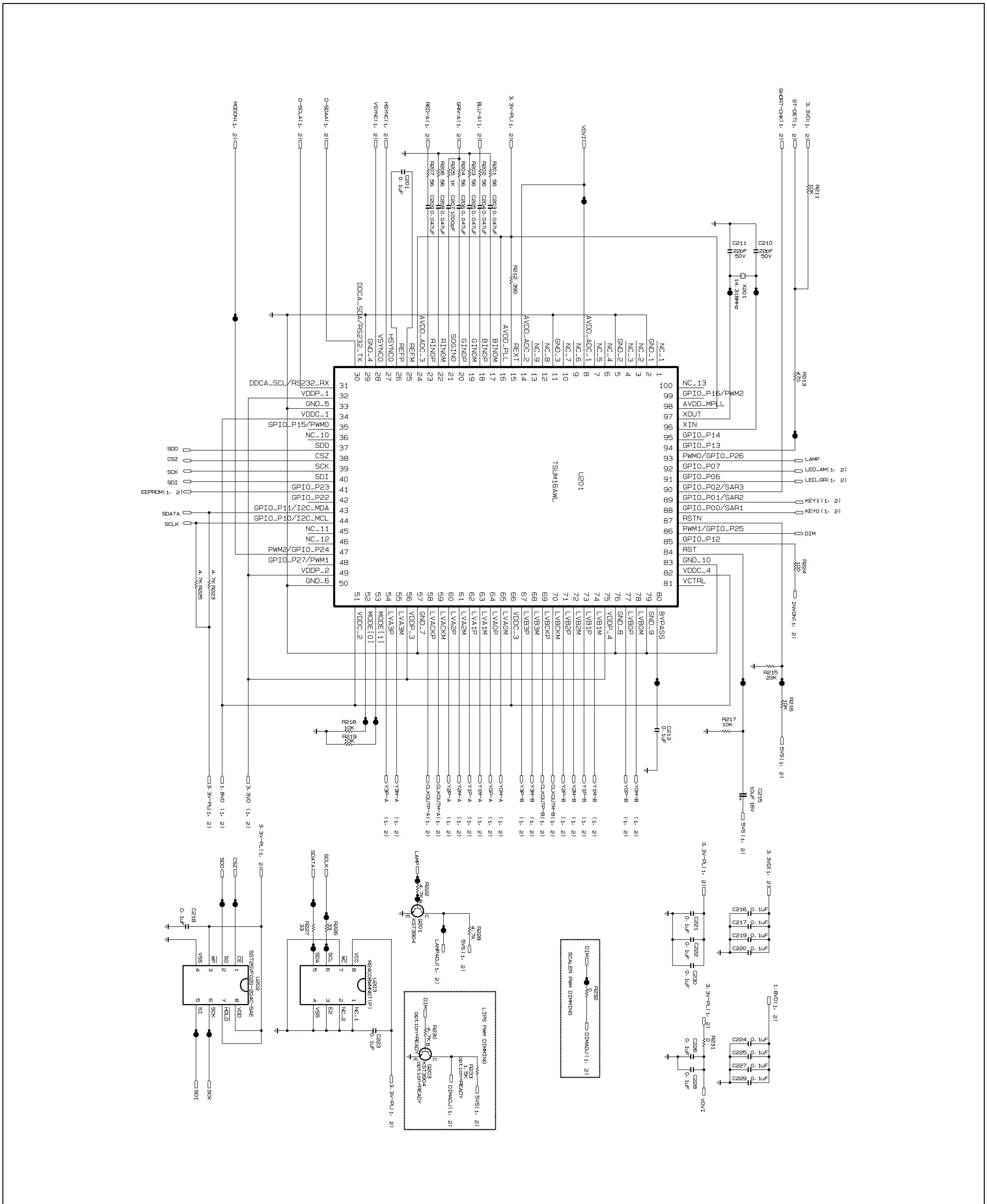
*S	*AL	LOC.NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R102	0RJ6801E472	RC98TRF6K80 6.8KOHM 1% 1/8W 2012 R/TP
		R103	0RH1004D622	MCR10EZHJ105 1MOHM 5% 1/8W 2012 R/TP
		R104	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2012 R/TP
		R105	0RD0912Q609	RDM94T1J91R0 91OHM 5% 1/4W 3.2X1.8MM - AXIAL TA52
		R106	0RH2201D622	MCR10EZHJ222 2.2KOHM 5% 1/8W 2012 R/TP
		R107	0RD8203A609	RDM92T1J820K 820KOHM 5% 1/2W 6.5X2.3MM - AXIAL TA52
		R108	0RD4702A609	RDM92T1J47K0 47KOHM 5% 1/2W 6.5X2.3MM - AXIAL TA52
		R109	0RX0560J609	RSD01T1JR560 0.56OHM 5% 1W 9.0X3.0MM NONE AXIAL TA52
		R110	0RX1003K607	RSD02T3J100K 100KOHM 5% 2W 12.0X4.0MM - AXIAL TA62
		R111	0RD0471Q609	RDM94T1J4R70 4.7OHM 5% 1/4W 3.2X1.8MM - AXIAL TA52
		R112	0RJ1302E472	MCR10EZHF 1302 13KOHM 1% 1/8W 2012 R/TP
		R115	0RJ4703G676	MCR18EZHJ474 470KOHM 5% 1/4W 3216 R/TP
		R116	0RJ4703G676	MCR18EZHJ474 470KOHM 5% 1/4W 3216 R/TP
		R117	0RH2403D622	MCR10EZHJ244 240KOHM 5% 1/8W 2012 R/TP
		R118	0RH2403D622	MCR10EZHJ244 240KOHM 5% 1/8W 2012 R/TP
		R202	0RX0242K665	RSD02F4J24R0 24OHM 5% 2W 12.0X4.0MM - FORMING BK
