NEC

PART NO. 599910617

SERVICE MANUAL

COLOR MONITOR **LCD1511M (UK)/(CE)**

Model Series 758

NEC-MITSUBISHI ELECTRIC VISUAL SYSTEMS CORPORATION

NOVEMBER 2002

200212
08E01ABM
08E02ABM

WARNING

The SERVICE PERSONNEL should have the appropriate technical training, knowledge and experience necessary to:

- Be familiar with specialized test equipment, and
- Be careful to follow all safety procedures to minimize danger to themselves and their coworkers.

To avoid electrical shocks, this equipment should be used with an appropriate power cord.

This equipment utilized a micro-gap power switch. Turn off the set by first pushing power switch. Next, remove the power cord from the AC outlet.

To prevent fire or shock hazards, do not expose this unit to rain or moisture.

This symbol warns the personnel that un-insulated voltage within the unit may have sufficient magnitude to cause electric shock.

This symbol alerts the personnel that important literature concerning the operation and maintenance of this unit has been included.
Therefore, it should be read carefully in order to avoid any problems.

PRODUCT SAFETY CAUTION

1. When parts replacement is required for servicing, always use the manufacturer's specified replacement.
2. When replacing the component, always be certain that all the components are put back in the place.
3. As for a connector, pick and extract housing with fingers properly since a disconnection and improper contacts may occur, when wires of the connector are led.
4. Use a proper screwdriver. If you use screwdriver that does not fit, you may damage the screws.

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FOR OPTIMUM PERFORMANCE, PLEASE NOTE THE FOLLOWING WHEN SETTING UP AND USING THE LCD COLOR MONITOR:

- **DO NOT OPEN THE MONITOR.** There are no user serviceable parts inside and opening or removing covers may expose you to dangerous shock hazards or other risks. Refer all servicing to qualified service personnel.
- Do not spill any liquids into the cabinet or use your monitor near water.
- Do not insert objects of any kind into the cabinet slots, as they may touch dangerous voltage points, which can be harmful or fatal or may cause electric shock, fire or equipment failure.
- Do not place any heavy objects on the power cord. Damage to the cord may cause shock or fire.
- Do not place this product on a sloping or unstable cart, stand or table, as the monitor may fall, causing serious damage to the monitor.
- Do not place any objects onto the monitor and do not use the monitor outdoors.
- The inside of the flourescent tube located within the LCD monitor contains mercury. Please follow the bylaws or rules of your municipality to dispose of the tube properly.

Immediately unplug your monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the monitor.
- If the monitor has been exposed to rain or water.
- If the monitor has been dropped or the cabinet damaged.
- If the monitor does not operate normally by following operating instructions.
- Do not bend power cord.
- Do not use monitor in high temperatured, humid, dusty, or oily areas.

CAUTION

- If monitor or glass is broken, do not come in contact with the liquid crystal and handle with care.
- Allow adequate ventilation around the monitor so that heat can properly dissipate. Do not block ventilated openings or place the monitor near a radiator or other heat sources. Do not put anything on top of monitor.
- The power cable connector is the primary means of detaching the system from the power supply. The monitor should be installed close to a power outlet which is easily accessible.
- Handle with care when transporting. Save packaging for transporting.

Recommended Use *- continued*

- Image Persistence: Image persistence is when a residual or “ghost” image of a previous image remains visible on the screen. Unlike CRT monitors, LCD monitors’ image persistence is not permanent, but constant images being displayed for a long period of time should be avoided.
  To alleviate image persistence, turn off the monitor for as long as the previous image was displayed. For example, if an image was on the monitor for one hour and a residual image remains, the monitor should be turned off for one hour to erase the image.
  NOTE: As with all personal display devices, NEC-Mitsubishi Electronics Display-Europe recommends using a moving screen saver at regular intervals whenever the screen is idle or turning off the monitor when not in use.

CORRECT PLACEMENT AND ADJUSTMENT OF THE MONITOR CAN REDUCE EYE, SHOULDER AND NECK FATIGUE. CHECK THE FOLLOWING WHEN YOU POSITION THE MONITOR.

- For optimum performance, allow 20 minutes for warm-up.
- Adjust the monitor height so that the top of the screen is at or slightly below eye level. Your eyes should look slightly downward when viewing the middle of the screen.
- Position your monitor no closer than 40 cm and no further away than 70 cm from your eyes. The optimal distance is 50 cm.
- Rest your eyes periodically by focusing on an object at least 6 m away. Blink often.
- Position the monitor at a 90° angle to windows and other light sources to minimize glare and reflections. Adjust the monitor tilt so that ceiling lights do not reflect on your screen.
- If reflected light makes it hard for you to see your screen, use an anti-glare filter.
- Clean the LCD monitor surface with a lint-free, non-abrasive cloth. Avoid using any cleaning solution or glass cleaner!
- Adjust the monitor ’s brightness and contrast controls to enhance readability.
- Use a document holder placed close to the screen.
- Position whatever you are looking at most of the time (the screen or reference material)directly in front of you to minimize turning your head while you are typing.
- Avoid displaying fixed patterns on the monitor for long periods of time to avoid image persistence (after-image effects).
- Get regular eye checkups.

Ergonomics

To realize the maximum ergonomics benefits, we recommend the following:

- Use the preset Size and Position controls with standard signals
- Use the preset Color Setting
- Use non-interlaced signals with a vertical refresh rate between 60 - 75 Hz
- Do not use primary color blue on a dark background, as it is difficult to see and may produce eye fatigue to insufficient contrast

Introduction

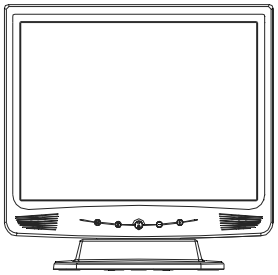
About the Product

This 15” flat panel screen with an active matrix, thin-film transistor (TFT), liquid crystal display (LCD). The monitor features include:

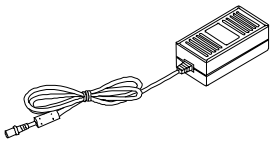
- Direct Analog signal input
- Active matrix TFT LCD technology
- 1024 x 768 resolution
- 15” viewable display area
- 31.5 ~ 60 kHz horizontal scan
- 56 ~ 75 Hz refresh rate
- VESA wall mountable, foldable stand for flexible mounting solutions
- Auto-adjustment function
- Foldable stand design brings users the conveniences for easy storage and VESA Mounting applications
- Multilingual OSD user controls
- VESA DPMS power saving
- Built-in speakers for multimedia application
- Kensington security lock slot

English

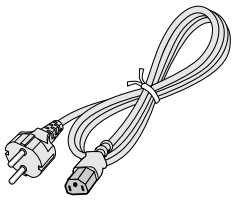
Package Overview



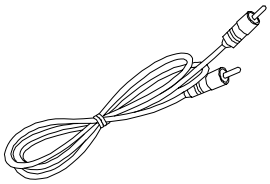
LCD Display



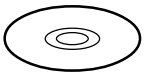
Power Adapter



Power Cord



Audio-In Cable



CD ROM

User's Manual

Declaration of the Manufacturer

We hereby certify that the monitor LCD1511M is in compliance with Council Directive 73/23/EEC:

– EN 60950

Council Directive 89/336/EEC:

– EN 55022
– EN 61000-3-2
– EN 61000-3-3
– EN 55024

and marked with:

CE

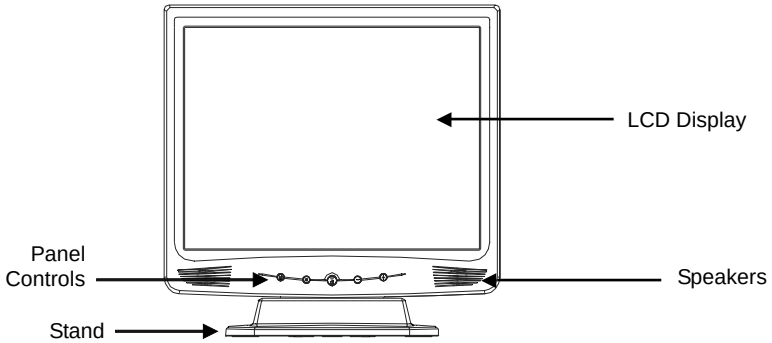
NEC-Mitsubishi Electric Visual Systems Corporation
4-13-23, Shibaura,
Minato-Ku
Tokyo 108-0023, Japan

Installation

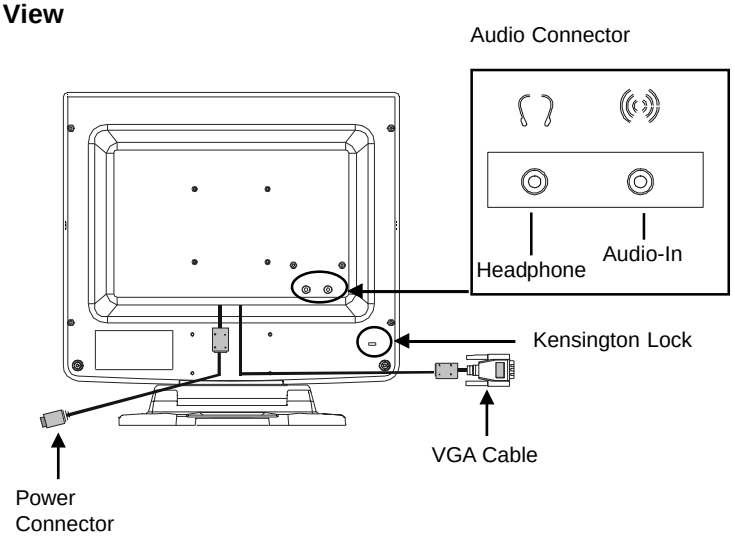
Product Overview

English

Front View



Rear View



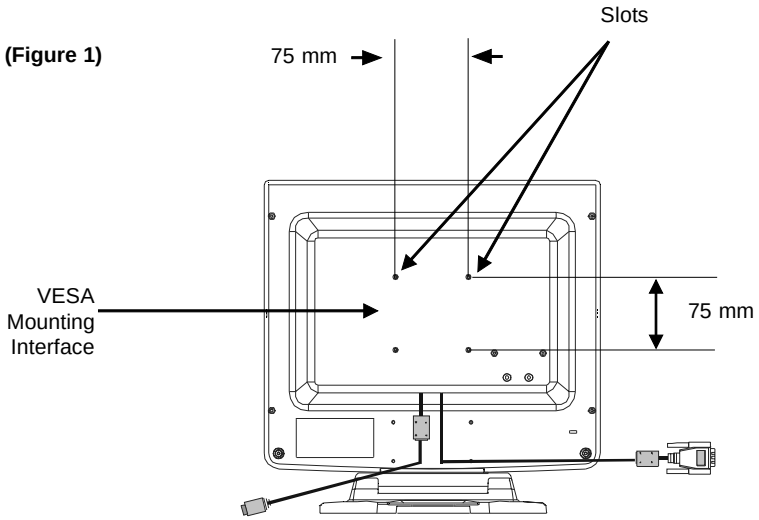
VESA Mount on your monitor

English

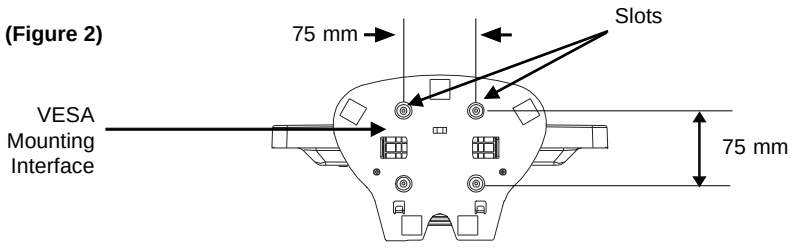
This monitor conforms to the VESA Flat Panel Mounting Physical Mounting Interface Standard which defines a physical mounting interface for flat panel monitors, and corresponding standards for flat panel monitor mounting devices, such as wall and table arms. The VESA mounting interface is located on the back of your monitor.

To mount the monitor on a swing arm or other mounting fixture, follow the instruction included with the mounting fixture to be used. Two VESA Mounting Interfaces are included in this model; one is located behind the monitor (see figure 1), and the other is located under the foldable stand. (See figure 2.)

(Figure 1)



(Figure 2)



Caution! Please select the proper screws!

The depth from plastic back cover to the bottom of the screw hole is 8 mm. The spec is M4 screw. To fulfil the safety requirements the monitor must be mounted to an arm which guarantees the necessary stability under consideration of the weight of the monitor. The LCD monitor shall only be used with an approved arm (e.g. GS mark).

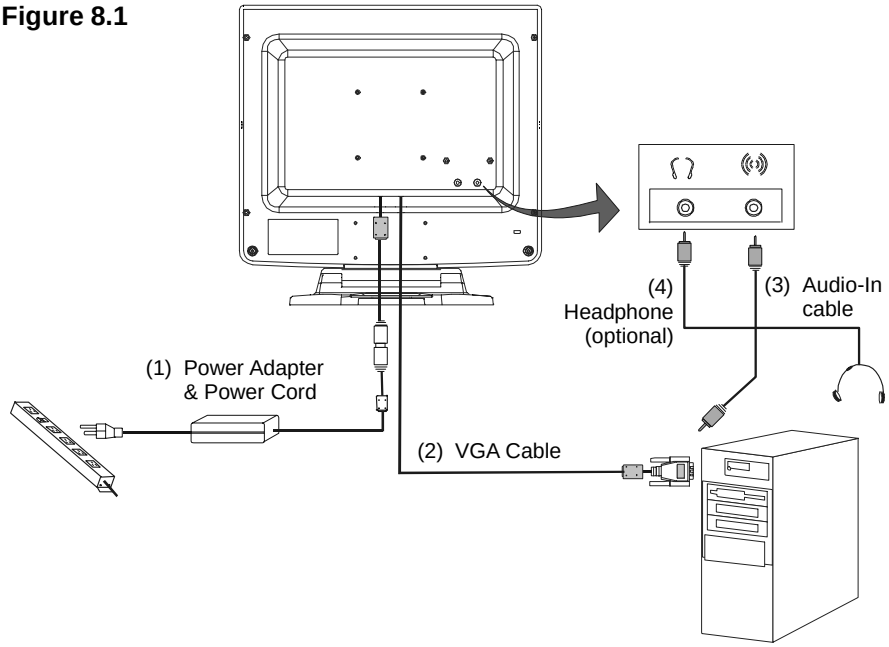
Connecting the Display (Figure 8.1)

English

To set up this display, please refer to the following figure and procedures.

1. Make sure that the entire equipment is turned off.
2. Connect one end of the power adapter to the power connector; plug one end of the AC power cord into the power adapter, and then the other end into an electrical outlet (1).
3. Connect the VGA signal cable to the 15-pin connector of your host computer and tighten the screws (2).
4. Connect the Audio-In cable from audio input port of your display to the Audio-out port of your computer (3).
5. Connect your headphone to the Headphone port (4).
6. Turn on your computer and display.

Figure 8.1

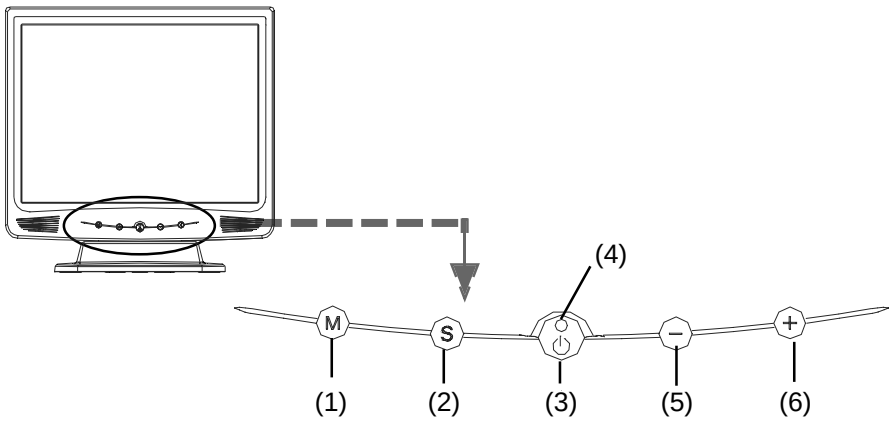


Notice: To ensure the LCD display can work well with your computer, please configure the display mode of your graphic card to make it less than or equal to 1024 x 768 resolution and make sure timing of the display mode is compatible with the LCD display.
We have listed the "Compatibility Modes" of this LCD display in appendices for your reference.

English

User Controls

Front Panel Controls



No. / Icon		Control	Function
(1)	**M**	Menu Button	Display the OSD menus.
(2)	**S**	Select /Auto	1. To select the adjustment items from OSD menus. 2. To activate the “Auto Adjustment” function to obtain an optimum image.
(3)	⏻	Power	Switch on/off the power of the LCD display.
(4)		Power LED	1. Green indicates the display is turned on. 2. Amber indicates the display is in power-saving mode.
(5)	**–**	1. Minus / 2. Brightness	1. Decrease value of the adjustments items. 2. Adjust the brightness of image.
(6)	**+**	1. Plus / 2. Mute On/Off	1. Increase value of the adjustment items. 2. Make the volume function Ineffective/effective.

How to Use the OSD Menus

1. Press the **"M"** button to display the OSD Menus. Press the **"S"** button to move between the OSD Menus. Press **"M"** to enter the function to be adjusted and then press **"S"** to move between setting options.
2. Adjust the value of the option by pressing **"–"** and **"+"**. Press **"S"** to confirm your choice.
3. To exit the OSD Menus, move to Exit and press **"M"**.

On-Screen Display Menus

First OSD Menu:

- **Auto-Adjustment**
  Choose this function to obtain an optimum image.
- **Contrast**
  This function allows you to adjust the image crispness. Contrast adjusts the difference between white and black shades.
- **Horizontal Position**
  Changes the horizontal position of the image.
- **Vertical Position**
  Changes the vertical position of the image.
- **Frequency**
  Changes the display data frequency to match the frequency of your graphic card. When you are experiencing vertical flickering bar, use this function to make an adjustment.
- **Tracking**
  Synchronizes the signal timing of the display to that of the graphic card. When you are experiencing unstable to flickering image, use this function to make an adjustment.

On-Screen Display Menus – *continued*

Second OSD Menu:

- **Display Mode**
  The display mode shows the display resolution, horizontal scan frequency, vertical refresh of the current mode.
- **OSD Off-Time**
  Adjusts the time period for OSD menu disappear.
- **Language**
  You are able to select the language of all menu items.
- **Text-Graphic**
  Toggles between VGA text mode (mode M03H) and graphic mode (mode M13H).
- **Reset**
  Returns the display parameters of the current mode to its factory default settings.

Third OSD Menu:

- **Volume**
  It allows you to control the volume sound.
- **Mute**
  It allows you to disable the sound immediately.

Fourth OSD Menu:

- **Color Setting**
  Adjusts the color temperature.
- **Color Adjustment-Red**
  It allows you to adjust the red color of the display.
- **Color Adjustment-Green**
  It allows you to adjust the green color of the display.
- **Color Adjustment-Blue**
  It allows you to adjust the blue color of the display.

Appendix

Troubleshooting

If you are experiencing trouble with the LCD display, refer to the following. If the problem persists, please contact your local dealer or our service center.

Problem: No image appears on screen.

- Check that all the I/O and power connectors are correctly and well connected as described in the "Installation" section.
- Make sure the pins of the connectors are not crooked or broken.

Problem: Partial image or incorrectly displayed image.

- Check to see if the resolution of your computer is higher than that of the LCD display.
- Reconfigure the resolution of your computer to make it less than or equal to 1024 x 768.

Problem: Image has vertical flickering line bars.

- Use "Frequency" to make an adjustment.
- Check and reconfigure the display mode of the vertical refresh rate of your graphic card to make it compatible with the LCD display.

Problem: Image is unstable and flickering.

- Use "Tracking" to make an adjustment.

Problem: Image is scrolling.

- Check and make sure the VGA signal cable (or adapter) is well connected.
- Check and reconfigure the display mode of the vertical refresh rate of your graphic card to make it compatible with the LCD display.

Problem: Vague image (characters and graphics).

- Use "Frequency" to make an adjustment. If this problem still exists, use "Tracking" to make an adjustment.

English

Warning Signal

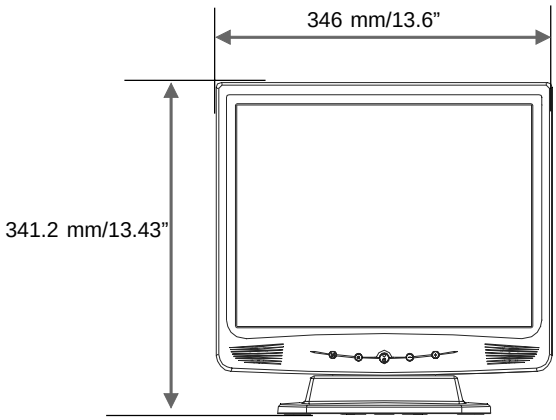
Sometimes you probably will see the warning messages from this LCD screen. This means that the LCD display cannot exactly receive the signal from the computer graphic card.
There are three kind of situations that may happen. Please check the connected cables or contact your local dealer for more information.

