

**LIME 963UW/2063UW**

**TFT LCD Monitor**

**SAMSUNG**

[WWW.SYNCSIGHT.COM](http://WWW.SYNCSIGHT.COM)

**VD R&D**

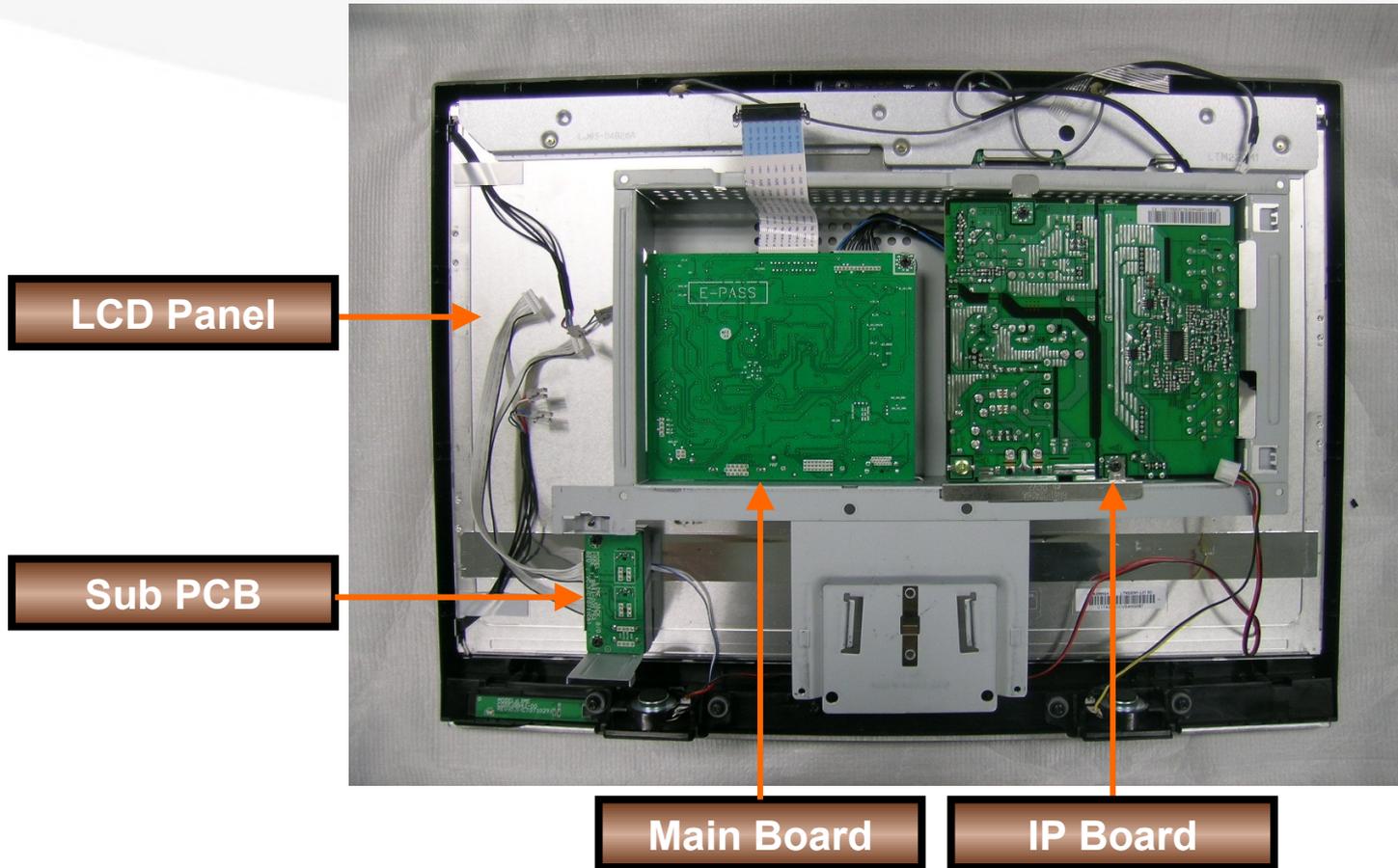
**SAMSUNG ELECTRONICS**

**SAMSUNG**

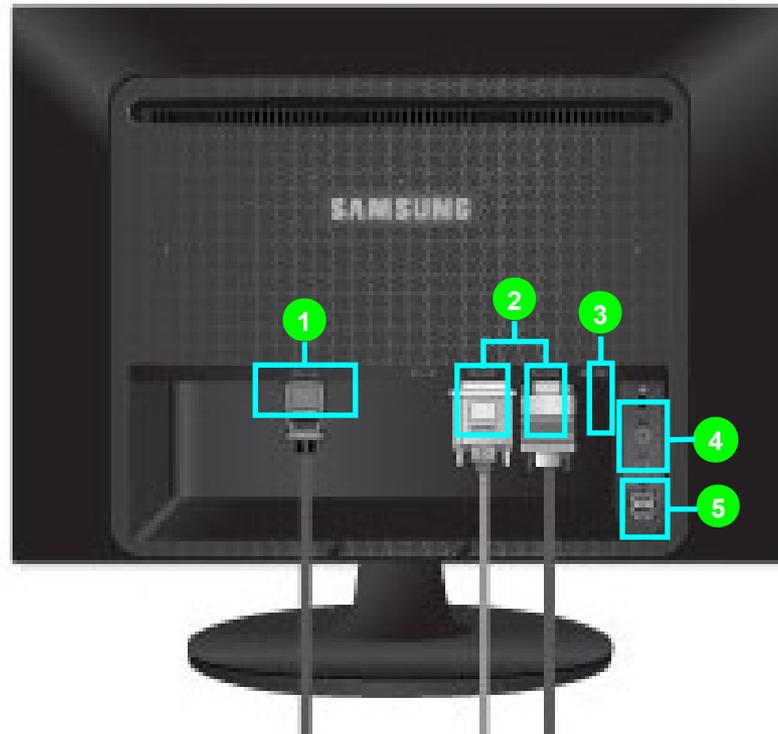
# Contents

1. LCD Monitor structure
2. Product Image
3. Product Specification
4. 963UW/2063UW Connection
5. OSD Adjustment Function
6. Product Specification comparison
7. Signal Pin Assignments
8. Display Modes
9. Block Diagram
10. CHASSIS Layout
11. 963UW/2063UW Features
12. Service Function List
13. Troubleshooting
14. Main PBA – Schematics
15. 963UW/2063UW Block Description
16. SMPS Description
17. Panel Description
18. Assembly and Disassembly
19. Firmware Installation
20. EDID Installation
21. After Replacing Main PBA
22. Operation of Web Cam, MIC and Speaker

# 1. LCD Monitor Structure



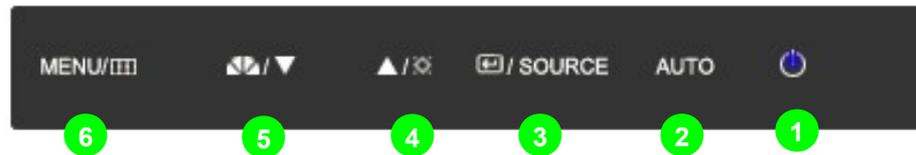
## 2. Product Image (1)



- 1) POWER IN
- 2) DVI IN, RGB IN
- 3) USB UP

- 4) MIC, Headphone
- 5) USB DOWN

## 2. Product Image (2)



- 1) LED & power touch Button
- 2) AUTO : auto adjustment button
- 3) SOURCE / ENTER Touch Button : change source / select OSD menu
- 4) Volume Button : Hot key to control the brightness when OSD isn't displayed
- 5) Magic Bright Button
- 6) MENU Switch : OSD menu open / OSD menu exit / return to upper menu

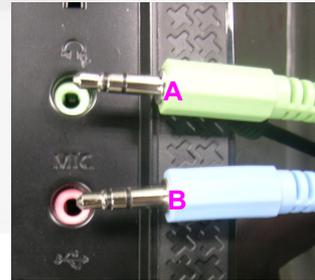
SAMSUNG

CHAMP IN DIGITAL DISPLAY  
Visual Display Division

## 2. Product Image (3)



**POWER**  
**POWER IN** – connect power cord



**Headphone / MIC**  
**Headphone** – connect headphone cable  
**MIC** – connect MIC Cable



**Video Input**  
**A** : RGB – connect D-sub cable  
**B** : DVI(HDCP) – connect DVI cable

**B**      **A**



**USB Down(2)**  
**connect to other devices with USB cable**



**3) USB UP**  
**: connect to PC with USB cable**

# 3. Product Specification (1)



Model

963UW / 2063UW

- Ⓢ Support PC / DVI
- Ⓢ Support web-cam and mic
- Ⓢ Response time 5ms, DCR 8000:1
- Ⓢ Adopt 1.5W\*2 Speaker
- Ⓢ USB (1 up, 2 down)
- Ⓢ DVI-D HDCP adopted
- Ⓢ Support fixed aspect ratio
- Ⓢ Support camera effect : Grayscale/Green/Aqua/Sepia
- Ⓢ Support Off-timer

SAMSUNG

CHAMP IN DIGITAL DISPLAY  
Visual Display Division

# 3. Product Specification

(2)

Key Specification		
Model	963UW	2063UW
Screen Size	19"	20"
Max resolution	1440*900@60Hz	1680*1050@60Hz (RB)
Color	16.7M	16.7M
Brightness	300cd/m <sup>2</sup>	300cd/m <sup>2</sup>
DCR	8000:1 (Typ.)	8000:1 (Typ.)
Horizontal Frequency	30~81kHz	30~81kHz
Vertical Frequency	56~75Hz	56~75Hz
Max Frequency	137MHz	146MHz
Viewing Angle	160°/160°	160°/160°
Response Time	5ms	5ms
Input Signal	Analog / DVI / USB UP / USB DOWN	Analog / DVI / USB UP / USB DOWN
Power Consumption (ON)	< 32 Watt	< 35 Watt
Power Consumption (DPMS)	< 1 Watt	< 1 Watt

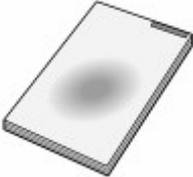
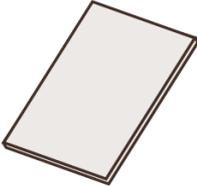
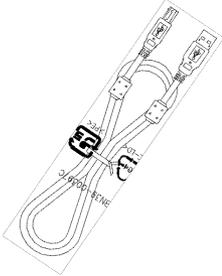
# 1. Product Specification

## ( 3 )

Key Specification		
Model	963UW	2063UW
Product Size	448.0 x 188.7 x 385.9mm (W X H X D) 448.0 x 61.5 x 335.6mm (Without Stand)	472.9 x 218.8 x 404.7mm (W X H X D) 472.9 x 62.9 x 354.7mm (Without Stand)
Weight	4.1 kg (Without Stand) 4.4 kg (With Stand)	4.55 kg (Without Stand) 5.2 kg (With Stand)
Stand	SIMPLE STAND	
Power Supply	IP board	
Custom-Mountable	O	
Mac & Linux Compatibility	O	

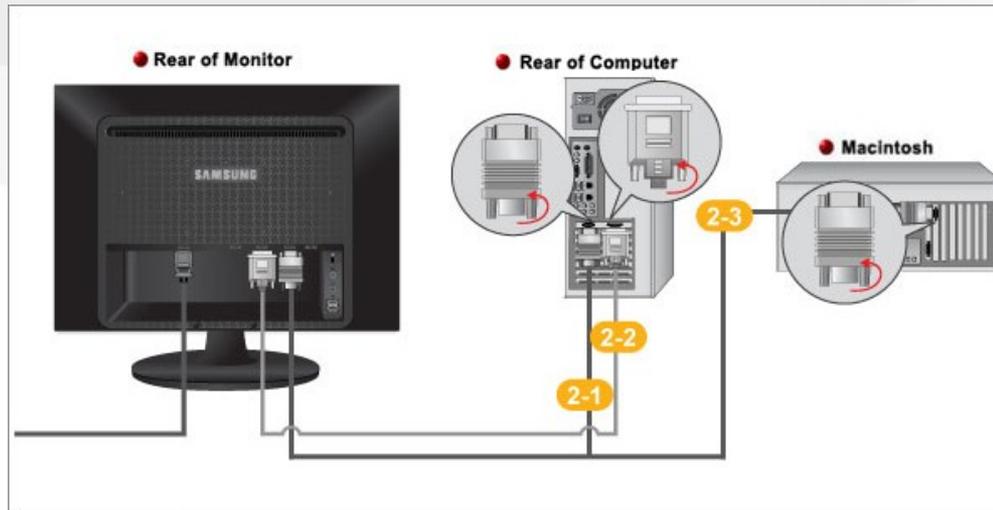
LCD panel		
Model	963UW	2063UW
Display Area	408.24(H) x 255.15(V) (19 inch diagonal)	433.44(H) x 270.9(V) (20.1 inch diagonal)
Display Element	a-si TFT active matrix	a-si TFT active matrix
Model	LTM190M2-L31	CLAA201WA04A

# 3. Product Specification (4)

□□□	□□	□□□	□□	□□□	□□
	Quick Setup Guide		Warranty Card		Power Cord
	User's Guide Natural Color software, MagicTune™ software		USB Cable		D-Sub(15 Pin) Cable

# 4. 963UW / 2063UW

## Connect i



**1. Power connector** : Connect the power cord for you monitor to the power port on the back of the monitor.

Plug the power cord for the monitor into a nearby outlet.

**2. Use a connection appropriate for your computer.**

2-1) Using the D-sub (Analog) connector on the video card : Connect the signal cable to the 15-pin, D-sub port on the back of your monitor.

2-2) Using the DVI (Digital) connector on the video card : Connect the DVI cable to the DVI in port on the back of your monitor.

2-3) Connected to Macintosh : Connect the monitor to the Macintosh computer using the D-sub connection cable.

**3.If the monitor and the computer are connected, you can turn them on and use them**

# 4. 963UW / 2063UW

## Connections

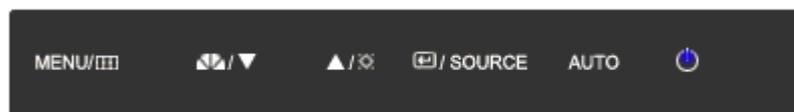
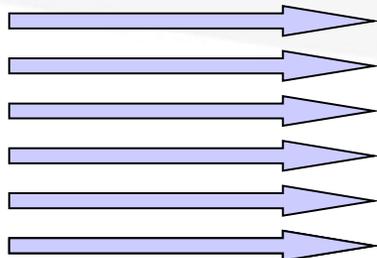
### HDCP

- HDCP

- HDCP (High-bandwidth Digital Content Protection) is embedded copy-protection system for HD display contents. HD contents including HDCP can be displayed only after decoding by HDCP key of the play device. If the player does not support HDCP or does not satisfy the standard, the output resolution is only about  $\frac{1}{4}$  of original contents.

# 5. OSD Adjustment (1)

- (1) Picture
- (2) Color
- (3) Image
- (4) OSD
- (5) Setup
- (6) Information



# 5. OSD Adjustment (2)

**ess** → 0~100

**st** → 0~100

**right** → Custom / Text / Internet / Game / Sports / Movie / Dynamic CR

**olor** → Off / Demo / Full / Intelligent

**one** → Cool / Normal / Warm / Custom

**ontrol** → Red / Green / Blue Gain adjustment

**ffect** → Off / Grayscale / Green / Aqua / Sepia

**a** → Mode1 / Mode2 / Mode3

**/ Fine / Sharpness / H-Position / V-Position**

**ivity in DVI except Sharpness**

**ge** : support 9 languages

**ion / V-Position** : change OSD position

**arency** : On/Off the transparency of OSD

**Time** : 5sec / 10sec / 20sec / 200sec

**ding to input signal, there is difference for OSD contents indication.**

SAMSUNG

CHAMP IN DIGITAL DISPLAY  
Visual Display Division

# 5. OSD Adjustment ( 3 )

## (5) Setup

**Reset** : No / Yes

**Customized Key** : MagicBright / Live color / Color Effect / Image Size

**Off Timer** : Off / On (min 1h ~ max 23h)

**Auto Source** : Auto / Manual (detect source automatically)

**Image Size** : activated when is not wide resolution

## (6) Information

Display Source, Frequency and Resolution

# 5. OSD Adjustment (4)

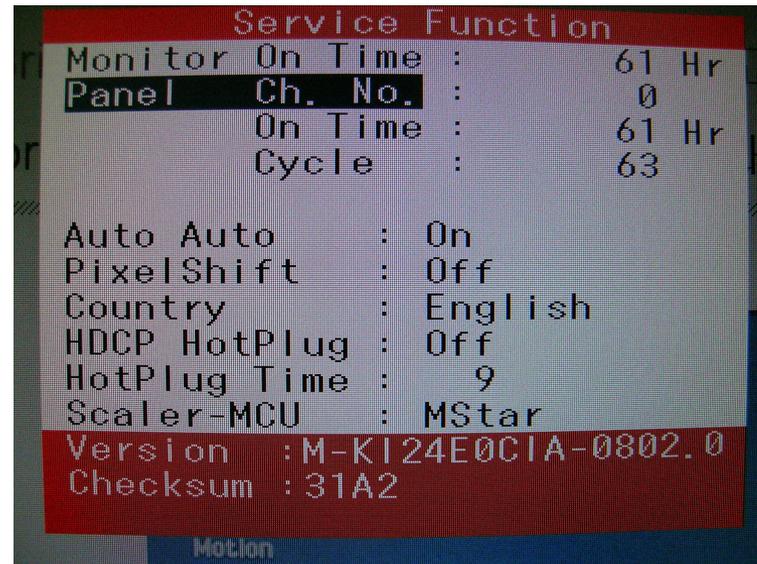
## OSD and other function

1) **OSD LOCK** : After pushing the "MENU" button more than 5 seconds, OSD function is locked (unlocked).

