



Website: <http://biz.LGservice.com>
E-mail: <http://www.LGService.com/techsup.html>

COLOR MONITOR

SERVICE MANUAL

CHASSIS NO. : LM57D

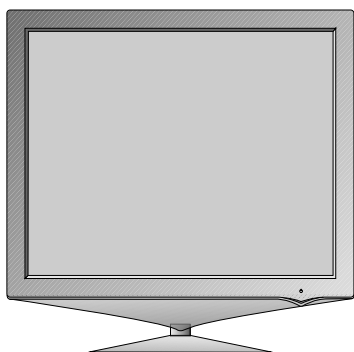
MODEL: FLATRON L1760TR (L1760TR-BFQ.A**XQP, A**MQP)

FLATRON L1960TR (L1960TR-BFQ.A**XQP, A**MQP)

() **Same model for Service

CAUTION

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



CONTENTS

| | | | |
|------------------------------------|----|------------------------------|----|
| SPECIFICATIONS | 2 | SERVICE OSD | 13 |
| PRECAUTIONS | 3 | TROUBLESHOOTING GUIDE | 14 |
| TIMING CHART | 7 | WIRING DIAGRAM | 18 |
| DISASSEMBLY | 8 | EXPLODED VIEW | 19 |
| BLOCK DIAGRAM | 9 | REPLACEMENT PARTS LIST | 21 |
| DISCRIPTION OF BLOCK DIAGRAM | 10 | SCHEMATIC DIAGRAM | 24 |
| ADJUSTMENT | 12 | | |

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type : TFT Color LCD Module
Active Display Area : 17 inch - **L1760TR**
: 19 inch - **L1960TR**
Pixel Pitch : 0.264 (H) x 0.264 (V) - **L1760TR**
: 0.294 (H) x 0.294 (V) - **L1960TR**
Color Depth : 16.2M colors
Size : 358.5 (H) x 296.5 (V) x 17(D) - **L1760TR**
: 396 (H) x 324 (V) x 16.5(D) - **L1960TR**
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

L1760TR

Left : -70° min., -80°(Typ) Right : +70° min., +80°(Typ)
Top : +60° min., +75°(Typ) Bottom : -70° min., -85°(Typ)

L1960TR

Left : -75° min., -88°(Typ) Right : +75° min., +88°(Typ)
Top : +70° min., +85°(Typ) Bottom : -70° min., -85°(Typ)

2-2. Luminance : 180(Typ) ± 30 -**sRGB**
: 200(min), 250(Typ)-**6500K**
: 150(min), 200(Typ)-**9300K**

2-3. Contrast Ratio : 500(min), 700(Typ)-**L1760TR**
450(min), 700(Typ)-**L1960TR**
2000 (DFCapplied)

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal

- Type : Separate Sync, Digital, SOG, Composite sync

3-2. Video Input Signal

- Type : R, G, B Analog
- Voltage Level : 0~0.71 V
 - Color 0, 0 : 0 Vp-p
 - Color 7, 0 : 0.467Vp-p
 - Color 15, 0 : 0.714Vp-p
- Input Impedance : 75 Ω

3-3. Operating Frequency

Horizontal(Analog) : 30 ~ 83kHz
Horizontal(Digital) : 30 ~ 71kHz
Vertical : 56 ~ 75Hz

4. Max. Resolution

D-sub Analog : 1280 x 1024@75Hz
Digital : 1280 x 1024@60Hz

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 | 30 W(typ), 35W(max) - L1760TR | BLUE |
| | | | 35 W(typ), 39W(max) - L1960TR | |
| 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)

L1760TR

Width : 393 mm (15.47")
Depth : 84 mm (3.31")
Height : 380 mm (11.02")

L1960TR

Width : 430 mm (16.93")
Depth : 87 mm (3.43")
Height : 417 mm (16.42")

8. WEIGHT (with TILT/SWIVEL)

L1760TR


Net. Weight : 3.7 kg (8.16 lbs)
Gross Weight : 6.05 kg (13.34 lbs)

L1960TR

Net. Weight : 4.6 kg (10.14 lbs)
Gross Weight : 6.7 kg (14.77 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

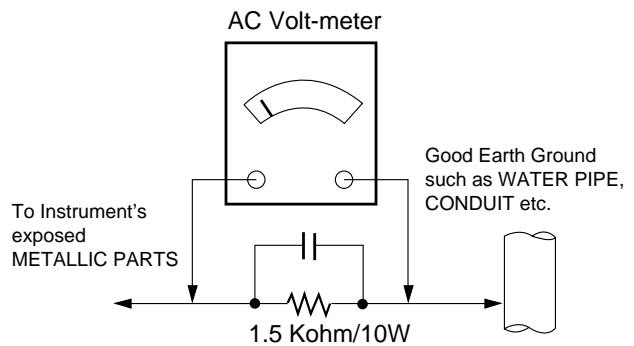
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

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 is 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 of 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 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 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.

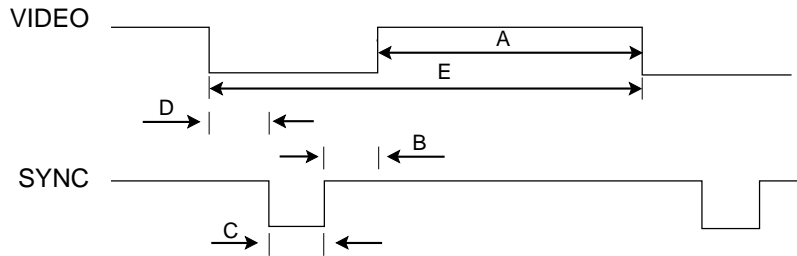
Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.

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.

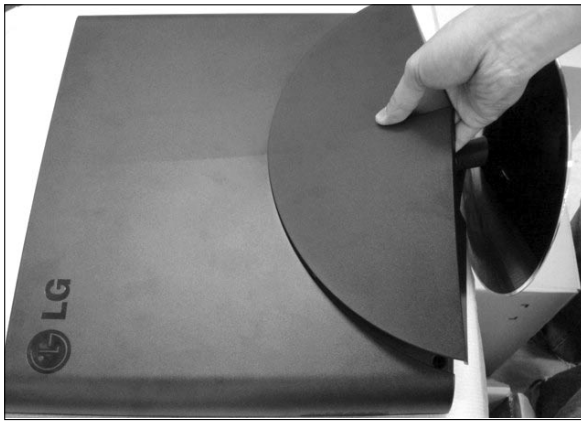
TIMING CHART



| 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 | |

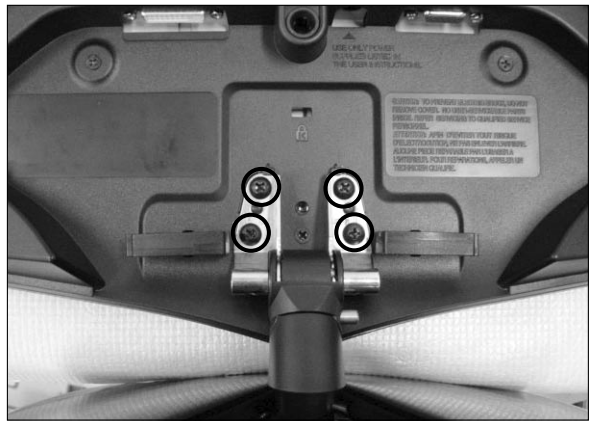
DISASSEMBLY

1



Disassemble Rear Cover.

2



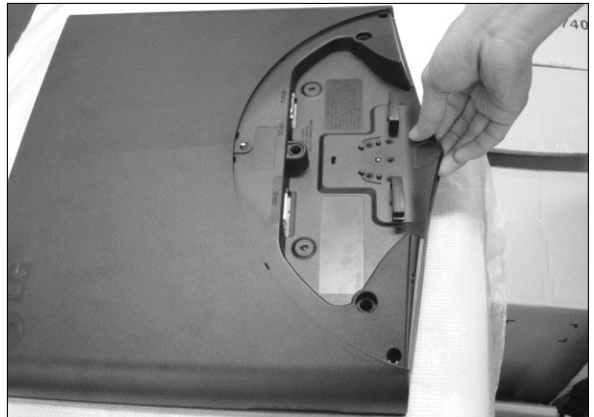
Remove the screws.

3



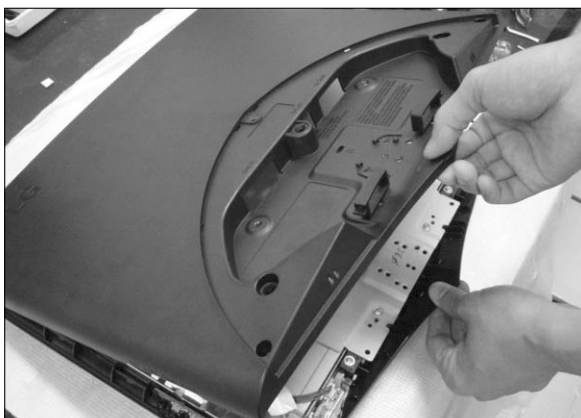
Remove the screws.