- **No Signal**
  This message means that the LCD display has been powered on but it cannot receive any signal from the computer graphic card. Check all the power switches, power cables, and VGA signal cable.
- **Going to Sleep**
  This message means that the LCD display is under the power saving mode. In addition, the LCD display will go to this sleeping mode when experiencing a sudden signal disconnecting problem.
- **Out of Range**
  This message means that the signal of the computer graphic card is not compatible with the LCD display. When the signal is not included in the compatibility mode we have listed in the Appendices of this manual, the LCD will display this message.

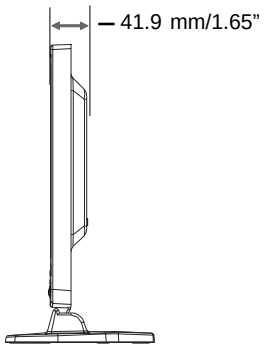
Product Dimensions

English

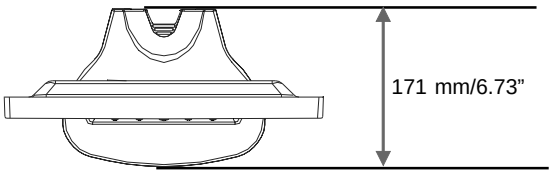
Front View



Side View



Top View



Compatibility Modes

English

Mode	Resolution	V. Frequency (Hz)	H. Frequency (kHz)
IBM VGA	640 x 350	70	31.5
IBM VGA	640 x 400	70	31.5
IBM VGA	640 x 480	60	31.5
IBM VGA	720 x 400	70	31.5
VESA VGA	640 x 480	72	37.9
VESA VGA	640 x 480	75	37.5
VESA SVGA	800 x 600	56	35.2
VESA SVGA	800 x 600	60	37.9
VESA SVGA	800 x 600	72	48.1
VESA SVGA	800 x 600	75	46.9
VESA XGA	1024 x 768	60	48.4
VESA XGA	1024 x 768	70	56.5
VESA XGA	1024 x 768	75	60.0
Apple GA	640 x 480	67	34.9
Apple GA	640 x 480	67	35.0
Apple GA	832 x 624	75	49.7
Apple GA	1024 x 768	75	60.2

TCO’99

LCD1511M

Congratulations! You have just purchased a TCO’99 approved and labeled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during the manufacturing. Since it has not been possible for the majority of electronics equipment to be recycled in a satisfactory way, most of these potentially damaging substances sooner or later enter Nature.
There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (Internal) and natural (external) environments. Since all methods of conventional electricity generation have a negative effect on the environment (acidic and climate-influencing emissions, radioactive waste, etc.), it is vital to conserve energy. Electronics equipment in offices consume an enormous amount of energy since they are often left running continuously.

What does labelling involve?

This product meets the requirements for the TCO’99 scheme which provides for international and environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration).
The requirements cover a wide range of issues: environment, ergonomics, usability, emission of electrical and magnetic fields, energy consumption and electrical and fire safety.
The environmental demands concern restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental plan which must be adhered to in each country where the company implements its operational policy. The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.
Labelled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, physical and visual ergonomics and good usability.

Environmental Requirements

Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. In turn, they delay the spread of fire. Up to thirty percent of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride and these are related to another group of environmental toxins, PCBs, which are suspected to give rise to severe health effects, including reproductive damage in fisheating birds and mammals, due to the bioaccumulative* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.
TCO’99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound chlorine and bromine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

Lead**

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning.
TCO’99 requirement permits the inclusion of lead since no replacement has yet been developed.

Cadmium**

Cadmium is present in rechargeable batteries and in the colourgenerating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses.
TCO’99 requirement states that batteries, the colourgenerating layers of display screens and the electrical or electronics components must not contain any cadmium.

Mercury**

Mercury is sometimes found in batteries, relays and switches, Mercury damages the nervous system and is toxic in high doses.
TCO’99 requirement states that batteries may not contain any Mercury. It also demands that no mercury is present in any of the electrical or electronics components associated with the display unit.

CFCs (freons)

CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on Earth of ultraviolet light with consequent increased risks of skin cancer (malignant melanoma).
The relevant TCO’99 requirement; Neither CFCs nor HCFCs may be used during the manufacturing and assembly of the product or its packaging.

* Bio-accumulative is defined as substances which accumulate within living organisms.
** Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

To obtain complete information on the environmental criteria document, order from:

TCO Development Unit
SE-114 94 Stockholm
SWEDEN
FAX Number: +46 8 782 92 07
E-mail (Internet): development@tco.se

You may also obtain current information on TCO’99 approved and labelled products by visiting their website at: http://www.tcodevelopment.com

FCC Information

1. Use the attached specified cable with the LCD1511M color monitor so as not to interfere with radio and television reception.
   (1) Please use the supplied power cord or equivalent to ensure FCC compliance
   (2) Please use the supplied AC Adapter.
   (3) Please use the supplied Audio Cable.
   Use of other cables and adapters may cause interference with radio and television receiption.
2. This equipment has been tested and found to comply with thie limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installtion. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
   - Reorient or relocate the receiving antenna.
   - Increase the separation between the equipment and receiver.
   - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
   - Consult your dealer or an experienced radio/TV technician for help.

If necessary, the user should contact the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

DECLARATION OF CONFORMITY

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions. (1) This device may not cuase harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

U.S. Responsible Party:	NEC-Mitsubishi Electronics Display of America, Inc.
Address:	1250 North Arlington Heights Road, Suite 500 Itasca, Illinois 60143-1248
Tel. No.:	(630) 467-3000

Type of Product:	Display Monitor
Equipment Classification:	Class B peripheral
Model:	LCD1511M

FC *we hereby declare that the equipment specified above conforms to the technical standards as specified in the FCC Rules.*

As an ENERGY STAR® partner, NEC-Mitsubishi Electronics Display of America has determined that this product meets the Energy Star guidelenes for energy efficiency. The ENERGY STAR emblem does not represent EPA endorsement of any product or service.

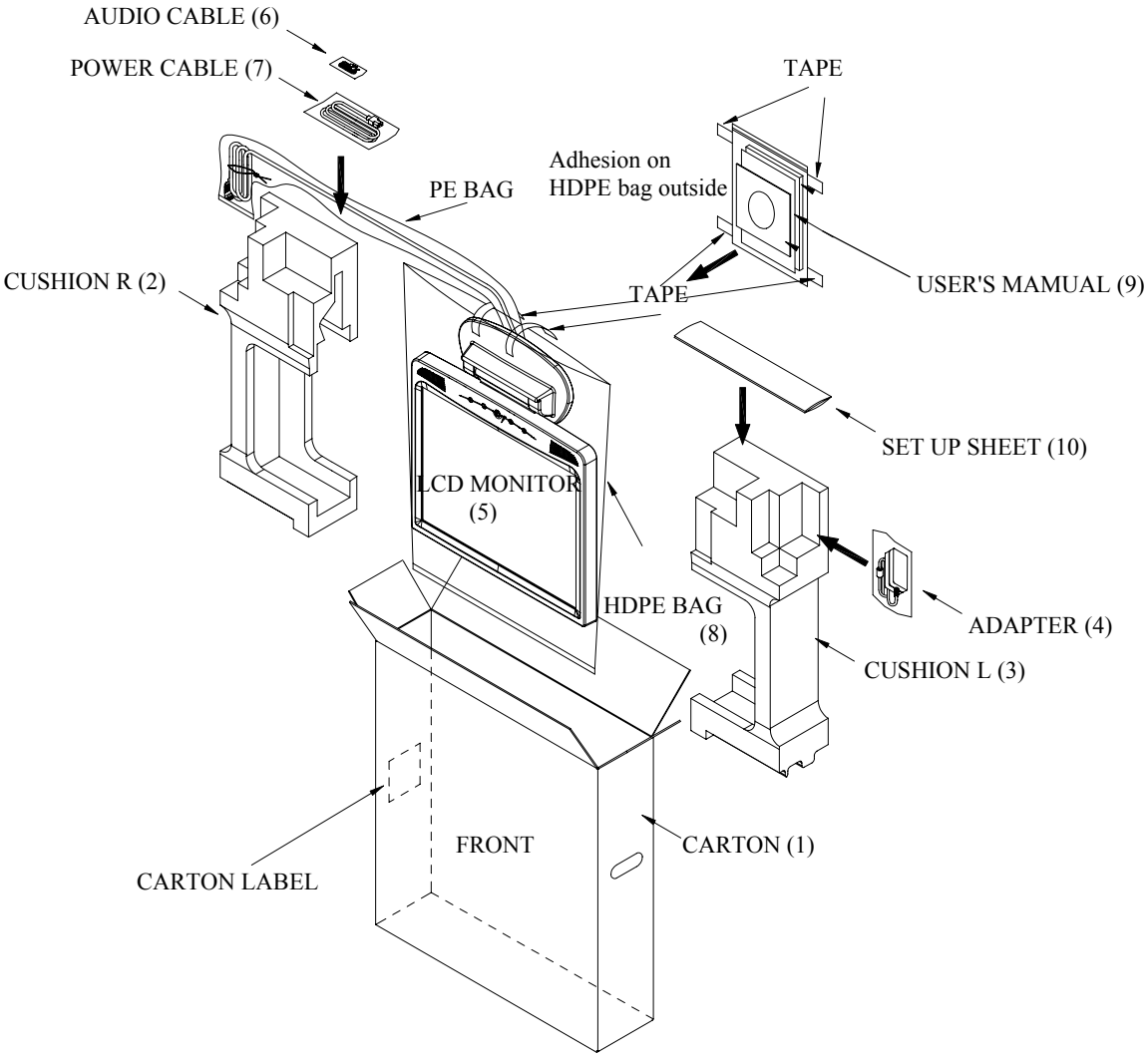
NEC

Printed on recycling paper

Printed in China
36.59106.001 Rev.A

Mechanical Construction

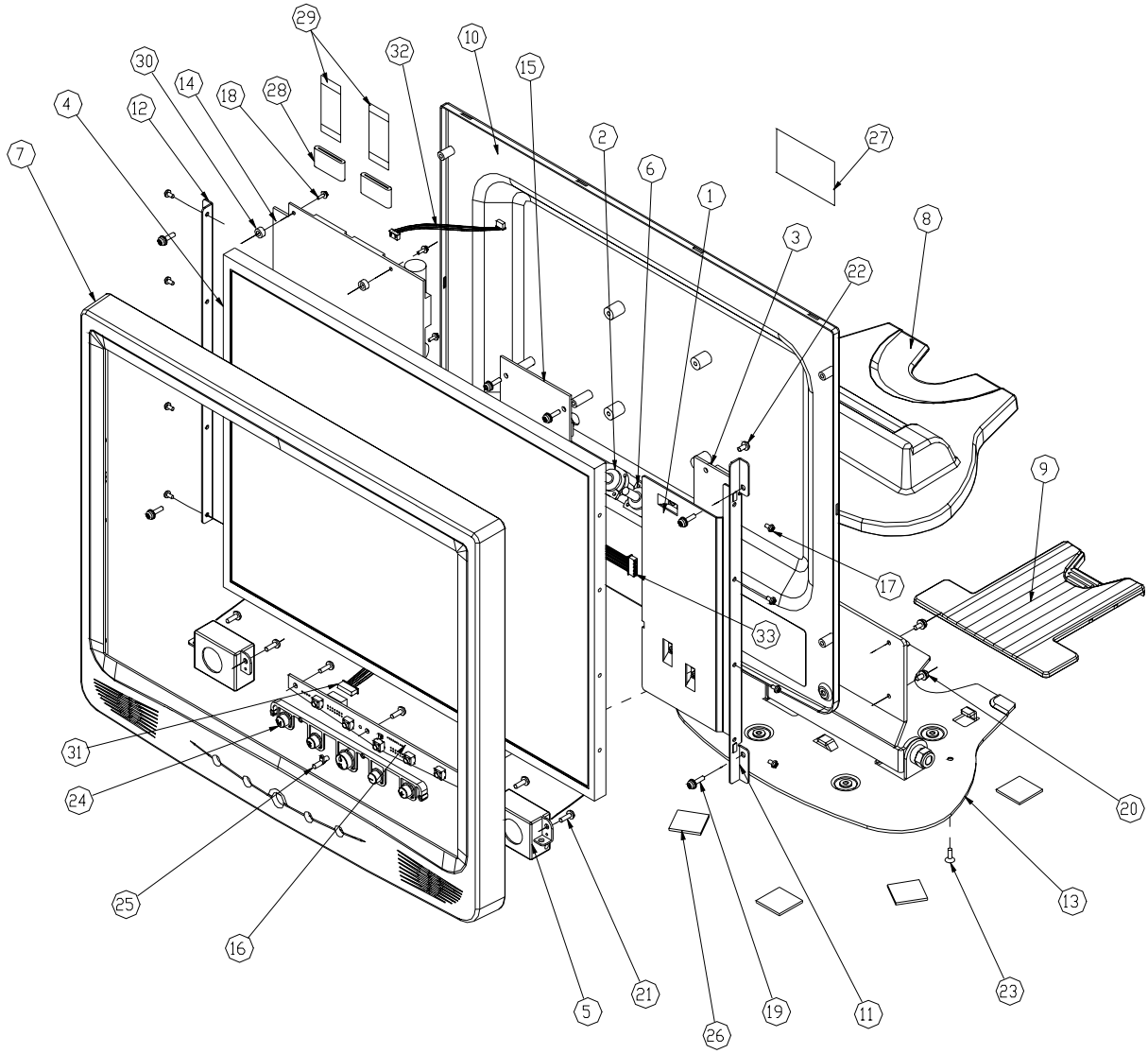
1. Packaae overview



1.1 Replacement Part List

Item	P/N	Description
1	55.59101.021	CARTON AB(A%)-16 428*98*455 LCD1511M
2	56.59101.001	CUSHION-R EPS PV758A
3	56.59102.001	CUSHION-L EPS PV758A
4	47.59101.001	ADAPTER IN:100-240V OUT:12V/2.5A;FOR NMV;"L
5	DC.59101.021	D.C. LCD1511M,HANNSTAR,CP02,AUDIO
6	42.59903.002	CABLE AUDIO 1.8M FOR PC99+MARK
7	42.53506.001	CABLE POWER-CORD AC SP60+AS14 1.8M BLACK PV (UK ver Only)
7	42.50112.001	CABLE POWER CORD 1830mm SP-023+IS14 EUR. (CE ver Only)
8	51.59103.001	PE BAG HDPE 390*600*0.04t PV758 "NMV"
9	36.59106.002	USER'S MAMUAL LCD1511M(CD-ROM),UK(w/WWARRANT (UK ver Only)
9	36.59106.003	USER'S MANUAL LCD1511M(CD-ROM),EUROPE,W/SAL (CE ver Only)
10	36.59105.001	SET UP SHEET LCD1511M

2. Exploded Overview



2.1 Replacement Part List

Item	P/N	Description
1	42.59102.001	CABLE DC JACK to 5P HOUSING 1-CORE PV758A
2	42.59103.001	CABLE VGA 15P to 13P 1-CORE PV758A
3	44.59101.001	PCBA INVERTER PLCD2815202A-REV1 FOR NMV
4	48.59102.001	TFT LCD 15" XGA HANNSTAR HSD150SX84-A
5	49.59901.003	ASS'Y SPEAKER POD 8Ω PV890C
6	51.55311.001	SR LOCKER N66+V2/N PV755ASIP
7	75.59101.021	ASSY FRONTCOVER PC+ABS VS07 LCD1511M
8	51.59111.003	BASE PC+ABS-CP02 PV758A
9	51.59112.003	DRAW PLATE PC+ABS-CP02 PV758A
10	61.59101.001	REAR BUCKET SECC 1t PV758A
11	61.59102.001	R-HOLDER SECC 1t PV758A
12	61.59103.001	L-HOLDER SECC 1t PV758A
13	61.59111.003	ASSY HINGE TILT PV758A
14	80.59101.011	PCBA MAIN BD FOR LCD1511M
15	80.59102.011	PCBA AUDIO BD LCD1511M "NMV"
16	80.59103.001	PCBA CTRL BD PV758A
17	85.1F125.060	SCREW PAN MECH W/SF M2.5*6 Ni
18	85.1F122.060	SCREW PAN MECH W/SF M2*6 Ni
19	85.1F123.100	SCREW PAN MECH W/SF M3*10 Ni
20	85.1F323.080	SCREW PAN MECH W/SF M3*8 BLACK
21	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni
22	85.AA323.060	SCREW PAN TAPPING M3*6 BLACK
23	85.YA323.080	SCREW FLAT TAP M3*8 BLACK
24	51.56504.001	SELECT KNOB PC+ABS\VS07 PV920
25	51.56505.001	LED LENS PMMA PV920
26	52.56101.001	RUBBER FOOT PG-GF-20A-R1B 20*20*1.5t
27	35.59103.001	Rating Label LCD1511M
28	41.80301.001	EMI CORE-A5-FS-31*5*12-1.0 EzPro 550A
29	42.59101.002	FFC 40P 28mm FOR HANNSTAR PANEL PV758A
30	61.59701.002	M/B SPACER 3mm Cu-Ni PV755ASIP/PV758A
31	42.59104.001	W.A. 12/10P UL1571 #28 PV758A
32	42.59701.001	W.A. 8P UL1571 #28 180mm PV758A/PV755ASIP
33	42.57702.002	W.A. 10P/5P UL1007 #24 100mm PV755A

DISASSEMBLY

*This section provides disassembly procedures for 15" Flat Panel Monitor with XGA resolution (1024*768) TFT LCD. Before you begin any of these procedures, be sure to turn off the power, computer system, and other attached devices; then disconnect the power cable from the electronically outlet. Moreover, when you disassemble the monitor, be sure to put the screws in a safe place and separate them according to grouping.*

1 Disassembly of Stand Unit from Monitor

1. Make **LCD1511M** face down as figure 1, and put your hands to lift the stand up as figure 2.

Figure 1

Figure 2

2. Use your hand to pull the Stand unit toward yourself *(Figure 3)* carefully.

NOTICE: Don't pull the "Draw Plate".

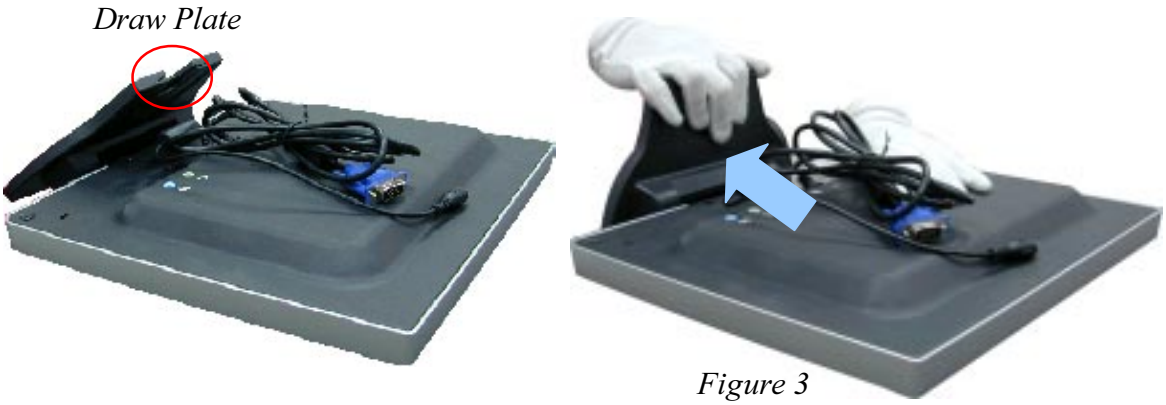


Figure 3

3. Make **LCD1511M** monitor face down, and unscrew the four screws to remove the Stand unit. *(Figure 4)*

Figure 4

2 *Disassembly of Hinge Tilt and Base*

1. Unscrew the two screws of Hinge Tilt *(Figure 5)*.
2. Open the join to separate Base and Hinge Tilt *(Figure 6)*.

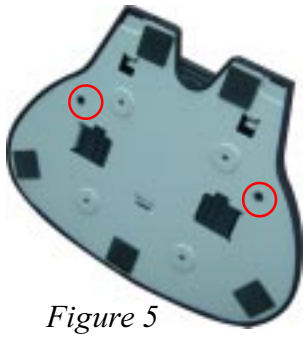


Figure 5

Figure 6

3. Draw Plate, Hinge Tilt and Base are as figure 7, 8, 9.

Figure 7

Figure 8

Figure 9

3 Disassembly of Front Cover, Rear Cover, Control and Audio Boards

1. Unscrew the two screws of Rear cover. Make the monitor unit face up, pull the latches out between Front cover and Rear cover *(Figure10)*.