The Magic bright , Brightness and Contrast can be adjusted in OSD LOCK condition.

To push a menu key for 5 seconds in order to remove a Lock .

2) **Factory Mode** : Push a menu key for 5 seconds with minimum Brightness / Contrast ,  
Then can go to factory mode. Below OSD looking can be displayed.



# 6. Product Specification comparison

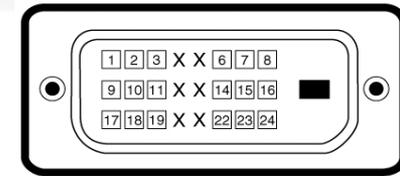
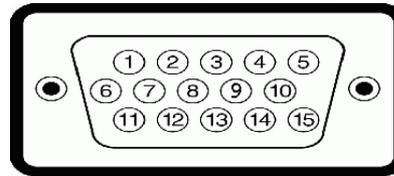
Picture	963UW/2063UW	225UW
Picture		
Screen size	19"/20"	22"
Brightness	300 □ / □	300 □ / □
Contrast ratio	1000:1	700:1
DCR	8000:1	X
Response time	5ms	5ms
Input signal	Analog/Digital	Analog/Digital
Web cam	O	O
Magic Color	O	O
Color Effect	Gray/Green/Aqua/Sepia Mode	X
Magic Tune	Premium	Premium
Magic Bright	7 steps (Text / Internet / Game / Sports / Movie / Dynamic CR / Custom)	7 steps (Text / Internet / Game / Sports / Movie / Dynamic CR / Custom)
Gamma	3 steps Mode1 / Mode2 / Mode3	3 steps Mode1 / Mode2 / Mode3
Color Tone	4 steps Cool / Normal / Warm / Custom	4 steps Cool / Normal / Warm / Custom

# 7. Signal Connections and Pin Assignments

When the monitor signal cable is disconnected, the monitor starts the 'Self-Test' function

## 1. 15pin D-sub connector

Pin Number	Monitor Side of the 15-Pin Side Signal Cable
1	Video-Red
2	Video-Green
3	Video-Blue
4	GND
5	DDC-return
6	GND-R
7	GND-G
8	GND-B
9	DDC +5V
10	GND-sync/self-test
11	GND
12	DDC data
13	H-sync
14	V-sync
15	DDC clock



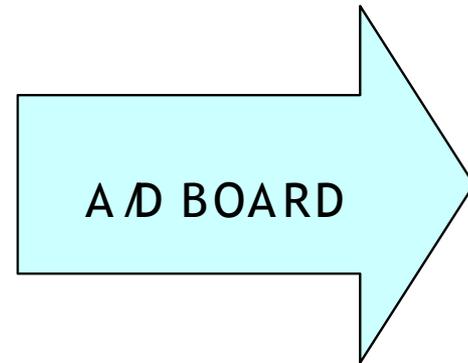
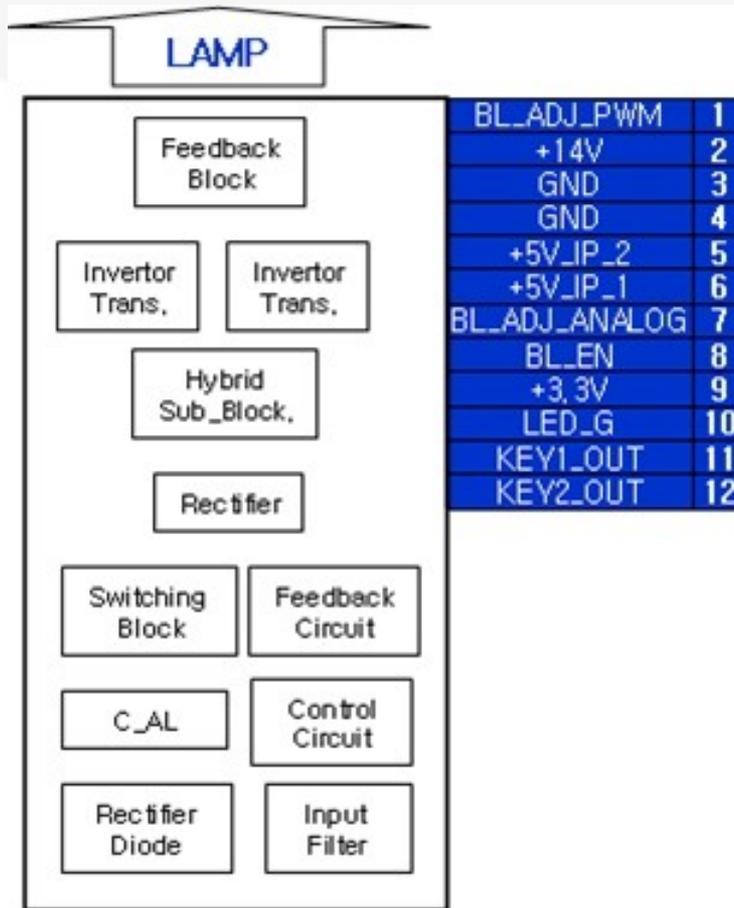
## 2. DVI - D connector

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	T.M.D.S. Data 2-	9	T.M.D.S. Data 1-	17	T.M.D.S. Data 0-
2	T.M.D.S. Data 2+	10	T.M.D.S. Data 1+	18	T.M.D.S. Data 0+
3	T.M.D.S. Data 2 Shield	11	T.M.D.S. Data 1 Shield	19	T.M.D.S. Data 0 Shield
4	No Pin	12	No Pin	20	No Pin
5	No Pin	13	No Pin	21	No Pin
6	DDC Clock	14	+5V Power	22	T.M.D.S. Clock Shield
7	DDC Data	15	Ground (for +5V)	23	T.M.D.S. Clock +
8	No Connect	16	Hot Plug Detect	24	T.M.D.S. Clock -

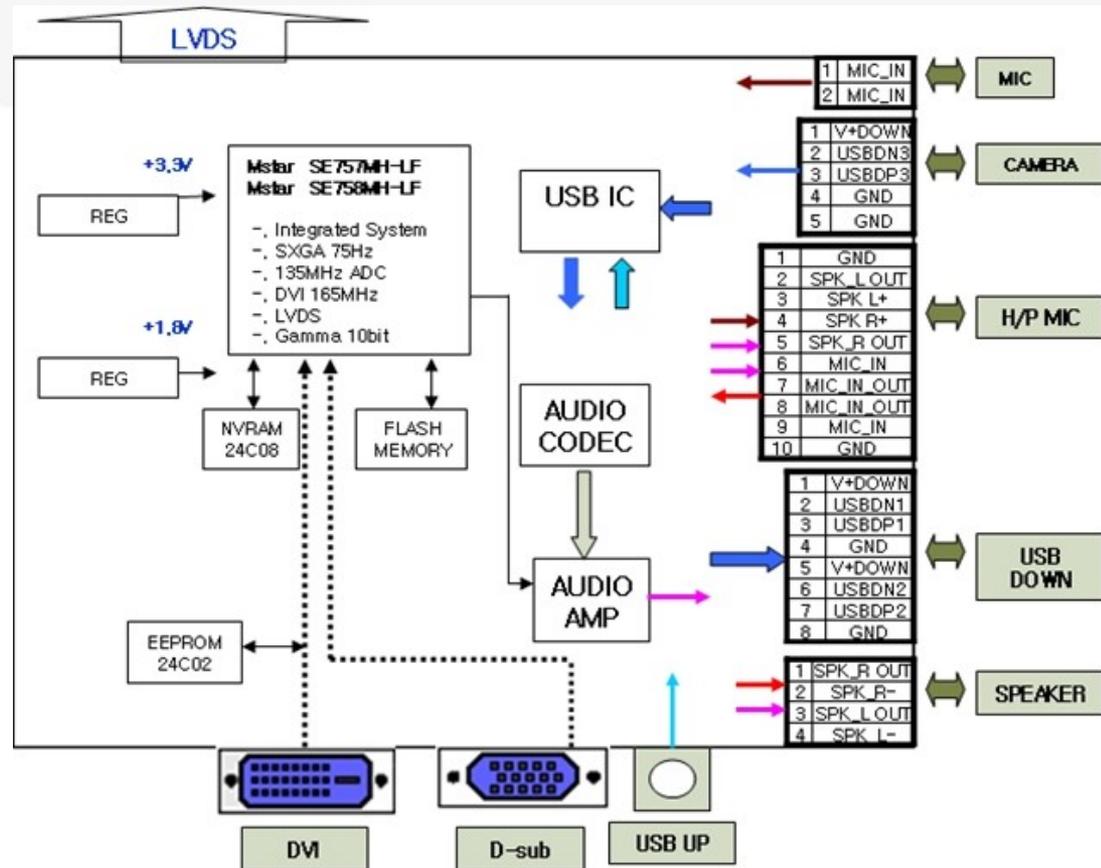
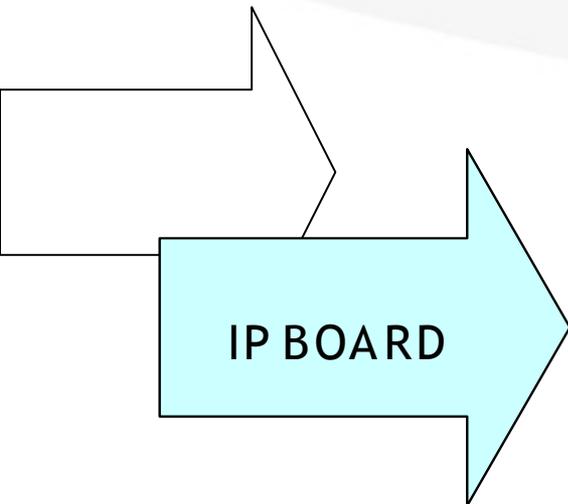
# 8. Display Modes

Supported Display Mode		Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA 1680/60Hz(RB)	1680x1050	64.674	59.883	119.000	+/-
IBM VGA1	640x350	31.469	70.086	25.175	+/-
IBM VGA2	720x400	31.469	70.087	28.322	-/+
IBM VGA3	640x480	31.469	59.940	25.175	-/-
Mac 640/67Hz	640x480	35.000	66.667	30.240	-/-
VESA 640/72Hz	640x480	37.861	72.809	31.500	-/-
VESA 640/75Hz	640x480	37.500	75.000	31.500	-/-
VESA 800/56Hz	800x600	35.156	56.250	36.000	+/+
VESA 800/60Hz	800x600	37.879	60.317	40.000	+/+
VESA 800/72Hz	800x600	48.077	72.188	50.000	+/+
VESA 800/75Hz	800x600	46.875	75.000	49.500	+/+
Mac 832/75Hz	832x624	49.726	74.551	57.284	-/-
VESA 1024/60Hz	1024x768	48.363	60.004	65.000	-/-
VESA 1024/70Hz	1024x768	56.476	70.069	75.000	-/-
VESA 1024/75Hz	1024x768	60.023	75.029	78.750	+/+
VESA 1152/75Hz	1152x864	67.500	75.000	108.000	+/+
Mac 1152/75Hz	1152x870	68.681	75.062	100.000	-/-
VESA 1280/60Hz	1280x960	60.000	60.000	108.000	+/+
VESA 1280/75Hz	1280x1024	79.976	75.025	135.000	+/+

# 9. Block Diagram



# 10. Chassis Layout



# 11. 963UW 2063UW Features

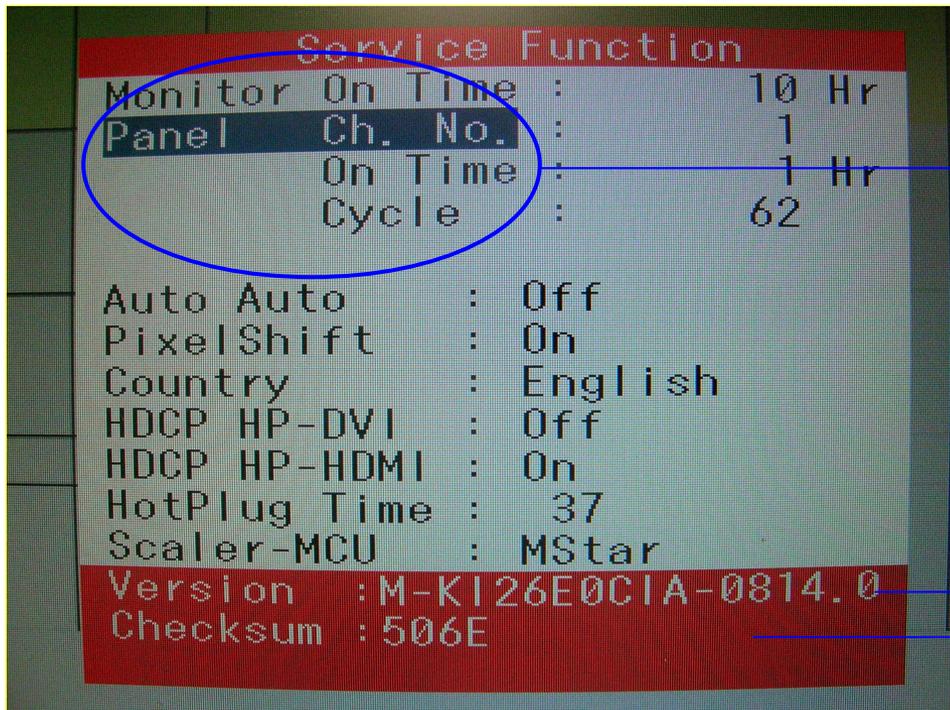
No	Feature	Description	How to operate
1	Auto Adjustment	If 963UW/2063UW turns on in some resolution for the first time, it can execute Auto adjustment automatically for the high Quality.	
2	Auto Power on/off	can check the change of source automatically and change the source to the active Input.	
3	Wall mount	963UW/2063UW supports wall mount (100 x 100mm).	
4	Gamma & Color temperature Fine Adjustment	963UW/2063UW supports 9-Step Fine Adjustment for Gamma & Color temperature.	Magictune Premium
5	MagicBright	963UW/2063UW supports 7 different MagicBright mode - Text, Internet, Game, Sports, Movie, Dynamic CR, Custom.	Press Magic Bright key. Select Picture → Magic Bright on OSD,
6	MagicColor	MagicColor is a new technology that Samsung has exclusively developed to improve digital image and to display natural color more clearly without disturbing image quality.  1) <b>Off</b> : Returns to the original mode. 2) <b>Dem</b> o : The screen before applying MagicColor appears on the right and the screen after applying MagicColor appears on the left. 3) <b>Full</b> : Displays not only vivid natural color but also more realistic natural skin color with clearness. 4) <b>Intelligent</b> : Displays vivid natural color with clearness.	Select MagicColor on OSD.
7	Camera Effect mode	Grayscale / Green / Aqua / Sepia	Select Color Effect on OSD.
8	Speaker	1.5W*2 Speaker adopted.	

# 12. Service (Hot key) Function list

(1)

1. Set both the brightness and contrast to 0.
2. Hold down the <Button>(Enter, Source) button for five (5) seconds.
3. The SVC Function OSD will appear.

\* To exit the SVC Function OSD, you have to turn off the power.



Panel Information

Software Version

MICOM Checksum

The SVC Function OSD consists of a 103 (width) X 82 (height) grid.

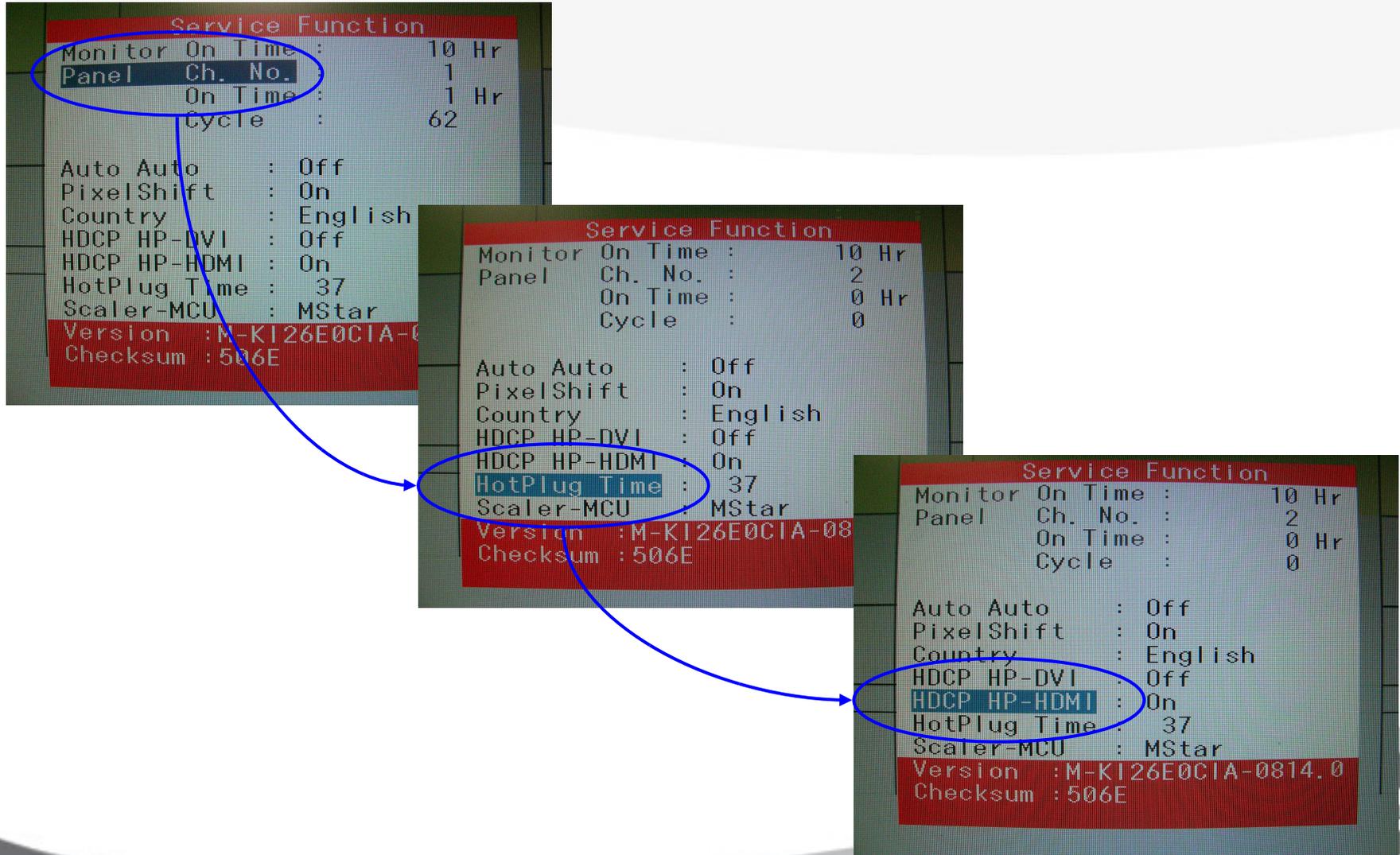
The SVC Function OSD shows the information, software version and Micom checksum.

