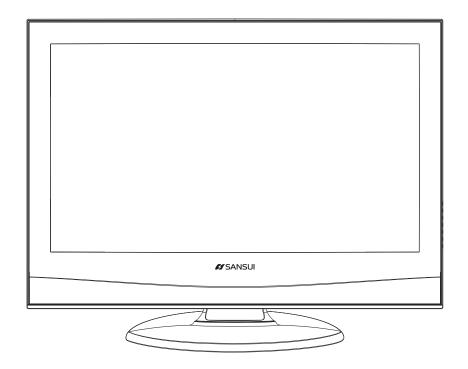


# **OPERATING INSTRUCTIONS**

MODEL: LCD27HWB

LCD32HWB LCD37HWB LCD42HWB LCD42HWA LCD47HWB

**LCD TV** 



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### Important Safeguards

Before using your TV, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the unit or described in the operating instructions or service manual.

The User Manual uses the following symbols to ensure a safe operation and prevent any damage to operators or properties:



WARNING-----Ignorance or inappropriate use may cause damage to the product.



ATTENTION---Ignorance or inappropriate use may cause injury to the user.

### Examples:



Prohibition



Warning (Attention) symbol (indicating "Electric Shock").



### **WARNING**

Never place TV on an unstable cart, stand, or table. The TV may fall, causing serious personal injury, death, or serious damage to the TV.



Never overload wall outlets and extension cords.

Never allow anything to rest on or roll over the power cord, and never place the TV where the power cord is subject to wear or abuse.



Keep the product away from moisture:

- Do not expose this appliance to rain or moisture.
- If water penetrates into the product, stop the operation; unplug the connector and contact with your dealer. Continuous use in this case may result in ?re or electric shock.





### **WARNING**

Never place item such as vases, aquariums, or candles on top of the TV.



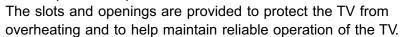
Never use a damaged power cord:

Heavy objects, heat or tensile force may damage the power cord and cause ?re or electric shock.



Never block or cover the slots or openings in the TV cabinet back, bottom, and sides. Never place the TV:

- on a bed, sofa, rug, or similar surface;
- too close to drapes, curtains, or walls; or
- in a con?ned space such as bookcase, built-in cabinet, or any other place with poor ventilation.





Do not use the product if any abnormality occurs:

If any smoke or odor becomes apparent, unplug the connector and contact the manufacturer immediately. Do not try to repair the product by yourself.





### **WARNING**

Avoid using dropped or damaged appliances:

If the product is dropped and the housing is damaged, the internal components may function abnormally. Unplug the connector immediately and contact the manufacturer for repair. Continuous use of the product may cause ?re or electric shock.





### **WARNING**

While it is thundering, do not touch the connecting cables or apparatus.







### **ATTENTION**

Do not install the product close to smoke or moisture:

Fire or electric shock may be caused when the product is installed close to smoke or moisture.

Do not installed the product in an area with heavy dust or high humidity:



Fire or electric shock may be caused when the product is installed in a place with heavy dust or high humidity.

Instructions for moving the product:

Ensure that the power connector and any other leads are unplugged before moving the product.



The power cable should be kept away from heat sources:

The heat produced by any heat source may melt the covering of the power cable.



Unplug the connector

Hold the power connector when removing the power cable: Pulling the power cable itself may damage the wires inside the cable and cause ?re or electric shock.





Do not touch the connector with wet hands: To avoid risk of electric shock.





### **ATTENTION**

Insert batteries in accordance with instructions:

Insert the batteries with correct polarities (positive and negative ( ). Incorrect polarities may cause breakage and leakage of the batteries, hurt operators and contaminate the remote controller.



Do not block or cover the vents:

Blocking the vents may cause overheating and ?re. Do not install the product in a place with little or no ventilation. Never cover the vents with towels, blankets or dusters.



Unplug the connector:

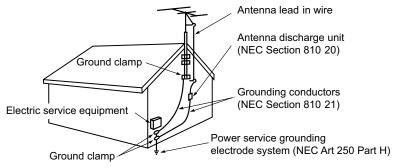
Unplug the power connector when the product will not be used for a long time.