2. Pull the latches out between Monitor unit two sides to lift up the Front Cover *(Figure 11)*.

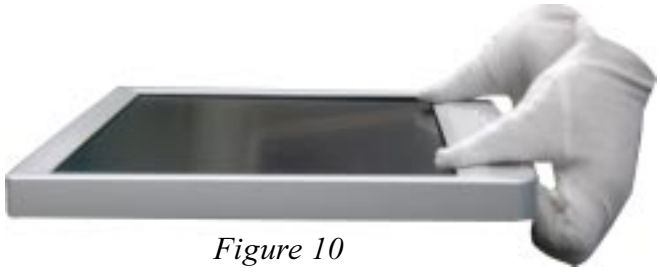


Figure 10

Figure 11

3. Unplug Control wire *(Figure 12)*, push Front cover out *(Figure 13)*. In compliance with the direction to lift up Front Cover *(Figure 14)*.
   Unscrew the four screws of LCD panel.

Figure 12

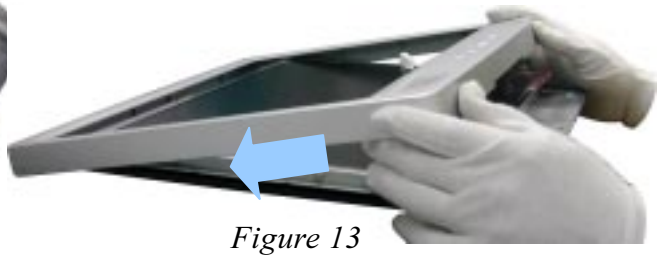


Figure 13

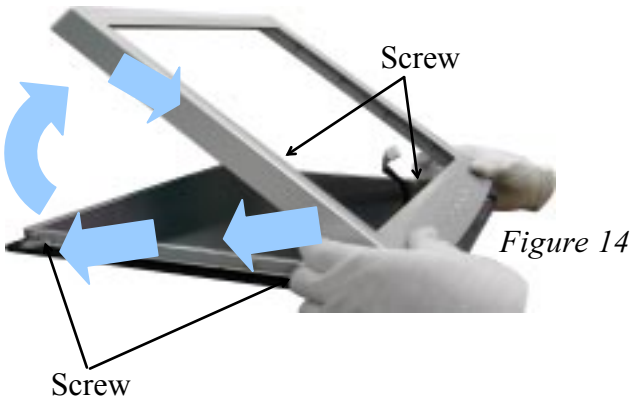


Figure 14

4. Unplug VGA and DC Jack cables and audio wire that connect to Main board to remove LCD panel set *(Figure 15)*.

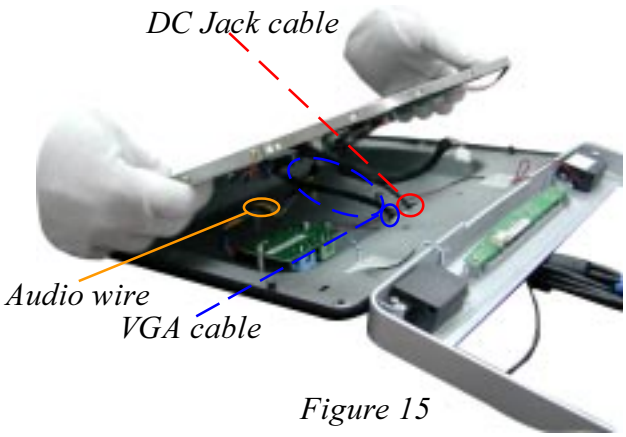


Figure 15

5. Unscrew the two screws and unplug the wires on the Audio Board *(Figure 16)* to remove the Audio Board.
6. Tear off two tapes and unscrew the four screws on Speakers to remove the Speakers set *(Figure 16, 17)*.
7. Unscrew the three screws to remove the Control Board *(Figure 17)*.
8. Remove the SR locker as Figure 18 and pull the VGA and DC Jack cables out to separate Rear Cover *(Figure 19)*.

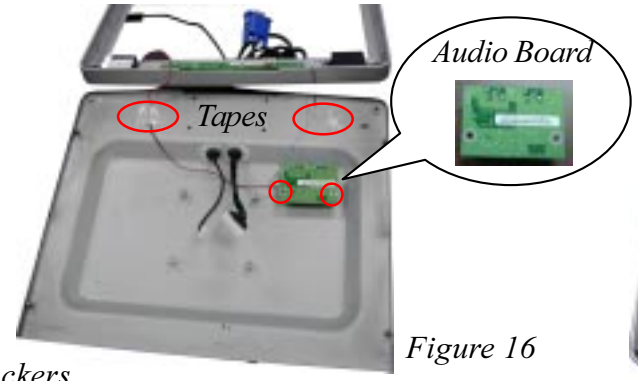


Figure 16

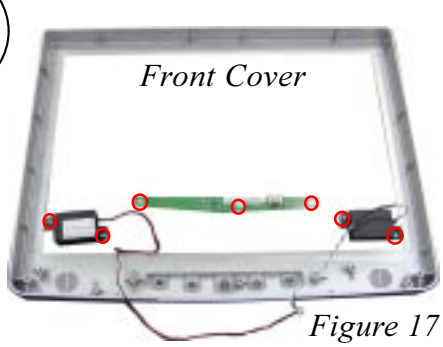


Figure 17

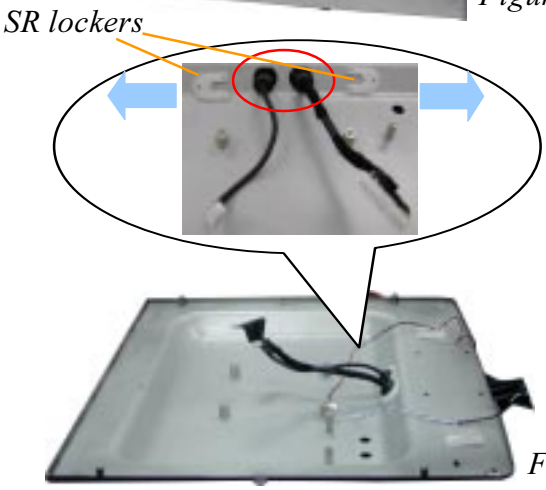


Figure 18

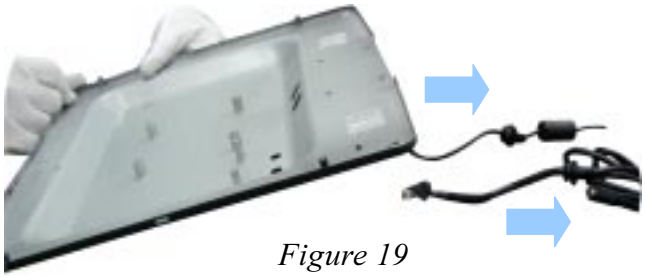


Figure 19

4 Disassembly of LCD Panel, Main and Inverter Boards

1. Turn over the LCD Panel set and put it on the safe place with a foam-rubber cushion, unscrew the four screws and unplug all wires on Main Board *(Figure 20)* to remove it and then remove the four M/B Spacers *(Figure 21)*.

Notice: Before you unplug the FFC wires, tear off the tape on FFC wire first. Then open the connector caps on panel carefully. Pull out the connectors caps on Main Board carefully (Figure 20).

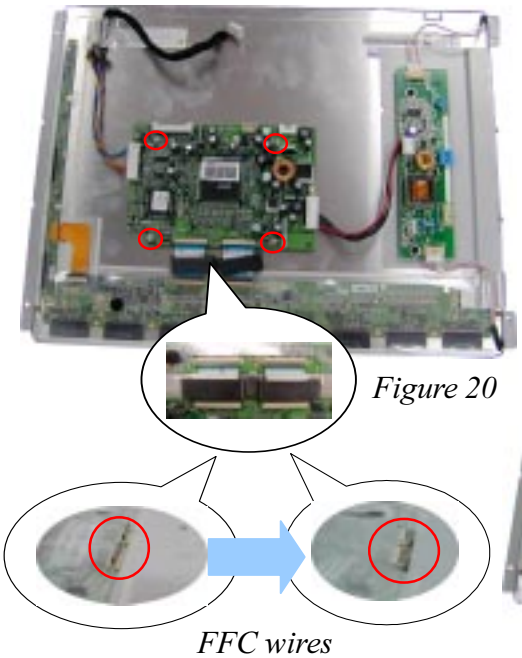
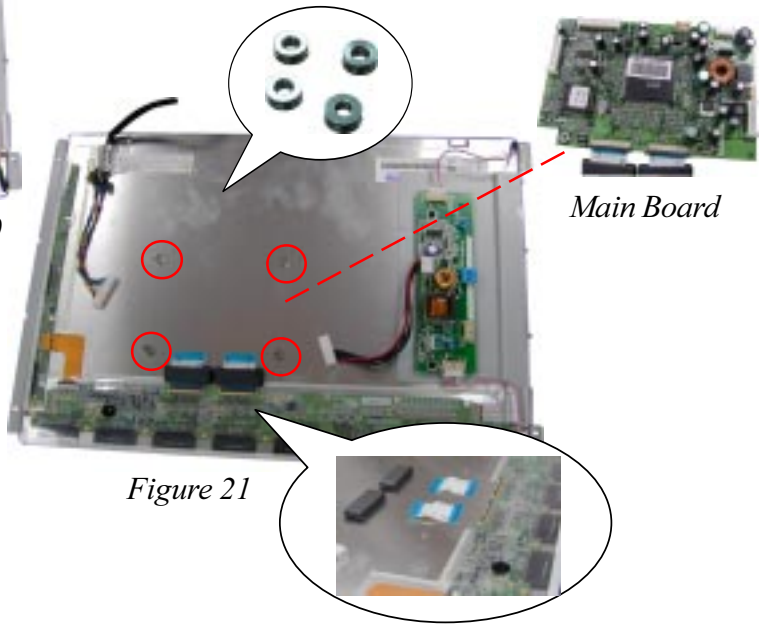


Figure 20

FFC wires

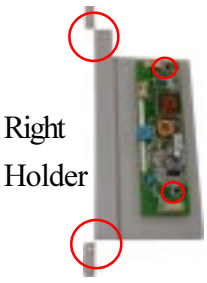


Main Board

Figure 21

2. Unplug all wires on inverter board and unscrew the four screws to remove the left and right holders *(Figure 22)*.

3. Unscrew the two screws on Inverter Board to remove Inverter Board *(Figure 23)*.



Right Holder

Figure 23

Left Holder

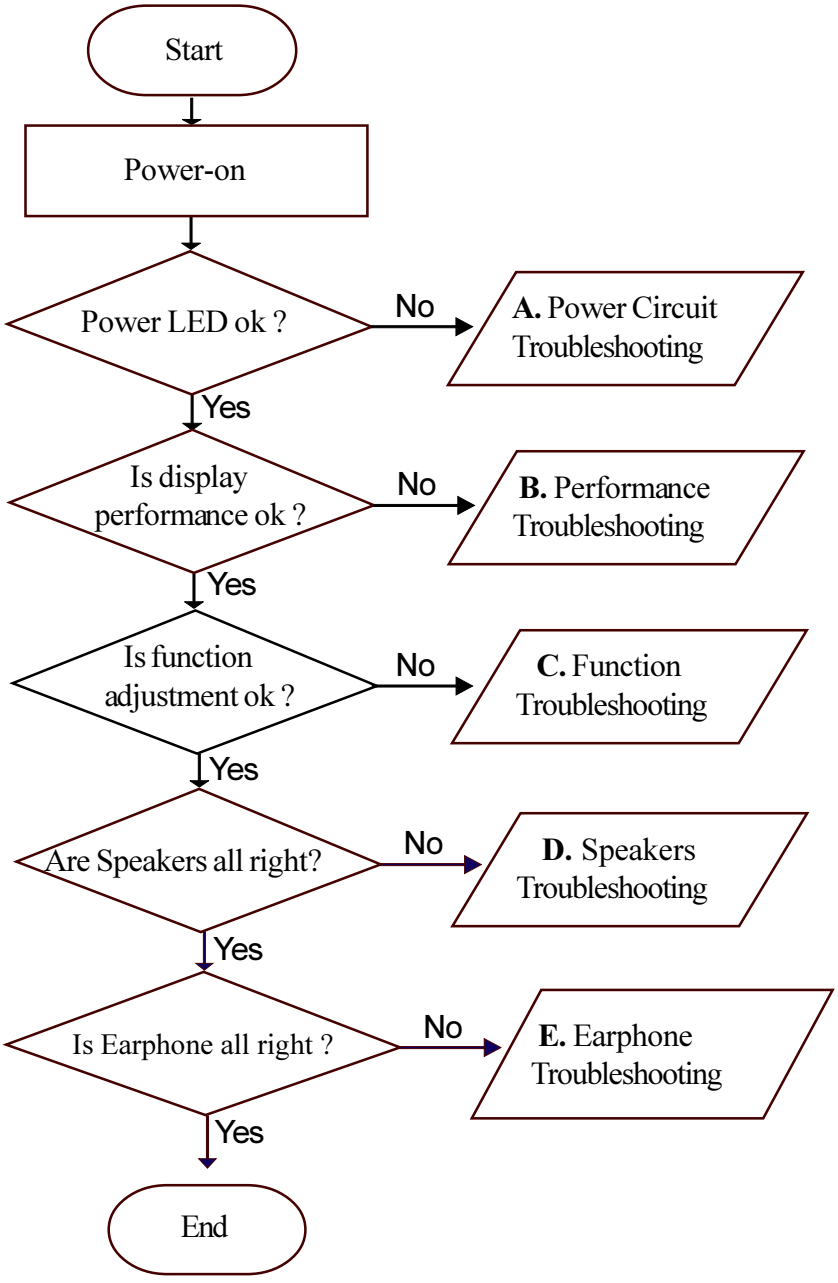
Figure 22

TROUBLESHOOTING

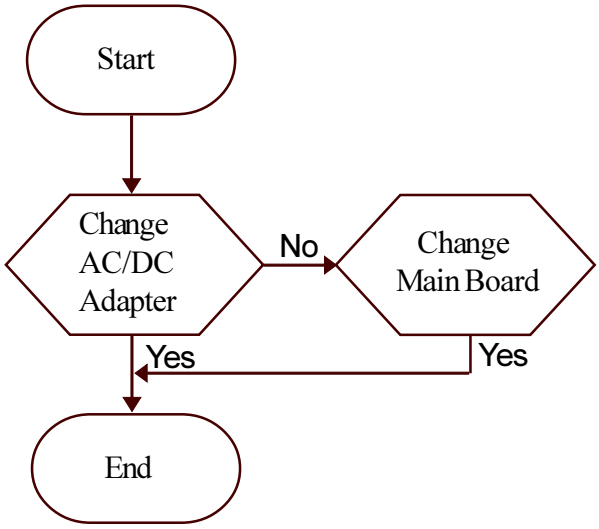
1 Equipment Needed

- ❑ **LCD1511M** Machine
- ❑ Earphone
- ❑ Philips Screw Driver #101 and #107
- ❑ PC (Personal Computer) with XGA resolution