SAMSUNG

CHAMP IN DIGITAL DISPLAY  
Visual Display Division

# 12. Service (Hot key) Function list

1. Each time the  $\square$  button is pressed, menu is moved. Then, you can adjust sub menu with  $\square$  button.

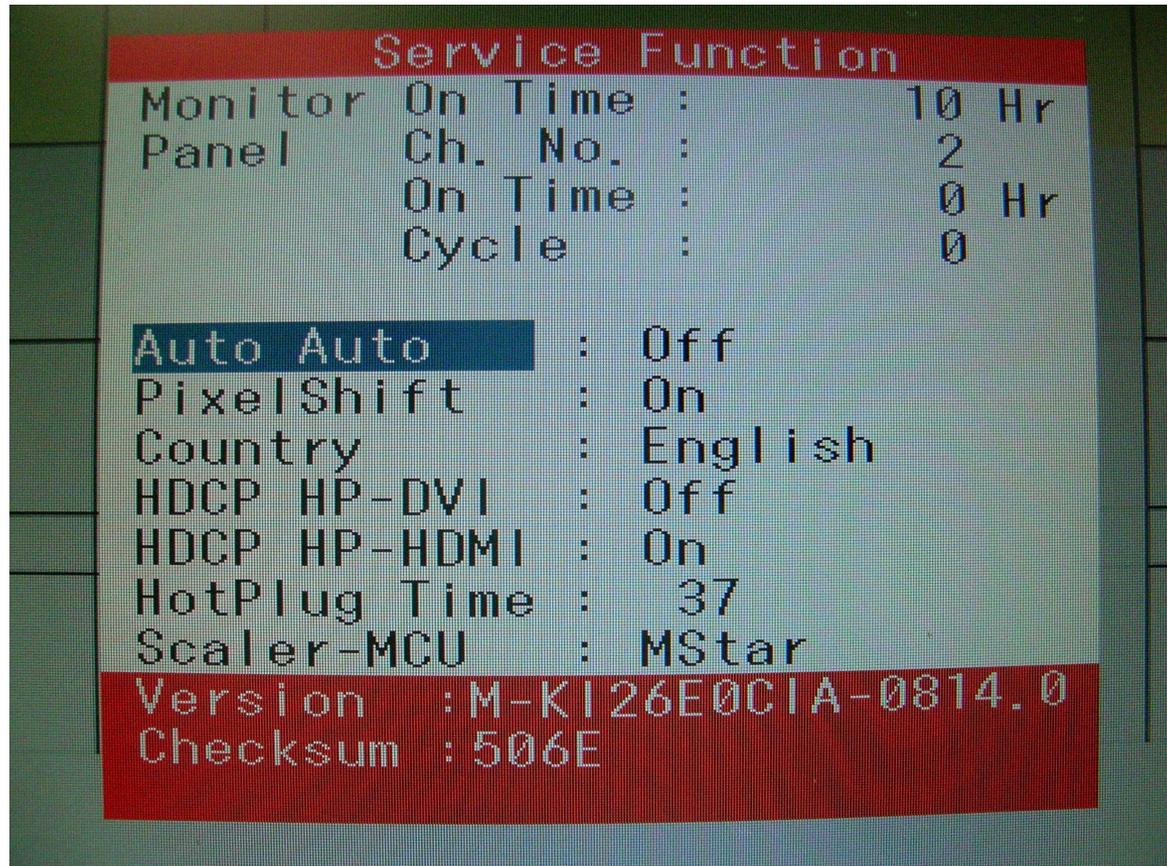


# 12. Service (Hot key) Function list (3)

- **When replacing the panel**

After replacing the panel, select the Panel item and then hold down the Menu button for five (5) seconds.

The Ch. No. of the panel will increase by one (1) and the time information will change to 0.



# 12. Service (Hot key) Function list

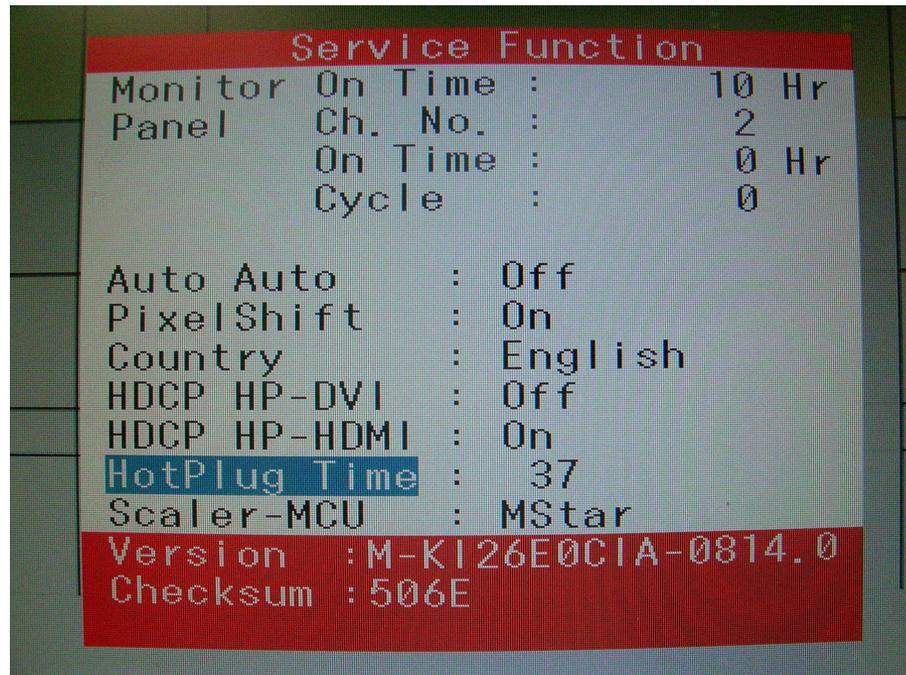
(4)

- HDCP Hotplug : used when HDCP Video contents are not displayed. In case that monitor is connected to some bad device which does not comply with standard.

- HotPlug Time : If Hotplug is turn on, when monitor power off/on or changing to the DVI, hotplug pin goes to the low. This function controls this time duration.

Though Hotplug is turn on monitor can't displayed, adjust this time duration

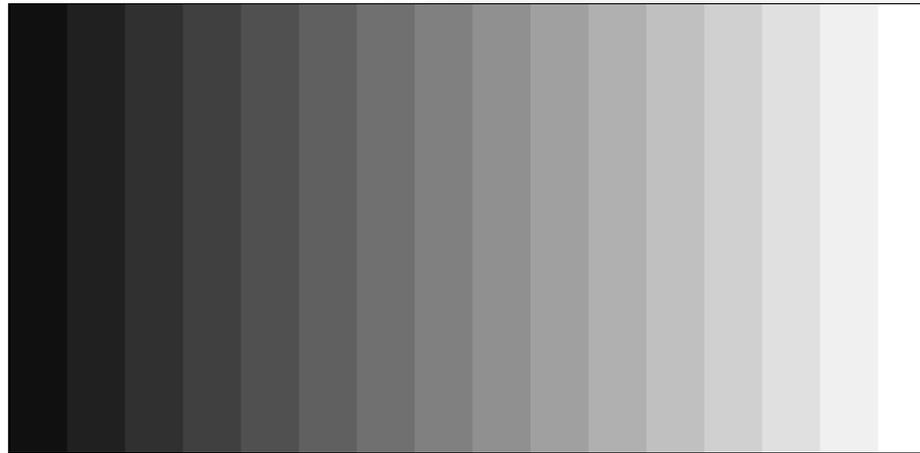
- Default is 9(means 0.9 sec), can control 5 to 50.



# 12. Service (Hot key) Function list (5)

## Auto Color

PC analog ( 963UW : 1440X900 at 60Hz / 2063UW : 1680X1050 at 60 Hz): Tools to use: MSPG-3240L



PC Analog Control Pattern(16 GRAY)

**Select Language English on the OSD menu and then hold down the Menu button for five (5) seconds.**

# 12. Service (Hot key) Function list

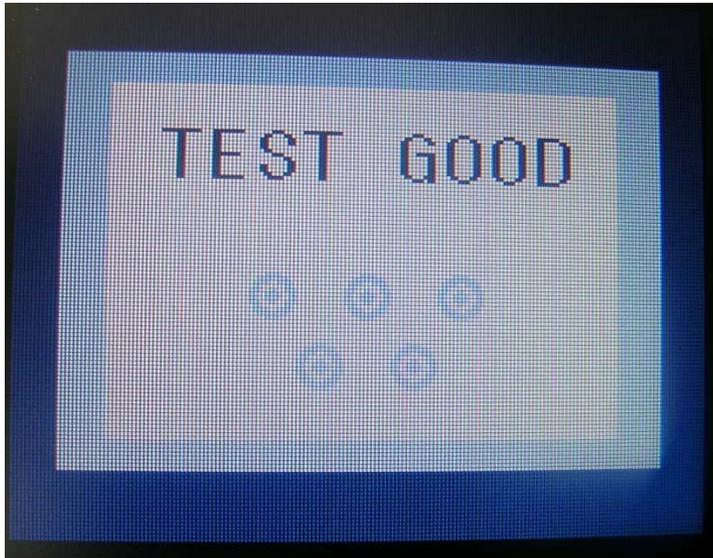
(6)

## ❖ The Purpose and Function of the Self-Test

- A Self-Test has been added to easily recognize whether the monitor has a fault or not and consequently to minimize customer claims for non-malfunctions of the product.

## ❖ How to Perform a Self-Test

- Press the **Menu** button in the **DPMS** state, and determine whether the monitor is normal or not.



No screen	Determine according to the output message.
Focus fault	Determine according to dimming level of the "TEXT GOOD" message.
Screen trembling	Determine according to trembling level of the message window.

# 13. Troubleshooting

1. Before troubleshooting, setup the PC's display as below.

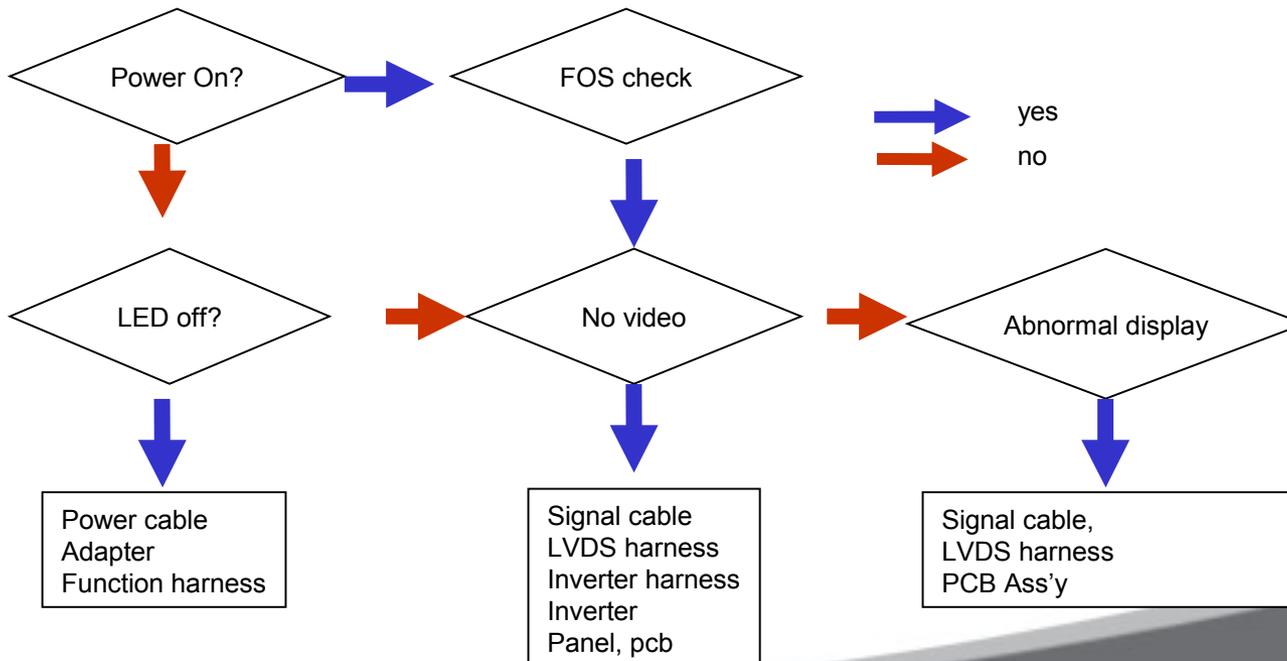
- Resolution : 963UW : 1440 x 900 / 2063UW : 1680 x 1050
- H-frequency : 75kHz
- V-frequency : 60Hz

1. If no picture appears, make sure the power cord is correctly connected.

2. Check the following circuits.

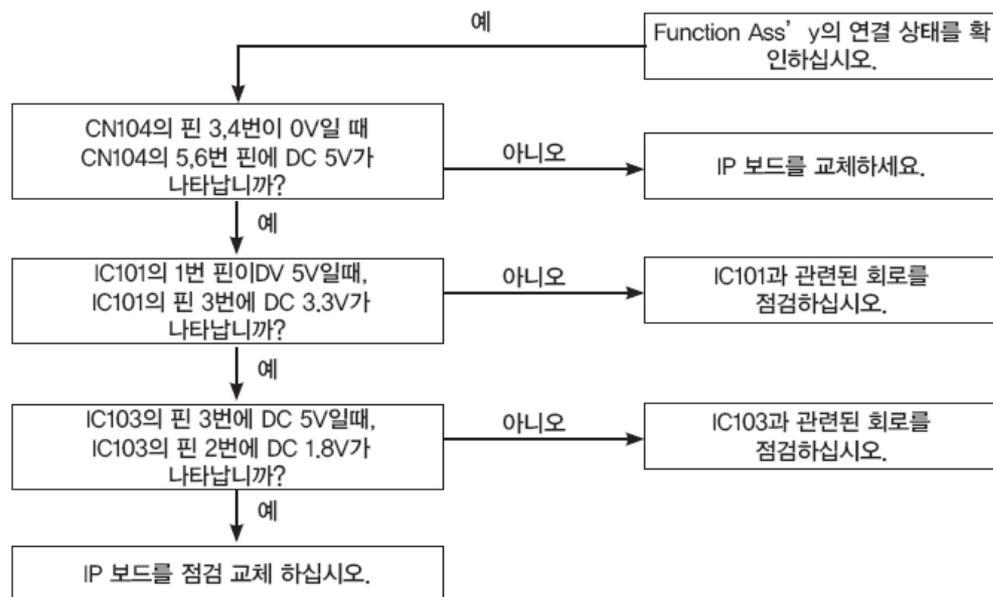
- No raster appears : Function PBA. Main PBA. SMPS
- 5V develop but no screen : Main PBA
- 13V, 5V does not develop : SMPS, Main PBA