Unplug the connector

Always make sure the antenna system is properly grounded to provide adequate protection against voltage surges and built-up static charges (see Section 810 of the National Electric Code.)



Use extreme care to make sure you are never in a position where your body (or any item you are in contact with, such as a ladder or screwdriver) can accidentally touch overhead power lines. Never locate the antenna near overhead power lines or other electrical circuits. Never attempt to install any of the following during lightning activity: a). an antenna system; or b).cables, wires, or any home theater component connected to an antenna or phone system.

#### Others:

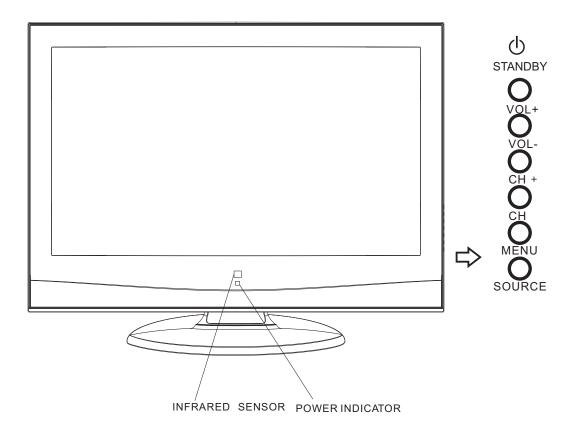
- 1). The LCD panel on this TV is manufactured using an extremely high level of precision technology; however, an occasional pixel (dot of light) may display constantly on the screen.
  - This is a structural property of LCD technology and is not a sign of malfunction.
  - Such pixels are not visible when the picture is viewed from a normal viewing distance.
- 2). LCD (Liquid Crystal Display) may cause interference in image, sound, etc. of the other electronic equipment that is easy to receive electromagnetic waves (i.e. AM radios and video equipment) under certain installed condition. In particular, it may affect electronic equipment beyond the residential until where a LCD TV is used.
- 3). The screen on this TV is manufactured from glass. To prevent damage, never strike the glass with a sharp or heavy object.
- 4). Your LCD television contains a small amount of Mercury. When the television is no longer useful, please follow local electronic waste guidelines for proper disposal.
- If you have the LCD screen facing to the sun, the LCD screen will be damaged. Locate the TV in the place such away from windows side or out side of the rooms with windows.
- 6). This product is designed for indoor use only. The operating temperatures are  $5^{\circ}\text{C} \sim 30^{\circ}\text{C}$ .

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including ampli?ers) that product heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not ?t into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories speci?ed by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket, or table speci?ed by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to quali?ed service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15. The apparatus shall not be exposed to dripping or splashing and that no objected ?lled with liquids, such as vase, shall be placed on the apparatus.

# Introduction

### Front Panel

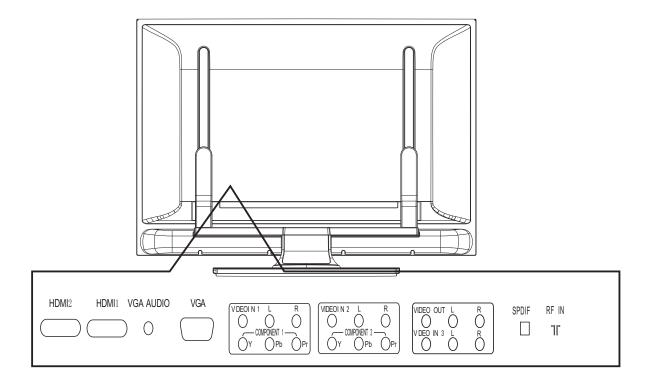
The pictures are for function illustration Here shown may be somewhat different from your TV. Please take the TV as the standard



BUTTON NAME	FUNCTION DESCRIPTION
SOURCE	Press to select the input source.
MENU	Press to bring up the main menu to the screen.
VOL+ / VOL	Press to increase or decrease the sound level.
CH+/CH	Press to scan through channels.
STANDBY	Switch on the LCD TV when at standby mode or vice versa.
POWER INDICATOR	Show red in standby mode, show green when your TV is switched on.
INFRARED SENSOR	Infrared sensor for the remote control.