		R204	0RN3002F409	RN-96T1F30K0 30KOHM 1% 1/6W 3.2X1.8MM - AXIAL TA52
		R205	0RN2201F409	RN-96T1F2K20 2.2KOHM 1% 1/6W 3.2X1.8MM - AXIAL TA52
		R206	0RJ1601E472	MCR10EZHF162 1.6KOHM 1% 1/8W 2012 R/TP
		R207	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2012 R/TP
		R208	0RH6800D622	MCR10EZHJ681 680OHM 5% 1/8W 2012 R/TP
		R209	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2012 R/TP
		R211	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W 3216 R/TP
		R301	0RD1001Q609	RDM94T1J1K00 1KOHM 5% 1/4W 3.2X1.8MM - AXIAL TA52
		R303	0RH0222D622	MCR10EZHJ220 22OHM 5% 1/8W 2012 R/TP
		R304	0RD1002Q609	RDM94T1J10K0 10KOHM 5% 1/4W 3.2X1.8MM - AXIAL TA52
		R309	0RN1502F409	RN-96T1F15K0 15KOHM 1% 1/6W 3.2X1.8MM 5.0MM AXIAL TA52
		R310	0RH1004D622	MCR10EZHJ105 1MOHM 5% 1/8W 2012 R/TP
		R311	0RH1502D422	MCR10EZHF1502 15KOHM 1% 1/8W 2012 R/TP
		R313	0RJ6202E472	MCR10EZHF 6202 62KOHM 1% 1/8W 2012 R/TP
		R315	0RH2001D622	MCR10EZHJ202 2KOHM 5% 1/8W 2012 R/TP
		R316	0RH2001D622	MCR10EZHJ202 2KOHM 5% 1/8W 2012 R/TP
		R317	0RJ3303E472	330000 OHM 1/8 W 1% 2012 R/TP