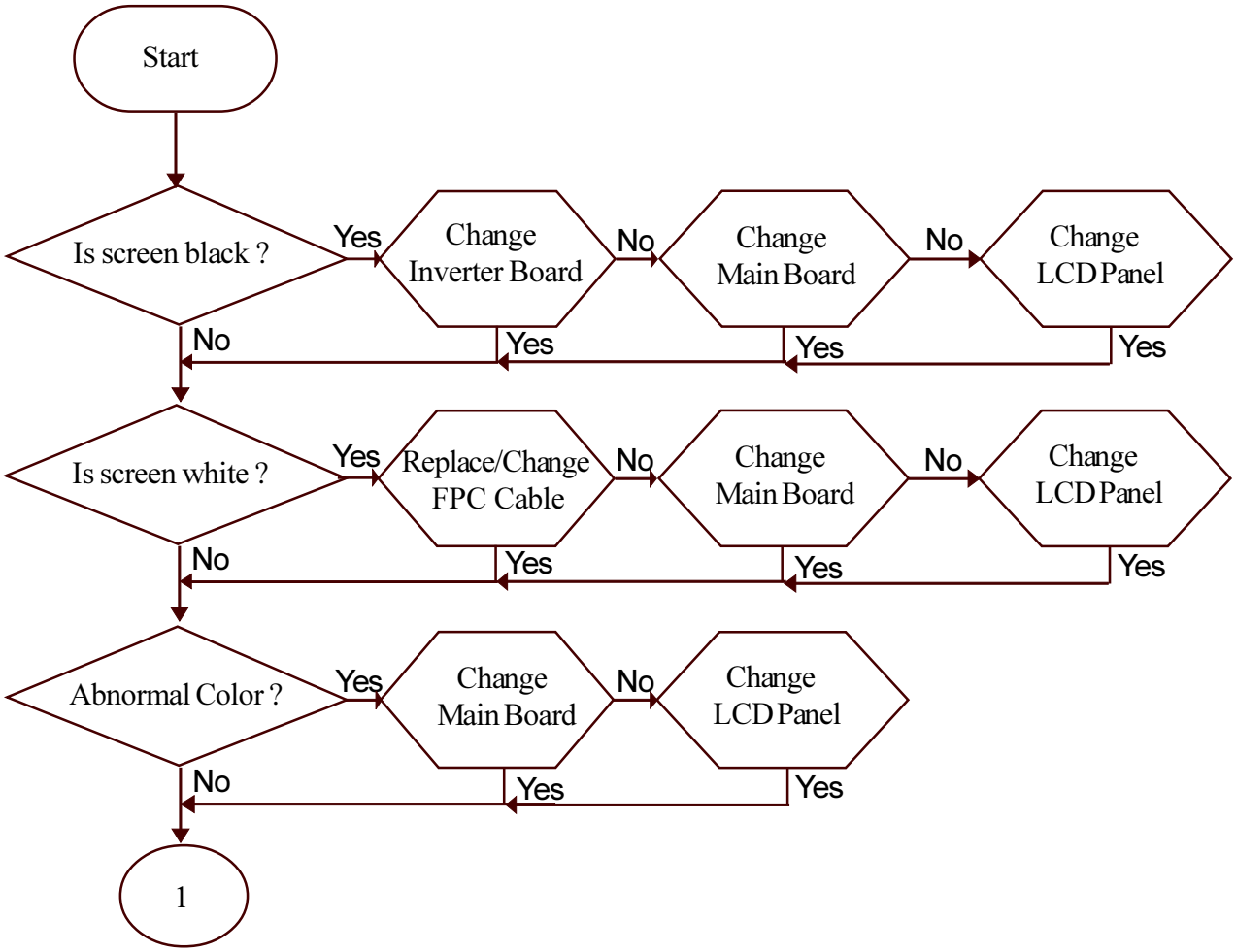
2 Main Procedure

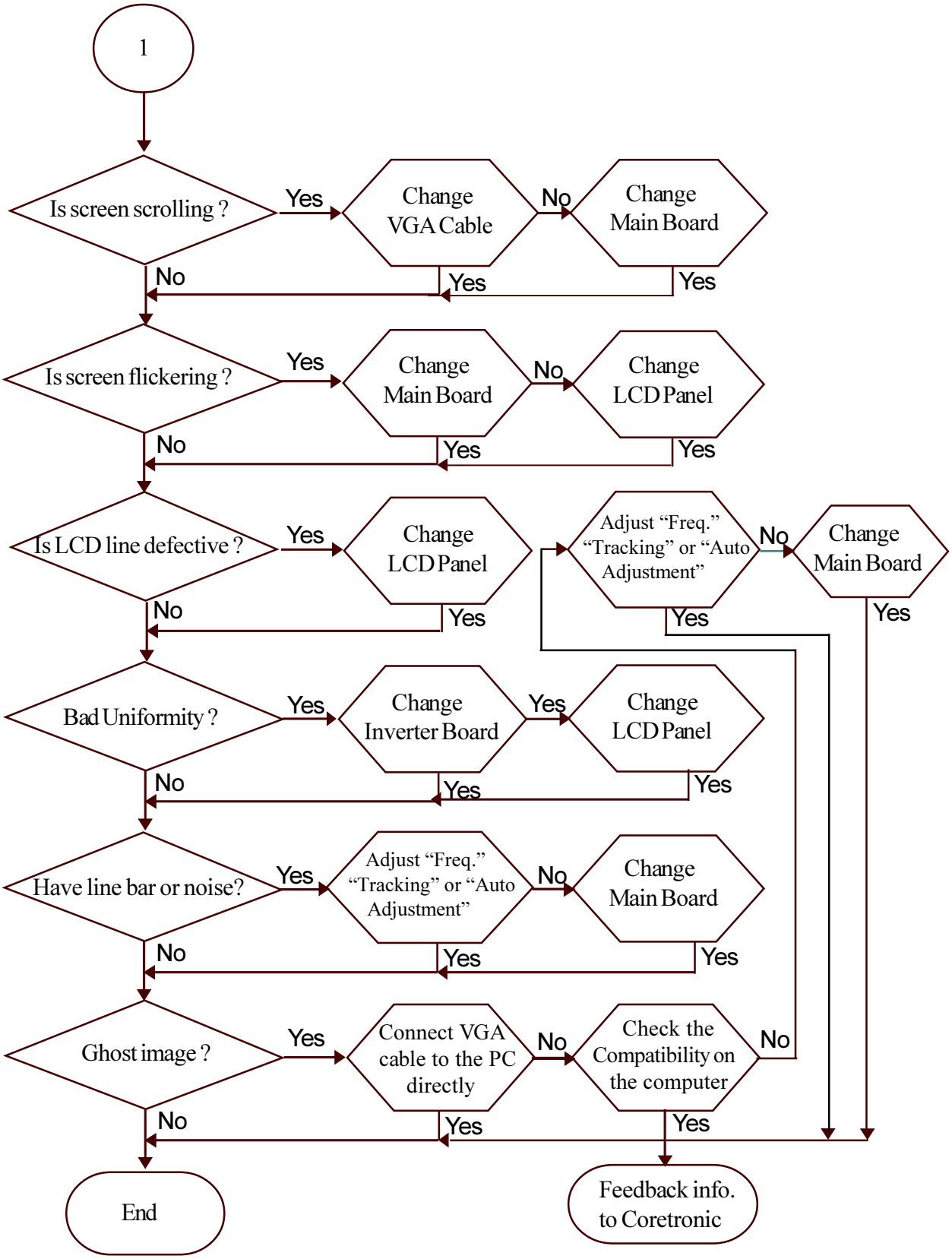


2.1 A. Power Circuit Troubleshooting

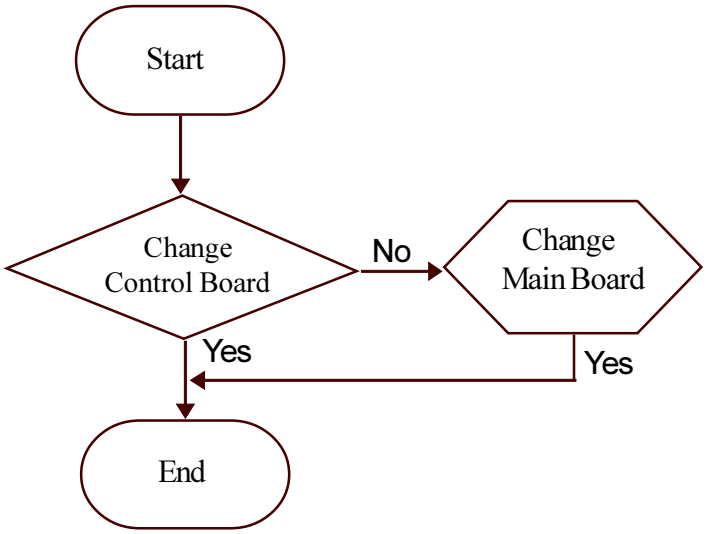


2.2 B. Performance Troubleshooting

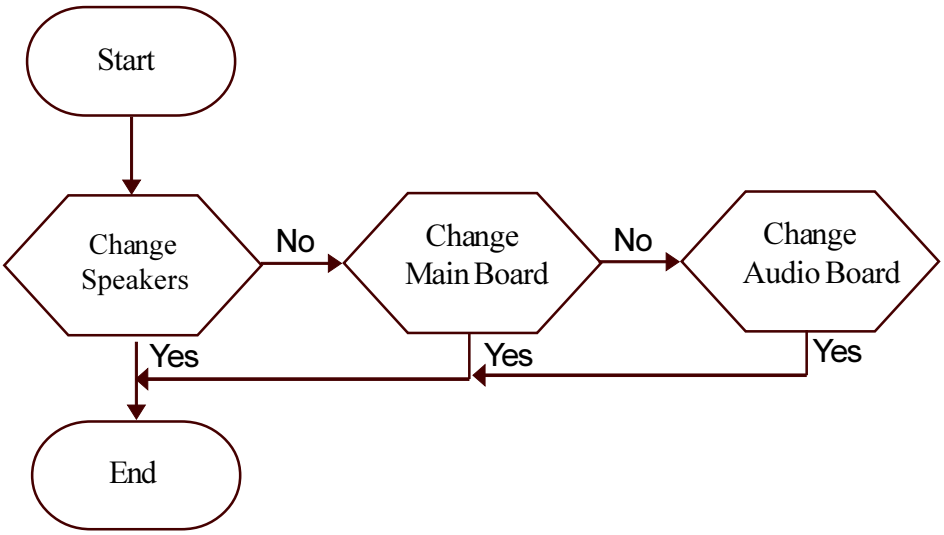



1
Is screen scrolling ?
Yes
Change VGA Cable
No
Change Main Board
No
Yes
Yes
Is screen flickering ?
Yes
Change Main Board
No
Change LCD Panel
No
Yes
Yes
Is LCD line defective ?
Yes
Change LCD Panel
Adjust "Freq." "Tracking" or "Auto Adjustment"
No
Change Main Board
No
Yes
Yes
Yes
Bad Uniformity ?
Yes
Change Inverter Board
Yes
Change LCD Panel
No
Yes
Yes
Have line bar or noise?
Yes
Adjust "Freq." "Tracking" or "Auto Adjustment"
No
Change Main Board
No
Yes
Yes
Ghost image ?
Yes
Connect VGA cable to the PC directly
No
Check the Compatibility on the computer
No
No
Yes
Yes
End
Feedback info. to Coretronic

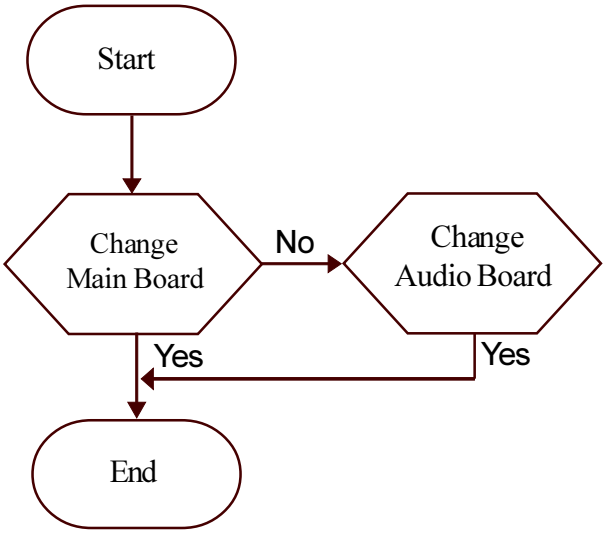
2.3 C. Function Troubleshooting



2.4 D. Speakers Troubleshooting



2.5 *E. Earphone Troubleshooting*



Function Test & Alignment Procedure

1 Product

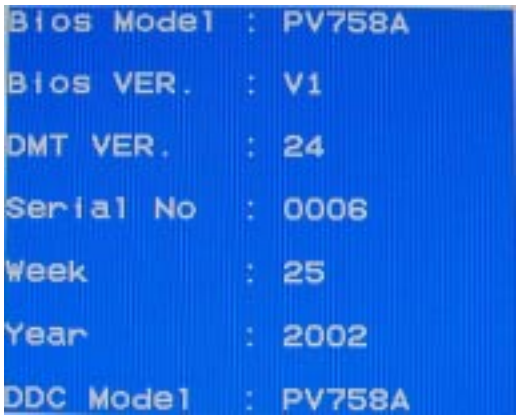
- ❑ 15” LCD Monitor

2 Test Equipment:

- ❑ Color Video Signal & Pattern (or PC with XGA resolution)

3 Hot Key:

- ❑ All Mode Reset:
  Press “+”, “-” buttons simultaneously and “Power on” with signal, hold on for 3 seconds. Then the screen will show “All Mode Reset”.
- ❑ Burn In Mode:
  Press “+”, “-” buttons simultaneously and “Power on” without signal, hold on for 3 seconds. Then the screen will show “Burn In Mode”.
  Press any button besides “power” button, you can find the information about this monitor.



- ❑ White Balance:
  Set the screen on 640*480 resolution pure black and white pattern, no other color.
  OSD is displayed and cursor is moved to Display Mode.
  Press "Menu" key and "-" key is continued, and press "Power" button.

4 Test Condition:

Before function test and alignment, each LCD Monitor should be run-in and warmed-up for at least 2 hours with the following conditions:

a). In room temperature,
b). With full-white screen, R.G.B. Black
c). With cycled display modes,

640*480 (H=37.5kHz, V=75Hz) 800*600 (H=46.9kHz, V=75Hz)
1024*768 (H=60.0kHz, V=75Hz)

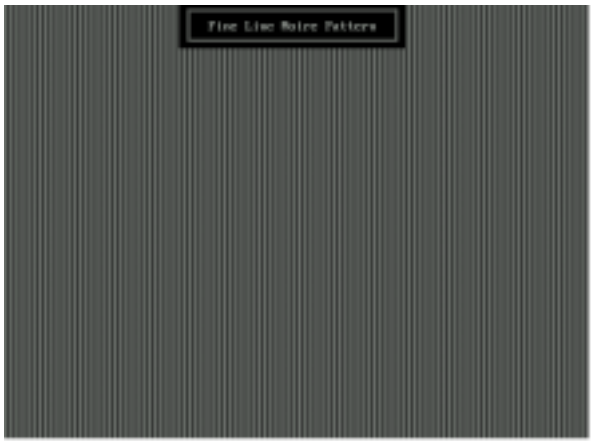
5 Test Display Modes & Pattern

5.1 Compatible Modes

Standrad	**Resolution**	**Vertical Refresh(Hz)**	**Horizontal Scan(kHz)**
IBM VGA	640*350	70	31.5
IBM VGA	640*400	70	31.5
IBM VGA	720*400	70	31.5
IBM VGA	640*480	60	31.5
VESA VGA	640*480	72	37.9
VESA VGA	640*480	75	37.5
VESA SVGA	800*600	56	35.2
VESA SVGA	800*600	60	37.9
VESA SVGA	800*600	72	48.1
VESA SVGA	800*600	75	46.9
VESA XGA	1024*768	60	48.4
VESA XGA	1024*768	70	56.5
VESA XGA	1024*768	75	60.0
Apple **GA**	640*480	67	34.9
Apple **GA**	640*480	67	35.0
Apple **GA**	832*624	75	49.7
Apple **GA**	1024*768	75	60.2

5.2 Function Test Display Pattern

Item	*Test Content*	*Pattern*	*Specification*	*Remark*
1	Frequency & Tracking	Fine Line Moire	Eliminate visual wavy noise.	Figure 1
2	Contrast/Brightness	16 Gray Scale	16 gray levels should be distinguishable.	Figure 2
3	Boundary	Horizontal & Vertical Thickness	Horz. and Vert. position of video shuld be adjustable to be within the screen frame.	Figure 3
4	R,G,B, Color Performance	R.G.B Color Intensities	Contrast of each R,G,B, color should be normal.	Figure 4,5,6
5	Screen Uniformity & Flicker	Full White	Should be compliant with the spec.	Fgure 7
6	Dead Pixel/Line	White Screen Dark Screen	The numbers of dead pixels should be compliant with the spec.	Figure 8
7	White Balance	White & Black Pattern	The screen must have the pure white and black pattern, no other color.	Figure 9



Fine Line Morie Pattern (Figure 1)

Gray Scale Pattern (Figure 2)

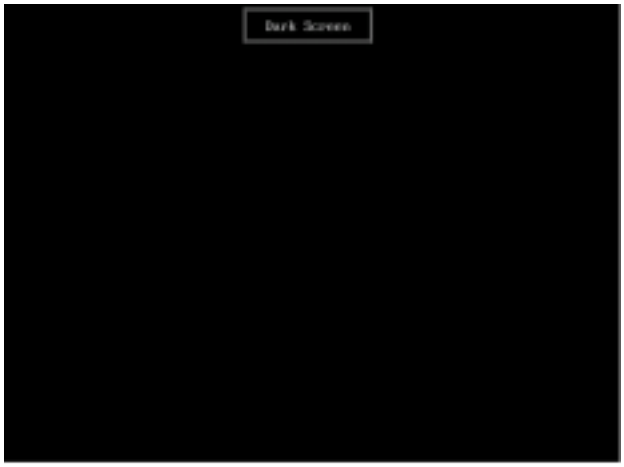
Horizontal & Vertical Thickness Pattern (Figure 3)

R. Color Pattern (Figure 4)

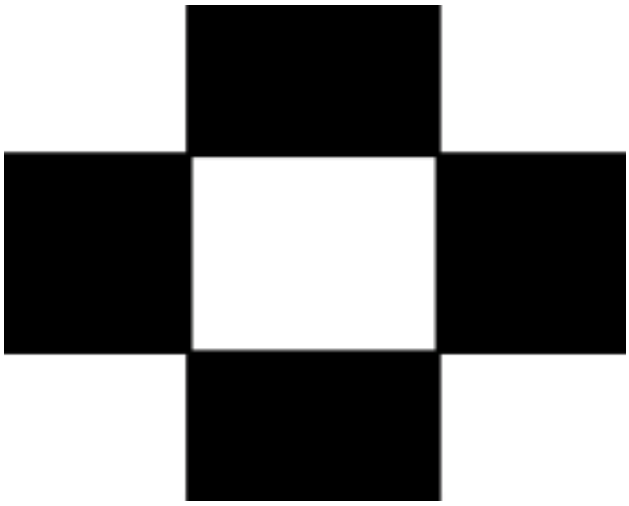
G. Color Pattern (Figure 5)

B. Color Pattern (Figure 6)

Full White Pattern (Figure 7)



Dark Screen Pattern (Figure 8)



Black-White Pattern (Figure 9)

6 Function Test and Alignment Procedure

6.1 All Modes Reset

You should do "All Mode Reset" *(Refer to Chapter 3)* first.
This action will allow you to erase all end-user's settings and restore the factory defaults.

6.2 Auto Adjustment

Please select and enter *"**Auto Adjustment**"* function on Main Menu or press "Auto" button on the select knob to see if it is workable. The *"**Auto Adjustment**"* function is aimed to offer a better screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

6.3 DDC

Test Pattern: Burn In Mode *(Refer to Chapter 3)*

- ❖ Make sure the model name is correct.

6.4 Tracking and Frequency

Test Signal: 1024*768@75Hz
Test Pattern: Line Moire Pattern

- ❖ Check and see if the image has noise and focus performs well.
  eliminate visual line bar.
- ❖ If not, readjust by the following steps :

  *(a) Select and enter "**Tracking**" function on "**Image Screen**" to adjust the image to eliminate visual wavy noise.*

  *(b) Then, select and enter "**Frequency**" function to adjust the image to eliminate visual line bar.*

6.5 Boundary

Test Signal : 1024*768@75Hz
Test Pattern : Horizontal & Vertical Line Thickness Pattern

- ❖ Check and see if the image boundary is within the screen frame.
- ❖ If not, readjust by the following steps :

  *(a) Select and enter "**Image screen**" function on OSD Main Menu.*

  *(b) Then, select and enter "**Horizontal Position**" and "**Vertical Position**" function to adjust the video boundary to be full scanned and within screen frame.*

6.6 White Balance

Test Signal : 640*480@60Hz

Test Pattern: Full White and Black Pattern

- ❖ Refer to Chapter 3

6.7 R,G,B, Colors Contrast

Test Signal: 1024*768@75Hz

Test Pattern: R,G,B Color Intensities Pattern and 16 Gray Scale Pattern

- ❖ Check and see if each color is normal and distinguishable.
- ❖ If not, please return the unit to repair area.

6.8 Screen Uniformity and Flicker

Test Signal: 1024*768@75Hz

Test Pattern: Full White Pattern

- ❖ Check and see if it is in normal condition.

6.9 Dead Pixel and Line

Test Signal: 1024*768@75Hz

Test Pattern: Dark and White Screen Pattern

- ❖ Check and see if there are dead pixels on LCD panel.
- ❖ The total numbers and distance of dead pixels should be compliant with the spec.

6.10 Audio (Optional, depend on Model)

Test Signal: Voice signal

Test Pattern: liberty

- ❖ Make sure that Audio function is working without noise.

6.11 Check for Secondary Display Modes

Test Signal: 640*350@70Hz; 640*480@60/72/75Hz;
720*400@70Hz; 800*600@56/60/72/75Hz;
1024*768@60/70/75Hz;

- ❖ Normally when the primary mode 1024*768@75Hz is well adjusted and compliant with the specification, the secondary display modes will be great

possibile to be compliant with the spec. But we still have to check with the **general test pattern** to make sure every secondary is compliant with the specification.

6.12 All Modes Reset

After final QC step, we have to erase all saved changes again and restore the factory defaults. You should do "All Mode Reset" *(Refer to Chapter 3)* again.

7 Cleaning

Please use non-alcohol cleanser to clean LCD panel and cosmetics material with soft cotton.

8 Inspection Standard

- *Appearance Inspection: Scratches/Abrasions*

  a.) Mechanical:

  Face A: Not Acceptance

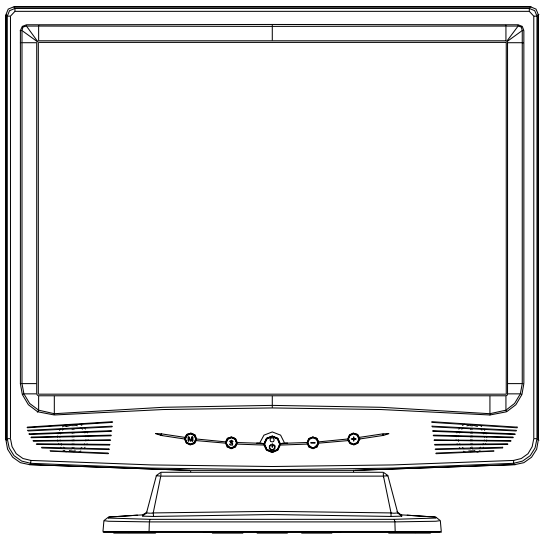


Figure 1: Face A View

Face B: Length:12.7mm, Width: 0.25mm (2 lines,scrapes)

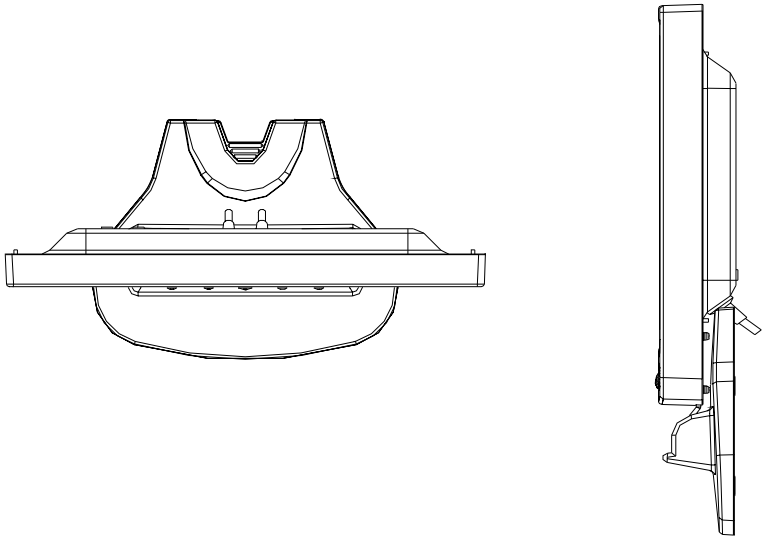


Figure 2: Face B View

Face C: Length:76mm Width:0.76mm (2 lines,scrapes)

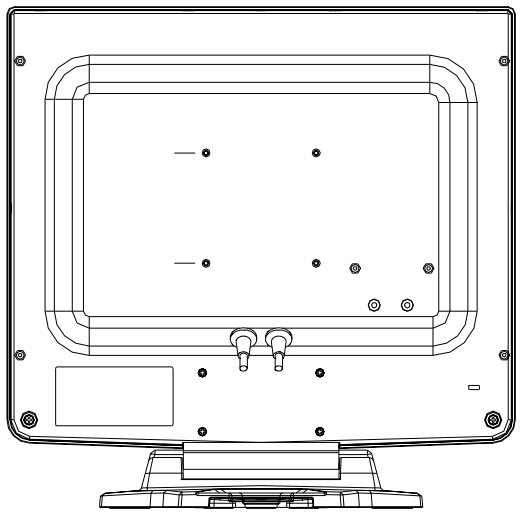


Figure 3: Face C View

Face D: Length:89mm Width:0.76mm (2 lines,scrapes)

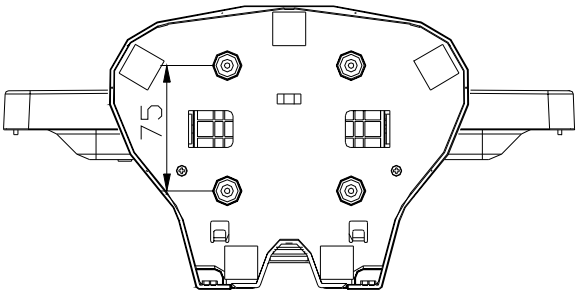
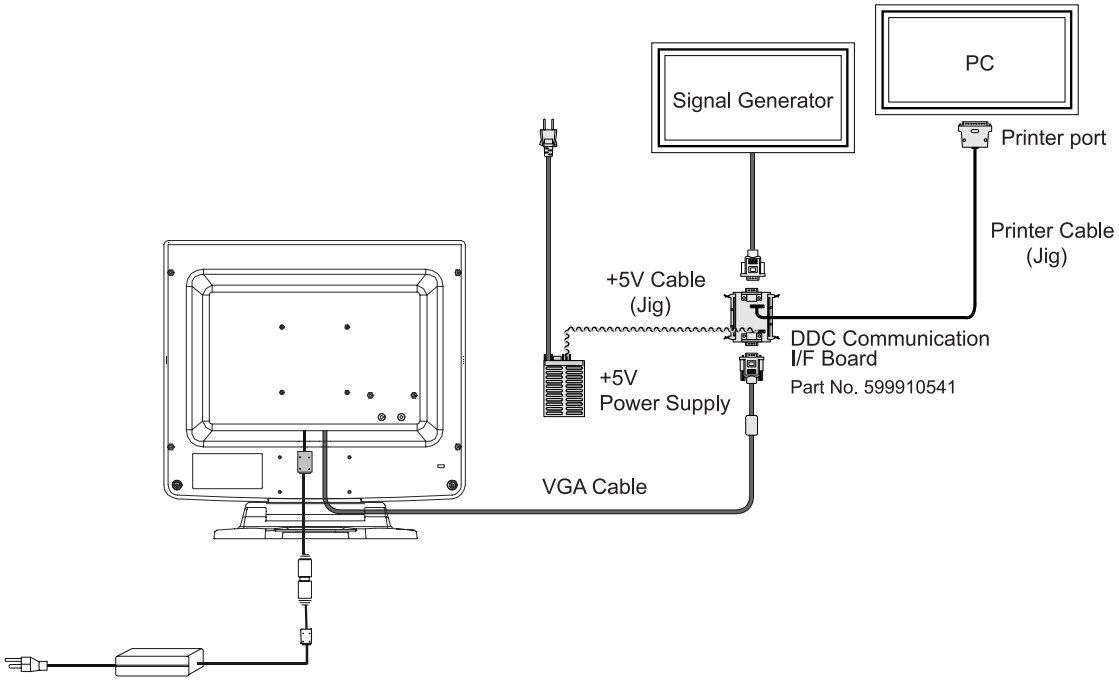


Figure 4: Face D View

DDC Key-in Procedure

1. System connection

This system should be connected as shown below.