4-1



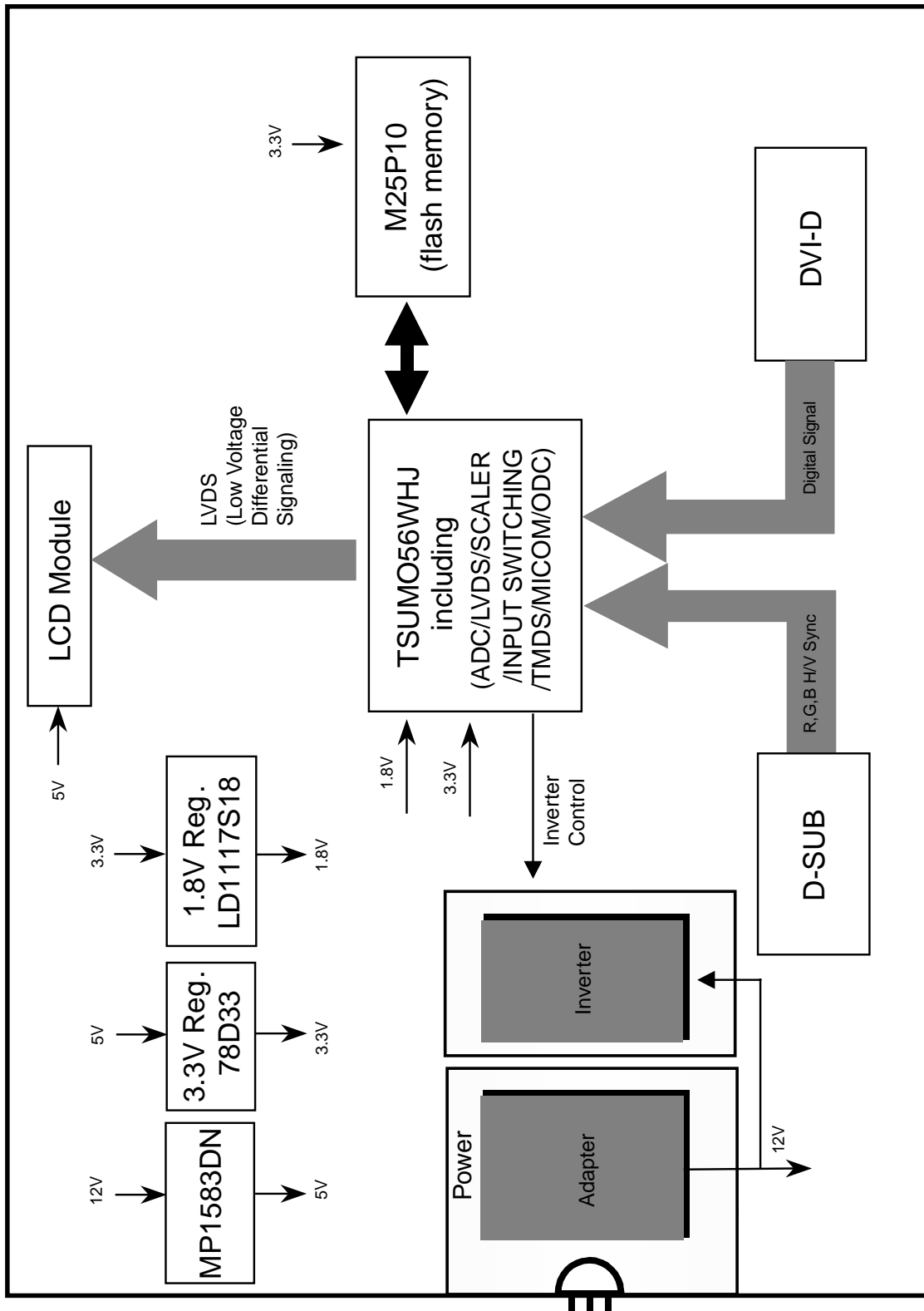
Disassembly the like a picture.

4-2



Disassembly the like a picture.

BLOCK DIAGRAM



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 and TMDS receiver .

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 3.3V regulator to convert power which is provided 12V,

5V in Power board and Micom

5V is provided for LCD panel.

Also, 5V is converted 3.3V by regulator and 3.3V is converted 1.8V by regulator.

Converted power is provided for IC in the main board.

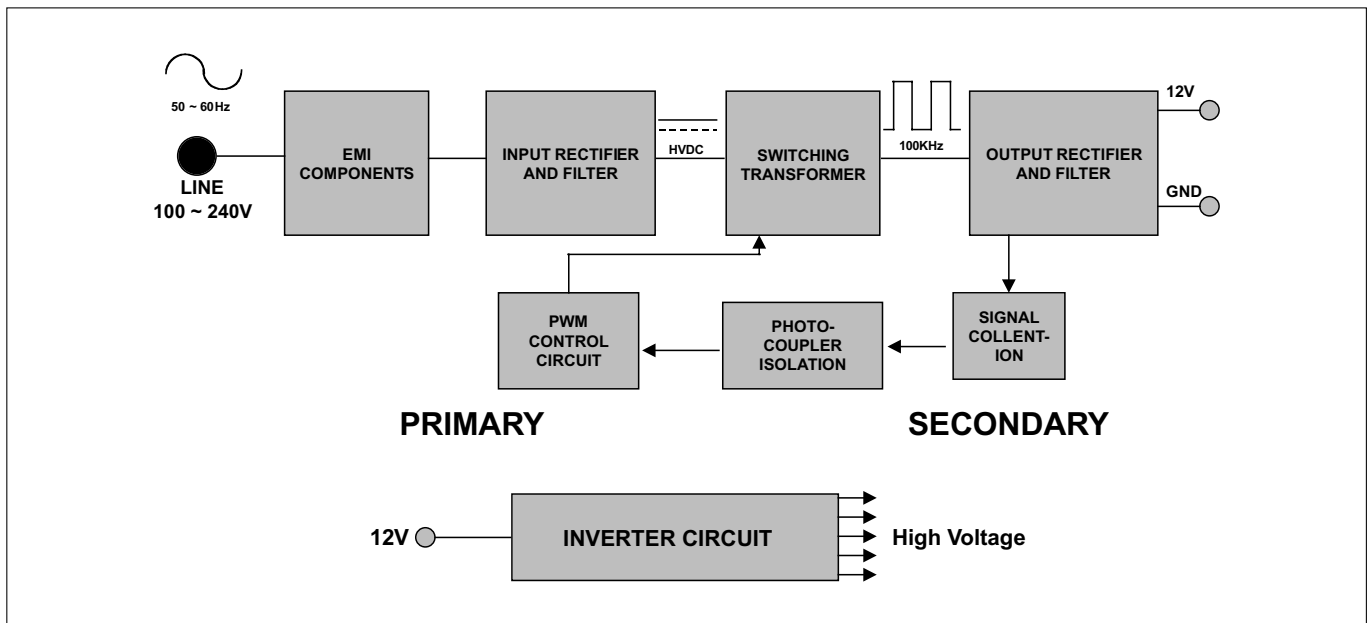
3. MICOM Part.

This part consists of EEPROM IC which stores control data 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, 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

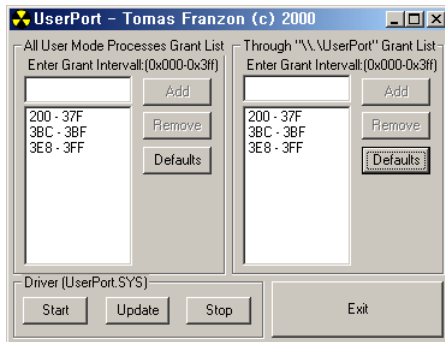
Port Setup: Windows 98 => Don't need setup

Windows 2000, XP => Need to Port Setup.

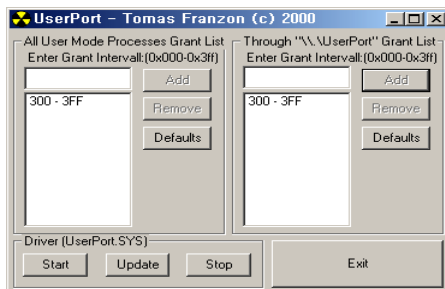
This program is available to LCD Monitor only.

1. Port Setup

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



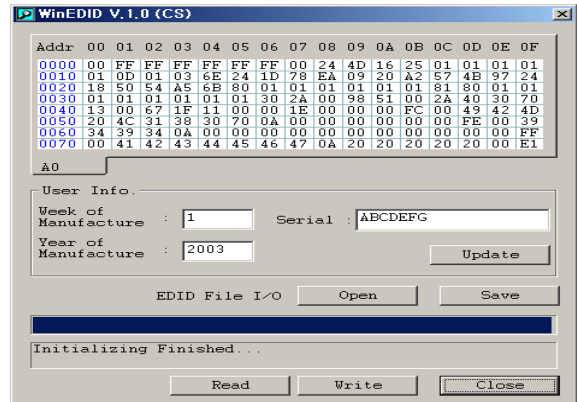
- c) Remove all default number
- d) Add 300-3FF



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

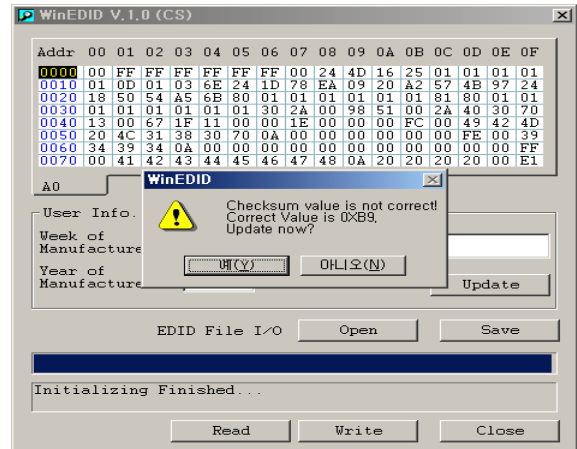
2. EDID Read & Write

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.