# Introduction

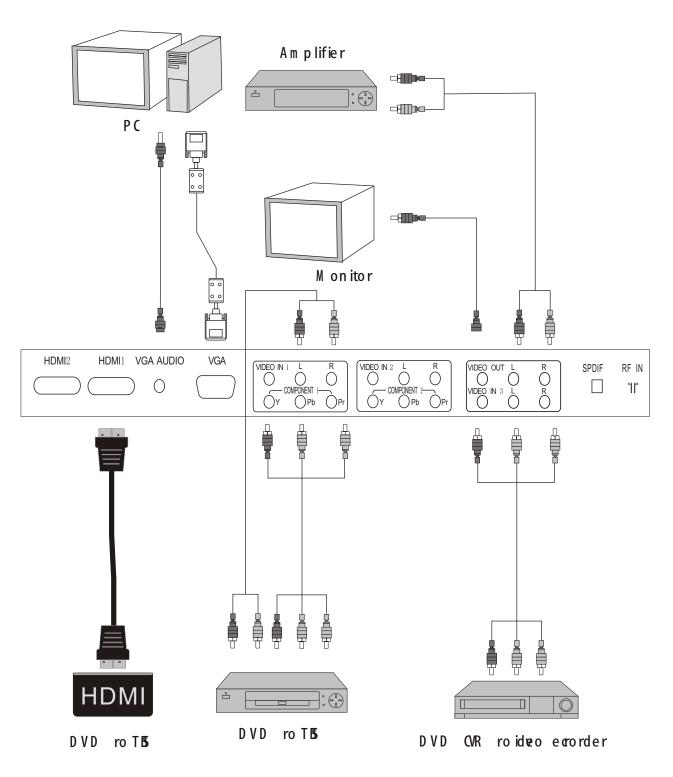
## Rear Panel



JACK NAME	FUNCTION DESCRIPTION
RF IN	Connect the antenna
SPDIF	Port for TV audio output
R L VIDEO OUTPUT	AV audio /video signal output terminal
R L VIDEOIN123	AV audio /video signal input terminal
COMPONENT 1 2	Connect the YPbPr INPUT terminals of DVD
VGA	Connect the VGA INPUT jack of PC
VGA AUDIO	Connect the Audio INPUT jack of PC
HDMI 12	Connect the HDMI_INPUT_jack of DVD

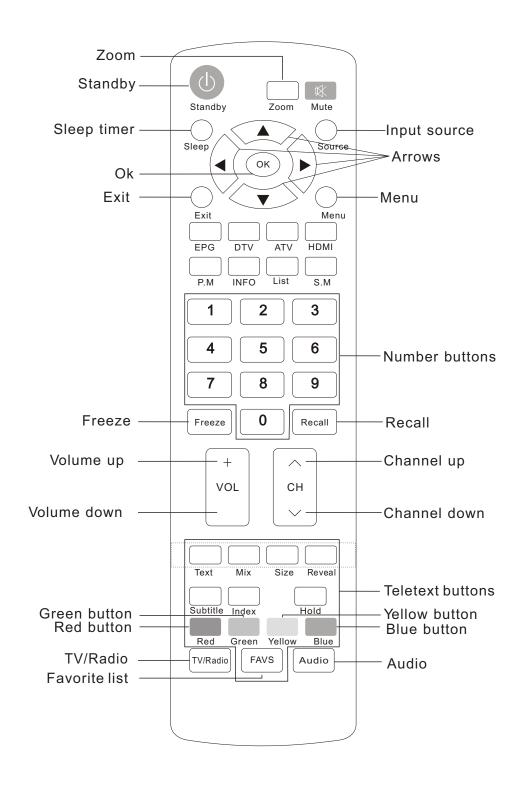
# How to connect with the peripheral equipment

RCA is used to join with equipments with DVD output (480i /480p /576i /576p / 720p /1080i)



# Introduction

### **Remote Control Overview**





# **Basic Operation**

### Power On / Off

- 1. Connect the TV unit to power source using power cord.
- 2. When the power indicator in red, the TV is in standby mode. Now press the "Standby" button on remote control or front panel to turn on the TV. The TV works normally when the power indicator is ingreen.
- 3 Switch the TV to standby mode, just press "Standby" button on the remote control or front panel. Now the indicator will be in red.
- 4. The power consumption is less than 1W in standby mode. If unused for a long time, please disconnect the power cord from the wall outlet.