DDC Communication I/F BOARD

2. Input signal

Horizontal synchronization frequency : Not specified.

Vertical synchronization frequency : Not specified.

3. Program

Service tool Ver. 3.14 (Parameter ver. 2.0-S5) (Part No. 599910612)

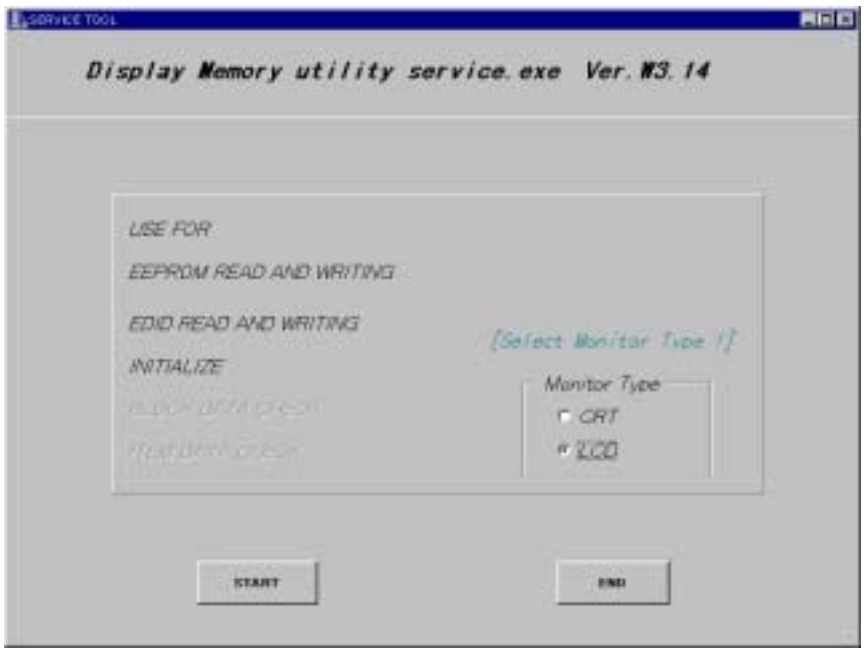
4. Operation

1) Connect the EDID data writing unit with jigs, etc.

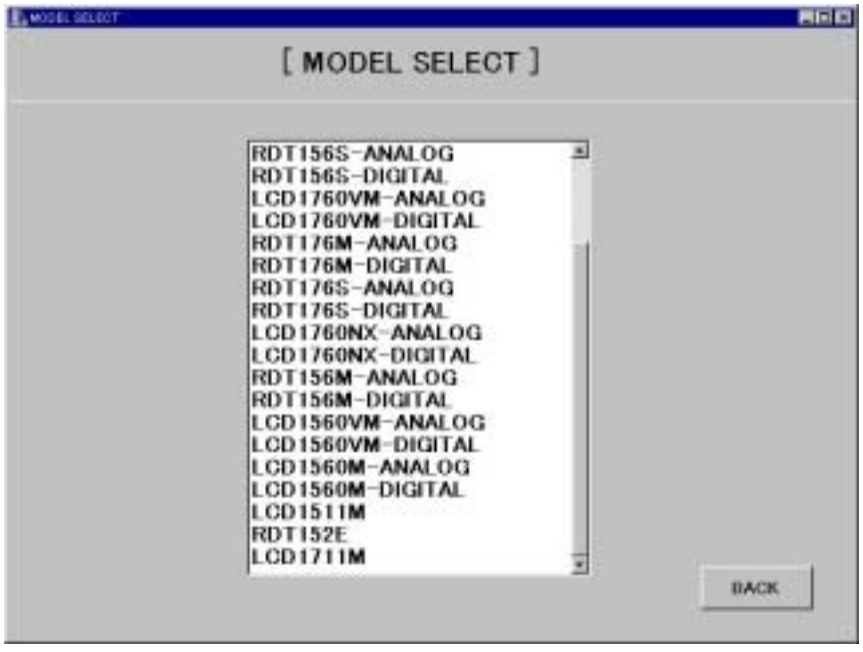
2) Copy all the files of the service tool Ver. 3.14 (Parameter ver. 2.0-S5) in a proper directory.

3) Start [Service2.EXE] of the service tool Ver. 3.14.

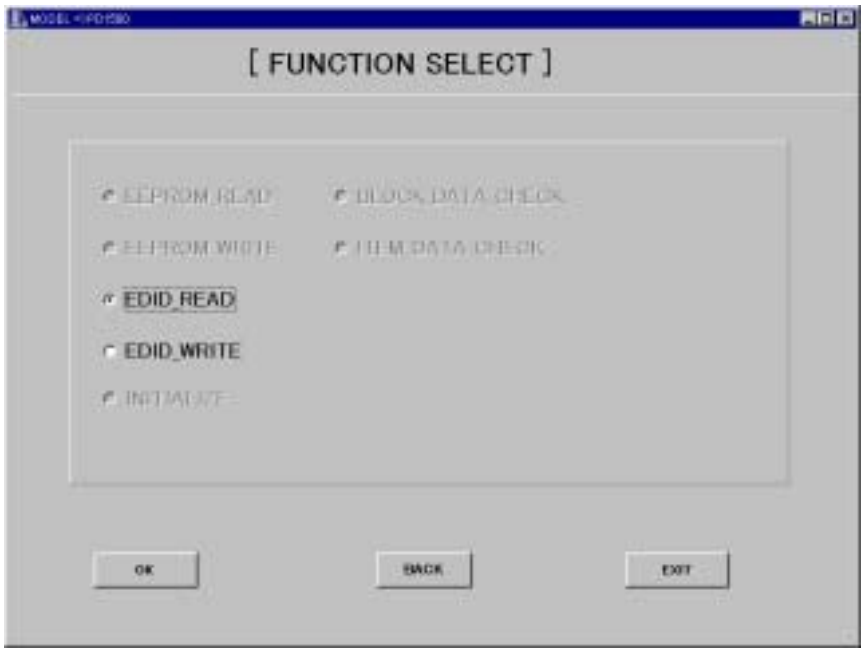
4) When the screen as shown below appears, give a check to [LCD] of [Monitor Type] and press the [START] button.



5) When the screen as shown below appears, adjust the cursor to [LCD1511M] and make a double click.

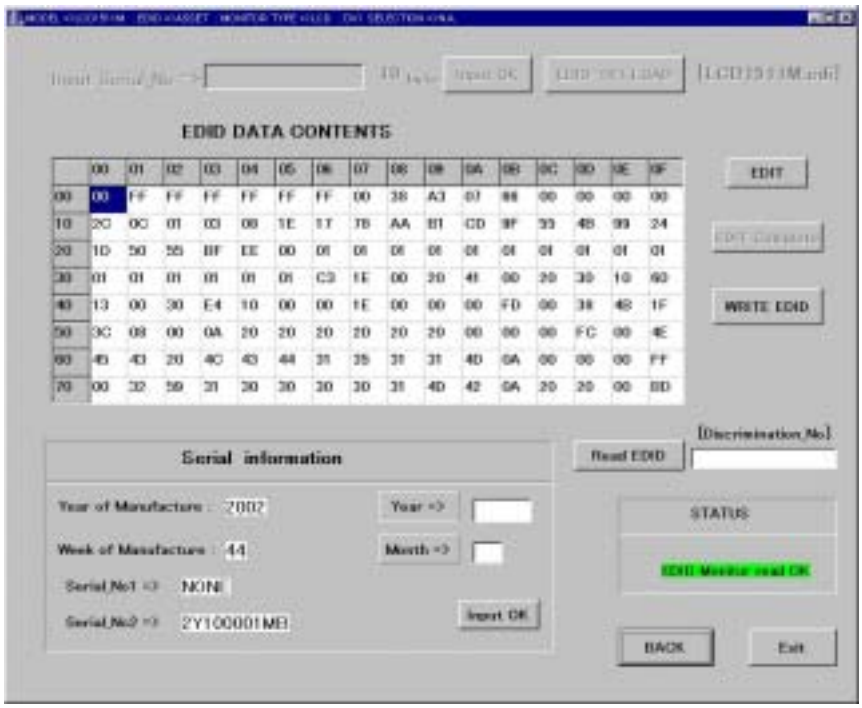


6) When the screen as shown below appears, give a check to [EDID_READ] and press the [OK] button.



7) When the screen as shown below appears, confirm that the correct data are displayed in the columns of EDID DATA CONTENTS and Serial information.

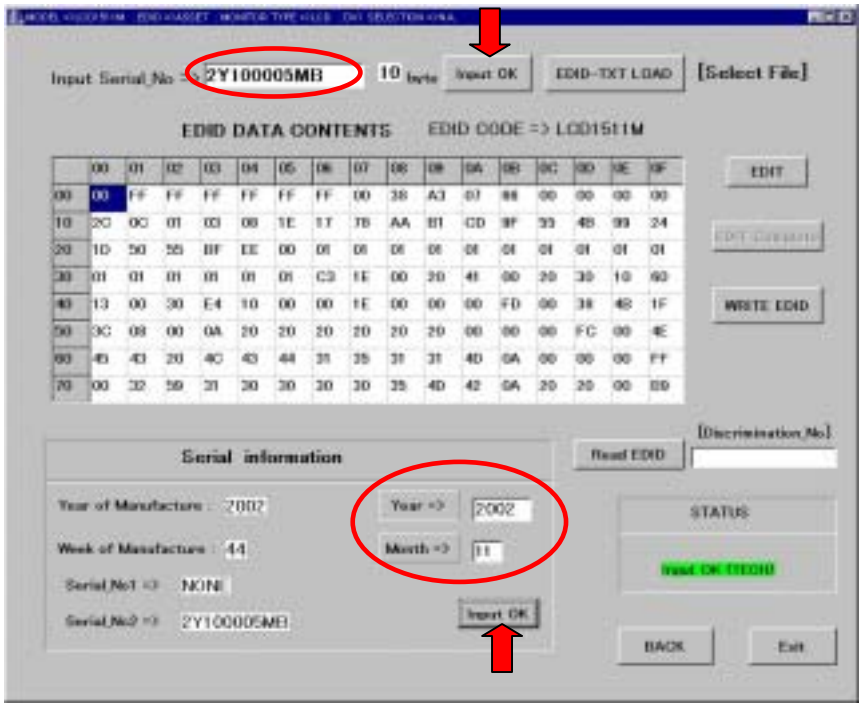
If all the displayed data are [FF] or the like, or if the serial number is different from that of the corresponding unit, then EDID data writing should be carried out.



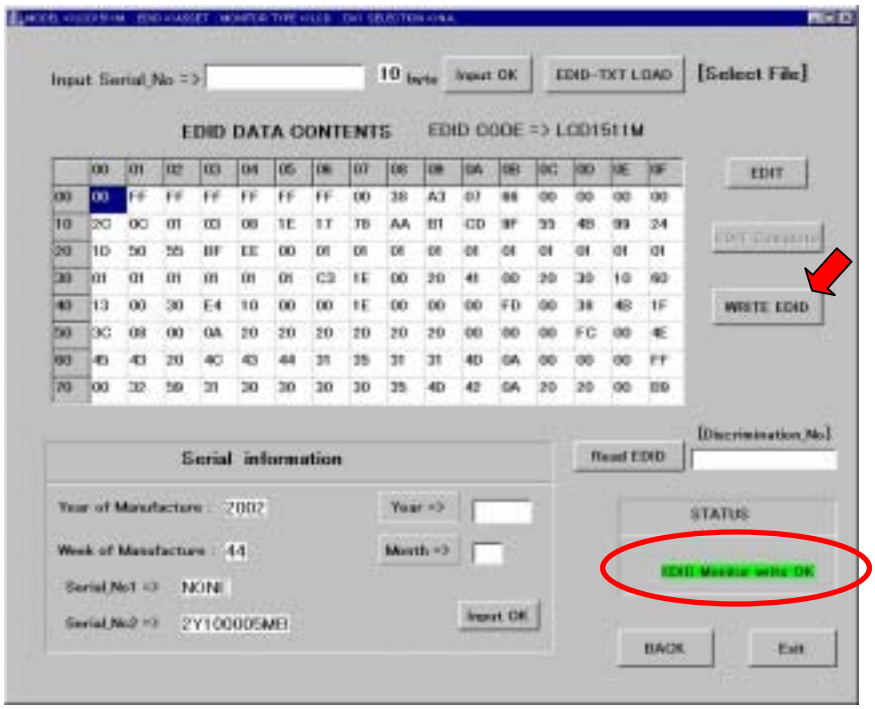
8) When a screen of Item 6 is displayed by pressing the [BACK] button, give a check to [EDID_WRITE] and press the [OK] button.

9) When the screen as shown below appears, examine the serial number of the unit, enter an input in the column of [Input Serial No.] through the keyboard, and press the [Input OK] button.

Enter an input in the column of [.Year=>] in manufactured year(A.D. four digits) and [Month=>] in manufactured month through the keyboard, and press the [Input OK] button.



10) When the [WRITE EDID] button is pressed, writing of the EDID data only is carried out. Upon the completion of correct writing, a display of [EDID Monitor Write OK] is presented in the column of [STATUS].



11) Upon the normal completion of EDID data writing, press the [Exit] button to close the program.

5. EDID data file

EDID date: LCD1511M.edi

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	00	FF	FF	FF	FF	FF	FF	00	38	A3	07	66	00	00	00	00
10	2C	0C	01	03	08	1E	17	78	AA	B1	CD	9F	55	4B	99	24
20	1D	50	55	BF	EE	00	01	01	01	01	01	01	01	01	01	01
30	01	01	01	01	01	01	C3	1E	00	20	41	00	20	30	10	60
40	13	00	30	E4	10	00	00	1E	00	00	00	FD	00	38	4B	1F
50	3C	08	00	0A	20	20	20	20	20	20	00	00	00	FC	00	4E
60	45	43	20	4C	43	44	31	35	31	31	4D	0A	00	00	00	FF
70	00	32	59	31	30	30	30	30	31	4D	42	0A	20	20	00	BD

Note 1: address 10h	Week of manufacture = Month of manufacture × 4
Note 2: address 11h	Year of manufacture - 1990
Note 3: address 71h ~ 7Dh	Serial Number (ASCII coded)
	If less than 13 char, terminate with 0Ah and fill the rests with 20h.
Note 4: address 7Fh	Checksum
	The sum of entire 128 byte shall be equal to 00h.

LCD Specification

1. General Information

LCD	Active matrix thin-film-transistor (TFT)
Effective display size	12.0”(H) x 9.0”(V) / 304.1(H) x 228.1(V) mm
	15.0” / 38.016 cm. diagonal
Pixel number	1024 x 3 (H) x 768 (V) pixels
Color filter arrangement	R.G.B. vertical stripe
Display method	Conventional TFT with retardation film, Normally white
Drive method	Active matrix (Amorphous Si TFT)
Dot pitch	0.099(H) x 0.297(V) mm
Pixel pitch	0.297(H) x 0.297(V) mm
Dot number	1024 x 768 x 3 dots
Backlight	The backlight system is an edge-lighting type with 2 CCFLs
Luminance	250 cd/m^2 (typical: center / all white)
Contrast ratio	400:1 (typical.)
Display color	16,194,277 colors (6bit/color)
	(Depend on graphics interface and / or Application)
Viewing angle	Up 45 deg. / Down 55 deg. / Right 65 deg. / Left 65 deg.
	(Typical, Contrast ratio > 10 at Ta=25 deg C)
Response time (on + off)	35 ms (typical.)
Backlight Life Term	30,000 hours (min) , 40,000 hours (typ)
	(IL=6.0mA, Continuous operation, Ta=25 deg C)

2. Defect, Scratch and Dust

Inspection conditions:

(a) Viewing distance is approximately 15~50cm

(b) Ambient illuminant is from 300 to 500lux.

(c) Viewing angle is normal to the LCD panel.

(d) Ambient temperature is approximately 25deg C.