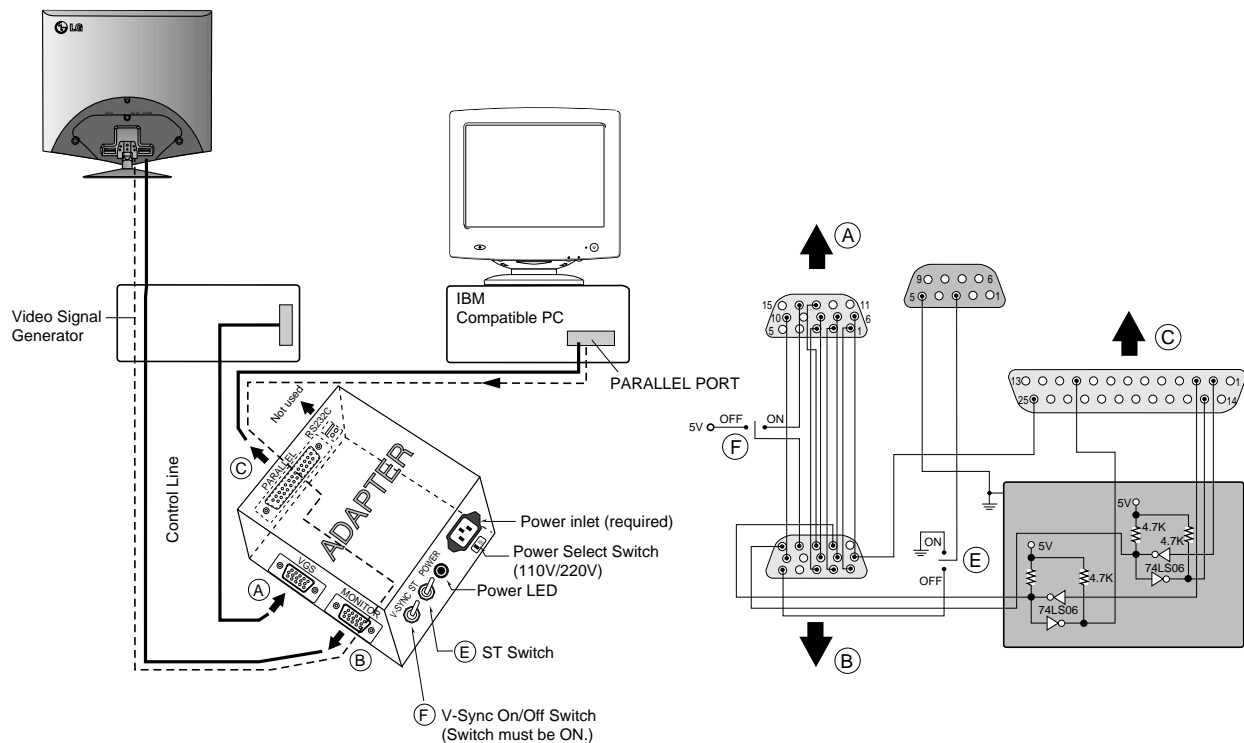
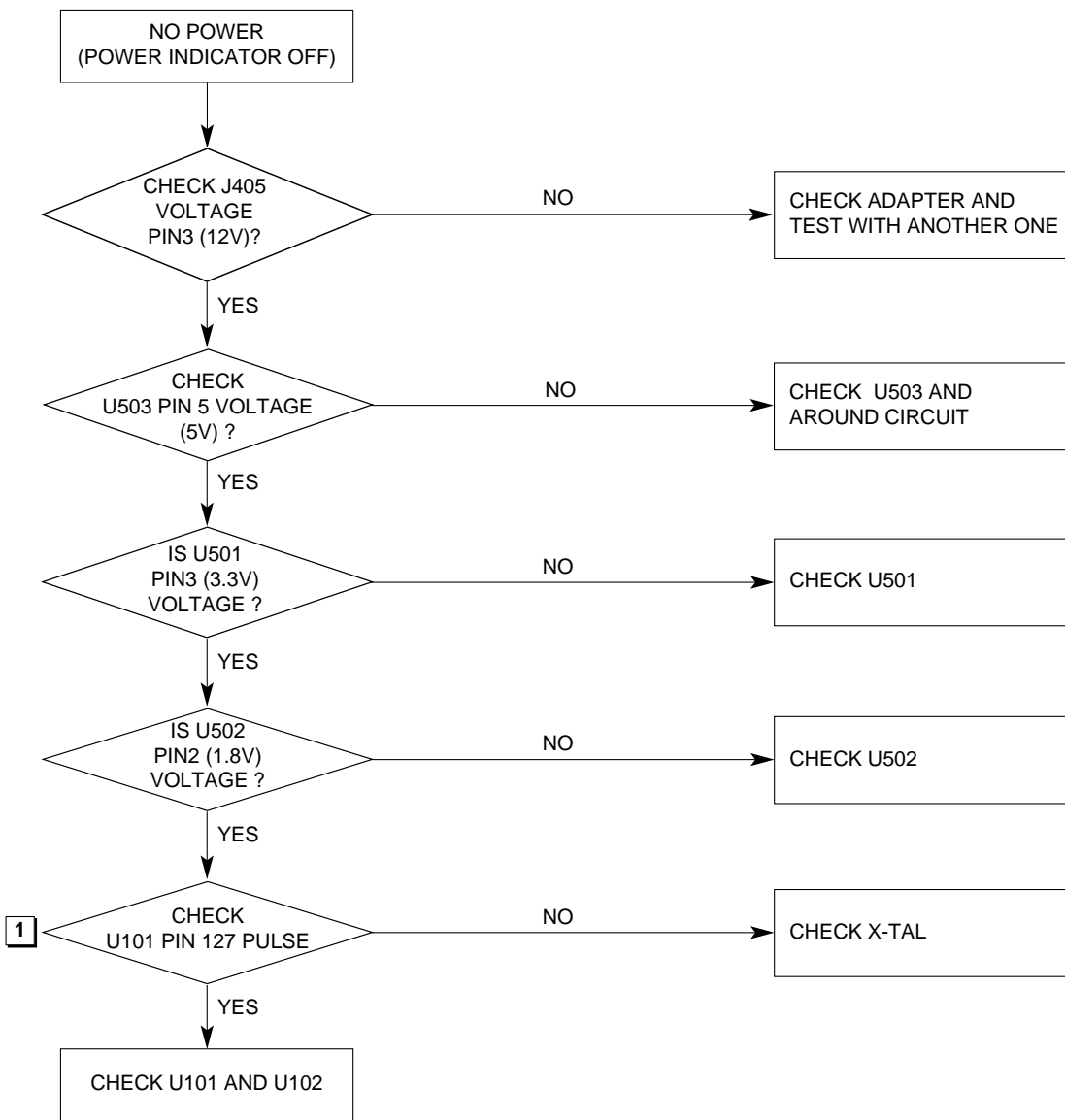