## ■ Problem Checking Process

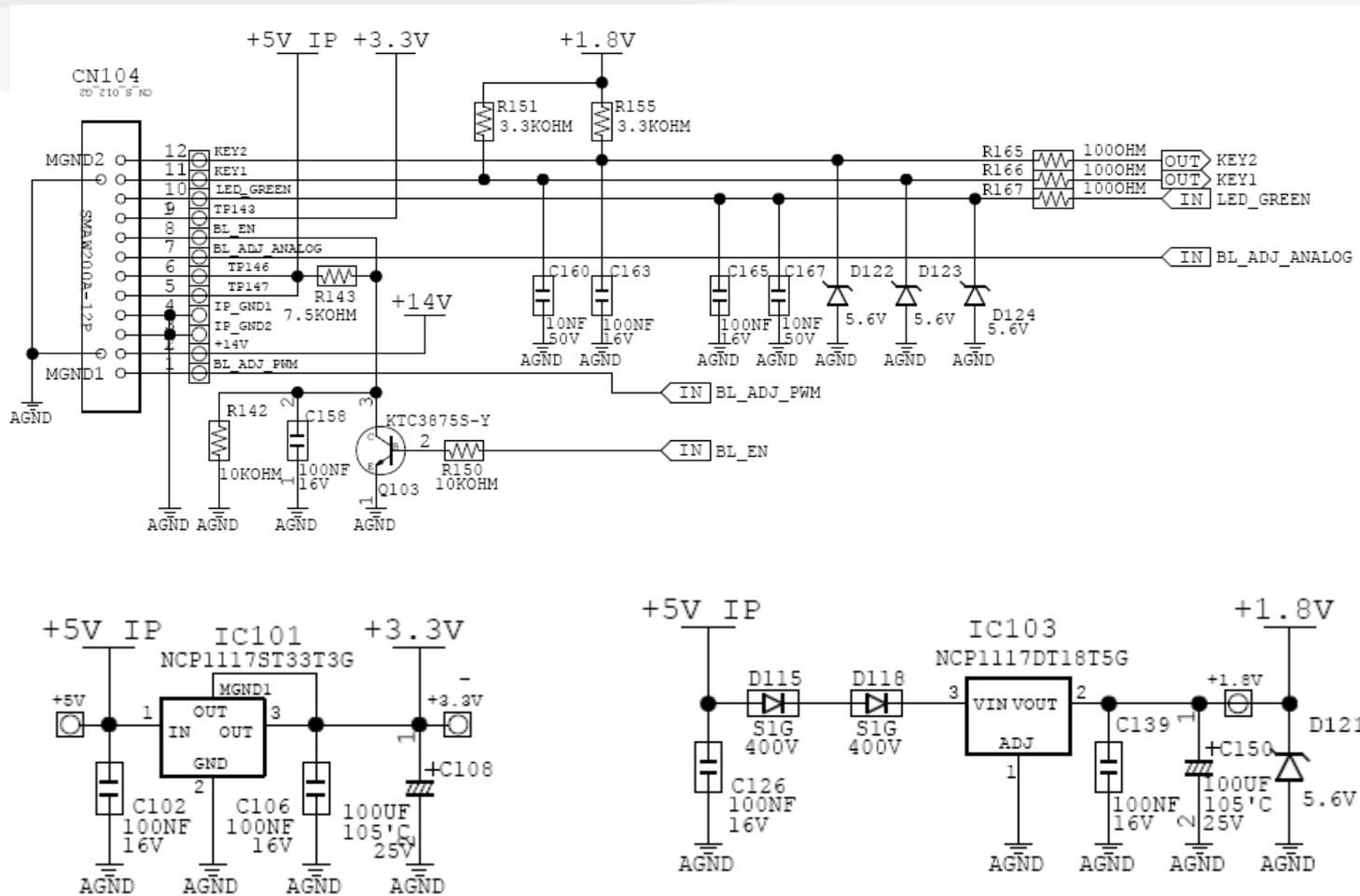


# NO POWER

- Symptom** - When turning on the Power button after connecting the power, the LED at the front of the monitor does not operate.
- Major checkpoints**
- Check whether the Power Switch at the back of the monitor is turned on.
  - Check SMPS fuse and SMPS output power.
  - Check the connections for SMPS and Main board inside the monitor.
  - Check Main board power part and check also whether there is any abnormal output at other output terminals
- Caution** Make sure to disconnect the power before working on SMPS

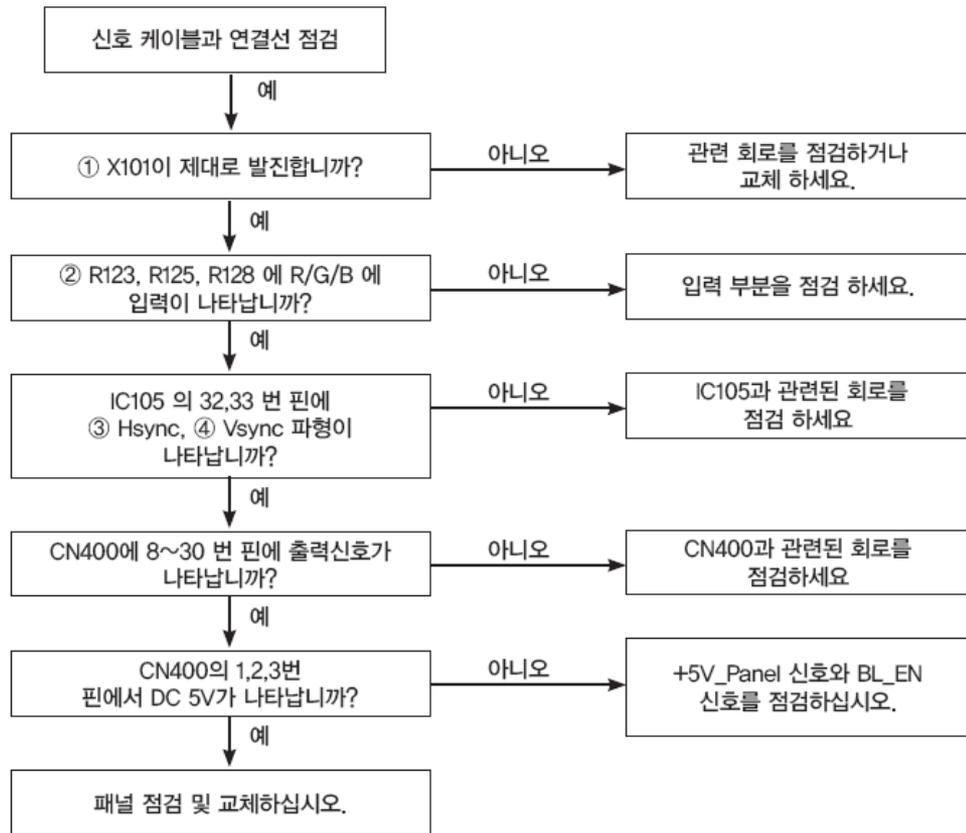


Circuit diagrams and waveforms when the power does not turn on.



# NO VIDEO (ANALOG)

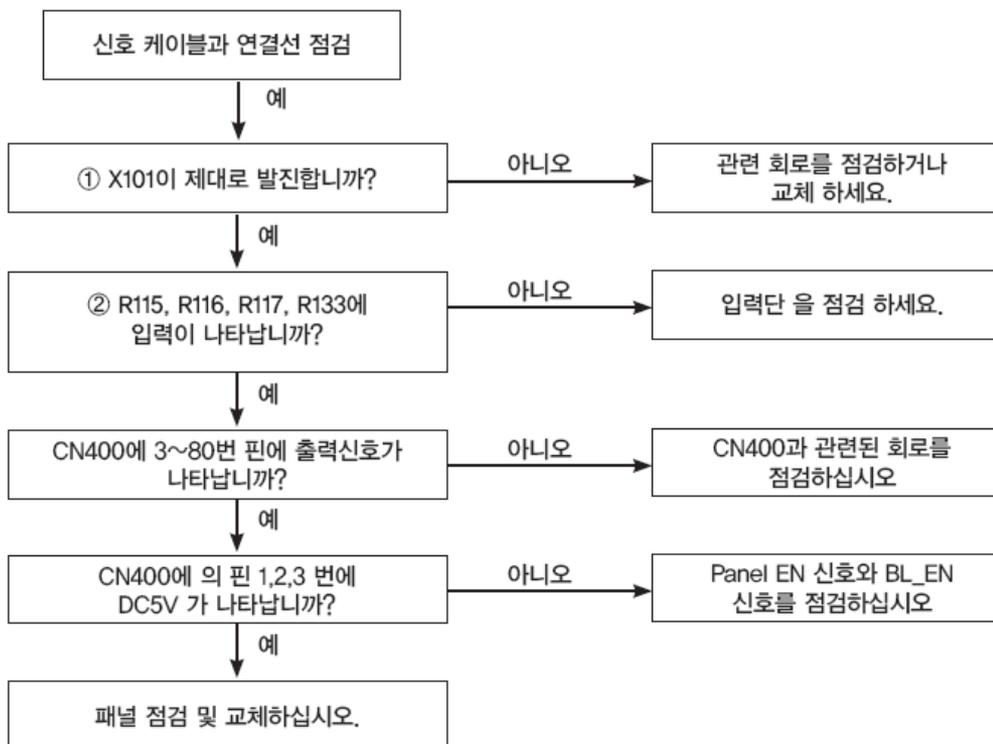
- Symptom** - Though the LED power turns on, the screen is blank when connecting D-SUB Cable
- Major checkpoints**
- Check the D-sub cable connections.
  - Check whether the LVDS cable is connected correctly to the panel.
  - Check whether the lamp connector of the panel is connected correctly to Inverter board.
- Caution** Make sure to disconnect the power before working on SMPS



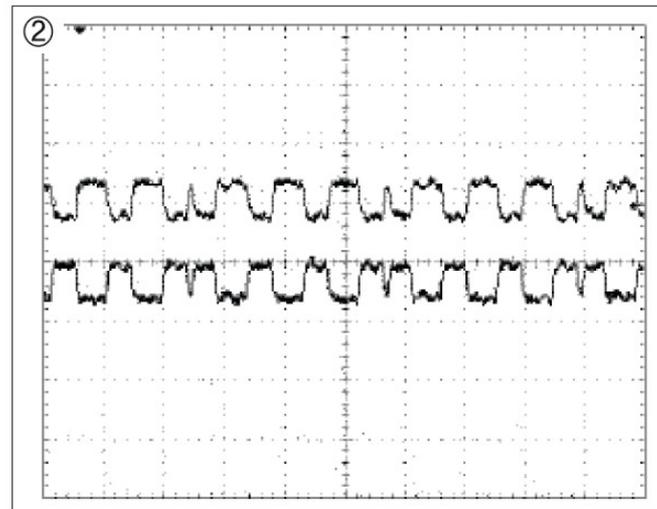
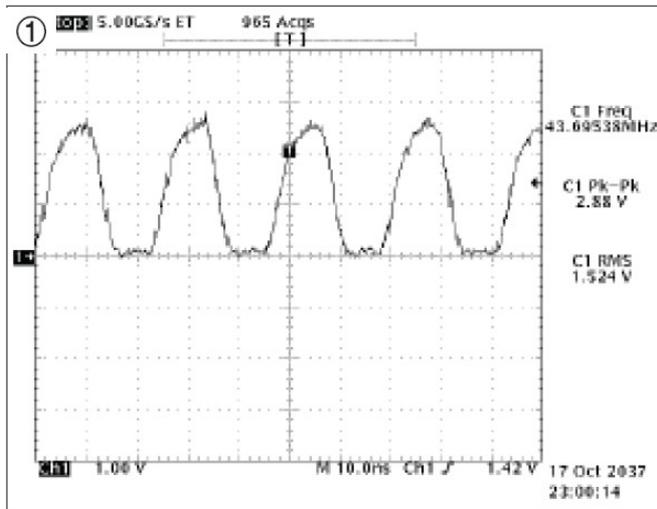
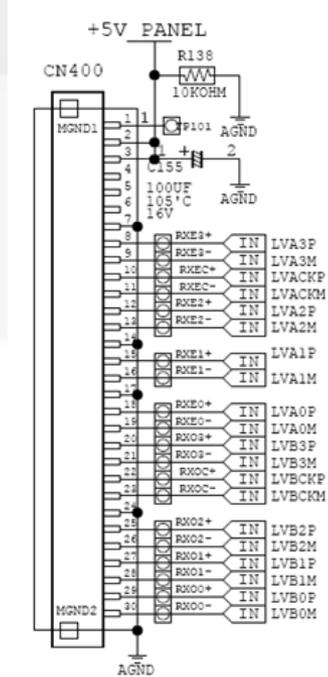
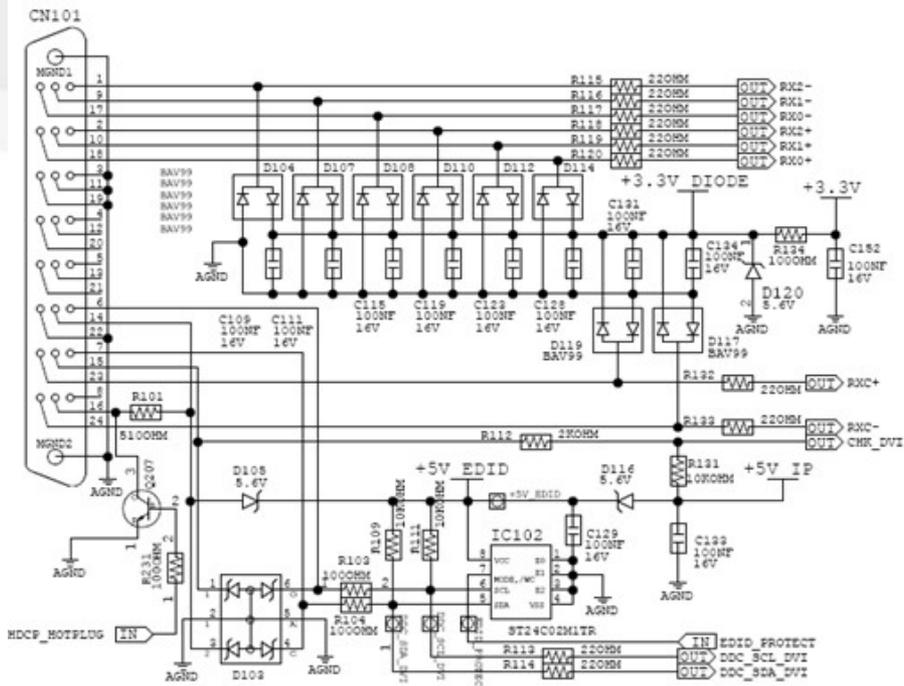


# NO VIDEO (DIGITAL)

- Symptom** - Though the LED power turns on, the screen is blank when connecting DVI Cable
- Major checkpoints**
- Check the DVI cable connections.
  - Check whether the LVDS cable is connected correctly to the panel.
  - Check whether the lamp connector of the panel is connected correctly to Inverter board.
- Caution** Make sure to disconnect the power before working on SMPS



Circuit diagrams and waveforms (Digital) when on screen is displayed on the monitor.



DIGITAL DISPLAY  
 Visual Display Division

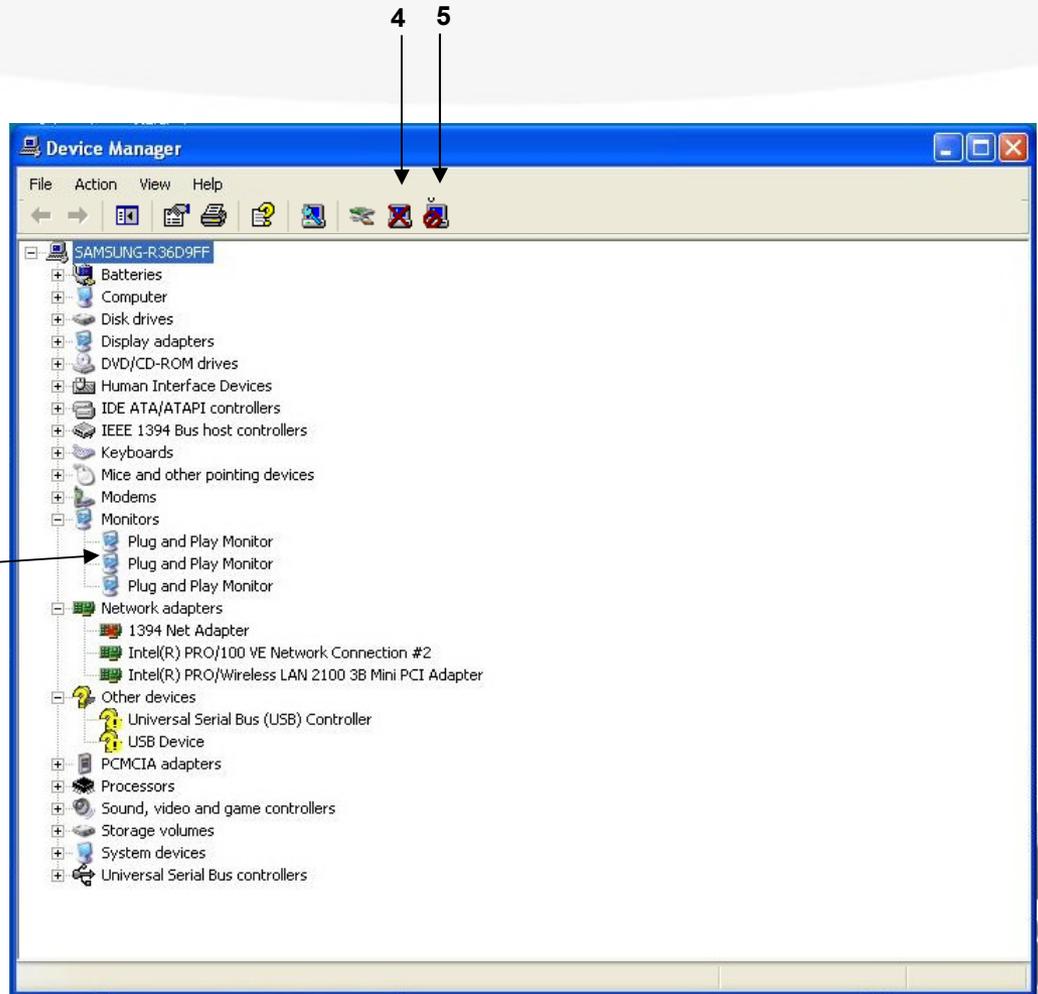
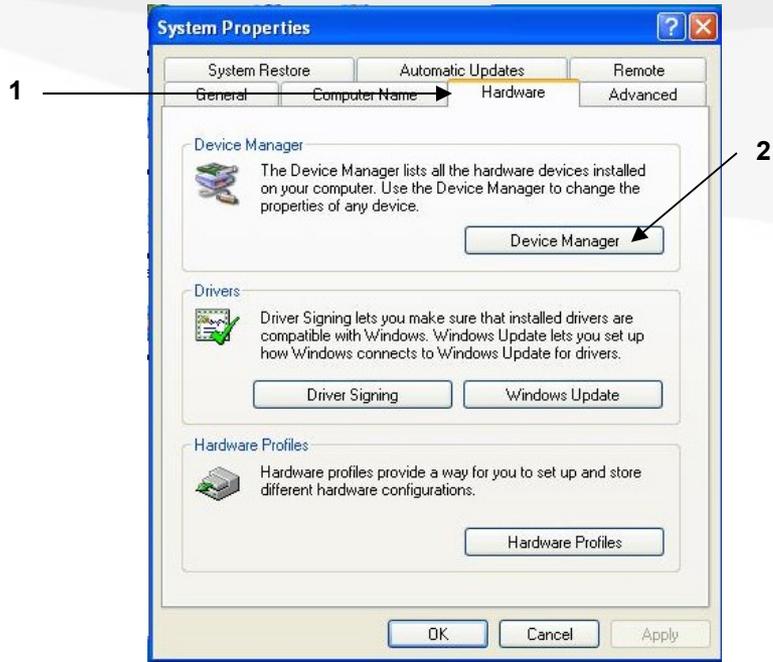
## ▪ Magi ct une