Note: The TV set can turn off automatically after 5 minutes while there has no signal input.

### Select Viewing Source

Press the "SOURCE" button to display the sources list.



Please use the direction buttons to select desired signal, and press "OK" or "◀/▶" button to confirm.

### Note:

Please make sure the connection for your choice is available .

For example, "TV" for watching TV, "VGA" for PC.If the TV can't find any signal input, you can Try to press "Standby" button on remote control or the on the panel to restart the TV.

If you want to adjust the display settings, please follow the instruction below.

Press the "MENU" and "◀/▶ " buttons to browse the Channal Menu, Picture Menu, Sound Menu, Time Menu, Option Menu and Lock Menu in turn.

Press "OK" or " button to enter into the submenu.

Press "▲/▼"button to select items and "◀/▶"button to adjust it.

Press "MENU" button to return to the previous menu.

Press "EXIT" button to exit "MENU" mode.

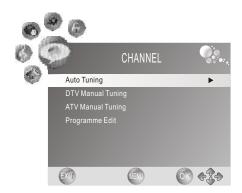
Note: When an item in MENU is displayed as gray, it means that the item is not available or cannot be adjusted.

### CHANNEL MENU

Press "MENU" and " ◀/▶" buttons to select the CHANNEL MENU.

Press  $^{''}$  OK  $^{''}$  or  $^{''}$   $^{''}$  button to select the items.

Press " " or "Ok" button to enter the Submenu.



### **Auto Tuning**

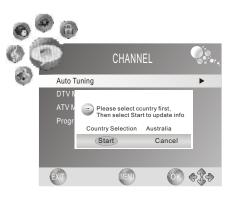
Press "◀/▶" and "OK" buttonsto selectStart.

Press  $\H$  OK  $\H$  button to enter  $\H$  Auto Searching  $\H$  , the TV will search channels automatically.

All channels will be saved once searching finished.

In the course of auto searching, you can press "EXIT" to stop the searching process.

Note: If it is the first time installation, it will start with Installation Guide Menu.





### Channel Menu

**DTV Manual Tuning** (only available in DTV mode)

You can also set program list again one by one by "Manual Search" function.

Press "◀/▶" buttonto select channel

Press "OK" button to search.

When a channel is found, the searching process will stop,

the channel will be saved with current channel number

If the program is not your expected one, please press

"

✓ / 

✓ button to continue the searching.

Press "EXIT" button to exit.



### ATV Manual Tuning (only available in TV mode)

If you find one channel is a little weak, you can adjust the frequency of the channel. It might be improve the quality of picture and sound.

Press "▲/▼ " butto n to select items

Press "◀/▶" button to adjust it

Press the red button to save it.

Press "EXIT" button to exit.



### **Programme Edit**

Press "▲/▼ " Button to select items

Press red button to delete the channel.

Press green button to rename the channel.

Note: Only the TV channel can be renamed.

Press  $\sqrt[m]{4}$  to select the letter and press  $\sqrt[m]{4}$  to change the letter.

Press yellow button to move the channel.

Note: The list of programs include TV, DTV and Radio

The programs can be moved only among the same kind

Press SKIP button to skip the channel.

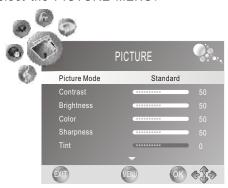
Press FAV buttonto set the favorite channel.



### Picture Menu

Press "MENU" and "◀/▶ "buttons to select the PICTURE MENU.

Press "▲/▼ " button to select items



Picture Mode

Press "◀/▶"button to select among Dynamic, Standard, Mild and User modes.

 $\frac{\textbf{Contrast}}{\textbf{Press }'' \blacktriangleleft / \, \textbf{\blacktriangleright}'' \, \textbf{button to adjust the contrast of the picture}.$ 

 $\frac{Brightness}{\text{Press }''} \text{Press }'' \text{--} \text{--} \text{--} \text{button to adjust the brightness of the picture}.$ 

Color

Press "◀/▶" button to adjust the color saturation.

**Sharpness** 

Press "◀/▶" button to adjust the sharpness level of the picture.