Figure 1. Cable Connection

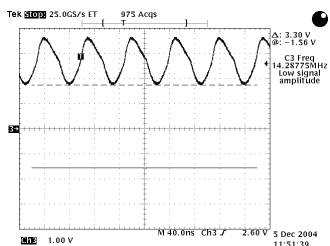
TROUBLESHOOTING GUIDE

1. NO POWER

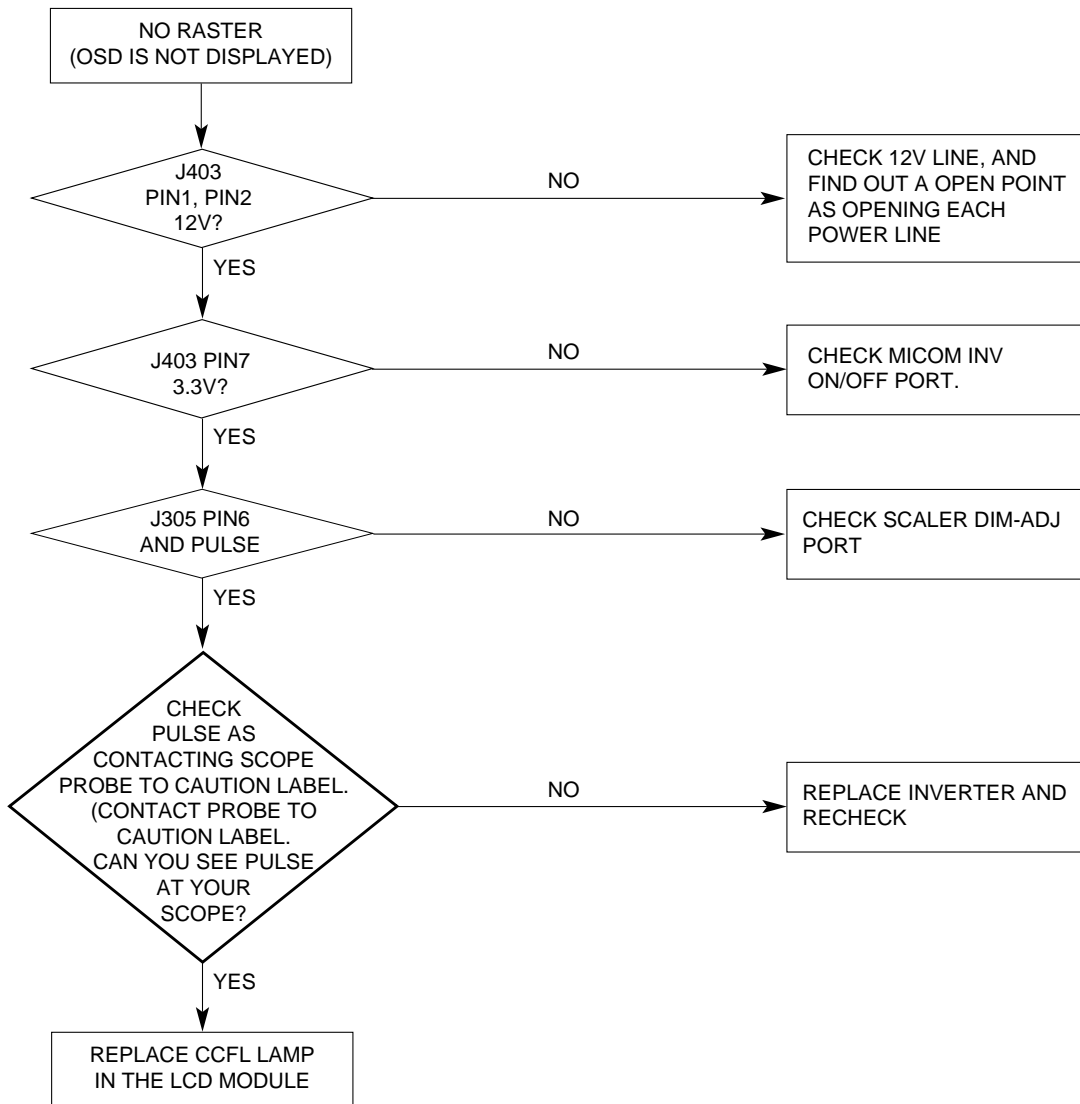


Waveforms

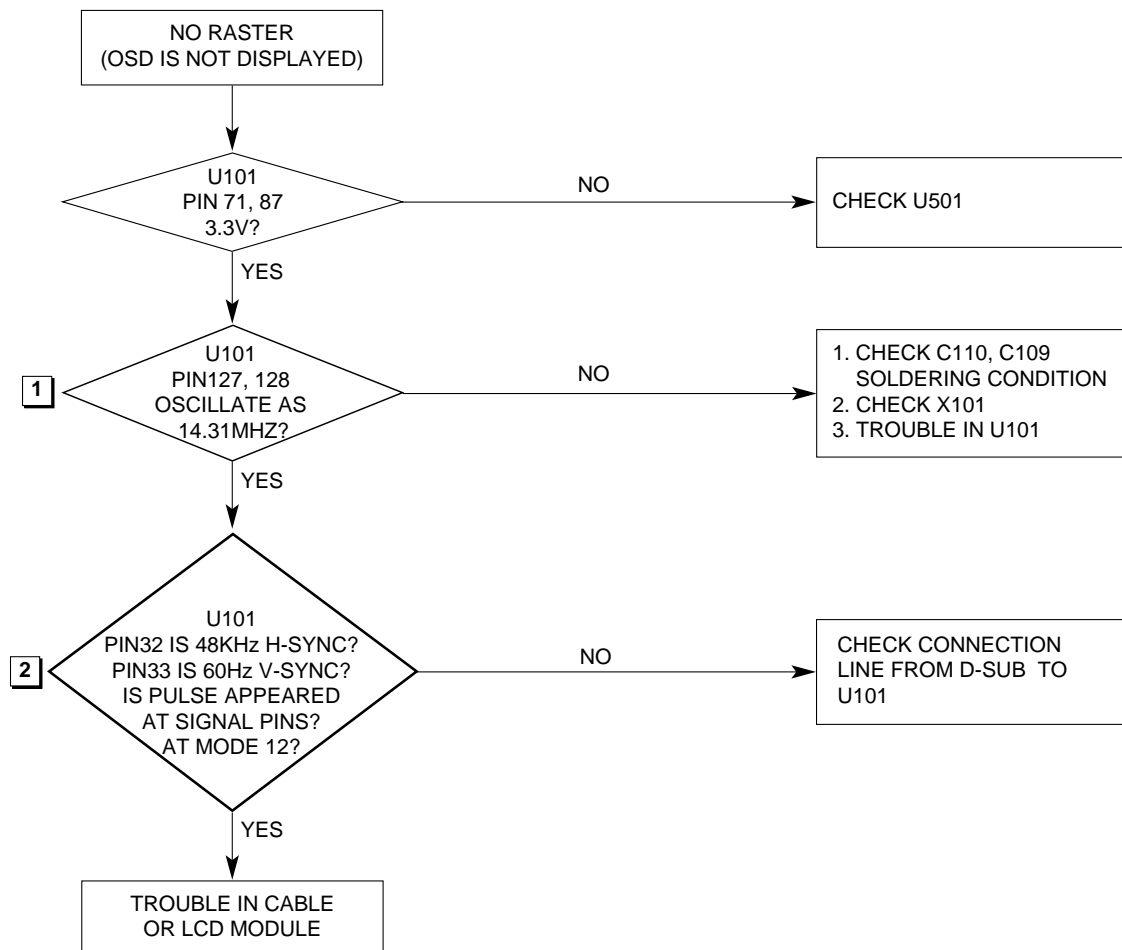
1 U101-#127



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

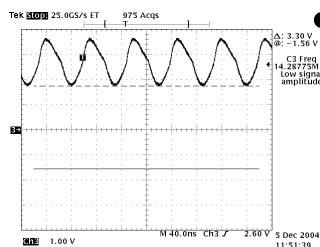


3. NO RASTER (OSD IS NOT DISPLAYED) – MSTAR

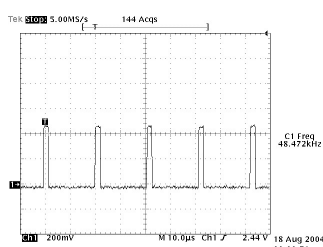


Waveforms

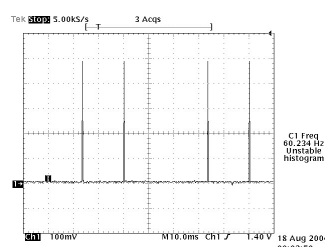
1 U101-#127, 128



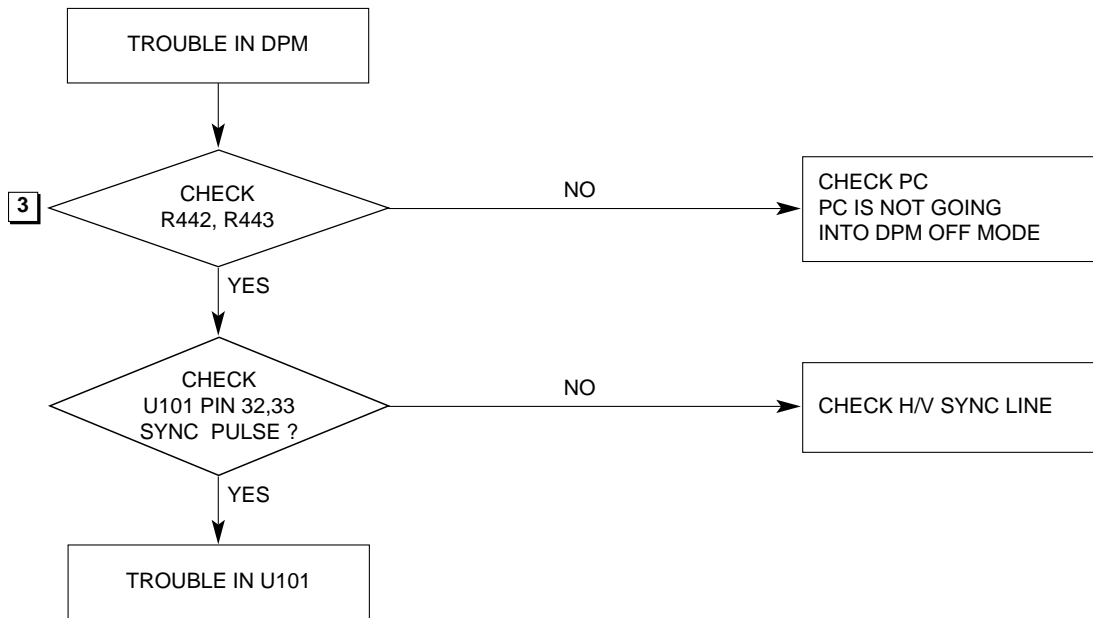
2 U101-#32 H-SYNC



2 U101-#33 V-SYNC

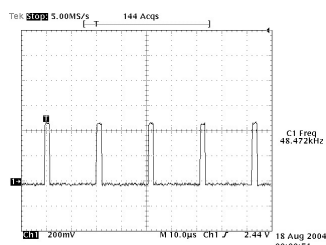


4. TROUBLE IN DPM

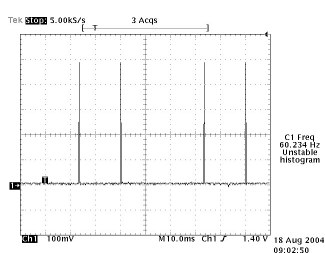


Waveforms

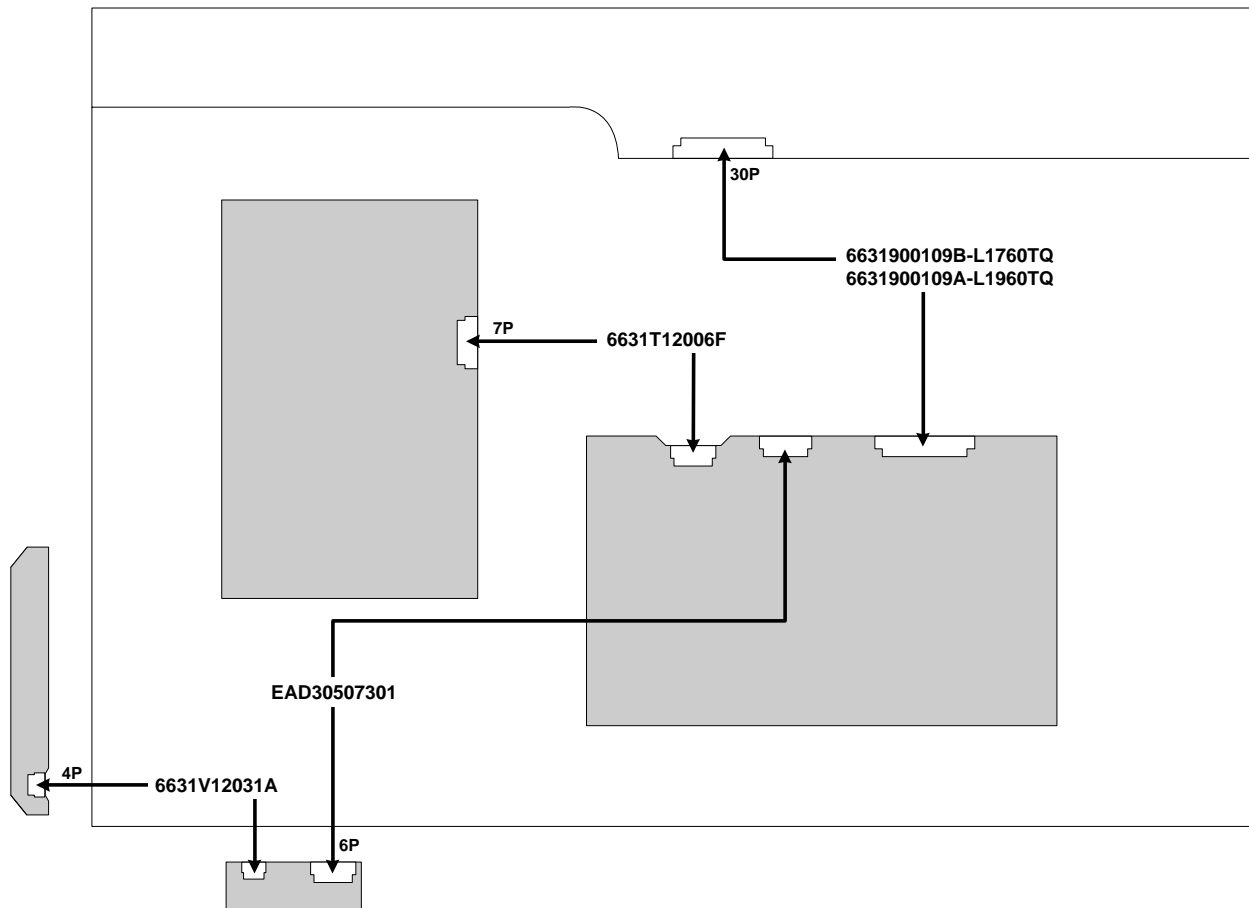
3 R442 H-Sync



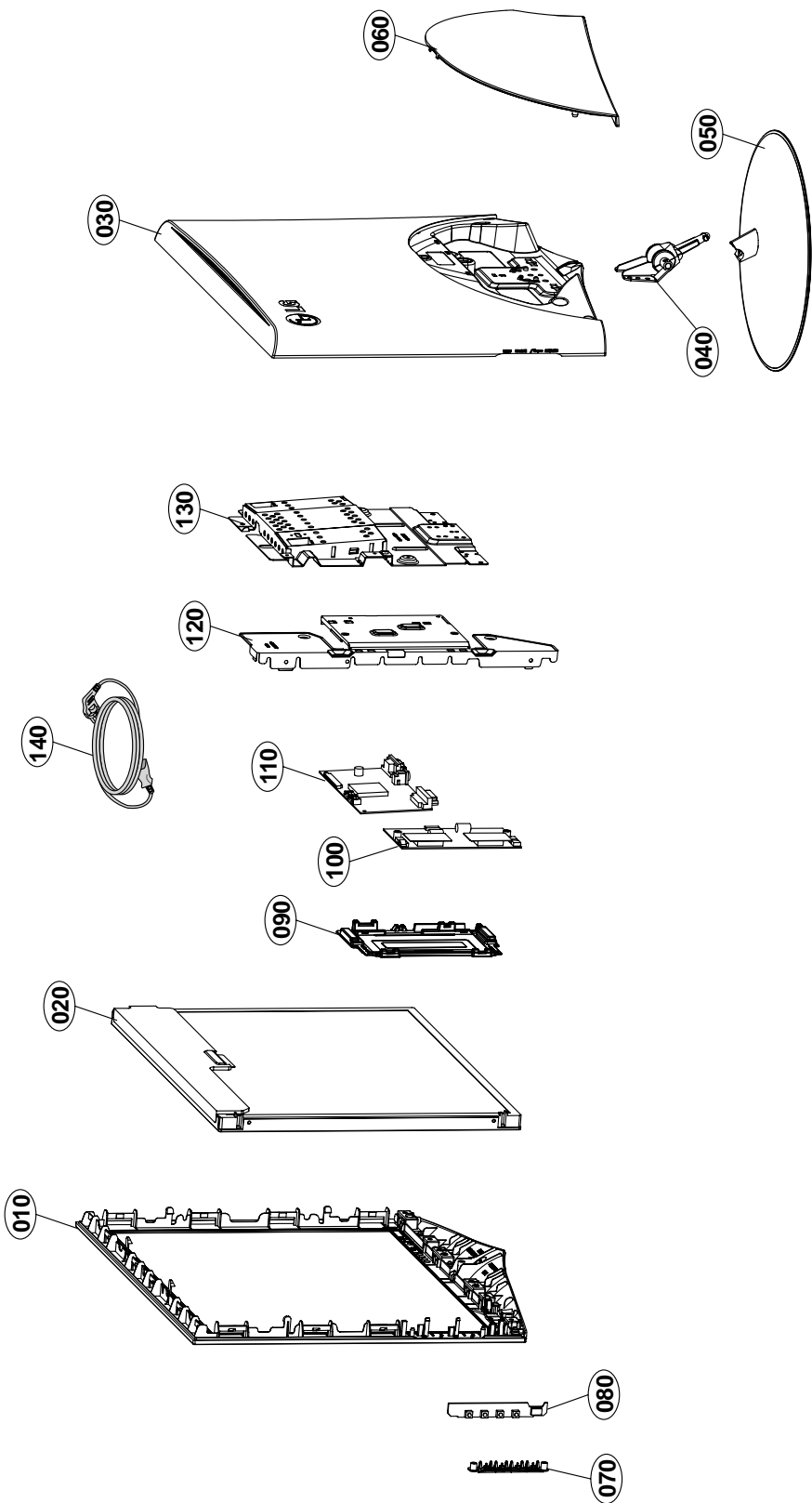
3 R443 V-Sync



WIRING DIAGRAM




EXPLODED VIEW



EXPLODED VIEW PARTS LIST

* Note: Safety mark 

| Ref. No. | | Part No. | Description |
|----------|---|----------------|--|
| 010 |  | 30919L0031E | Cover Assembly, L1760 . 17" L1760TR |
| | | 30919L0031F | Cover Assembly, L1760 . 17" L1760 "E"- CKD |
| | | 30919L0032D | Cover Assembly, L1960TR LM57D 19" L1960TR CABINET |
| | | 30919L0032H | Cover Assembly, L1960 LM57D 19" L1960TR D- CKD |
| 020 |  | EAJ32188801 | LCD,Module-TFT, LM170E03-TLB3 DRIVER 17.0INCH 1280X1024 300CD COLOR 72% 5/4 800 VS 1 5MS, 160/160, 4LAMP, 2CH-LVDS |
| | | EAJ32188901 | LCD,Module-TFT, LM190E08-TLB5 DRIVER 19INCH 1280X1024 300CD COLOR 72% 5/4 800 : 1 P4 FACTORY 5MS, 2CH-LVDS, 160/160, 4LAMP |
| | | or EAJ32189001 | LCD,Module-TFT, LM190E08-TLB2 DRIVER 19.0INCH 1280X1024 300CD COLOR 72% 5/4 800:1 P7 FACTORY 5MS, 160/160, 2CH-LVDS, 4LAMP |
| 030 |  | 3809900209A | Cover Assembly, L1760 LM57C 17" BC ASSEMBLY |
| | | 3809900209B | Cover Assembly, L1760 . 17" L1760 BACK COVER CKD |
| | | 3809900210G | Cover Assembly, L1960TR LM57D 19" L1960TR 2MS LPL |
| | | 3809900210L | Cover Assembly, L1960TR LM57D 19" L1960TR G- CKD |
| 040 |  | 3043900054A | Base Assembly, L1760, L1960 . BASE TOP ASSY |
| | | 3043900054B | Base Assembly, ASSY L1760, L1960 LM57D L1760, L1960 STAND BASE TOP ASSY(CKD) |
| 050 |  | 3043900055A | Base Assembly, L1760, L1960 . BASE BOTTOM ASSY |
| | | 3043900055B | Base Assembly, ASSY L1760, L1960 LM57D L1760, L1960 BASE BOTTOM ASSY(CKD) |
| 060 | | 35509K0301A | Cover, L1760 TOP REAR DOOR |
| | | 35509K0301B | Cover, MOLD ABS HF-350 L1760 ABS L1760 DOOR(CKD) |
| | | 35509K0302A | Cover, L1960 TOP REAR DOOR |
| | | 35509K0302B | Cover, MOLD ABS HF-350 L1960 ABS L1960 DOOR(CKD) |
| 070 | | 4940900029A | Knob, MAIN 4KEY L1760 . |
| | | 4940900029B | Knob, MOLD ABS HF-350 SUB 4KEY L1760, L1960 .- CKD |
| 080 | | 68719STA70A | PCB Assembly,Sub, SUB T.T LM57C L1X60T AXRDQP - |
| | | 68719STA70B | PCB Assembly,Sub, SUB T.T LM57D L1x60TQ KxxxQPN NT CKD |
| 090 | | 35509K0310A | Cover, L1760 PANEL INVERTER VACUUM |
| | | 35509K0310B | Cover, MOLD PS L1760,L1960 HIPS L1760, L1960 INVERTER VACUUM(CKD) |
| 100 |  | 6633TZA019E | Inverter,DC/AC, FIF1742-50A 12.0TO12.0 800V 7MA 2 YES - L1760TR |
| | | or 6633TZA019F | Inverter,DC/AC, FIF1742-50A_PWM 11.4VTO12.6V,11.4VTO12.6V,11.4VTO12.6V 800V 7MA 2 YES Bin3/4 FRONTEK- L1760TR |
| | | 66339A0020A | Inverter,DC/AC, FIF1742-50B 11.5VTO12.5V,11.5VTO12.5V,11.5VTO12.5V 800V 7.3A 4 YES PWM DIMMING 19INCH PB FREE- L1960TR |
| | | or 66339A0020C | Inverter,DC/AC, FIF1742-50B_PWM 11.5VTO12.5V,11.5VTO12.5V,11.5VTO12.5V 800V 7.3A 4 YES PWM DIMMING 19INCH PB FREE Bin3/4 FRONTEK- L1960TR |
| 110 | | EBU31069501 | Main Total Assembly, L1760TQ-BFQ BRAND LM57D |
| | | EBU31069502 | Main Total Assembly, L1760TQ-BFQ BRAND LM57D NT CKD |
| | | 33139L7044A | Main Total Assembly, L1960TQ BRAND LM57D |