### Magic tune Premium

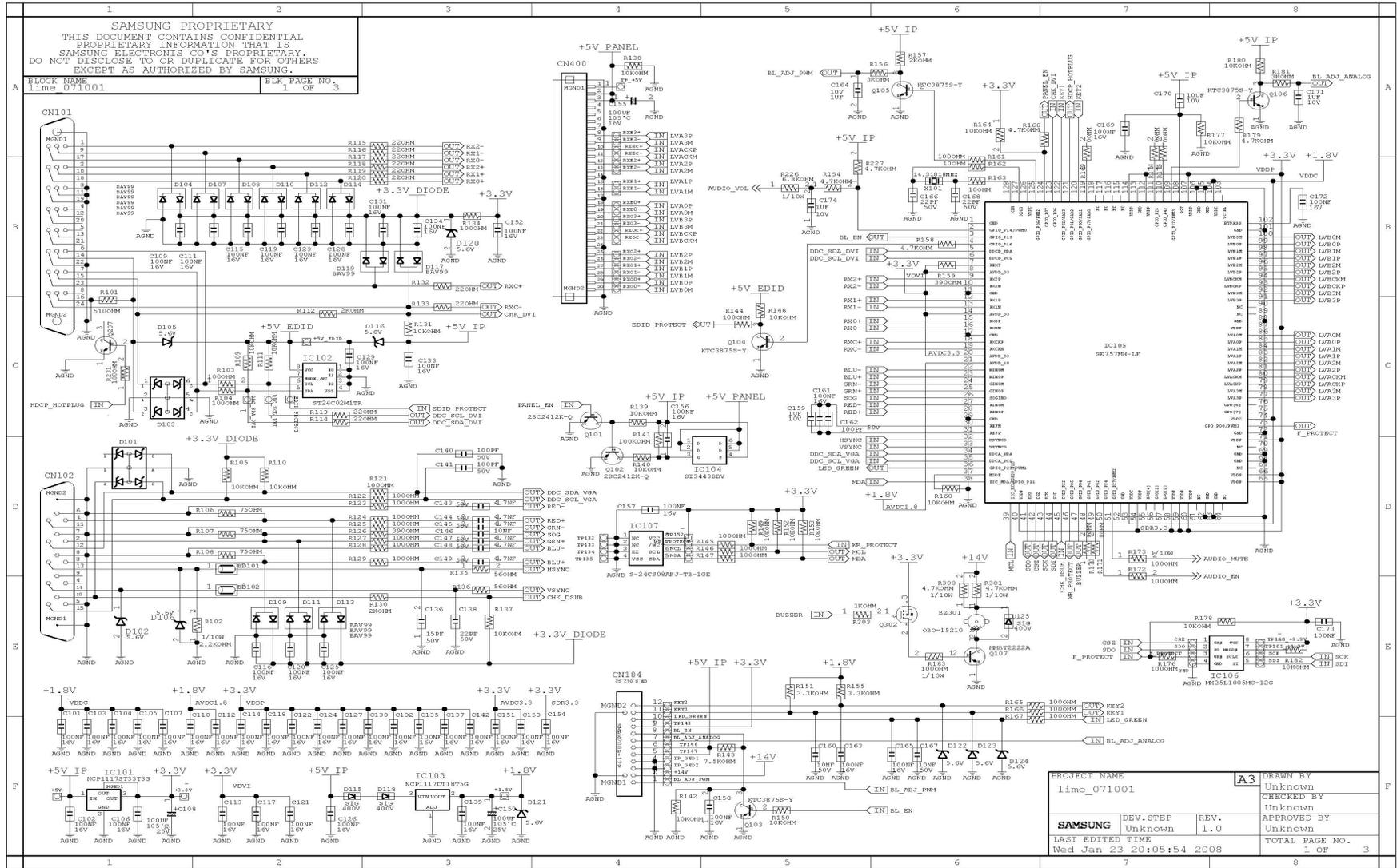
- 1) Magic tune not responding. Error message “Not supported monitor” displayed on the screen.
  - =>Reboot the PC and retry Magic tune Premium.
  - => If the graphic card does not support DDC-CI , This may cause magic tune not to operate. Replace video graphic card.
  - => If the display information shows a Plug and Play or Samsung Monitor model name ? The Magic tune is not working without monitor information so that you should check a below process.

### Process for checking a monitor information Before operating the below process, Close the Magic tune Premium

- To select a property in the my computer of back ground via right mouse. Then you may see a system registered information. (below picture)
- To select a hardware of equipment controller , You may see a all supported hardware in PC. **(1)→(2)**
- To select a monitor , and check a information of monitor whether Plug and play or Samsung model name. **(3)**
- To select a delete button of monitor information **(4)**, and push a recovery button **(5)** . Then the PC read all monitor information.
- To check registered monitor information.
- To operate a Magic tune Premium again

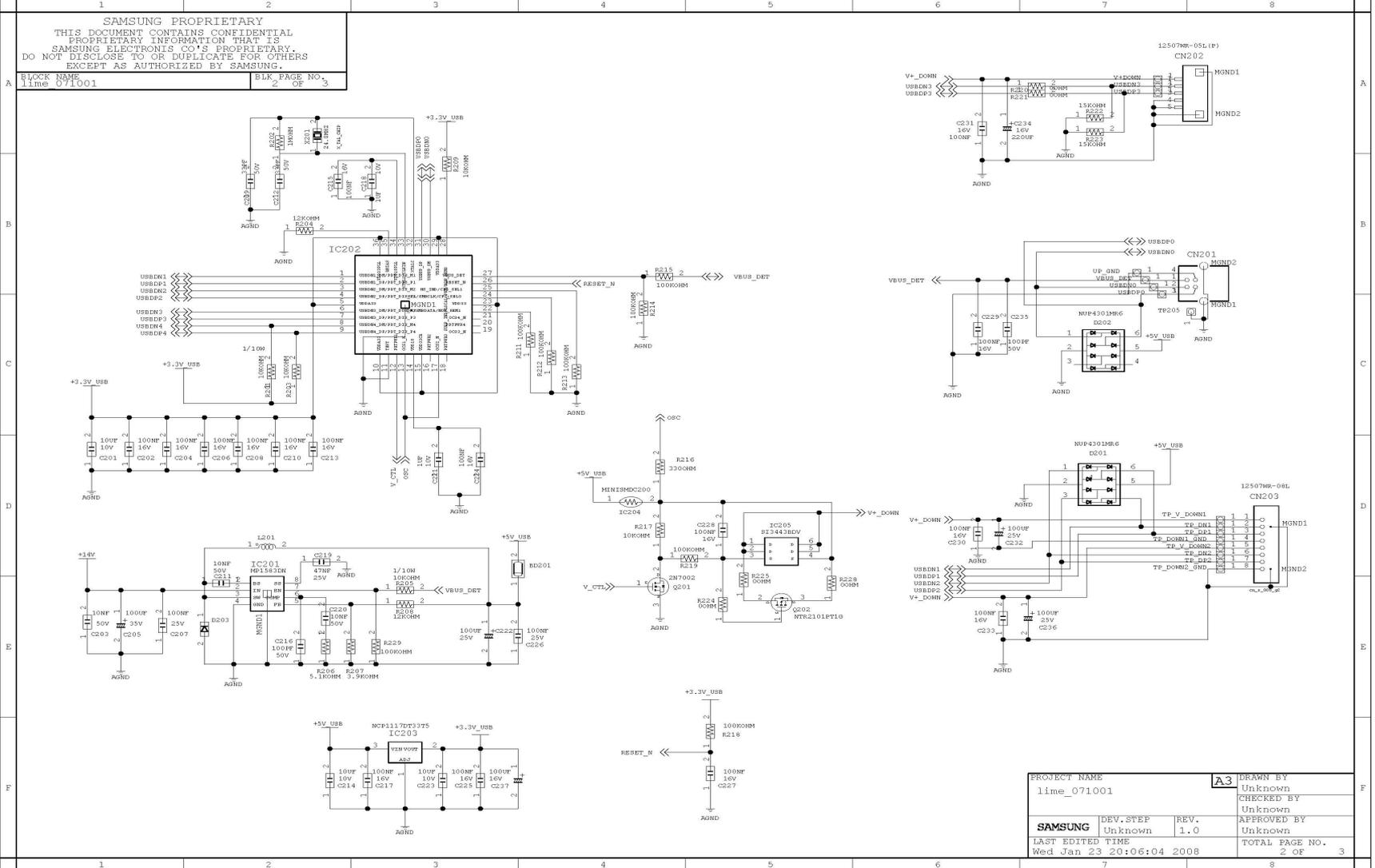


# 4. Main PBA - Schematics (1)



c:/atdm/l1me\_071001/l1me\_071001\_1.cpm

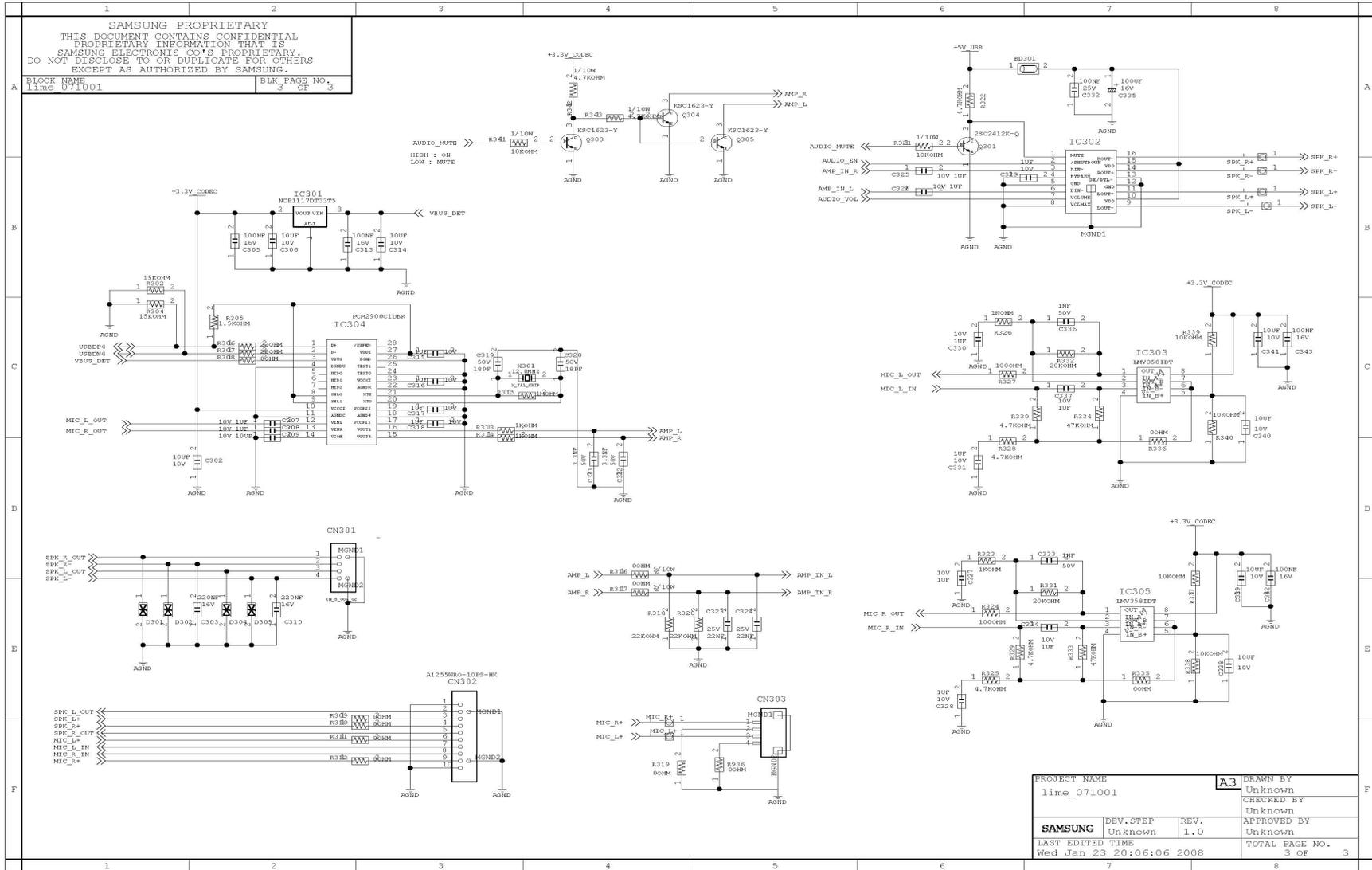
# 14. Main PBA - Schematics (2)



<b>PROJECT NAME</b>	lime_071001	<b>A3</b>	<b>DRAWN BY</b>	Unknown
			<b>CHECKED BY</b>	Unknown
<b>SAMSUNG</b>	<b>DEV.STEP</b>	<b>REV.</b>	<b>APPROVED BY</b>	Unknown
	Unknown	1.0		Unknown
<b>LAST EDITED TIME</b>	Wed Jan 23 20:06:04 2008		<b>TOTAL PAGE NO.</b>	2 OF 3