DATE: 2006-4-18

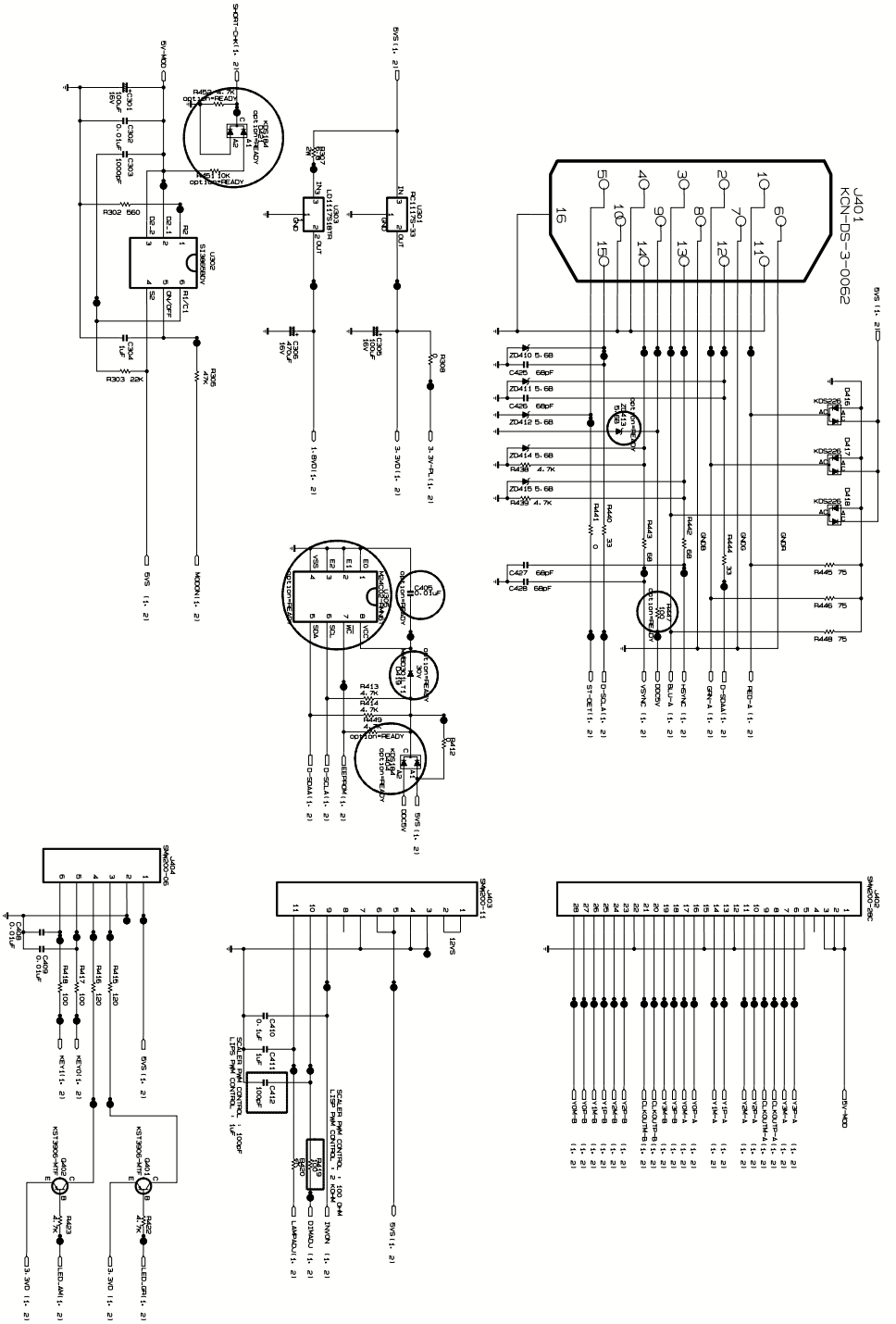
*S	*AL	LOC.NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R318	0RJ1503E472	MCR10EZHF1503 150KOHM 1% 1/8W 2012 R/TP
		R319	0RH1303D622	MCR10EZHJ134 130KOHM 5% 1/8W 2012 R/TP
		R320	0RH1502D422	MCR10EZHF1502 15KOHM 1% 1/8W 2012 R/TP
		R321	0RH1002D422	MCR10EZHF103 10KOHM 1% 1/8W 2012 R/TP
		R401	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W 3216 R/TP
		R402	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W 3216 R/TP
		R403	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W 3216 R/TP
		R404	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W 3216 R/TP
		R406	0RJ3600E472	MCR10EZHF361 360OHM 1% 1/8W 2012 R/TP
		R407	0RJ3600E472	MCR10EZHF361 360OHM 1% 1/8W 2012 R/TP
		R408	0RJ3600E472	MCR10EZHF361 360OHM 1% 1/8W 2012 R/TP
		R409	0RJ3600E472	MCR10EZHF361 360OHM 1% 1/8W 2012 R/TP
		TRANSFORMERs		
		T101	61709MC011A	EER3016 430uH 7.6uH 0.2OHM 0.012OHM
		T301	61709MC010A	NY0538FC EFD-2124 95uH 1.7H 80mOHM 1.144kOHM
		T302	61709MC010A	NY0538FC EFD-2124 95uH 1.7H 80mOHM 1.144kOHM
		OTHERs		
		SC101	6620K00020A	SA-4S-320 ANGLE DIP BK AC 10.0A 250.0V UL/CSA L1752 LIPS
		TH101	6322A00035A	10D2-07 10OHM 15% 275V 2.3A 2.8KK FORMING BK
		F101	0FZZTTH001E	0215 3.15MXE CERAMIC 250V 3150MA SEMKO/VDE/UL/CSA/CCCE TUBE BK
		FB101	6210TCE003G	BRS3550T0 55TO100OHM 7.25X3.5X7.5MM RADIAL TP
		HS4	4920900032A	PLATE 20.5 *10.5 *12.0
		LF101	6200J000154	13.0*710*23680 20MH 13X10X23mM SM100 SQ 2014 RADIAL BK
		PG1	302-987A	PRESS SPTE-C T0.3 INTERFACE -
		PG2	302-987A	PRESS SPTE-C T0.3 INTERFACE -
		Q101	0TF760000AD	SSS7N60B N-CHANNEL MOSFET 600V +-30V 7A 1.2OHM 48W TO220F ST 3P