| | | 33139L7044B | Main Total Assembly, L1960TQ BRAND LM57D NT CKD |
| 120 | | 49509S0039A | Plate, SHIELD INVERTER LX60.- L1760TR |
| | | 49509S0039B | Plate, PRESS SPTE 0.5 SHIELD SPC L1760 INVERTER SHIELD(CKD) |
| | | 49509S0041A | Plate, SHIELD INVERTER L1960 |
| | | 49509S0041B | Plate, PRESS SPTE 0.3 SHIELD SPC L1960 INVERTER SHIELD(CKD) |
| 130 | | 49519S0043A | Plate Assembly, FRAME METAL BRACKET |
| | | 49519S0043B | Plate Assembly, ASSY L1760, L1960 METAL BRACKET ASSY(CKD) |
| 140 | | 6410TEW010A | Power Cord, CEE,LP-34A&H05VV-FX3C,LS-60_1.87M_BLK LP-34A LS-60 1.87M - 250V 16A H05VV-F 3X0.75MM2 BLACK VDE SEMKO N LONGWELL COMPANY-For Europe |
| | | EAD30470701 | Power Cord, LP-42 LS-60 1.87M NONE 250V 10A H05VV-F 0.75MMX3C BLACK SII N LONGWELL-For Israel |

REPLACEMENT PARTS LIST

CAUTION: BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THE **SAFETY PRECAUTIONS** IN THIS MANUAL.

* NOTE : **S** SAFETY Mark 
AL ALTERNATIVE PARTS

| DATE: 2006. 10. 16. | | | | |
|---------------------|-----|----------|-------------|-------------------------------|
| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
| MAIN BOARD | | | | |
| CAPACITORS | | | | |
| | | C101 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C102 | 0CC102CK41A | C1608C0G1H102JT 1nF 5% 50V C |
| | | C103 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C104 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C105 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C106 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C107 | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V |
| | | C108 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C109 | 0CC270CK41A | C1608C0G1H270JT 27pF 5% 50V |
| | | C110 | 0CC270CK41A | C1608C0G1H270JT 27pF 5% 50V |
| | | C111 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C112 | 0CE106WFKDC | MVK4.0TP16VC100M 10uF 20% 16V |
| | | C113 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C114 | 0CK224CF56A | 0603B224K160CT 220nF 10% 16V |
| | | C115 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C116 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C118 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C119 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C120 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C121 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C122 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C123 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C124 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C125 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C126 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C127 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C128 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C129 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C130 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C131 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C132 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C133 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C134 | 0CK104CF56A | 0603B104K160CT 100nF 10% 16V |
| | | C135 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C137 | 0CK103CK51A | 0603B103K500CT 10nF 10% 50V |
| | | C138 | 0CK103CK51A | 0603B103K500CT 10nF 10% 50V |
| | | C401 | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 1 |
| | | C402 | 0CK103CK51A | 0603B103K500CT 10nF 10% 50V |
| | | C403 | 0CC102CK41A | C1608C0G1H102JT 1nF 5% 50V C |
| | | C404 | 0CK105CD56A | C1608X7R1A105KT 1uF 10% 10V |
| | | C405 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C406 | 0CC101CK41A | C1608C0G1H101JT 100pF 5% 50V |
| | | C410 | 0CK103CK51A | 0603B103K500CT 10nF 10% 50V |
| | | C413 | 0CC101CK41A | C1608C0G1H101JT 100pF 5% 50V |