Press "◀/▶" button to adjust the tint of the picture. (NTSC ONLY)

**Color Temperature** 

Press "◀/▶" button to select among medium, warm and cool.

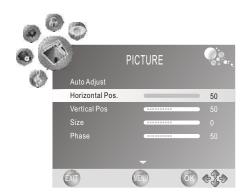
**Aspect Ratio** 

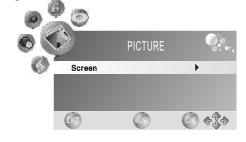
Press "◀/▶" button to 16:9,4:3,Auto,Zoom2,Zoom1 select the ratio of the screen.

Noise Reduction

Press "◀/▶" button to turn on/off Weak,Middle,Strong,Auto the function of noise reduction

Screen (only available in PC RGB mode) Press" "buttons to enter the submenu.





Press "▲/▼" buttonto select items.

Press "◀/▶" buttonto adjust it.

Press "EXIT" button to exit.

### SOUNS Menu

Press "MENU"And "◀/▶ "buttons to select the SOUND MENU.

Press "▲/▼ " buttonto select items



Sound Mode
Press "◀/▶" button to select among Standard, Music, Movie, Sports and User.

<u>Treble</u>
Press "◀/▶"button to adjust the level of the higher pitcher sounds.

Press "◀/▶" button to adjust the level of the lower pitcher sounds.

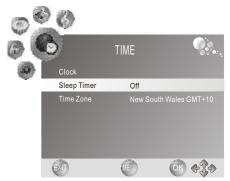
Balance
Press "◀/▶" button to adjust the audio output between left and right speakers.

<u>Surround Sound</u> Press "◀/▶" button to turn on/off the function of surround sound.

### Time Menu

Press "MENU" and "◀/▶" buttons to select the TIME MENU.

Press "▲/▼" button to select items.



Display the system time get from DTV signal or set the system time.

Note: Clock cannot be modified once obtain the local time from DTV channel.

Sleep Timer
Press  $\sqrt[m]{4}$  button to set the sleep timer.

 $\frac{\text{Time Zone}}{\text{Press }'' \blacktriangleleft / \blacktriangleright''} \text{ button to set the time zone.}$ 

### Option Menu

Press "MENU" and "◀/▶" buttons to select the OPTION MENU.

Press "▲/▼ "Button to enter the Submenu.



#### Blue Screen

Press  $\sqrt[m]{4}$  button to turn on/off the function of blue screen.

With this function on when no signal is received in analog TV mode the TV will display a mild blue screen.

### Restore Factory Default

Enter the password. (Default password is 0000)

Press "◀/▶" button to select yes/no.

Press "EXIT" button to exit.



### Lock Menu

Press "MENU" and "◀/▶" buttons to select the LOCK MENU.

Enter the password. (Default password is 0000)

Press "▲/▼ " buttonto select items

Press " $\blacktriangledown$ " or "Ok" button to enter the Submenu.





### Lock System

Press "◀/▶" button to turn on/off the function of Lock System.



### LOCK MENU

### Set Password

Press " ▶ " to Select items.

Press number buttons to enter the new password.

Note: If you forgot the password. Please enter the Supercode 1090.

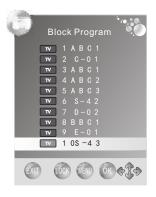


### **Block Program**(Only available in TV mode)

Press  $^{"} \triangle / \nabla ^{"}$  to select the items.

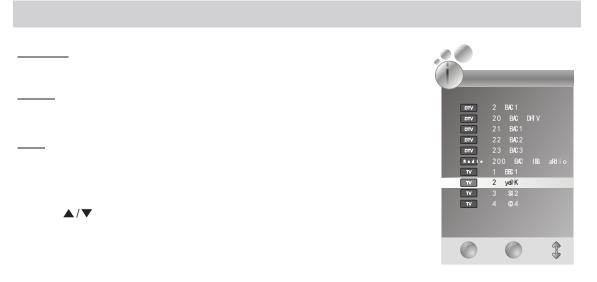
Press the green buttonto lock the channel.

Press "EXIT" button to exit.



### Parental Guidance (Only available in DTV mode)

Press "◀/▶"button to select the parental guidance rate.