SCHEMATIC DIAGRAM

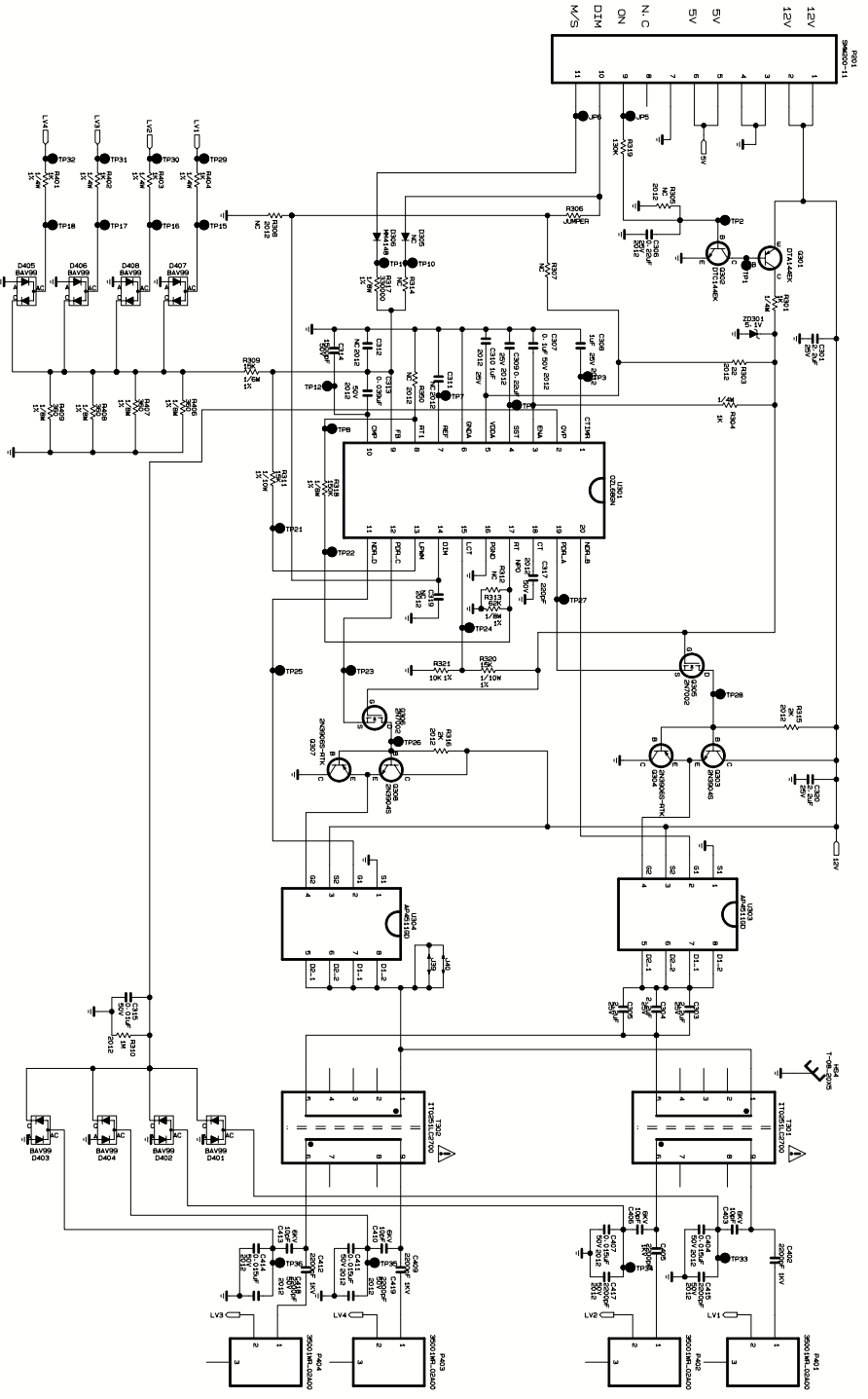
1. SCALER



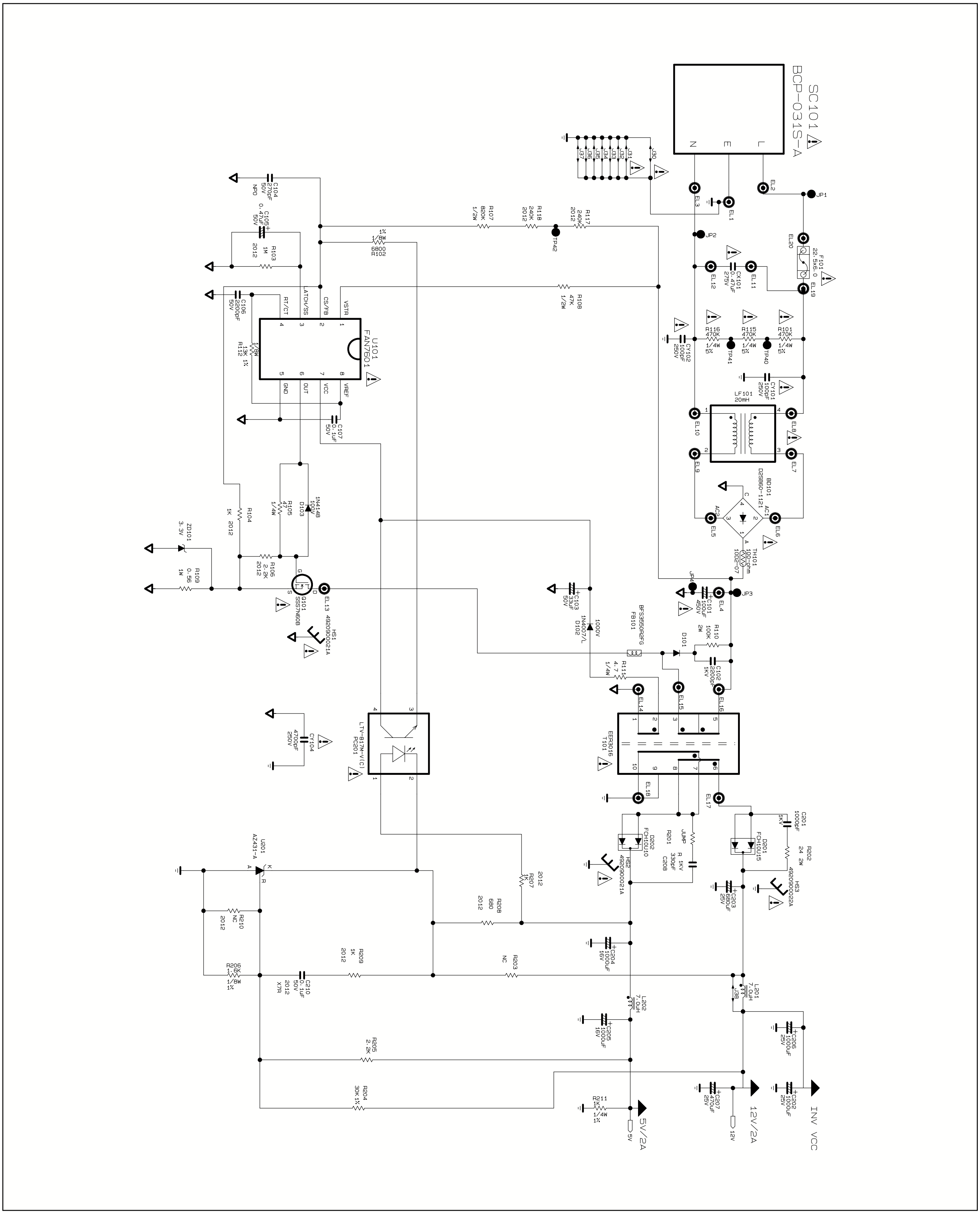
2. POWER & WAFER



3. INVERTER



4. POWER


SC101
BCP-031S-A
U101
FAN7601
VSTR
CS/FB
LATCH/SS
RT/CT
VREF
VCC
OUT
GND
LF101
20mH
BD101
D2SB60-1121
TH101
T101
EER3016
LTV-817M-V(C)
PC201
U201
AZ431-A
Q101
SSS7N60B
D201
FCH10U15
D202
FCH10U10
L201
L202
5V/2A
12V/2A
INV VCC

P/NO : 38289S0002M

Jan. 2006
Printed in Korea