| | | C414 | 0CC101CK41A | C1608C0G1H101JT 100pF 5% 50V |
| | | C415 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C416 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C417 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C418 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C419 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C420 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C421 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |

| DATE: 2006. 10. 16. | | | | |
|---------------------|-----|----------|-------------|------------------------------|
| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
| | | C422 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C423 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C424 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C425 | 0CC680CK41A | C1608C0G1H680JT 68pF 5% 50V |
| | | C426 | 0CC680CK41A | C1608C0G1H680JT 68pF 5% 50V |
| | | C427 | 0CC680CK41A | C1608C0G1H680JT 68pF 5% 50V |
| | | C428 | 0CC680CK41A | C1608C0G1H680JT 68pF 5% 50V |
| | | C429 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C430 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C431 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C501 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C502 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C503 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C504 | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 1 |
| | | C505 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C506 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C507 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C508 | 0CK103CK51A | 0603B103K500CT 10nF 10% 50V |
| | | C509 | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 1 |
| | | C510 | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 1 |
| | | C511 | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 1 |
| | | C512 | 0CK103CK51A | 0603B103K500CT 10nF 10% 50V |
| | | C513 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C514 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C515 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C516 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C517 | 0CC101CK41A | C1608C0G1H101JT 100pF 5% 50V |
| | | C518 | 0CK102CK56A | 0603B102K500CT 1nF 10% 50V X |
| | | C519 | 0CK102CK56A | 0603B102K500CT 1nF 10% 50V X |
| | | C520 | 0CK102CK56A | 0603B102K500CT 1nF 10% 50V X |
| | | C521 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C522 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C523 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C524 | 0CE107EF610 | KMG16VB100M 100uF 20% 16V 12 |
| | | C525 | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 1 |
| DIODES | | | | |
| | | D404 | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - |
| | | D405 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D406 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D407 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D408 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D409 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D410 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D411 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D412 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D413 | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - |
| | | D416 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D417 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D418 | 0DSIH00018A | ENKMC2837-T112 1.2V 85V 300M |
| | | D419 | 0DSON00138A | MMBD301LT1G 600MV 30V -- 1. |
| | | D420 | 0DSON00138A | MMBD301LT1G 600MV 30V -- 1. |
| | | D501 | 0DRON00268A | MBRS190T3G 750MV 90V 2A -- |