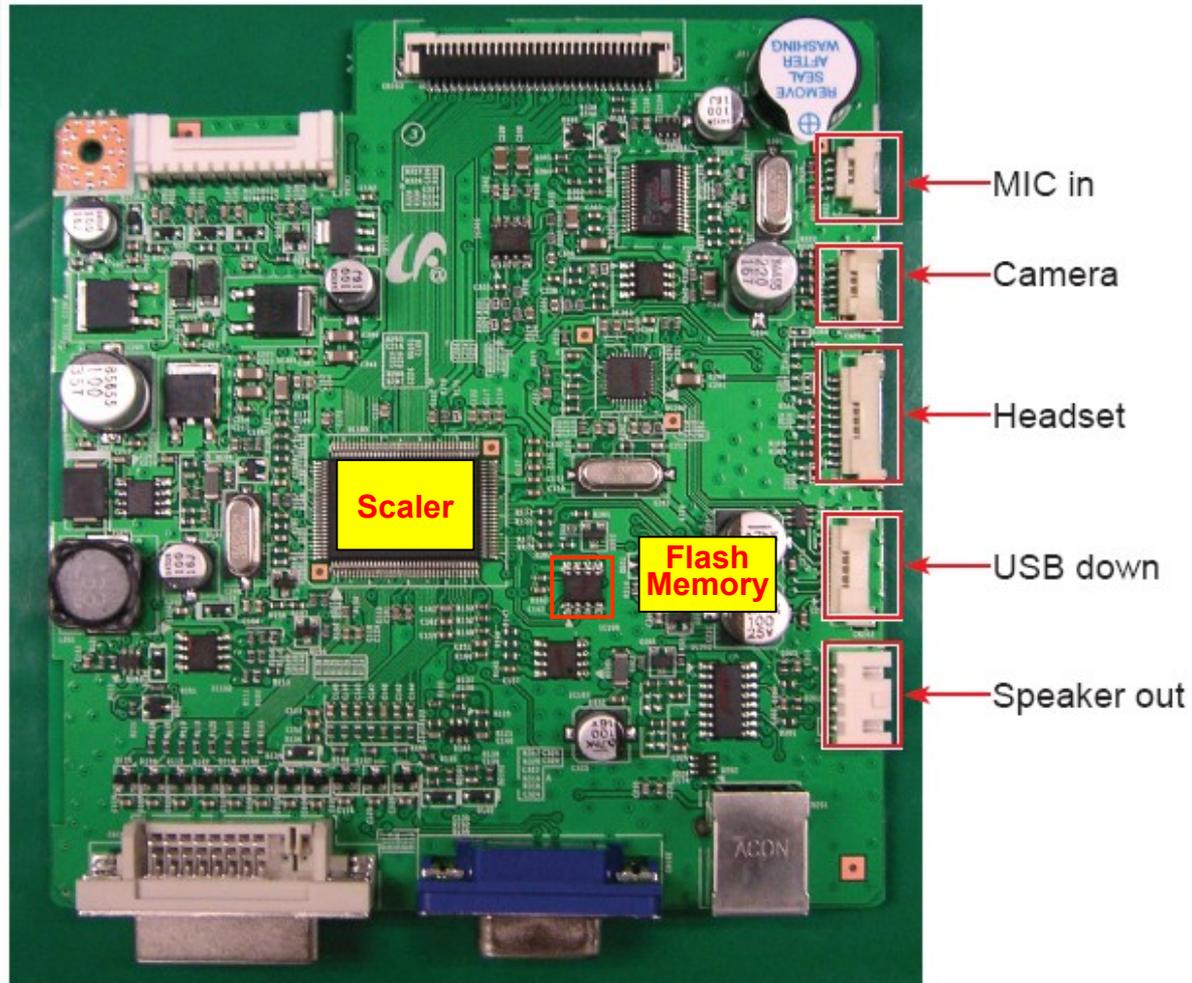
C:/atdm/lime\_071001\lime\_071001.cpm

# 4. Main PBA - Schematics (3)



C:\atdm\line\_071001\line\_071001.cpm

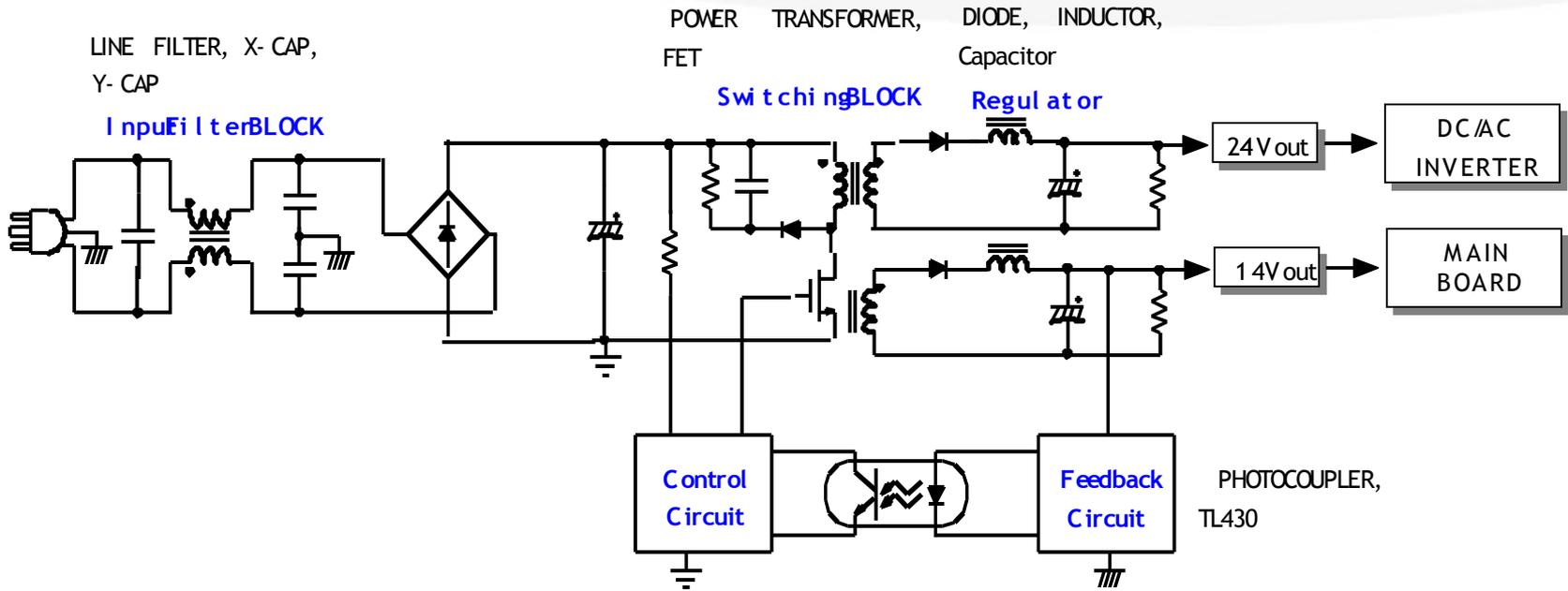
# 15. Description - Main Board (1)



# 15. Description - Main Board (2)

No	□□	□□	□□
1	Scaler	Scaler Integrate ADC and TMDS, Scaling part, Controller,	
2	FLASH MEMORY	Flash memory save information that SCALER needed. Program update is possible through the Firmware.	

# 16. Description - SMPS Part



# Ref : Inverter - Dimming

There are three methods. The **Current Control** method controls the amount of the current that enters the lamp. The **PWM** method turn on and off the lamp in a constant cycle. The **Complex** methods combines both two methods.

## Current Control (Analog Dimming)

- Dimming is possible with giving little affect to the panel.
- Requires a minimum current so that no partial ON appears at the minimum brightness.
- Low dimming ratio (about 2:1)
- Efficiency is low at the dimming state because the inverter is optimized to the maximum brightness.

## PWM Control (Burst Dimming)

- Dimming is done by turning on and off the lamp at the frequency of about 300 Hz to 1 kHz.
- Because this method turns on and off a large volume of current in a constant cycle, the ground of the panel power part becomes unstable and noise is generated, causing water falls.
- Because the lamp ON state always operates at the maximum brightness, efficiency is high and the partial ON problem at the minimum brightness is solved.
- High dimming ratio (about 5:1)

## Complex Control

## \* PROTECTI ON\*

### ➤ LAMP(Inverter) PROTECION

- If the lamp connector is disconnected or there is no feedback because the lamp has a crack, the lamp protection is activated.
- If the Inverter Trans has a high voltage output, the Over Voltage Protection is activated as lamp protection.

### ➤ Power Protection

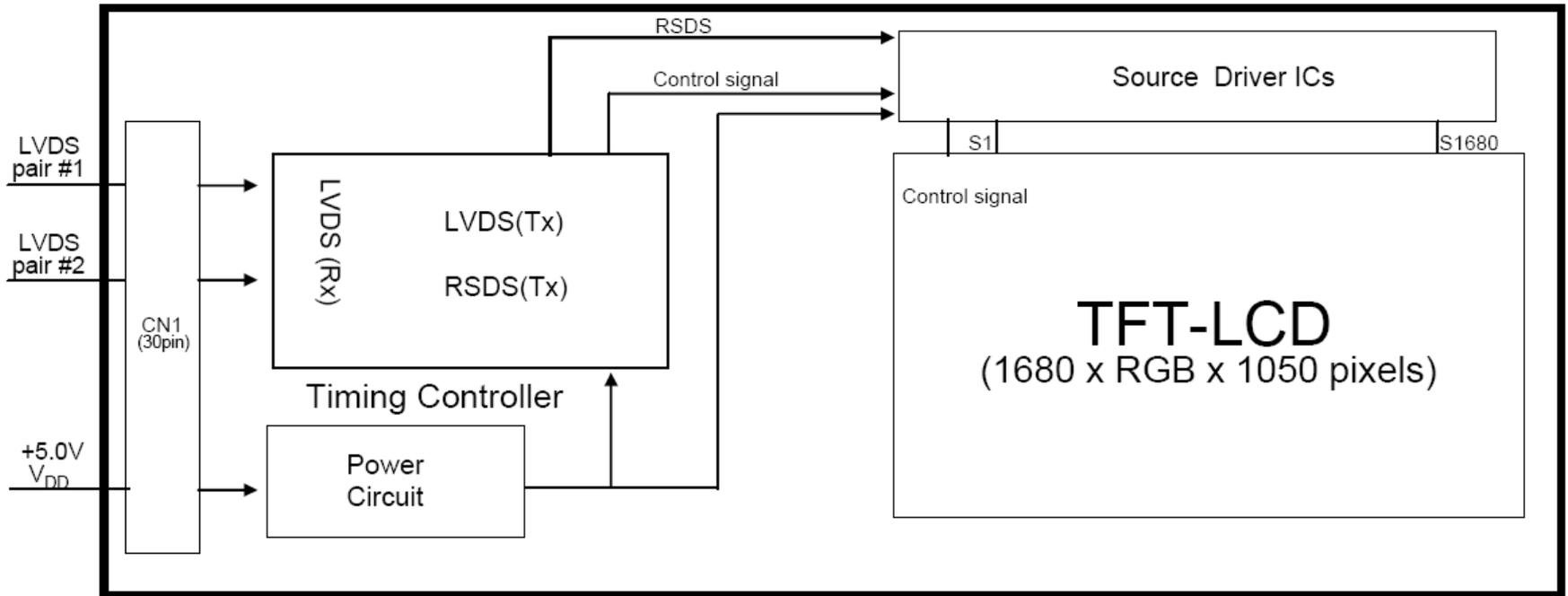
- All protections (OVP/OCP) for the panel operate in Auto Recovery Mode.

Therefore, when a protection is activated temporarily, the panel continues to work without power- off when it is cleared.

However, exceptionally, in the case of Thermal Protection, the panel works normally only if the power is turned off to discharge completely and turned on again. This is controlled by the function designed in the Power IC.

# 17. Description - Panel Part

LCD PANEL : CLAA201WA04 (2063UW)



# 8. Assembly and Disassembly (1)

1. Turn the monitor off before beginning the disassembly process.
2. When disassembling the monitor, do not use any metal tools except for the provided jig.
3. Disassemble the monitor carefully as directed in the following procedures.

## STAND



1. Place the monitor on the soft table with the front part facing downwards and remove the stand by pulling downward forcefully.



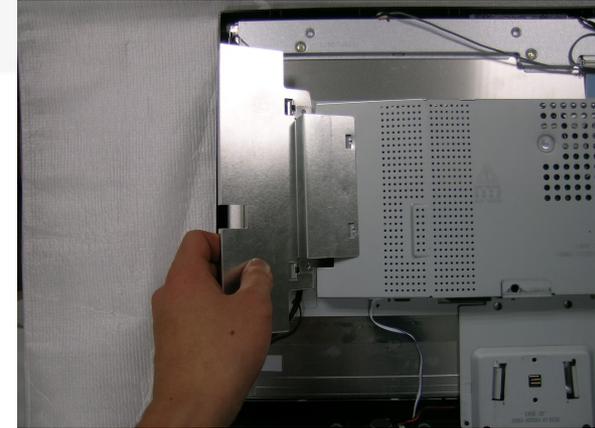
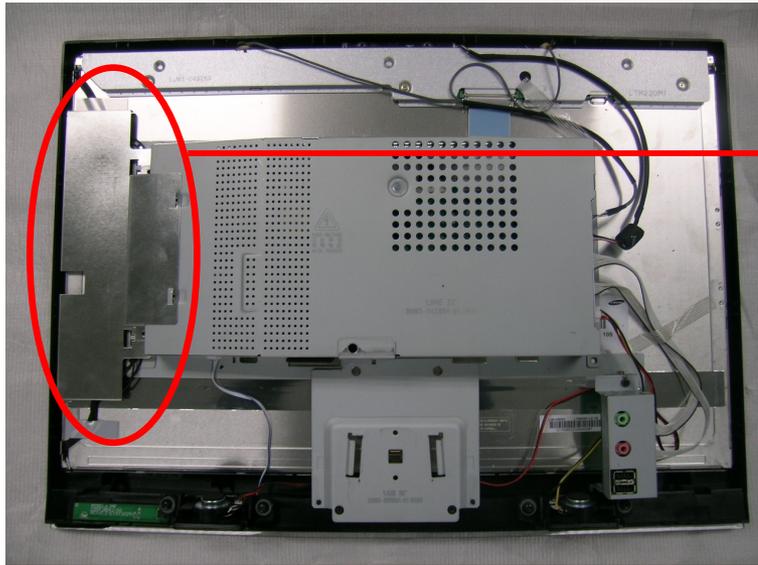
2. Remove the two screws and put hand on stand hall between two screw halls and lift back cover.

SAMSUNG

CHAMP IN DIGITAL DISPLAY  
Visual Display Division

# 8. Assembly and Disassembly (2)

## SHIELD TCO-LAMP



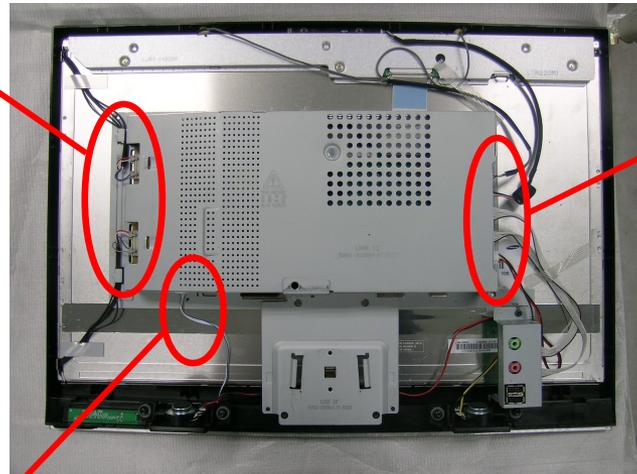
3. Push out SHIELD TCO-LAMP with two hands and lift carefully on.

# 8. Assembly and Disassembly (3)

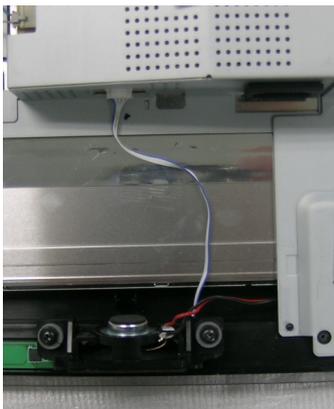
IP Board Cable



MIC, WebCam, Sub Board Cable



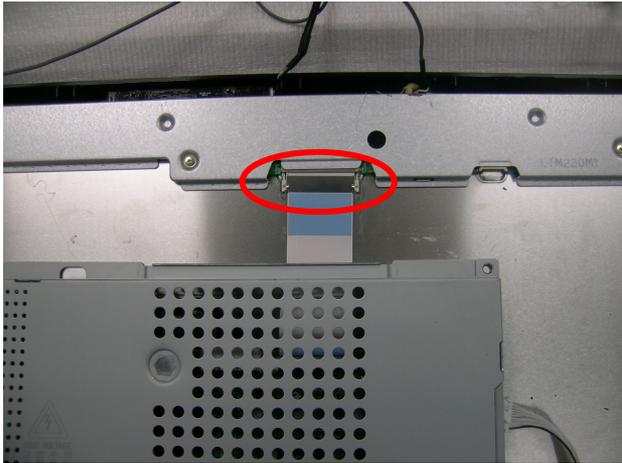
Function Cable



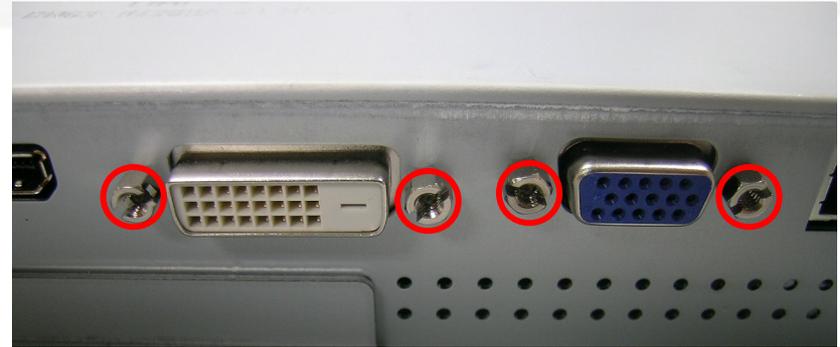
4. Separate all cables connected to CHASSIS

# 8. Assembly and Disassembly (4)

## ASSY CHASSIS



5. Separate LVDS cable.



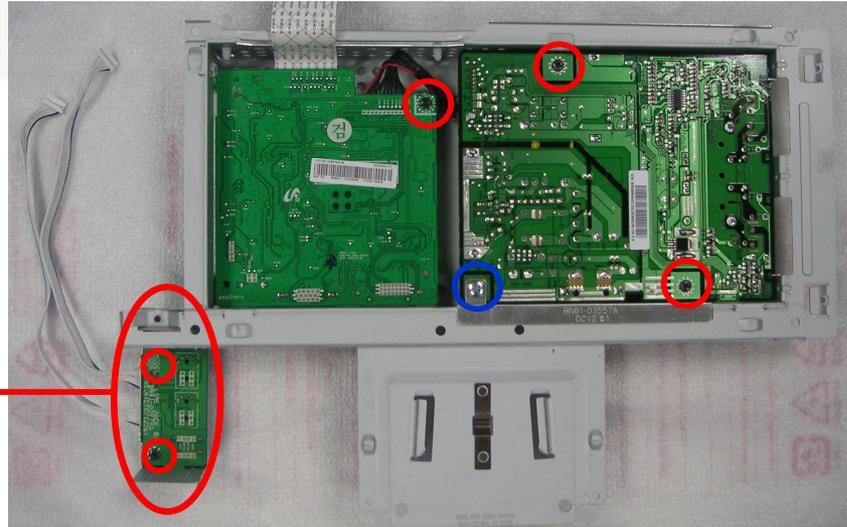
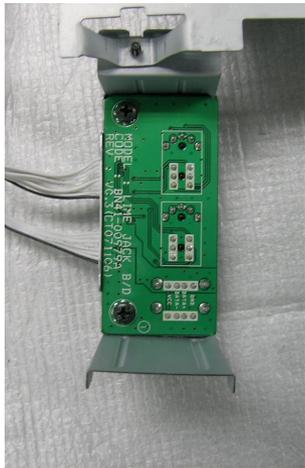
Screw



6. Separate 4 6-angle screws under the SHIELD.

# 8. Assembly and Disassembly (5)

MAIN BOARD , SMPS, Sub Board



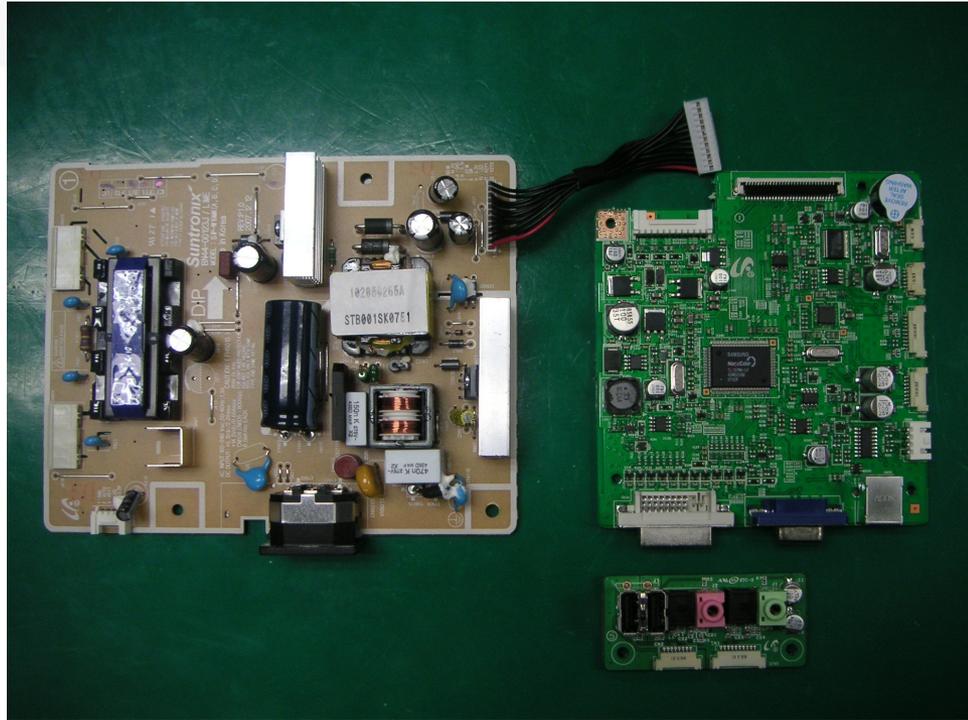
Screw



9. Separate 9 screws and lift board and separate cable.

# 8. Assembly and Disassembly (6)

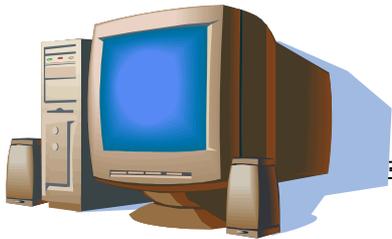
MAIN BOARD , SMPS, Sub Board



▶ The assembly is in the reverse order of disassembly.