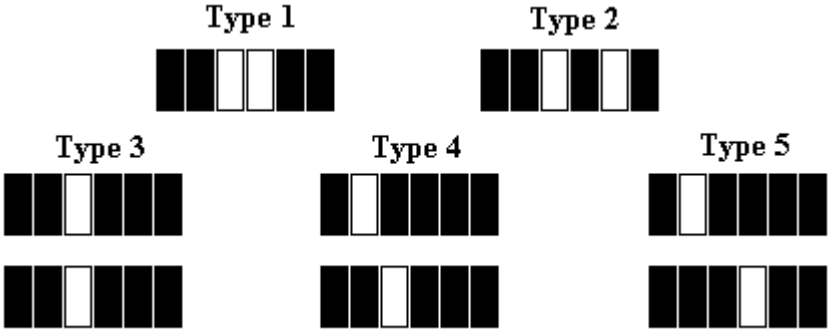
(e) Input signal clock frequency: 40MHz

DEFECT TYPE		LIMIT
VISUAL DEFECT	Dark/ Bright Spot Circular Foreign Material	0.2mm ≤ D ≤ 0.5mm N ≤ 7
	Bright or Dark Line Foreign Material	0.05mm ≤ W ≤ 0.2mm 0.3mm ≤ L ≤ 3mm, N ≤ 5
	Polarizer/ Linear Scratch	0.01mm ≤ W ≤ 0.5mm 1.0mm ≤ L ≤ 10mm, N ≤ 5
	Polarizer- Bubble/ Peeling	Average D ≤ 0.5mm, N ≤ 6
	Maximum Allowable Defect Count All Types	N ≤ 7
ELECTRICAL DEFECT	Bright Dot Random	N ≤ 4
	Bright Dot – Green	N ≤ 3
	Bright Dot – 2 Adjacent	N ≤ 2
	Dark Dots – Random	N ≤ 6
	Dark Dots – 2 Adjacent	N ≤ 3
	Dark Dots – 3 or More adjacent	N = 0
	Total Bright and Dark Dots	N ≤ 6
	Minimum Distance Between Bright Dots	15 mm
	Minimum Distance Between Bright and Dark Dots	10 mm
	Minimum Distance Between Dark Dots	5 mm

1) D: diameter, W: horizontal width, L: vertical high, N: number

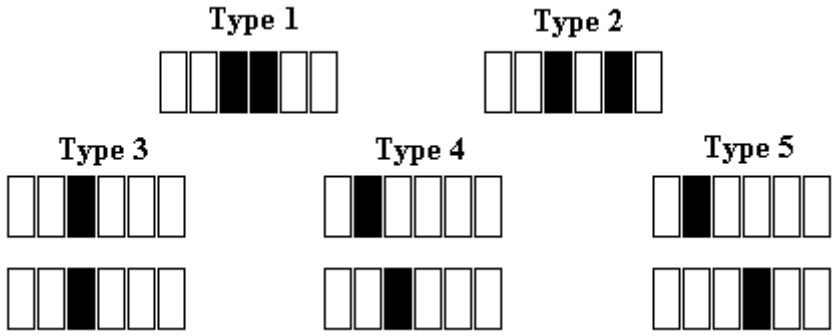
2) Bright dot defect description

- **Two adjacent**



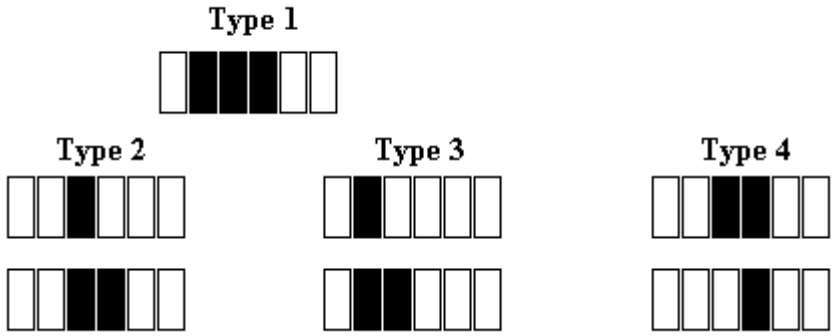
3) Dark dot defect description

- **Two adjacent**



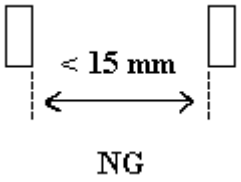
4) Dark dot defect description

- **Three adjacent**



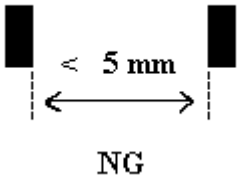
5) Minimum distance between dot defects

Bright dot to bright dot



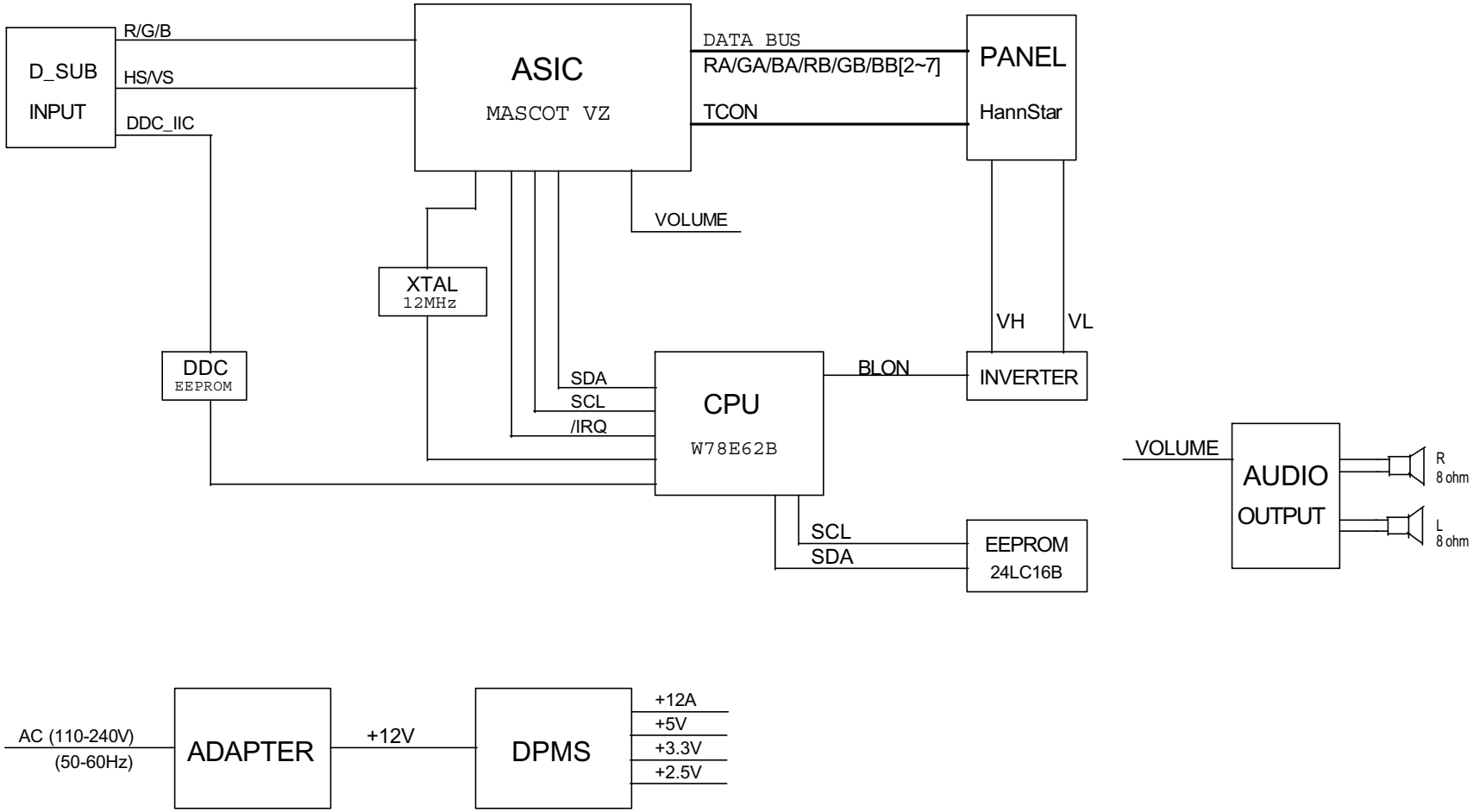
NG

Dark dot to dark dot

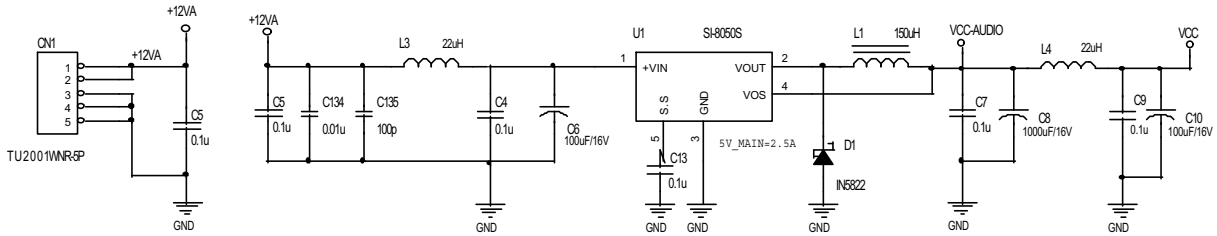


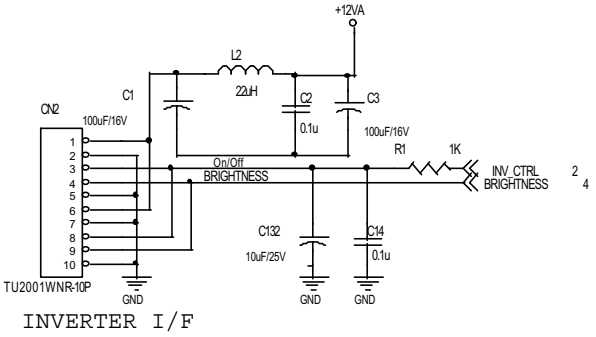
NG

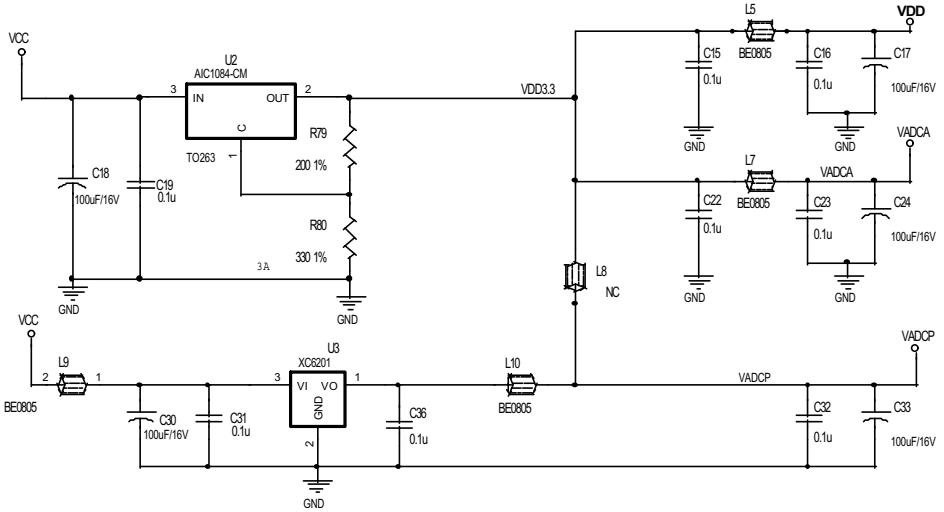
BLOCK DIAGRAM

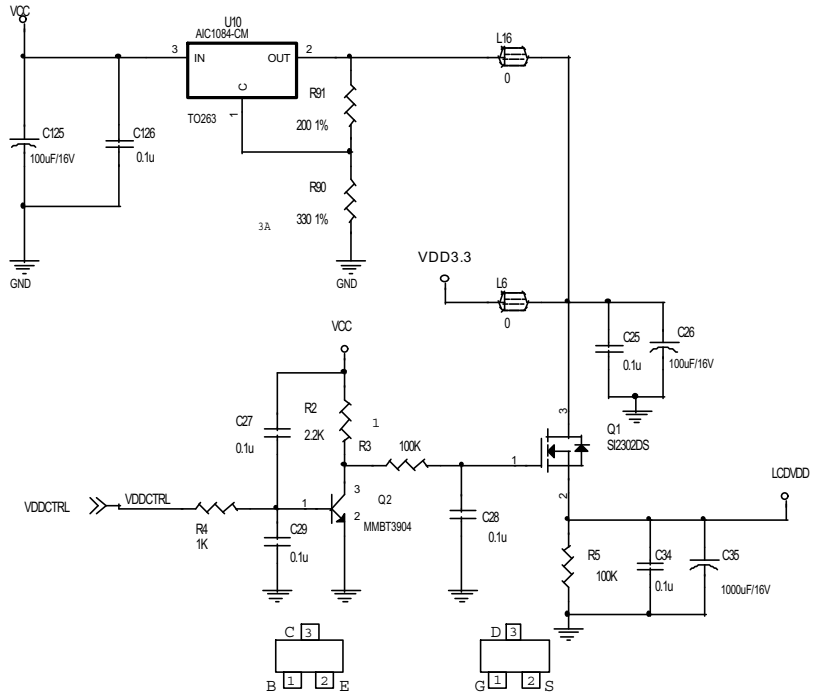


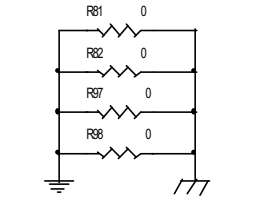
SCHEMATIC DIAGRAM (POWER SUPPER)

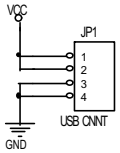




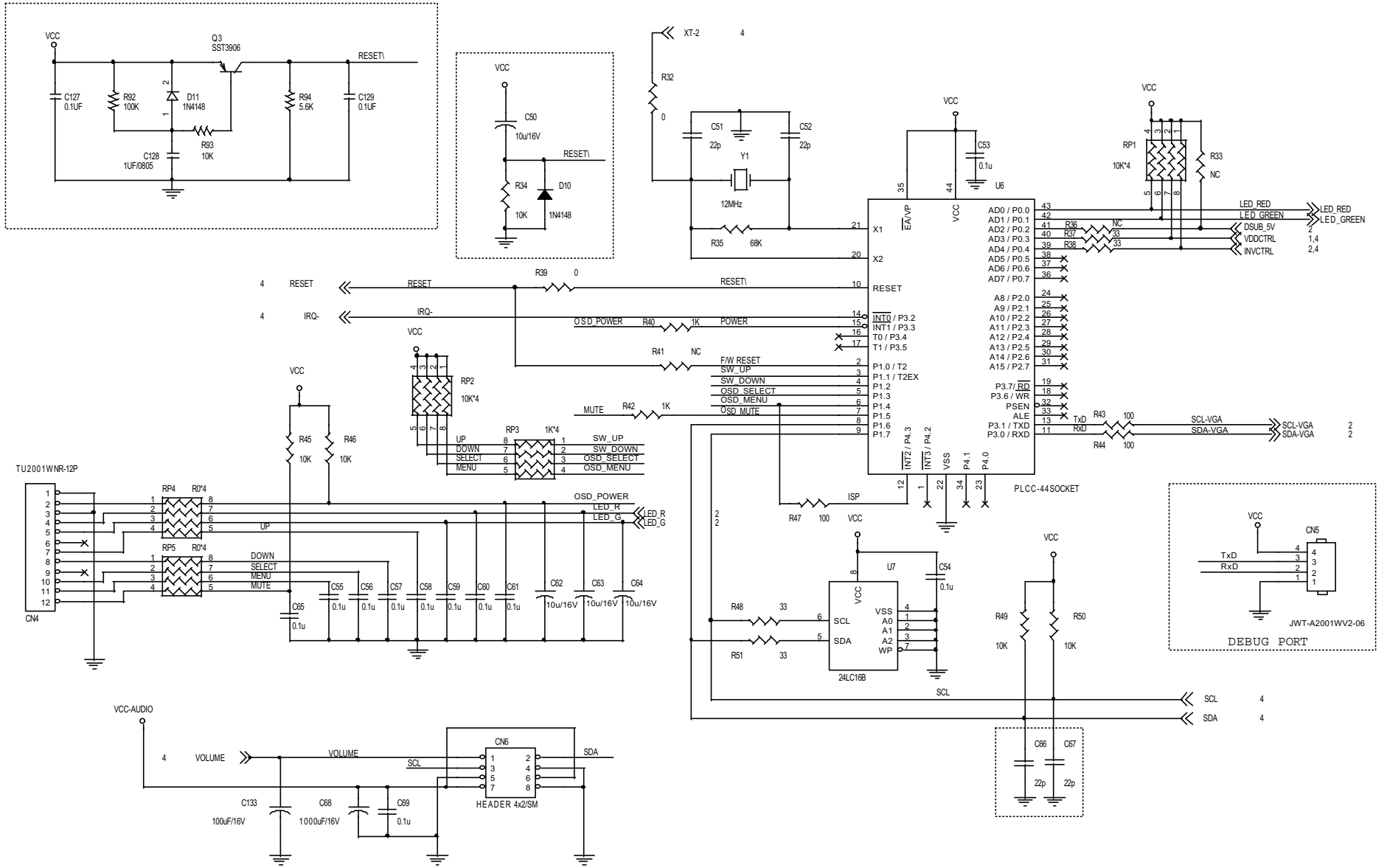




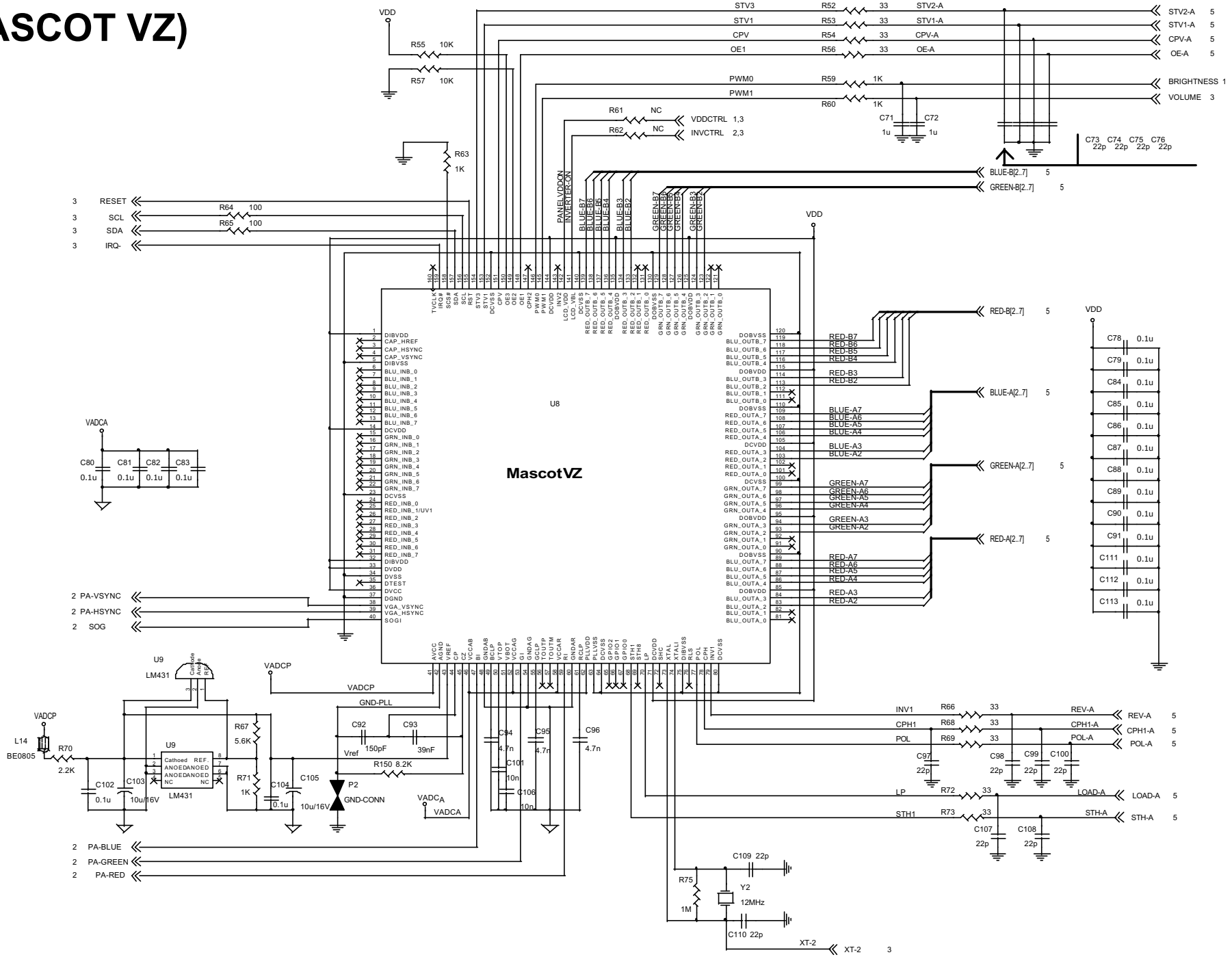




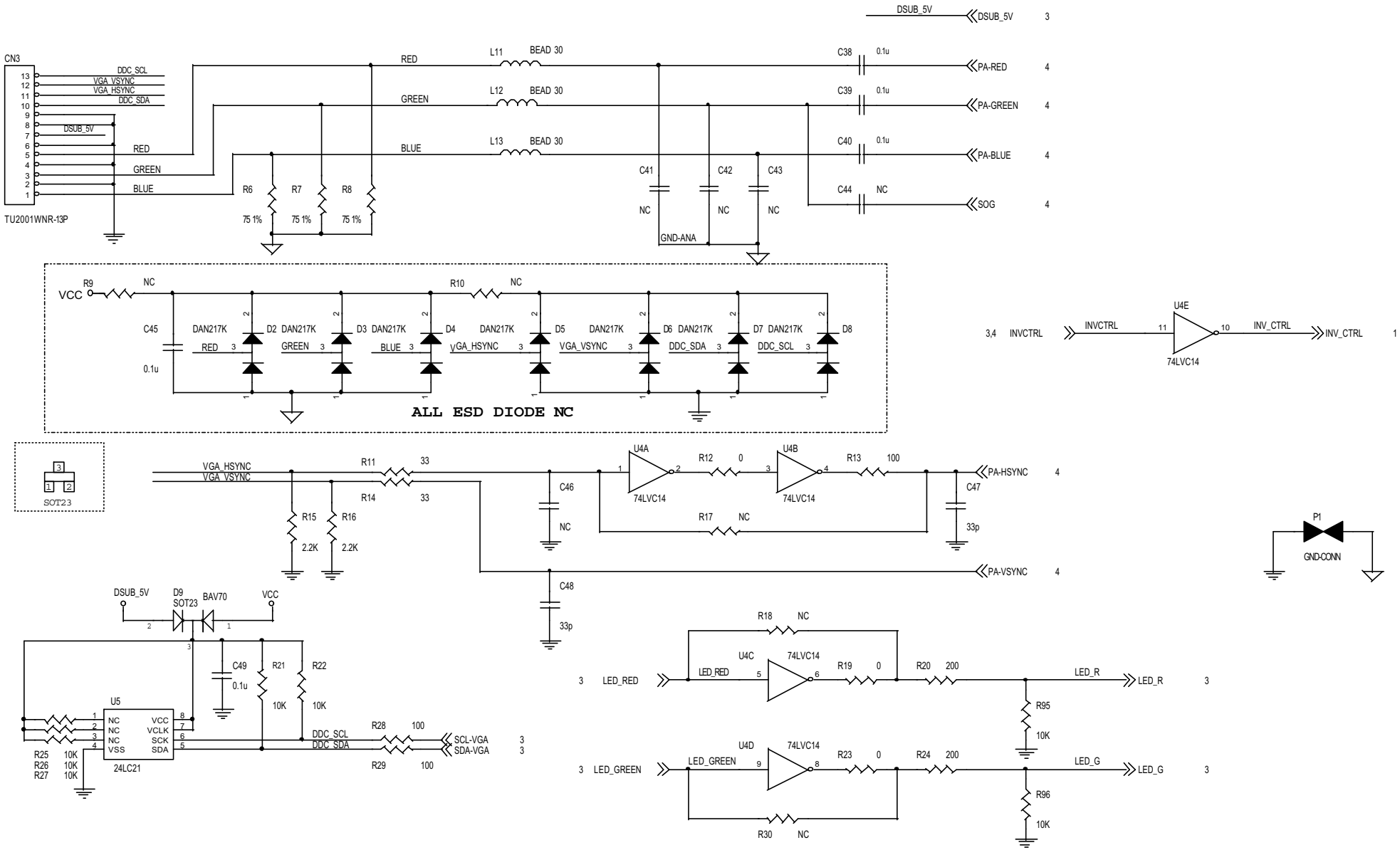
SCHEMATIC DIAGRAM (MCU & LCD POWER CTRL)