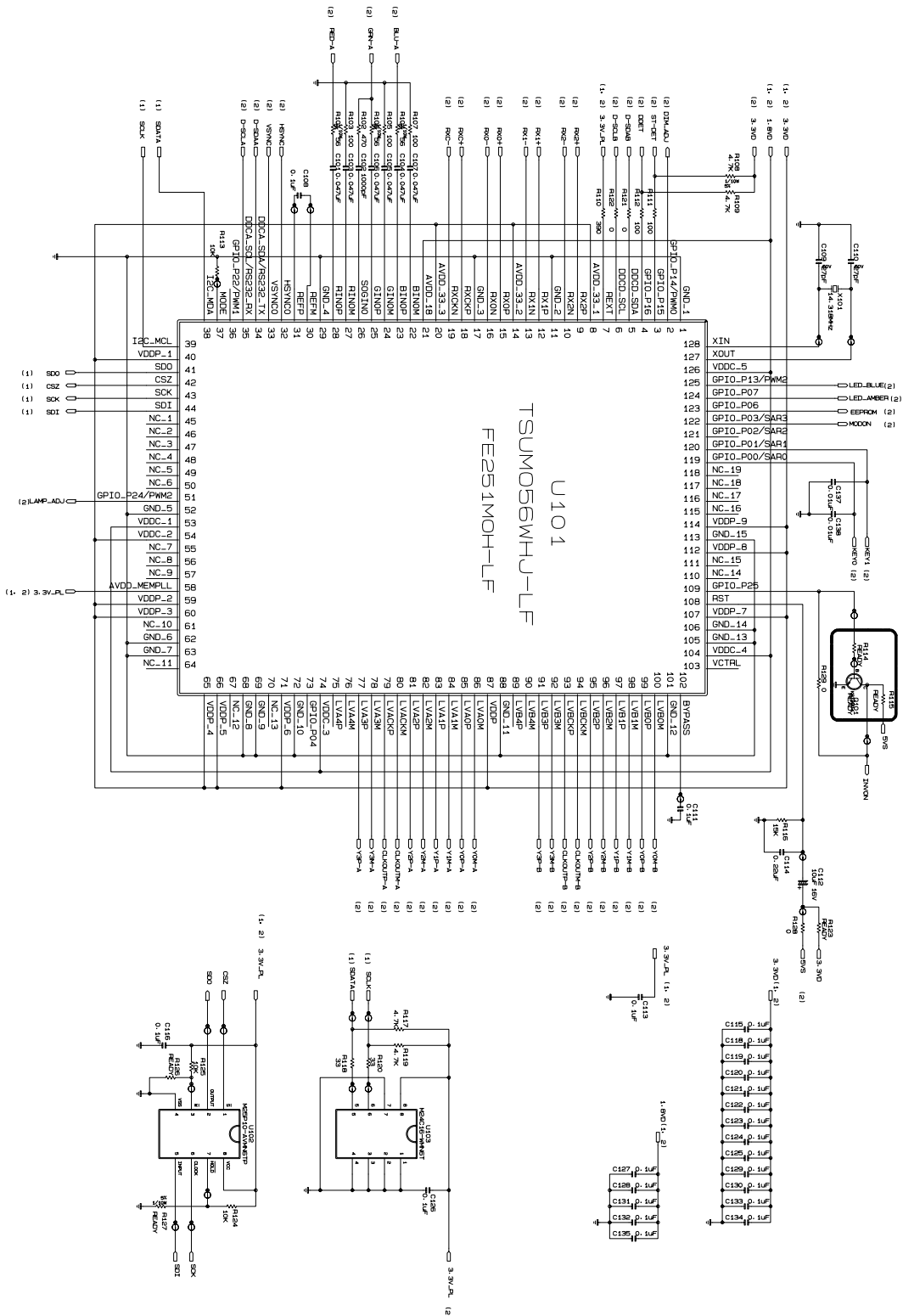
| DATE: 2006. 10. 16. | | | | |
|---------------------|-----|----------|-------------|-------------------------------|
| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
| | | ZD406 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD407 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD409 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD410 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD411 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD412 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD414 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| | | ZD415 | 0DZ560009GB | BZT52C5V6S-(F) 5.6V 5.2TO6V |
| ICs | | | | |
| | | U101 | 0IPRP00784A | FE251MOH-LF(TSUMO56WHJ-LF) 3 |
| | | U102 | 0IZZ9H9039A | AT25F2048 0IMMR00004B SST SO |
| | | U103 | 0IMMRSG036B | M24C16-WMN6TP 16KBIT 2KX8BIT |
| | | U402 | 0IMMRAL014D | AT24C02BN-10SU-1.8 2KBIT 256 |
| | | U403 | 0IMMRAL014D | AT24C02BN-10SU-1.8 2KBIT 256 |
| | | U501 | 0IPMGKE011A | KIA78D33F 4TO10V 3.3V 1.3W D |
| | | U502 | 0IPMGSG019A | LD1117S18TR 3.3TO8V 1.8V 12W |
| | | U503 | 0IMCRMZ001A | "MP1583DN-Z,LF 4.75TO23V 21V" |
| FILTERS & INDUCTORS | | | | |
| | | L401 | 6210TCE001S | HU-1M2012-121 120OHM 2X1.25X |
| | | L502 | 0LCML00003B | MLB-201209-0120P-N2 120OHM 2 |
| | | L503 | 0LCML00003B | MLB-201209-0120P-N2 120OHM 2 |
| | | L504 | 0LCML00003B | MLB-201209-0120P-N2 120OHM 2 |
| | | L501 | 6140TBZ048A | SLF10145T-150M2R2 15UH 20% - |
| RESISTORS | | | | |
| | | R101 | 0RJ0562D677 | MCR03EZPJ560 56OHM 5% 1/10W |
| | | R102 | 0RJ4700D677 | MCR03EZPJ471 470OHM 5% 1/10W |
| | | R103 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R104 | 0RJ0562D677 | MCR03EZPJ560 56OHM 5% 1/10W |
| | | R105 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R106 | 0RJ0562D677 | MCR03EZPJ560 56OHM 5% 1/10W |
| | | R107 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R108 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R109 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R110 | 0RJ3900D677 | MCR03EZPJ391 390OHM 5% 1/10W |
| | | R111 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R112 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R113 | 0RJ1002D677 | MCR03EZPJ103 10KOHM 5% 1/10W |
| | | R116 | 0RJ1502D677 | MCR03EZPJ153 15KOHM 5% 1/10W |
| | | R117 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R118 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R119 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R120 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R121 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R122 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R124 | 0RJ1002D677 | MCR03EZPJ103 10KOHM 5% 1/10W |
| | | R125 | 0RJ1002D677 | MCR03EZPJ103 10KOHM 5% 1/10W |
| | | R128 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R129 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R401 | 0RJ5600D677 | MCR03EZPJ561 560OHM 5% 1/10W |
| | | R402 | 0RJ2202D677 | MCR03EZPJ223 22KOHM 5% 1/10W |
| | | R403 | 0RJ2702D677 | MCR03EZPJ273 27KOHM 5% 1/10W |
| | | R404 | 0RJ1002D677 | MCR03EZPJ103 10KOHM 5% 1/10W |
| | | R407 | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W |
| | | R408 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R413 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R414 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |

| DATE: 2006. 10. 16. | | | | |
|---------------------|-----|----------|-------------|------------------------------|
| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
| | | R415 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R416 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R417 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R418 | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W |
| | | R424 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R425 | 0RJ0102D677 | MCR03EZPJ100 100OHM 5% 1/10W |
| | | R426 | 0RJ0102D677 | MCR03EZPJ100 100OHM 5% 1/10W |
| | | R427 | 0RJ0102D677 | MCR03EZPJ100 100OHM 5% 1/10W |
| | | R428 | 0RJ0102D677 | MCR03EZPJ100 100OHM 5% 1/10W |
| | | R429 | 0RJ0102D677 | MCR03EZPJ100 100OHM 5% 1/10W |
| | | R430 | 0RJ0102D677 | MCR03EZPJ100 100OHM 5% 1/10W |
| | | R431 | 0RJ0102D677 | MCR03EZPJ100 100OHM 5% 1/10W |
| | | R432 | 0RJ0102D677 | MCR03EZPJ100 100OHM 5% 1/10W |
| | | R433 | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W |
| | | R434 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R435 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R436 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R437 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R438 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R439 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R440 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R441 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R442 | 0RJ0682D677 | MCR03EZPJ680 68OHM 5% 1/10W |
| | | R443 | 0RJ0682D677 | MCR03EZPJ680 68OHM 5% 1/10W |
| | | R444 | 0RJ0332D677 | MCR03EZPJ330 33OHM 5% 1/10W |
| | | R445 | 0RJ0752D677 | MCR03EZPJ750 75OHM 5% 1/10W |
| | | R446 | 0RJ0752D677 | MCR03EZPJ750 75OHM 5% 1/10W |
| | | R447 | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1 |
| | | R448 | 0RJ0752D677 | MCR03EZPJ750 75OHM 5% 1/10W |
| | | R449 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R450 | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10 |
| | | R501 | 0RJ1502D477 | MCR03EZPF153 15KOHM 1% 1/10W |
| | | R502 | 0RJ1002D677 | MCR03EZPJ103 10KOHM 5% 1/10W |
| | | R503 | 0RJ4702D477 | MCR03EZPF473 47KOHM 1% 1/10W |
| OTHERS | | | | |
| | | U401 | 0TFVI80067A | SI3865BDV(E3) N-CHANNEL MOSF |
| | | X101 | 6202VDT002B | SX-1 14.31818MHZ 30PPM 14.31 |
| CONTROL BOARD | | | | |
| | | C601 | 0CK105CD56A | C1608X7R1A105KT 1uF 10% 10V |
| | | C602 | 0CC102CK41A | C1608C0G1H102JT 1nF 5% 50V C |
| | | C605 | 0CC821CK41A | 0603N821J500LT 820pF 5% 50V |
| | | C606 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C607 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C608 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C701 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | C702 | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V |
| | | LED601 | 0DLBE0248AA | BL-HB5KC39C-TRB BLUE-YELLOW |
| | | Q601 | 0TRIH80001A | RT1C3904-T112 NPN 6V 60V 40V |
| | | Q602 | 0TRIH80001A | RT1C3904-T112 NPN 6V 60V 40V |
| | | R601 | 0RJ7501D677 | MCR03EZPJ752 7.5KOHM 5% 1/10 |
| | | R602 | 0RJ1501D677 | MCR03EZPJ152 1.5KOHM 5% 1/10 |
| | | R603 | 0RJ2203D677 | MCR03EZPJ224 22KOHM 5% 1/10 |
| | | R604 | 0RJ1501D677 | MCR03EZPJ152 1.5KOHM 5% 1/10 |
| | | R605 | 0RJ4700D677 | MCR03EZPJ471 470OHM 5% 1/10W |
| | | R606 | 0RJ4700D677 | MCR03EZPJ471 470OHM 5% 1/10W |
| | | R607 | 0RJ0562D677 | MCR03EZPJ560 56OHM 5% 1/10W |
| | | R701 | 0RJ7501D677 | MCR03EZPJ752 7.5KOHM 5% 1/10 |
| | | R702 | 0RJ1201D677 | MCR03EZPJ122 1.2KOHM 5% 1/10 |