# 19. Firmware Installation (1)

- After exchange the Main Board, We use DDC manager and must complete downloading.
- Connecting is refer to below picture.
- MI COM can be updated with DDC manager.



Connect to parallel port

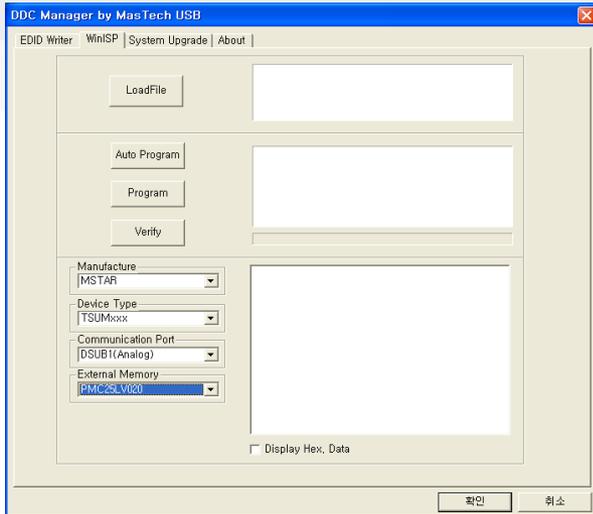


DDC MANAGER



connect to MAIN board  
CN101

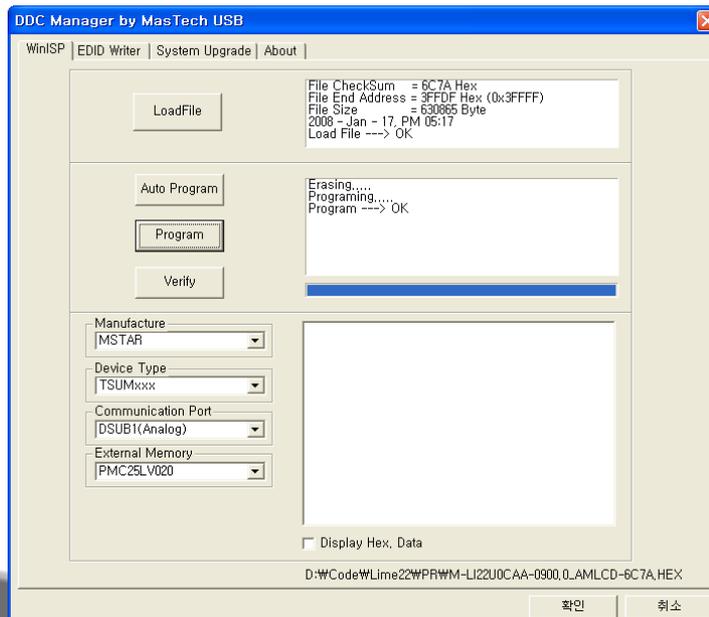
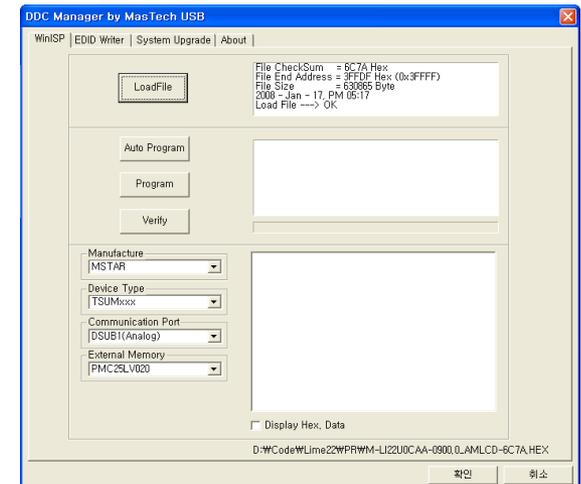
# 19. Firmware Installation(2)



1. Execute "winDDC".

2. Select "MSTAR", "TSUMxxx", "DSUB1(Analog)", "PMC25LV010" step by step.

3. Click "LoadFile" and the latest code which code form is "\*.hex".



4. Click "Program".

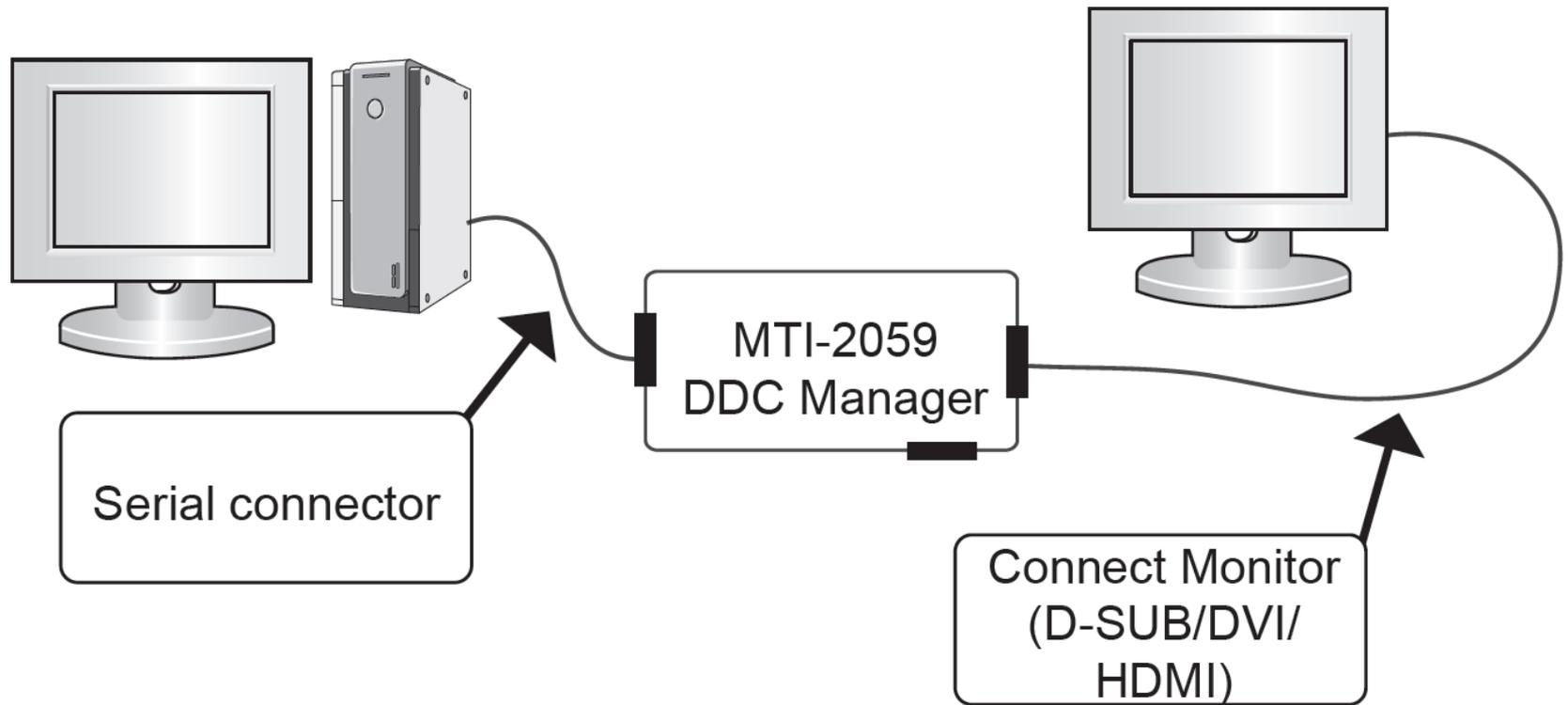
SAMSUNG

CHAMP IN DIGITAL DISPLAY  
Visual Display Division

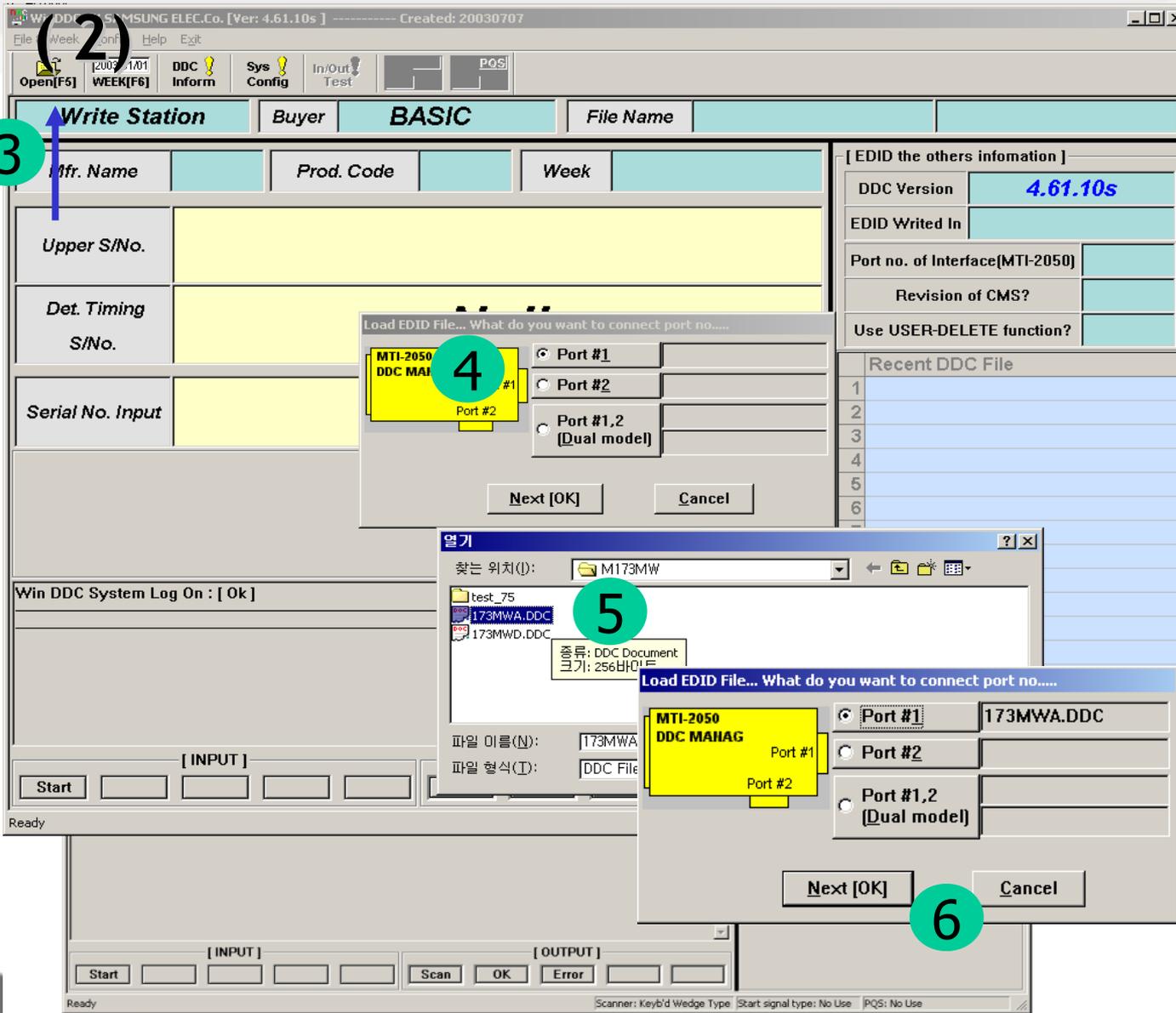
# 20. EDID Installation

(1)

- EDID can be updated with DDC Manager JIG.
- Refer to below picture



# 20. EDI D I n s t a l l a t i o n



1. Connect DDC Manager Jig to 2493HM with D-Sub cable and DVI cable, HDMI cable
2. Execute Winddc.exe Program on PC
3. Click the Winddc icon.
4. File open.
5. Select Port#1
6. Load DDC file  
File Name  
"SM963UWA.ddc" : Analog
7. Click Next(OK) button
8. Select enter button After Monitor S/N input.

# 20. EDI D I nstal l ation

WinDDC 3-Port BY SAMSUNG ELEC.Co. [Ver: 4.65.11z] ----- Program Version : 200400621

File & Week Config Help Exit

Open[F5] 2003/01/01 WEEK[F6] DDC Inform Sys Config In/Out Test PQS  Use DVI - I type of sig. cable model

Write Station Buyer SAMSUNG File Name 193PPA.DDC

Mfr. Name SAM Prod. Code 9801 Week 4th of 2005

Upper S/No. DE19

Det. Timing S/No. H1AK500000

Serial No. Input CheckSum 0x46

**Waiting**

[DDC] Processing....  
 [DDC] DDC Protection Off ...  
 [DDC] #1 PORT: Analog EDID Writing(128 byte)...: Good!!!  
 [DDC] Delay 1.2 sec  
 [DDC] #1 PORT: Analog EDID Read/Verify...: Good!!!  
 [DDC] Processing.... End (T/Time : 2.0 Sec)

[ INPUT ] [ OUTPUT ]

Start Scan#1 OK Error Scan#2

Ready Scanner: Keyb'd Wedge Type Start signal type: No Use PQS: No Use

[ EDID the others information ]

DDC Version	4.65.11z
EDID Writed In	EEPROM
Port no. of Interface(MTI-2050)	#1
DDC Manager Type	2-Port
Use OSD S/No. Write?	No

Recent DDC File

1	#1: 193PPA.DDC,#2
2	#1: 193PPA.DDC,#2: 193PPD.DDC
3	#1: 173PPA.DDC,#2
4	#1: 173PPA.DDC,#2: 173PPD.DDC
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

9. Enter the DVI DDC on same way.

File name  
 "SM963UWD.ddc" : Digital

13. Click Next(OK) button

14. Select enter button After Monitor S/N input.

# 1. After Replacing Main PBA

## You have to

- EDID input (Analog and Digital, HDMI)
- Firmware install – MICOM S/W input(use DDC manager)
- PC Auto Color Adjust
  - .select language “English” in OSD, then hold down Enter key for 5 seconds
- Factory Reset
  - .setting to Contrast and Brightness ‘0’.
  - .Push the menu button more than 5 seconds
  - .select Reset.

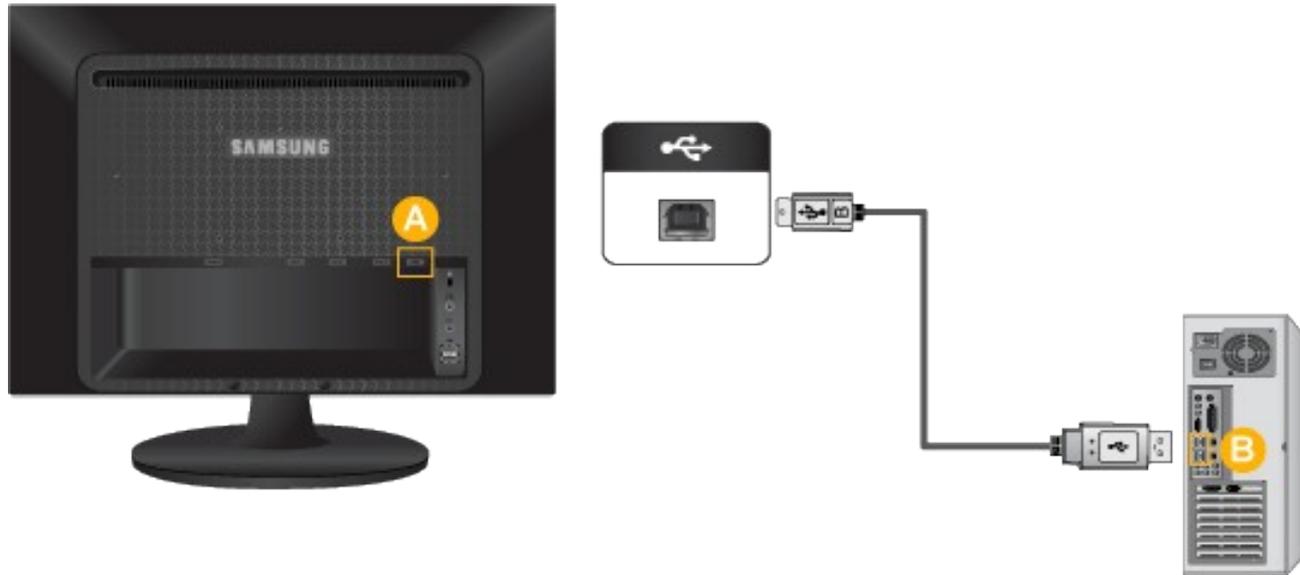
# 21. After Replacing Main PBA

- Input EDID (Analog / Digital)
- Install Firmware – Input MICOM CODE (Using DDC MANAGER)
- PC Auto Color Adjust
  - Push a Enter key for 5 seconds at Language “English” on OSD.
- Factory Reset
  - Set the Contrast and Brightness 0.
    - Push Menu key for 5 seconds then enters factory mode with flickering.
    - Select “Reset” and push Enter

## 2. Operation of Web Cam, M C and Speaker

▶ Auto setup for the Web CAM, Microphone and Speaker

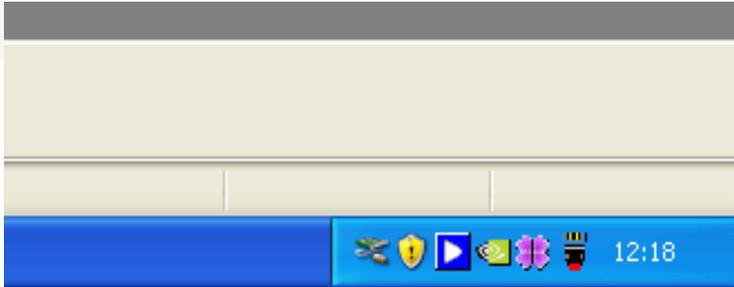
- 1 Connect your monitor and PC using a USB cable, as shown in the figure below.