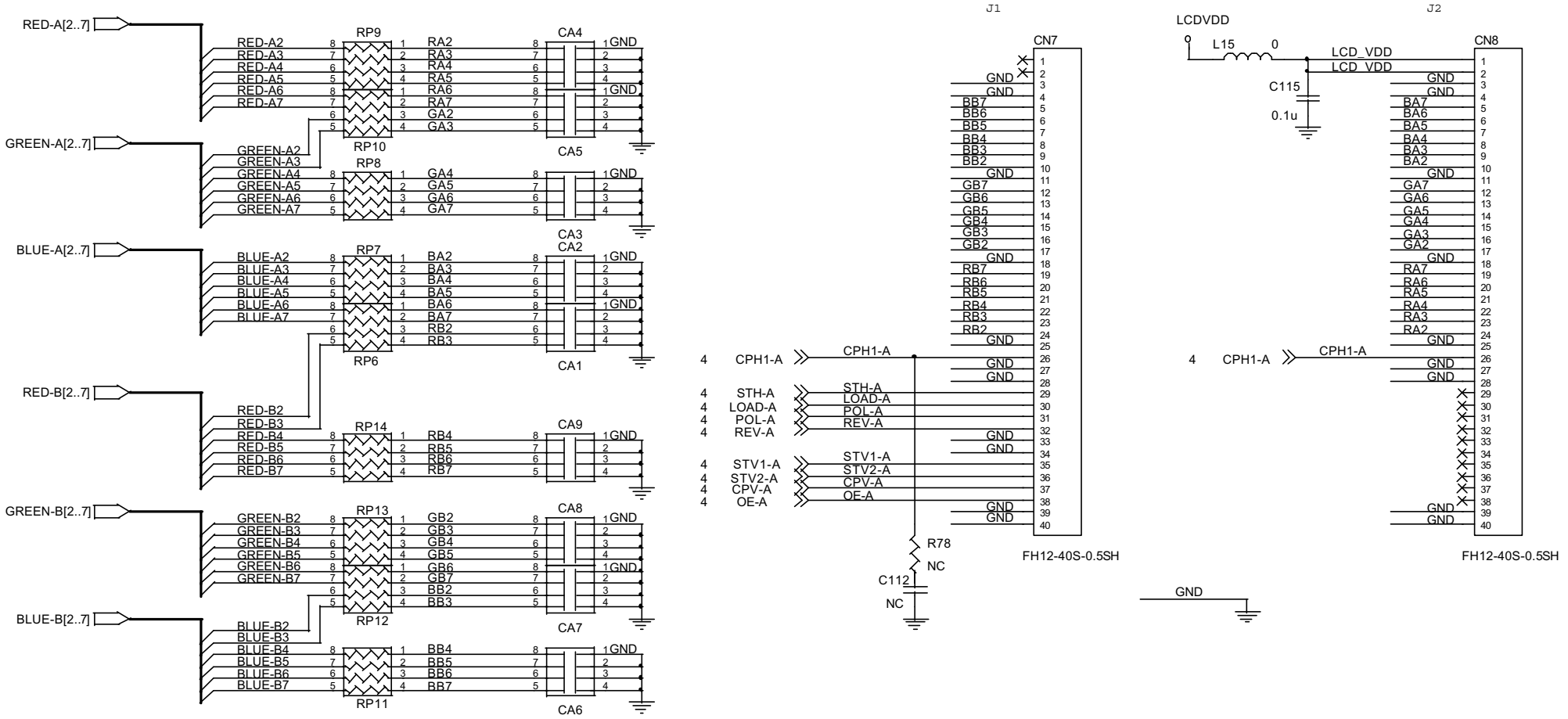
SCMATIC DIAGRAM (MASCOT VZ)



SCHEMATIC DIAGRAM (VGA INPUT)



SCHEMATIC DIAGRAM (OUTPUT CONNECTOR)



REPLACEMENT PARTS LIST

The components specified for Model LCD1511M (UK ver)
The components specified for Model LCD1511M (CE ver)

SYMBOL	Part No for Coretronic	DESCRIPTION	Remark
	47.59101.001	ADAPTER IN:100-240V OUT:12V/2.5A;FOR NMV;"L	
	35.59103.001	Rating Label LCD1511M	
	39.59102.003	DDC RECORDER LCD1511M	
	41.30318.001	EMI TAPE (80773) 30*70MM	
	41.80301.001	EMI CORE-A5-FS-31*5*12-1.0 EzPro 550A	
	42.57702.002	W.A. 10P/5P UL1007 #24 100mm PV755A	
	42.59101.002	FFC 40P 28mm FOR HANNSTAR PANEL PV758A	
	42.59102.001	CABLE DC JACK to 5P HOUSING 1-CORE PV758A	
	42.59103.001	CABLE VGA 15P to 13P 1-CORE PV758A	
	42.59104.001	W.A. 12/10P UL1571 #28 PV758A	
	42.59701.001	W.A. 8P UL1571 #28 180mm PV758A/PV755ASIP	
	44.59101.001	PCBA INVERTER PLCD2815202A-REV1 FOR NMV	
	48.59102.001	TFT LCD 15" XGA HANNSTAR HSD150SX84-A	
	49.59101.001	ASSY SPEAKER POD 8ohm CTN-2515CP "YUNGTECH"	
	49.59901.003	ASS'Y SPEAKER POD 8ohm PV890C	
	51.00014.002	FILAMENT TAPE 3M NO.8915 25mm*55M	
	51.00026.001	DOUBLE TAPE 3M-Y4609 6MM(W)*0.8MM(T)	
	51.55311.001	SR LOCKER N66+V2/N PV755ASIP	
	52.00016.001	RUBBER 10*10*10.5tmm VG700/700b	
	61.59102.001	R-HOLDER SECC 1t PV758A	
	61.59101.001	REAR BUCKET SECC 1t PV758A	
	61.59103.001	L-HOLDER SECC 1t PV758A	
	61.59701.002	M/B SPACER 3mm Cu-Ni PV755ASIP/PV758A	
	75.59101.021	ASSY FRONTCOVER PC+ABS VS07 LCD1511M	
	51.56504.001	SELECT KNOB PC+ABS\VS07 PV920	
	51.56505.001	LED LENS PMMA PV920	
	51.59101.021	FRONT COVER PC+ABS-CP10/VS07 LCD1511M	
	80.59101.011	PCBA MAIN BD FOR LCD1511M	
	00.59101.001	BARE L:4 MAIN BD FOR PV758A	
R12	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
R19	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
R23	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
R32	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
R39	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
R43	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
R44	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
R83	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
L15	01.00039.501	RES RP 0 5% 1/10W CHIP #0805	
L16	01.00039.501	RES RP 0 5% 1/10W CHIP #0805	
R81	01.00039.501	RES RP 0 5% 1/10W CHIP #0805	
R82	01.00039.501	RES RP 0 5% 1/10W CHIP #0805	
R97	01.00039.501	RES RP 0 5% 1/10W CHIP #0805	
R98	01.00039.501	RES RP 0 5% 1/10W CHIP #0805	
R13	01.10136.501	RES RP 100 5% 1/16W #0603	
R28	01.10136.501	RES RP 100 5% 1/16W #0603	
R29	01.10136.501	RES RP 100 5% 1/16W #0603	
R47	01.10136.501	RES RP 100 5% 1/16W #0603	
R64	01.10136.501	RES RP 100 5% 1/16W #0603	
R65	01.10136.501	RES RP 100 5% 1/16W #0603	
RP3	01.10236.501	RES RP 1K 5% 1/16W x4 V8V 8P SMD "PANAS	

SYMBOL	Part No for Coretronic	DESCRIPTION	Remark
R1	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	
R4	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	
R40	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	
R42	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	
R59	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	
R60	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	
R63	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	
R71	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	
RP1	01.10336.501	RES RP 10K 5% 1/16W x4 V8V 8P SMD "PANASO	
RP2	01.10336.501	RES RP 10K 5% 1/16W x4 V8V 8P SMD "PANASO	
R21	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R22	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R25	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R26	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R27	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R45	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R46	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R49	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R50	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R55	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R57	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R93	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R5	01.10436.501	RES RP 100K 5% 1/16W CHIP #0603	
R92	01.10436.501	RES RP 100K 5% 1/16W CHIP #0603	
R20	01.20116.501	RES RP 200 1% 1/16W CHIP #0603	
R24	01.20116.501	RES RP 200 1% 1/16W CHIP #0603	
R79	01.20116.501	RES RP 200 1% 1/16W CHIP #0603	
R91	01.20116.501	RES RP 200 1% 1/16W CHIP #0603	
R15	01.22236.501	RES RP 2.2K 5% 1/16W CHIP #0603	
R16	01.22236.501	RES RP 2.2K 5% 1/16W CHIP #0603	
R2	01.22236.501	RES RP 2.2K 5% 1/16W CHIP #0603	
R70	01.22236.501	RES RP 2.2K 5% 1/16W CHIP #0603	
R80	01.30116.501	RES RP 330 1% 1/16W CHIP #0603	
R90	01.30116.501	RES RP 330 1% 1/16W CHIP #0603	
RP4	01.33036.501	RES RP 33 5% 1/16W x4 V8V 8P SMD "PANASON	
RP5	01.33036.501	RES RP 33 5% 1/16W x4 V8V 8P SMD "PANASON	
R11	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R14	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R3	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R37	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R38	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R48	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R51	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R52	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R53	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R54	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R56	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R66	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R69	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R72	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
R73	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	
RP10	01.56036.501	RES RP 56 5% 1/16W*4 V8V 8P SMD	
RP11	01.56036.501	RES RP 56 5% 1/16W*4 V8V 8P SMD	
RP12	01.56036.501	RES RP 56 5% 1/16W*4 V8V 8P SMD	
RP13	01.56036.501	RES RP 56 5% 1/16W*4 V8V 8P SMD	
RP14	01.56036.501	RES RP 56 5% 1/16W*4 V8V 8P SMD	
RP6	01.56036.501	RES RP 56 5% 1/16W*4 V8V 8P SMD	

SYMBOL	Part No for Coretronic	DESCRIPTION	Remark
RP7	01.56036.501	RES RP 56 5% 1/16W*4 V8V 8P SMD	
RP8	01.56036.501	RES RP 56 5% 1/16W*4 V8V 8P SMD	
RP9	01.56036.501	RES RP 56 5% 1/16W*4 V8V 8P SMD	
R68	01.56036.502	RES RP 56 5% 1/16W CHIP #0603	
R67	01.56236.501	RES RP 5.6K 5% 1/16W CHIP #0603	
R94	01.56236.501	RES RP 5.6K 5% 1/16W CHIP #0603	
R35	01.68336.501	RES RP 68K 5% 1/16W CHIP 0603	
R6	01.75016.501	RES RP 75 1% 1/16W CHIP #0603;"TA-I TECHNOL	
R7	01.75016.501	RES RP 75 1% 1/16W CHIP #0603;"TA-I TECHNOL	
R8	01.75016.501	RES RP 75 1% 1/16W CHIP #0603;"TA-I TECHNOL	
R150	01.82236.502	RES RP 8.2K 5% 1/16W #0603	
C103	02.10075.402	CAP CE 10u 25V 20% 5*11mm 105 DEGREE C (PZ)	
C105	02.10075.402	CAP CE 10u 25V 20% 5*11mm 105 DEGREE C (PZ)	
C132	02.10075.402	CAP CE 10u 25V 20% 5*11mm 105 DEGREE C (PZ)	
C62	02.10075.402	CAP CE 10u 25V 20% 5*11mm 105 DEGREE C (PZ)	
C1	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C10	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C125	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C133	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C17	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C18	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C24	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C26	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C3	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C30	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C33	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C68	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C35	02.10272.404	CAP CE 1000U 6.3V 20% 8*11.5mm 105° 3Khrs	
C8	02.10273.404	CAP CE 1000u 10V 20% 10*16mm 105C (HF) LOW	
C135	02.10547.102	CAP CC 100pF 5% 50V NPO #0603	
C101	02.10747.101	CAP CC 0.01uF 10% 50V X7R #0603;"YCTC""TEAM	
C106	02.10747.101	CAP CC 0.01uF 10% 50V X7R #0603;"YCTC""TEAM	
C134	02.10747.101	CAP CC 0.01uF 10% 50V X7R #0603;"YCTC""TEAM	
C102	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C104	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C111	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C112	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C113	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C115	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C121	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C126	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C127	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C129	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C13	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C14	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C15	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C16	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C19	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C2	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C22	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C23	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C25	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C31	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C32	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C34	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C36	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C38	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	

SYMBOL	Part No for Coretronic	DESCRIPTION	Remark
C39	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C4	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C40	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C49	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C5	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C53	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C54	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C55	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C56	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C57	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C58	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C59	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C60	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C61	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C65	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C69	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C7	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C78	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C79	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C80	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C81	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C82	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C83	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C84	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C85	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C86	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C87	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C88	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C89	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C9	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C90	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C91	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C128	02.10977.201	CAP CK 1uF +80%-20% 16V Y5V CHIP #0805	
C71	02.10987.101	CAP CC 1uF +80%-20% 16V Y5V #0603	
C72	02.10987.101	CAP CC 1uF +80%-20% 16V Y5V #0603	
C6	02.12174.401	CAP CE 120uF 20% 16V LOW-ESR TYPE RC=405mA	
C92	02.15537.101	CAP CC 150PF 5% 50V NPO #0603	
C100	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C107	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C108	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C51	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C52	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C66	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C67	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C73	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C74	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C75	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C76	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C98	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C99	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	
C47	02.33447.101	CAP CC 33pF 5% 50V NPO #0603	
C48	02.33447.101	CAP CC 33pF 5% 50V NPO #0603	
C93	02.39747.101	CAP CC 0.039uF 10% 50V X7R #0603	
CA1	02.47475.101	CAP CC 47PF*4 8P4C 20% 25V #1206 "INPAQ"	
CA2	02.47475.101	CAP CC 47PF*4 8P4C 20% 25V #1206 "INPAQ"	
CA3	02.47475.101	CAP CC 47PF*4 8P4C 20% 25V #1206 "INPAQ"	
CA4	02.47475.101	CAP CC 47PF*4 8P4C 20% 25V #1206 "INPAQ"	

SYMBOL	Part No for Coretronic	DESCRIPTION	Remark
CA5	02.47475.101	CAP CC 47PF*4 8P4C 20% 25V #1206 "INPAQ"	
CA6	02.47475.101	CAP CC 47PF*4 8P4C 20% 25V #1206 "INPAQ"	
CA7	02.47475.101	CAP CC 47PF*4 8P4C 20% 25V #1206 "INPAQ"	
CA8	02.47475.101	CAP CC 47PF*4 8P4C 20% 25V #1206 "INPAQ"	
CA9	02.47475.101	CAP CC 47PF*4 8P4C 20% 25V #1206 "INPAQ"	
C94	02.47647.202	CAP CK 4700pF 10% 50V X7R CHIP #0603	
C95	02.47647.202	CAP CK 4700pF 10% 50V X7R CHIP #0603	
C96	02.47647.202	CAP CK 4700pF 10% 50V X7R CHIP #0603	
L10	03.00072.401	EMI Bead MLB-201209-0300A-N1	
L14	03.00072.401	EMI Bead MLB-201209-0300A-N1	
L5	03.00072.401	EMI Bead MLB-201209-0300A-N1	
L7	03.00072.401	EMI Bead MLB-201209-0300A-N1	
L9	03.00072.401	EMI Bead MLB-201209-0300A-N1	
L11	03.00127.401	INDCTR BEAD #0805 100MHz 30R MLB201209-0030	
L12	03.00127.401	INDCTR BEAD #0805 100MHz 30R MLB201209-0030	
L13	03.00127.401	INDCTR BEAD #0805 100MHz 30R MLB201209-0030	
L1	03.15100.301	INDCTR CHOKE 150uH 20% 3A DIP A0060D1 "ARON	
L2	03.22040.301	INDCTR CHOKE COIL 22u 10% 3A DIP A00601C2 "	
L3	03.22040.301	INDCTR CHOKE COIL 22u 10% 3A DIP A00601C2 "	
L4	03.22040.301	INDCTR CHOKE COIL 22u 10% 3A DIP A00601C2 "	
Y1	07.12000.002	XTAL 12MHZ HC-49S HALF SIZE	
Q2	08.2N390.402	TRNSTR NPN GENERAL MMBT3904LT1 SOT-23 "MO	
Q3	08.2N390.603	TRANSTR PNP GENERAL PURPOSE 2N3906 SST3 "RO	
Q1	08.AO340.001	MOSFET N-CHANNEL AO3400 SOT-23 "ALPHA & OME	
D11	09.1N414.802	DIODE RLS4148 / PMLL4148L SMD "PHILIPS"	
D11	09.1N582.201	DIODE IN5822 SCHOTTKY RECTIFIER DO201AD	
D9	09.DAN20.2K1	DIODE ARRAY DAN202K SMD; "ROHM"	
CN1	11.052M2.301	CNNT PIN M 5P 2.0mm RT/LEAD TU2001WNR-5P	
CN6	11.082M1.305	CNNT M 8P 2mm ST/LEAD TU2005WNV 2*4 "TYU"	
CN2	11.102M2.303	CNNT 10P 2.0mm TU2001WNR-10 RT/DIP;"TYU"	
CN4	11.122M2.303	CNNT 12P 2.0mm TU2001WNR-12 RT/DIP;"TYU"	
CN3	11.132M2.301	CNNT PIN M 13P 2.0mm RT/LEAD TU2001WNR-13P	
CN7	11.400F4.701	CNNT F 40P FPC 0.5mm RT/SMD FPC5S40B11R-03	
CN8	11.400F4.701	CNNT F 40P FPC 0.5mm RT/SMD FPC5S40B11R-03	
U5	20.24LC2.1A1	IC CMOS 24LC21A EEPROM 128*8 BIT 8SOIC	
U4	20.74LVC.141	IC CMOS 74LVC14 INNERT SCHMITT-TR 14SOIC ;	
U10	20.AIC10.842	IC AIC1084:(TO252) 5A ADJUSTABLE REGULATOR	
U2	20.AIC10.842	IC AIC1084:(TO252) 5A ADJUSTABLE REGULATOR	
U9	20.AP431.001	IC LINEAR AP431 3P DIP TO92 2.5V	
U9	20.LM431.A01	IC LINEAR LM431ACM 8P SMD SOIC ; "NS"	
U8	20.MASCO.T02	IC MASCOT VZ IMAGE PROCESSOR PQFP-160	
U1	20.SI805.0S3	IC SI-8050SD Switching Regulator SMD TO263	
U3	20.XC620.1P1	IC LDO REG. XC6201P332PR SOT89;"TOREX"	
U7	21.IS24C.161	IC EEPROM IS24C16-3G 16K BITS 100-400 KHZ I	
U7	21.24LC1.602	IC EEPROM 24LC16 2K*8 bits 100KHz IIC BUS "	
U6	21.W78E6.2B1	IC W78E62BP-40 MLU 4KB MTP 64KB ISP FL	
	39.59101.002	FW BIOS SOURCE CODE LCD1511M/HANNSTAR	
	35.00017.001	LABEL BIOS 13*11mm BLANK	
	35.00018.001	LABEL BARCODE 13*26.5mm BLANK	
	80.59102.011	PCBA AUDIO BD LCD1511M "NMV"	
	00.59102.001	BARE PCB L:2 Audio BD PV758A	
R8	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
R9	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	
R1	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R11	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	
R10	01.47336.501	RES RP 47K 5% 1/16W CHIP #0603	
R3	01.47336.501	RES RP 47K 5% 1/16W CHIP #0603	