In TV signal





In DTV signal

#### SUBTITLE

Press "SUBTITLE" button to select subtitle of current channel. (DTV ONLY)

#### **FAVS**

 $Press\ "FAVS"\ button to\ display\ the\ favorite\ list.\ (Except\ under\ the\ TELETEXT\ mode)$ 

#### <u>HDM</u>

Press "HDMI" button to switch the desired HDMI input.

#### AUDIO

Press "AUDIO" button to select the audio source of current channel.

#### TV/RADIO

Press "TV/ RADIO" button to switch between DTV and radio channel. (DTV ONLY)

#### DTV

Press  $^{\prime\prime}$  DTV  $^{\prime\prime}$  button to switch the desired DTV mode.

#### <u>ATV</u>

Press  $^{\prime\prime}$  ATV  $^{\prime\prime}$  button to switch the desired ATV mode.

# **Unique Buttons Operation**

### Important Unique Buttons

### EPG (only available in DTV mode)

Press "EPG" button to display the Electronic Programme Guide

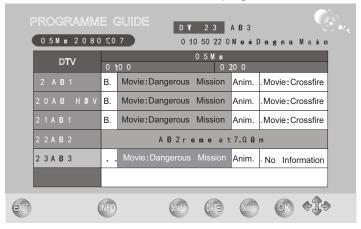
You can check the program information for the next 7 days.

(If the information is available from the broadcaster ).

Press "▲/▼" button to select the channel

Press "◀/▶"and yellow button to select the time.

Press "INFO" button to show the information of the program.



If you find the desired program which will show in the future. Press blue button to set the Reminder. When the reminder program is about to start, a reminder window will appear.



Press green button to show the schedule list and red button to delete the program



## **Teletext**

Teletext is an information system broadcast by certain channels which can be consulted like a newspaper. It also offers access to subtitles for viewers with hearing problems or who are not familiar with the transmission language (cable networks, satellite channels, etc.).

#### **TEXT**

Press the "TEXT" button to activate the Teletext mode.

#### MIX

Press "MIX" button to view the TV program with teletext page. You can return to normal viewing by press the "MIX" button.

#### INDEX

Press "INDEX" button to enter the teletext index page.

#### SIZE

Repeatedly pressing the "SIZE" button doubles the character size in the following order: Upper half of the page-> Lower half of the page-> Return to normal size.

#### **REVEAL**

Press the "REVEAL" button once to reveal/hidden information (solutions to puzzles, riddles, etc) . This button is applicable only to teletext page with puzzles, riddles, etc.

### **COLOUR BUTTONS**

A red, green, yellow and blue field are shown at the bottom of the screen.

#### HOLD

Press the "HOLD" button once to hold page and the second time to release holding of page.

### Selecting a page by numeric buttons directly

You can select a page by numeric buttons directly in TEXT mode.

### PAGE DOWN/UP

Use the  $/\!\!\!/ \sqrt{\!\!\!/} /\!\!\!/$  direction buttons to page up/down.



# **Trouble shooting**

Before contrast the service technician, perform the following simple checks. If any program still persists, unplug the PDP TV and calling for serving.

PROBLEM	POSSIBLE SOLUTION	
No sound and picture	Check that the main plug has been connected to a wall let. Check that you have pressed the POWER button on the front of TV set. Check the picture contrast and brightness settings.	
Normal picture but no sound	Check the volume.  Sound muted? Press the MUTE button.  Try another channel the problem may be with the broadcast.  Are the audio cables installed properly?	
The remote control does not work	Check to see if there any object between the product and remote control Causing obstruction.  Are batteries installed with correct polarity (+ to +, to ).  Correct remote operating mode set: TV, VCR etc.?  Install new batteries	
Power is suddenly turned off	Is the sleep timer set. Check the power control settings. Power interrupted No broadcast on station tuned with auto activated.	
Picture appears slowly after switching on	This is normal, the image is muted during the product startup process. Plea contact your service center, if the picture has not appeared after five minute	
No or poor colour or poor picture	Adjust the colour in menu option.  Keep a sufficient distance between the product and the VCR.  Try another channel, the problem may be with the broadcast.  Are the VIDEO cables installed properly?  Activate the any function to restore the brightness of the picture.	
Horizontal/vertical bars or picture shaking	Check for local interference such as an electrical appliance or power tool.	
Poor reception on some channels	Station or cable product experiencing problems. Tune to another station.  Station signal is weak, reorient antenna to receive weaker station.  Check for sources of possible interference.	
Lines or streaks in pictures	Check the antenna (Change the direction of the antenna).	
No output from one of the speakers	Adjust balance in menu option.	
NOTE: The follo	wing problems are in VGA mode.	
Vertical bar or stripe on back ground&Horizontal Noise&Incorrect position.	Work the auto adjust $$ or adjust $$ phase, $$ H/V $$ position.	
Screen colour is unstable or single colour.	Check the signal cable. Reinstall the PC video card.	