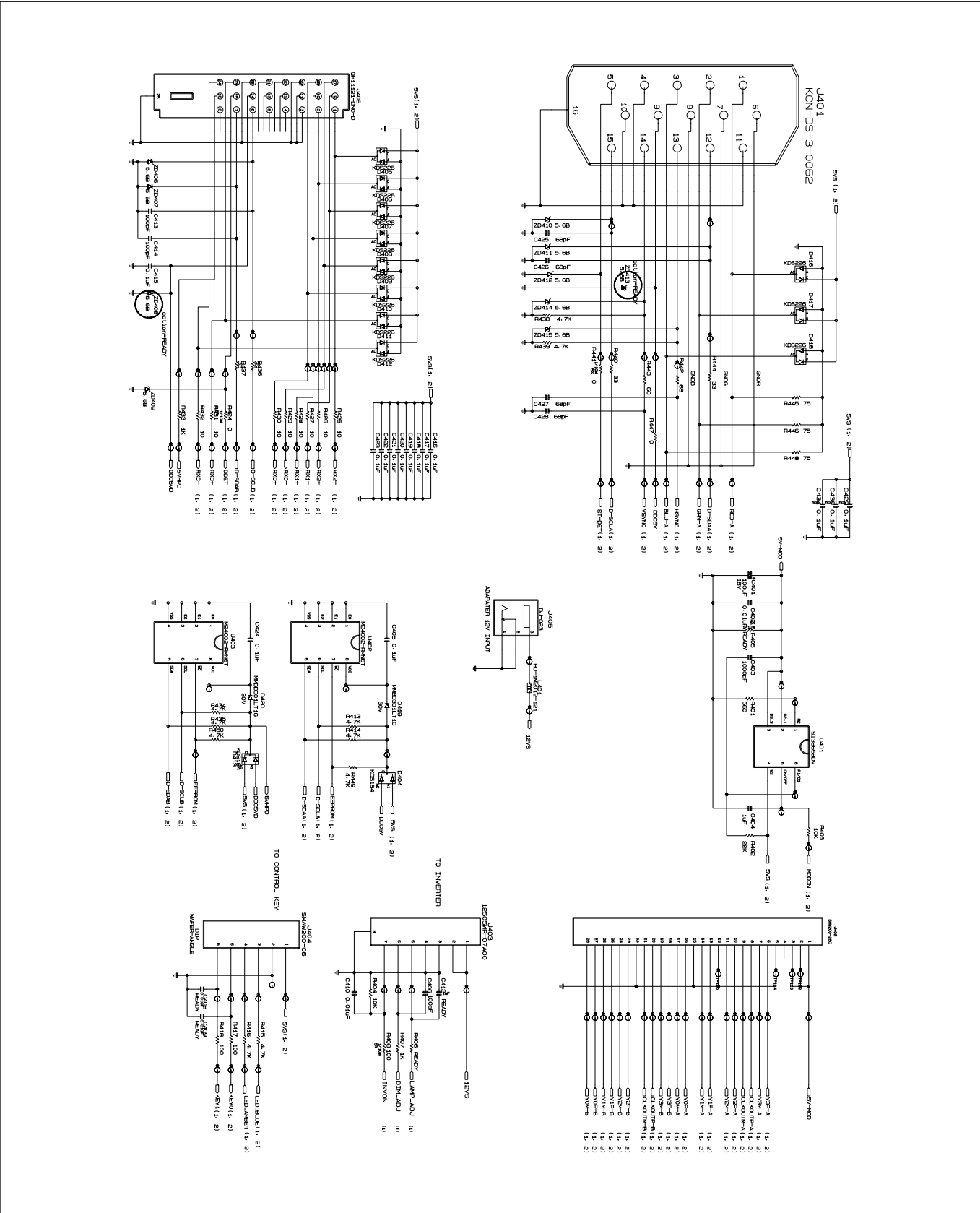
| DATE: 2006. 10. 16. | | | | |
|---------------------|-----|----------|-------------|------------------------------|
| *S | *AL | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
| | | R703 | 0RJ1201D677 | MCR03EZPJ122 1.2KOHM 5% 1/10 |
| | | R704 | 0RJ1801D677 | MCR03EZPJ182 1.8KOHM 5% 1/10 |
| | | SW701 | 6600R00004A | JTP1138A6EM 1C2P 12VDC 50MA |
| | | SW702 | 6600R00004A | JTP1138A6EM 1C2P 12VDC 50MA |
| | | SW703 | 6600R00004A | JTP1138A6EM 1C2P 12VDC 50MA |
| | | SW704 | 6600R00004A | JTP1138A6EM 1C2P 12VDC 50MA |
| | | U601 | EAN30331001 | ADA03 2.5TO5 100m - SOT26 R/ |

SCHEMATIC DIAGRAM

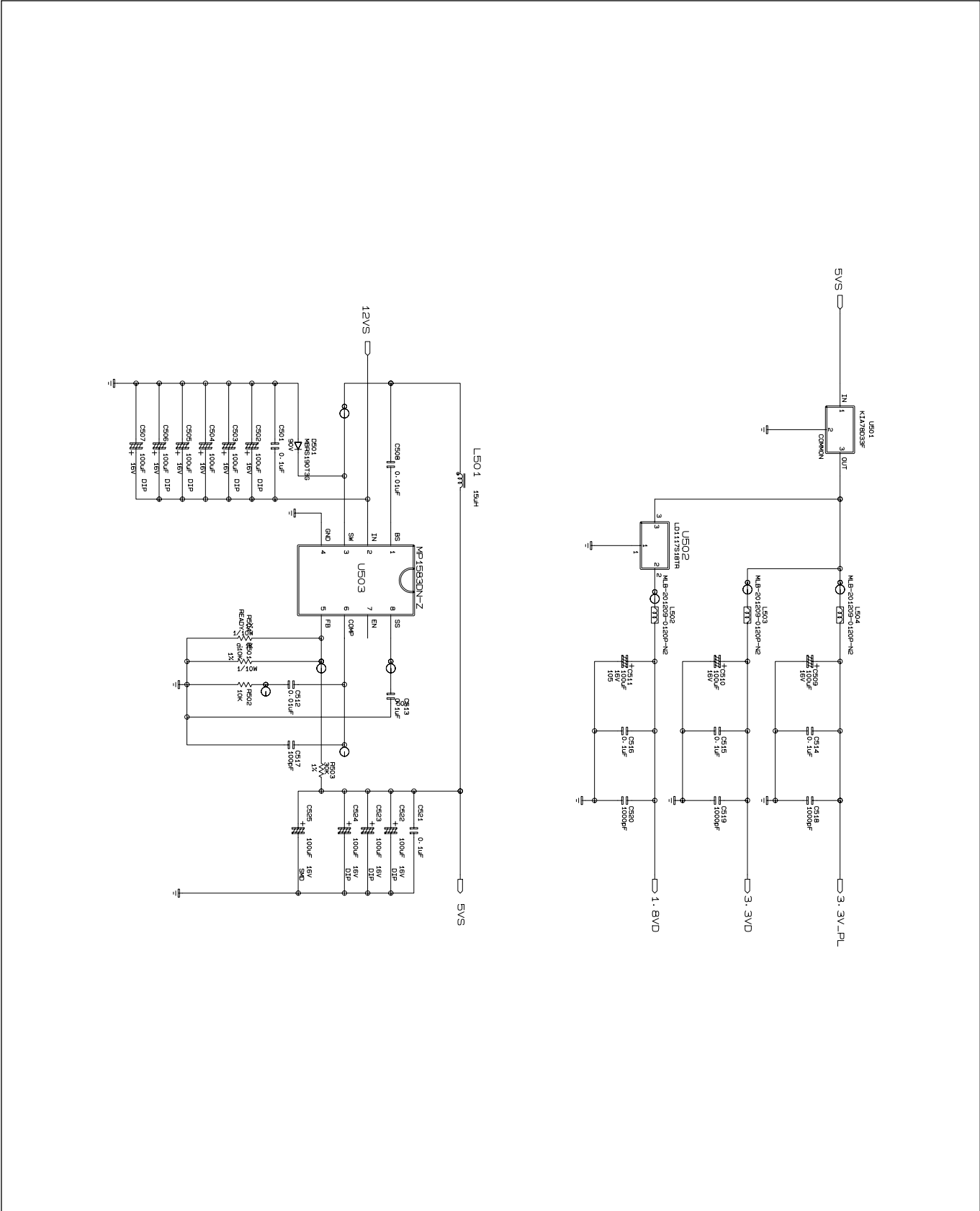
1. SCALER



2. POWER & WAFER



3. DC-DC BLOCK





P/NO : MFL30105567

Oct. 2006
Printed in Korea