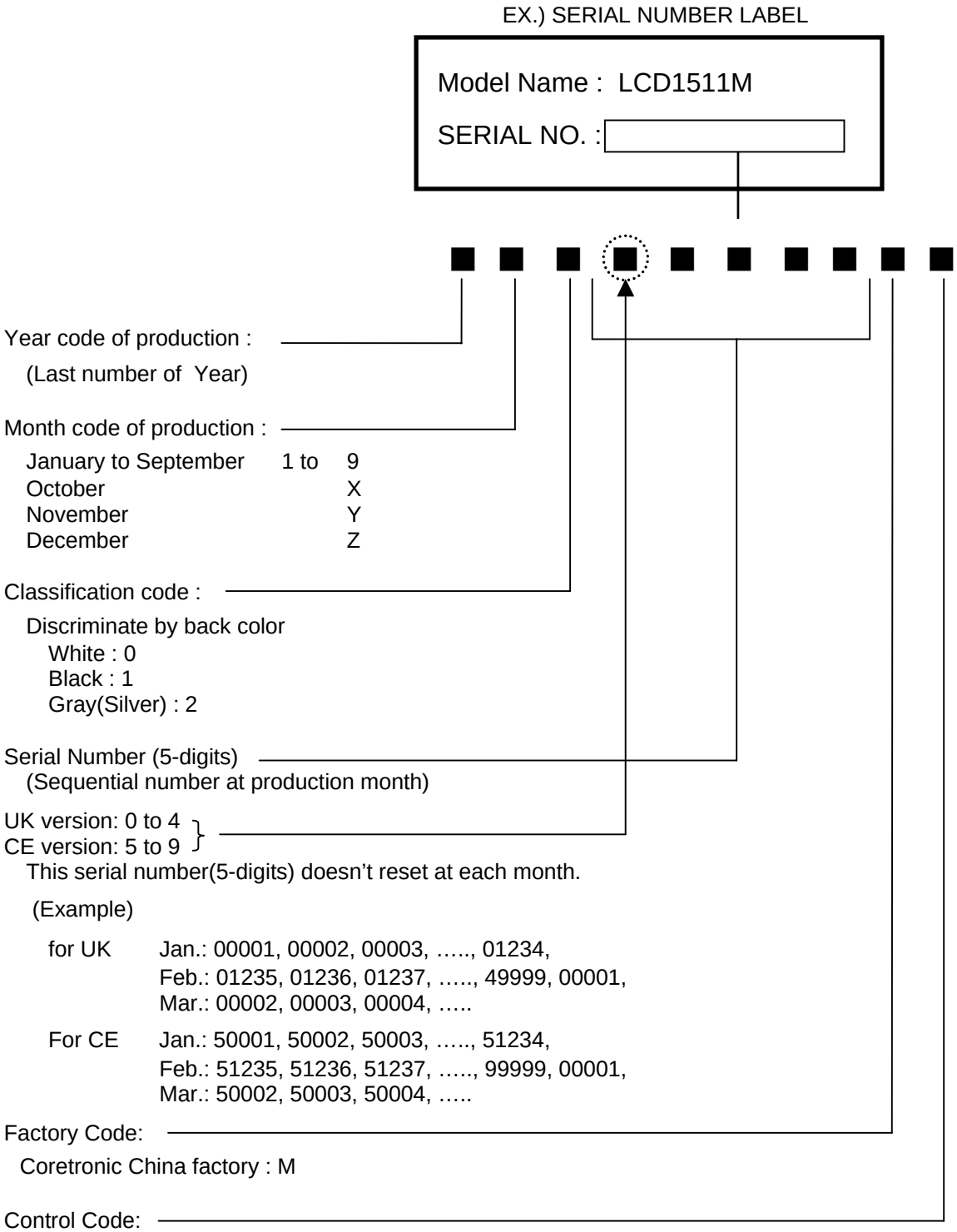
SYMBOL	Part No for Coretronic	DESCRIPTION	Remark
R4	01.47336.501	RES RP 47K 5% 1/16W CHIP #0603	
R6	01.47336.501	RES RP 47K 5% 1/16W CHIP #0603	
C10	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C13	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	
C3	02.10274.101	CAP CE 1000uF 20% 16V P=5mm 10*20 105 "T	
C5	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	
C11	02.10977.201	CAP CK 1uF +80%-20% 16V Y5V CHIP #0805	
C12	02.10977.201	CAP CK 1uF +80%-20% 16V Y5V CHIP #0805	
C8	02.10977.201	CAP CK 1uF +80%-20% 16V Y5V CHIP #0805	
C9	02.10977.201	CAP CK 1uF +80%-20% 16V Y5V CHIP #0805	
R5	03.00053.401	INDCTOR BEAD MLB-160808-0100A-N2 SMD ; MAG	
R7	03.00053.401	INDCTOR BEAD MLB-160808-0100A-N2 SMD ; MAG	
JP2	11.043M4.001	CNNT 4P 1.25mm 53261-0410 RT/SM ;"MOLEX"	
J2	11.059F2.012	CNNT PHONE JACK 2SJ-0540-003 LIGHT BLUE (LI	
J1	11.059F2.013	CNNT PHONE JACK 2SJ-0540-004 LIGHT GREEN(LI	
JP1	11.082M2.303	CNNT M 8P 2mm RT/LEAD TU2005WNR 2*4 "TYU"	
U2	20.TDA70.531	IC TDA7053A AUDIO AMPLIFIER "PHILIPS"	
	35.00016.001	LABEL BARCODE 6*38mm BLANK	
	80.59103.001	PCBA CTRL BD PV758A	
	00.56501.001	BARE PCB L:2 CONTROL BD PV920	
C1	02.10844.201	CAP CK 0.1uF 10% 16V C1608XR1C104K X7R #060	
C2	02.10844.201	CAP CK 0.1uF 10% 16V C1608XR1C104K X7R #060	
C3	02.10844.201	CAP CK 0.1uF 10% 16V C1608XR1C104K X7R #060	
C4	02.10844.201	CAP CK 0.1uF 10% 16V C1608XR1C104K X7R #060	
C5	02.10844.201	CAP CK 0.1uF 10% 16V C1608XR1C104K X7R #060	
D1	09.00000.035	DIODE LED LTST-C155GYKT "LITEON"	
CON1	11.102M2.201	CNNT M 10P 2mm RT/LEAD TU2005WNR 2*5 "TYU"	
	35.00016.001	LABEL BARCODE 6*38mm BLANK	
SW1	43.52102.001	SWITCH PUSH 1Pol 1Cnt 50mA 12mVDC	
SW2	43.52102.001	SWITCH PUSH 1Pol 1Cnt 50mA 12mVDC	
SW3	43.52102.001	SWITCH PUSH 1Pol 1Cnt 50mA 12mVDC	
SW4	43.52102.001	SWITCH PUSH 1Pol 1Cnt 50mA 12mVDC	
SW5	43.52102.001	SWITCH PUSH 1Pol 1Cnt 50mA 12mVDC	
E.M-LCD*4	85.1F122.060	SCREW PAN MECH W/SF M2*6 Ni	
E.A-B.R*2	85.1F123.100	SCREW PAN MECH W/SF M3*10 Ni	
LCD-B.R*4	85.1F123.100	SCREW PAN MECH W/SF M3*10 Ni	
B.L-LCD*8	85.1F125.060	SCREW PAN MECH W/SF M2.5*6 Ni	
E.I-B.L*2	85.AA323.060	SCREW PAN TAPPING M3*6 BLACK	
E.C-C.F*3	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni	
Spk-C.F*4	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni	
	85.WA323.100	SCREW PAN TAP M3*10 BLACK	
	51.59111.003	BASE PC+ABS-CP02 PV758A	
	51.59112.003	DRAW PLATE PC+ABS-CP02 PV758A	
	52.56101.001	RUBBER FOOT PG-GF-20A-R1B 20*20*1.5t	
	61.59111.003	ASSY HINGE TILT PV758A	
P.B-C.B*2	85.YA323.080	SCREW FLAT TAP M3*8 BLACK	
H.T-B.R*4	85.1F323.080	SCREW PAN MECH W/SF M3*8 BLACK	
	42.53506.001	CABLE POWER-CORD AC SP60+AS14 1.8M BLACK PV	UK ver Only
	42.50112.001	CABLE POWER CORD 1830mm SP-023+IS14 EUR.	CE ver Only
	35.59102.001	SHIPPING LABEL LCD1511M	
	36.59105.001	SET UP SHEET LCD1511M	
	36.59106.002	USER'S MAMUAL LCD1511M(CD-ROM),UK(w/WWARRAN	UK ver Only
	36.59106.003	USER'S MANUAL LCD1511M(CD-ROM),EUROPE,W/SAL	CE ver Only
	42.59903.002	CABLE AUDIO 1.8M FOR PC99+MARK	
	51.00069.001	PACKING STRAP 12MM*2000M*0.6MM	
	51.00070.001	PE STRETCH FILM 500MM*1500M*0.02MM	
	51.00080.001	3 INCH TRANSPARENT ADHESIVE TAPE (600M)	

SYMBOL	Part No for Coretronic	DESCRIPTION	Remark
	51.59103.001	PE BAG HDPE 390*600*0.04t PV758 "NMV"	
	55.55103.001	CORNER BOARD 40*40*5*1050mm	
	55.57502.001	CORNER BOARD 40*40*5*1200mm	
	55.57503.001	CORNER BOARD 40*40*5*1700MM	
	55.59101.021	CARTON AB (A5)-16 428*98*455 LCD1511M	
	56.59101.001	CUSHION-R EPS PV758A	
	56.59102.001	CUSHION-L EPS PV758A	
	58.59101.002	PLYWOOD PALLET 896*1150*130mm LCD1511M	

Appendix

1 Serial Number Information

Refer to the serial number information shown below.



Year code of production :
(Last number of Year)

Month code of production :

January to September	1 to	9
October		X
November		Y
December		Z

Classification code :

Discriminate by back color
White : 0
Black : 1
Gray(Silver) : 2

Serial Number (5-digits)
(Sequential number at production month)

UK version: 0 to 4
CE version: 5 to 9
This serial number(5-digits) doesn't reset at each month.

(Example)

for UK Jan.: 00001, 00002, 00003, ….., 01234,
Feb.: 01235, 01236, 01237, ….., 49999, 00001,
Mar.: 00002, 00003, 00004, …..

For CE Jan.: 50001, 50002, 50003, ….., 51234,
Feb.: 51235, 51236, 51237, ….., 99999, 00001,
Mar.: 50002, 50003, 50004, …..

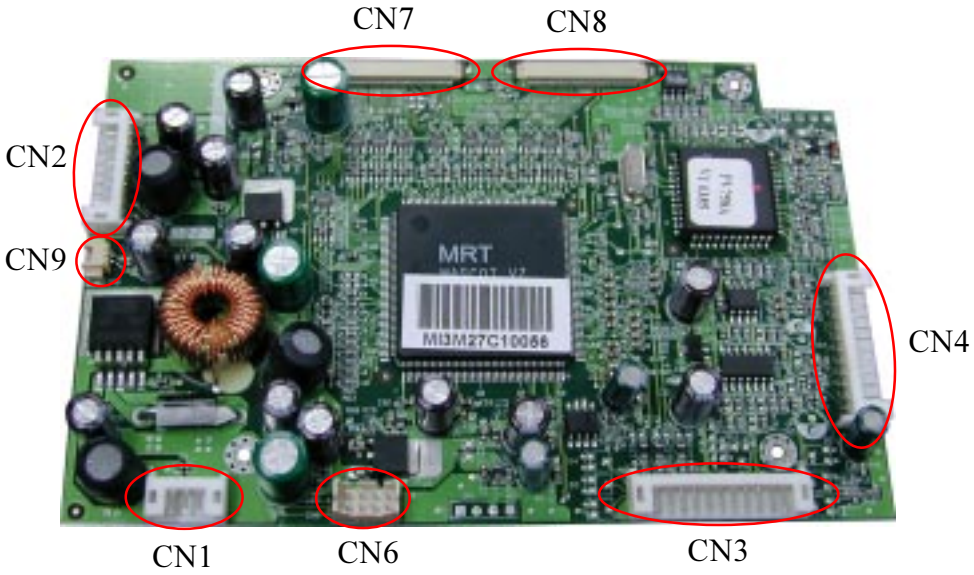
Factory Code:
Coretronic China factory : M

Control Code:
A: A ver. (for U.S.A.), B: B ver. (for Europe, Asia and Pacific), C: C ver. (China)

2 Function of Boards

A. Main Board

2.1 The Location of Connectors



2.2 CN1 Connector

Pin #	Description	Function
1	+12V	+12V
2	+12V	+12V
3	GND	Ground
4	GND	Ground
5	GND	Ground

2.3 CN2 Connector

Pin #	Description	Function
1	+12V	+12V
2	+12V	Ground
3	On/Off	Backlight On/Off Control
4	BRIGHTNESS	Brightness Adjustment
5	+12V	Ground

Pin #	Description	Function
6	+12V	+12V
7	GND	Ground
8	On/Off	Backlight On/Off Control
9	BRIGHTNESS	Brightness Adjustment
10	GND	Ground

2.4 CN3 Connector

Pin #	Description	Function
1	BLUE	Blue Video Input
2	GND	Ground
3	GREEN	Green Video Input
4	GND	Ground
5	RED	Red Video Input
6	GND	Ground
7	DSUB_5V	+5V
8	GND	Ground
9	N.C.	No Connection
10	DDC SDA	Serial Data
11	VGA HSYNC	Horizontal Sync.
12	VGA HSYNC	Vertical Sync.
13	DDC SCL	Serial Clock

2.5 CN4 Connector

Pin #	Description	Function
1	GND	Ground
2	OSD_Power	Power Key
3	GND	Ground
4	LED_R	Power LED Orange
5	LED_G	Power LED Green
6	N.C.	No Connection
7	GND	Ground
8	Down	Decrease

Pin #	Description	Function
9	N.C.	No Connection
10	Select	Select
11	Menu	Menu
12	Mute	Volume Mute

2.6 CN6 Connector

Pin #	Description	Function
1	Volume	Volume Input
2	N.C.	No Connection
3	N.C.	No Connection
4	N.C.	No Connection
5	GND	Ground
6	N.C.	No Connection
7	VCC-Audio	VCC
8	GND	Ground

2.7 CN7 Connector

Pin #	Description	Function
1	N.C.	No Connection
2	N.C.	No Connection
3	GND	Ground
4	GND	Ground
5	BB7	Even-dot Blue Data
6	BB6	Even-dot Blue Data
7	BB5	Even-dot Blue Data
8	BB4	Even-dot Blue Data
9	BB3	Even-dot Blue Data
10	BB2	Even-dot Blue Data
11	GND	Ground
12	GB7	Even-dot Green Data
13	GB6	Even-dot Green Data

Pin #	Description	Function
14	GB5	Even-dot Green Data
15	GB4	Even-dot Green Data
16	GB3	Even-dot Green Data
17	GB2	Even-dot Green Data
18	GND	Ground
19	RB7	Even-dot Red Data
20	RB6	Even-dot Red Data
21	RB5	Even-dot Red Data
22	RB4	Even-dot Red Data
23	RB3	Even-dot Red Data
24	RB2	Even-dot Red Data
25	GND	Ground
26	CPH1-A	Pixel Clock Input
27	GND	Ground
28	GND	Ground
29	STH-A	Horizontal Start Pulse
30	LOAD-A	Source Driver Latch Pulse
31	POL-A	Source Driver Output Polarity Control
32	REV-A	Data Reversse Control Signal
33	GND	Ground
34	GND	Ground
35	STV1-A	Vertical Start Pulse 1
36	STV2-A	Vertical Start Pulse 2
37	CPV-A	Vertical Clock Input
38	OE-A	Gate Driver Output Enable Signal
39	GND	Ground
40	GND	Ground

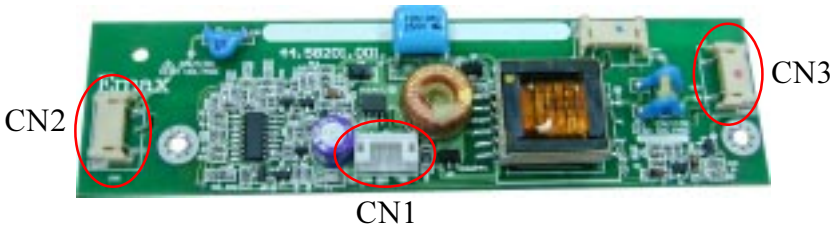
2.8 CN8 Connector

Pin #	Description	Function
1	LCD VDD	+3.3V
2	LCD VDD	+3.3V
3	GND	Ground
4	GND	Ground
5	BA7	Odd-dot Blue Data
6	BA6	Odd-dot Blue Data
7	BA5	Odd-dot Blue Data
8	BA4	Odd-dot Blue Data
9	BA3	Odd-dot Blue Data
10	BA2	Odd-dot Blue Data
11	GND	Ground
12	GA7	Odd-dot Green Data
13	GA6	Odd-dot Green Data
14	GA5	Odd-dot Green Data
15	GA4	Odd-dot Green Data
16	GA3	Odd-dot Green Data
17	GA2	Odd-dot Green Data
18	GND	Ground
19	RA7	Odd-dot Red Data
20	RA6	Odd-dot Red Data
21	RA5	Odd-dot Red Data
22	RA4	Odd-dot Red Data
23	RA3	Odd-dot Red Data
24	RA2	Odd-dot Red Data
25	GND	Ground
26	CPH1-A	Pixel Clock Input
27	GND	Ground
28	GND	Ground
29	N.C.	No Connection
30	N.C.	No Connection
31	N.C.	No Connection
32	N.C.	No Connection
33	N.C.	No Connection

Pin #	Description	Function
34	N.C.	No Connection
35	N.C.	No Connection
36	N.C.	No Connection
37	N.C.	No Connection
38	N.C.	No Connection
39	GND	Ground
40	GND	Ground

B. Inverter Board

2.9 The Location of Connectors



2.10 CN1 Connector

Pin #	Description	Function
1	+12V	+12V
2	GND	Ground
3	BRIGHTNESS	Brightness Control
4	GND	Ground
5	Inverter On/Off	On/Off

2.11 CN2 Connector

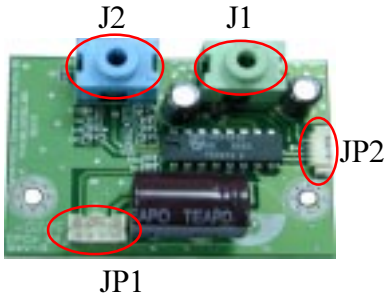
Pin #	Description	Function
1	H.V	High Voltage
2	H.V	High Voltage

2.12 CN3 Connector

Pin #	Description	Function
1	H.V	High Voltage
2	H.V	High Voltage

C. Audio Board

2.13 The Location of Connectors



2.14 J1 Connector

Pin #	Description	Function
1	N.C.	No Connection
2	LINE_OUTR+	Line Out (R)
3	R+	Right Channel In
4	L+	Left Channel In
5	LINE_OUTL+	Line Out (L)

2.15 J2 Connector

Pin #	Description	Function
1	GND	Ground
2	LINE_INR	Line In (R)
3	GND	Ground
4	GND	Ground
5	LINE_INL	Line In (L)

2.16 JP1 Connector

Pin #	Description	Function
1	Volume	Volume Output
2	N.C.	No Connection
3	N.C.	No Connection
4	N.C.	No Connection

Pin #	Description	Function
5	GND	Ground
6	N.C.	No Connection
7	VCC	VCC
8	GND	Ground

2.17 JP2 Connector

Pin #	Description	Function
1	L+	Left Channel Output
2	LINE_OUTL-	Line Out (L)
3	R+	Right Channel Output
4	LINE_OUTR-	Line Out (R)

D. Control Board

2.18 The Location of Connectors

2.19 CON 1 Connector

Pin #	Description	Function
1	POWER 1	Power On/Off
2	MENU 1	Menu
3	SELECT 1/AUTO 1	Select/Auto
4	MINUS 1	Minus
5	PLUS 1/MUTE 1	Plus/Volume Mute
6	GND	Ground
7	GND	Ground
8	N.C.	No Connection
9	LED ORANGE 1	Power LED Orange
10	LED GREEN 1	Power LED Green
11	SPR	Speaker Right
12	GND	N.C.
13	SPL	Speaker Left
14	GND	N.C.