SAMSUNG

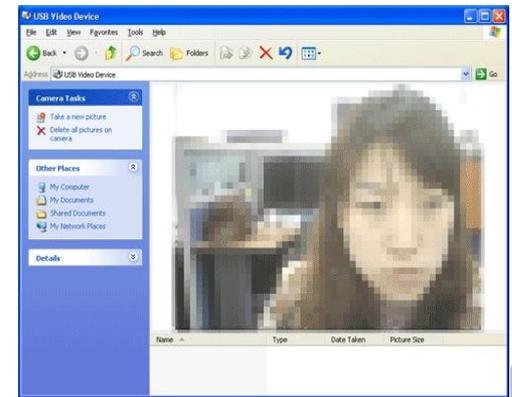
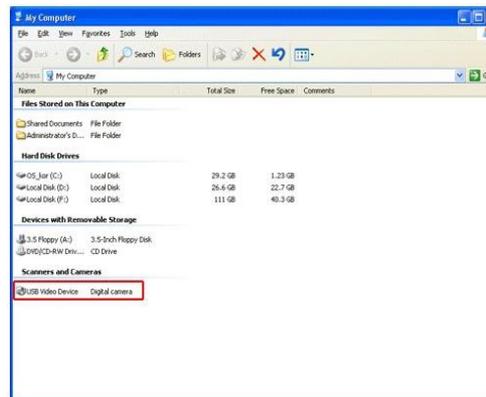
CHAMP IN DIGITAL DISPLAY  
Visual Display Division

- 2 The web camera, microphone and speaker will be set up automatically and appear on the status bar.



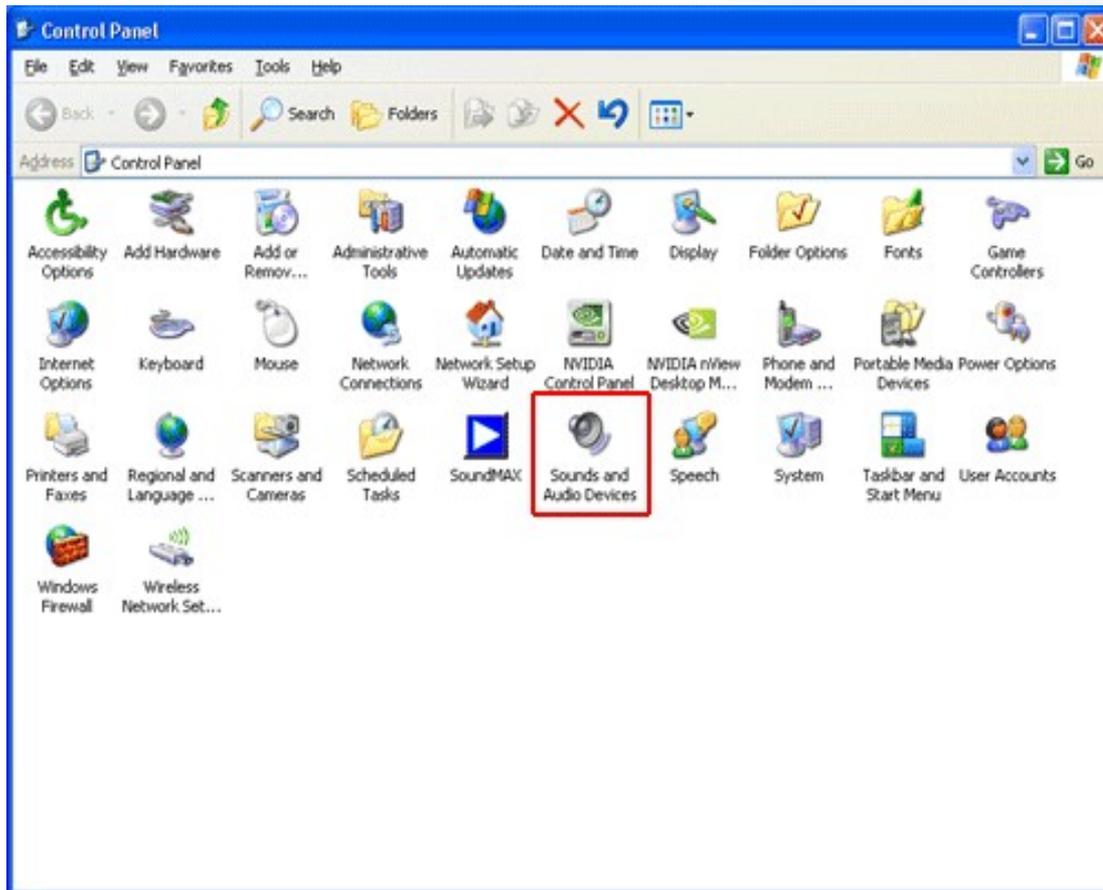
▶ **Checking the Web Camera set up**

- 1 Double-click My Computer on the Windows Desktop.
- 2 Double-click the USB Video Device #no. You should find that the web camera has been set up normally, As shown in the figure below.



▶ Checking the Microphone and Speaker Set up

- 1 Double-Click Sounds and Audio Devices in the Control Panel.



2 Select the Voice tab and click on Test Hardware..



3 Follow the steps described below. You should find that the microphone and speaker have been set up.



#INCU

**963UW / 2063UW Monitor**

**User Limitation**

Jan. 2008

**R&D 6 LAB**

**SAMSUNG**

CHAMP IN DIGITAL DISPLAY  
Visual Display Division

# 1. PC Resource

- 963UW /2063UW Monitor : This monitor is a UC monitor and therefore when connecting cameras and audio devices to it, cameras and audio devices except for the monitor display are recognized as USB devices and not as a camera or audio device.

[ Minimum baseline spec ]

- Intel Pentium4 1.73GHz or later, or AMD Equivalent Processor
- Microsoft Windows X P Service Pack2(SP2), Windows Vista
- 256MB RAM , USB2.0

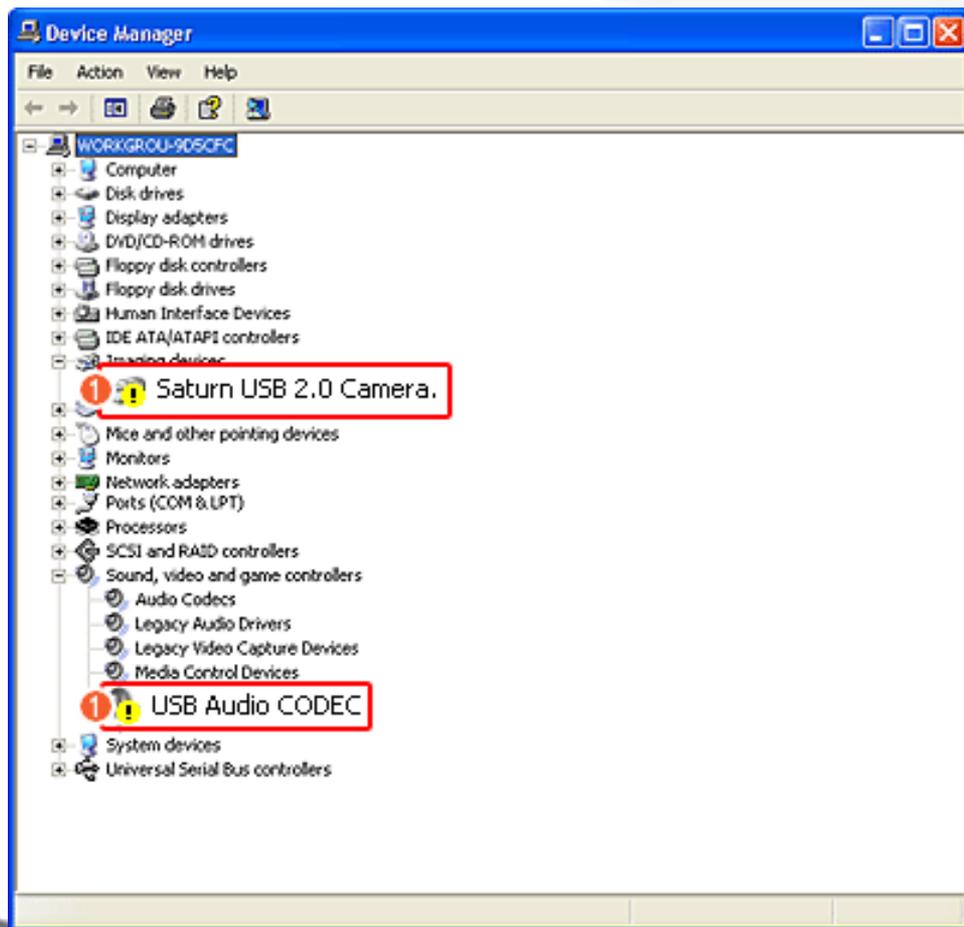
# 2. Installation Precautions

## [ Precaution ]

1. Never disconnect the USB cable from the USB port while the auto installation is in progress.  
→ If you turn off the monitor during the installation, a severe problem may occur with your PC .
2. Do not turn off the monitor while the auto installation is in progress .  
→ If you turn off the monitor during the installation, a severe problem may occur with your PC .
3. The screen may blink when the auto installation is completed.  
→ This occurs when your PC recognizes your monitor as a USB device. This is not a fault.
4. If the auto installation is completed, configure the position and resolution for the monitors in the [Settings] tab of the [Display Properties] window .  
The optimal resolution of this UC monitor is 1440 x 900 (963UW) / 1680 x 1050 (2063UW).
5. If you change the USB Port after your PC has recognized a USB device, it may cause a USB device recognition error. → You must remove and reinstall the driver

# 3. If the Installation fails

\* If the installation is stopped because the New Hardware Wizard has failed, right-click My computer, and click Properties - System Properties - the Hardware tab. Click on the Device Manager and reinstall the driver by following these steps below



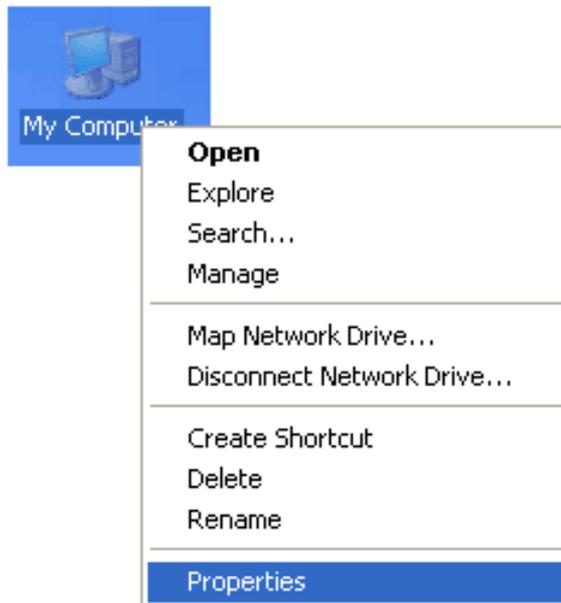
1. The symbol showing that the device has failed to be installed is displayed as shown in ①

2. In this case, click "Scan for hardware changes" to run the Setup Wizard again. At this time, if the installation fails, click ① and right-click it. Select → Driver Update from the displayed menu.

# 4. C checking the configuration

After the installation, you can check the configuration by following these steps.

① Right-click 'My computer' -> 'Properties' -> 'System Properties' - 'Hardware' tap.

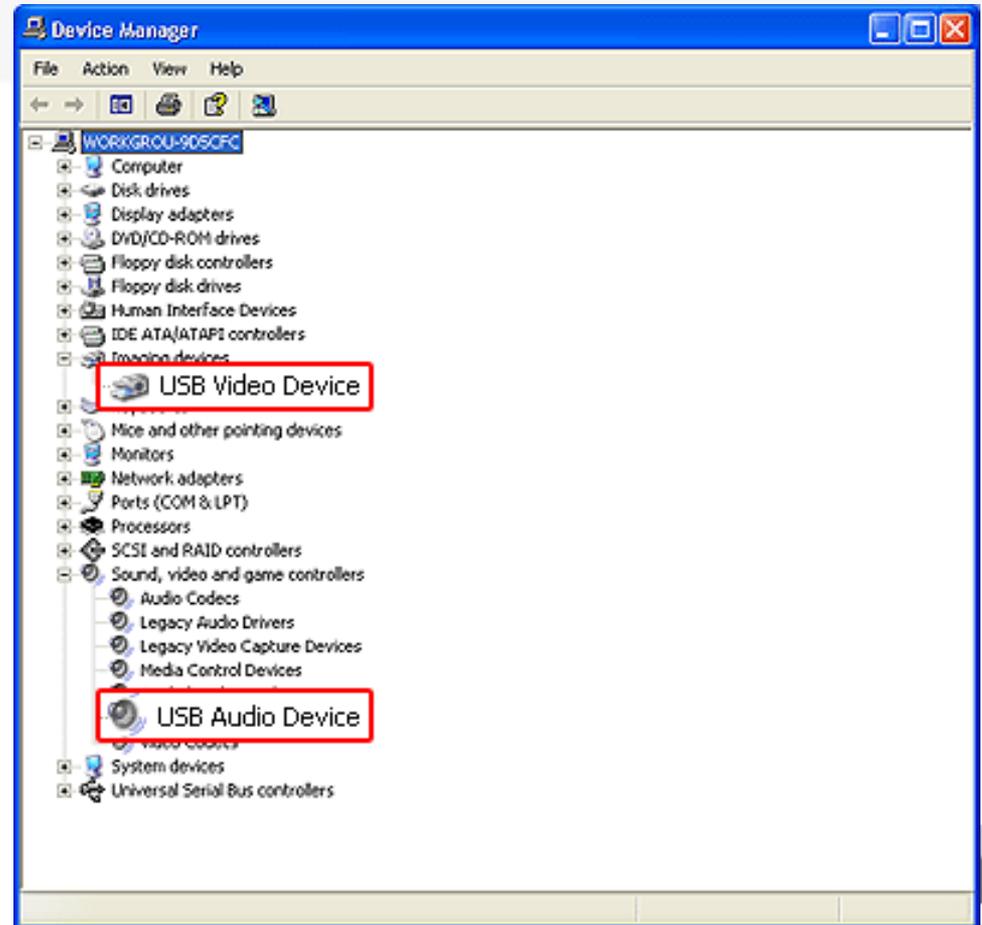


# 4. C checking the configuration

② Click on “Device Manager”.



③ A list of installed devices will be displayed, as shown in the figure below.



# 5. 2263UW Monitor Limitation - 1

① This monitor is a UC monitor and therefore when connecting cameras and audio devices to it, cameras and audio devices except for the monitor display are recognized as USB devices and not as a camera or audio device.

→ This monitor must be connected with a D-Sub (Analog) or a DVI-D cable (Digital) when used as a normal monitor. USB cables are used when connecting other devices .

② For some media players, when a USB device is being recognized again while a media player is running, you have to close and run it again to operate the sound and camera devices normally.

③ For some PCs, your PC may not boot up with the monitor recognized even if the USB cable is connected, depending on the PC BIOS version. Check whether the BIOS on your PC has been updated to the latest version.

④ Because of the characteristics of USB audio devices, the initial volume setting of your UC monitor may be very low. (This may differ depending on the operating system.) At this time, adjust the Master Volume on your PC .

# 5. 963UW /2063UW M onitor L imitation - 2

- ① This monitor supports Windows X P Service Pack 2 or later only.
  - Service Pack 1 or earlier is not supported.
  - This monitor is designed for optimal performance using Windows X P Service Pack 2 and USB 2.0.
- ② The UC monitor may not work normally with versions earlier than USB 2.0.
- ③ If you connect multiple UC monitors, the USB devices recognized by these monitors may not work normally.
- ④ Noise may occur from the MIC and speaker if this monitor is placed too near.

# 7. Uninstalling USB Monitor Program

If you want delete Installing program of 963UW /2063UW monitor USB Devices,

1. Select “program install/delete” on control panel.
2. Select Drivers(USB video device, USB audio device) installed when connect 963UW /2063UW and click “delete”.

**Thank you!**

**SAMSUNG**

[WWW.SYNCSIGHT.COM](http://WWW.SYNCSIGHT.COM)

**SAMSUNG**