Product Model:	LCD27HWB	
Screen Size:	26" Inches diagonal	
Screen Area:	575.769mm(H) x 323.712mm(V)	
Aspect Ratio:	16:9	
External Size:	738mm(W) x 195mm(H) x 540mm(D) (with Stand)	
Net Weight:	15.0kg (with Stand)	
Resolution:	1366 (H) x 768 (V) pixels (Each pixel has R/G/B 3 color cells)	
Pixel Dot Pitch:	421μm(H) x 421μm(V)	
Color:	16.7 millions of colors (R/G/B each 256 scales)	
Gray Scale:	256 (R/G/B each 8-bit)	
Brightness(Peak Value):	450cd/m² (Typical)	
Contrast(Dark Room):	3000:1 (Typical)	
TV System:	PAL B/G, MPEG2	
Tone Control	Yes	
Power Supply:	AC 100-240V, 50/60 Hz	
Power Consumption:	< 130 W	
Input Terminal:	D-Sub 15 Pin (Analog RGB Input)	
	HDMI×2	
	Component Video - YPbPr/YCbCr x 2 RCATerminals	
	Video Input RCA Terminals ×3	
	Audio Input for YPbPr/YCbCr $ imes$ 2 And Video	
	1 set of Stereo Audio Output Terminals (RCA, L&R)	
	Audio Input for Video 3	
	VGA (D-Sub 15 Pin)Audio Head Phone Input	
Output Terminal:	Video output RCA	
	SPDIF Output	
Agent System:	SAA N17653 A/10766E	
DVB-T:	Frequency Range:UHF:50.5MHz to 862MHz	
	Channel Bandwidth:7MHz	
	Signal Level:-10~-78dBm	
	Input Connector:75 OhmFemale IEC-Connector	
Demodulation Modes:QPSK,16QAM,64QAM		
	Profile Level:MPEG-2 MP@ML	
	Audio Sampling Frequency:32/44.1/48khz	

Product Model:	LCD32HWB	
Screen Size:	31.55" Inches(801.31mm)diagonal	
Screen Area:	697.685mm(H) x 392.256mm(V)	
Aspect Ratio:	16:9	
External Size:	865mm(W) x 185mm(H) x 612mm(D) (with Stand)	
Net Weight:	19.0kg (with Stand)	
Resolution:	1366 (H) x 768 (V) pixels (Each pixel has R/G/B 3 color cells)	
Pixel Dot Pitch:	510μm(H) x 510μm(V)	
Color:	16.7 millions of colors (R/G/B each 256 scales)	
Gray Scale:	256 (R/G/B each 8-bit)	
Brightness(Peak Value):	450cd/m² (Typical)	
Contrast(Dark Room):	4000 :1 (Typical)	
TV System:	PAL B/G, MPEG2	
Tone Control	Yes	
Power Supply:	AC 100-240V, 50/60 Hz	
Power Consumption:	< 150 W	
Input Terminal:	D-Sub 15 Pin (Analog RGB Input)	
	HDMI×2	
	Component Video - YPbPr/YCbCr x 2 RCA Terminals	
	Video Input RCA Terminals ×3	
	Audio Input for YPbPr/YCbCr × 2 And Video	
	1 set of Stereo Audio Output Terminals (RCA, L&R)	
	Audio Input for Video 3	
	VGA (D-Sub 15 Pin)Audio Head Phone Input	
Output Terminal:	Video output RCA	
	SPDIF Output	
Agent System:	SAA N17653 A/10767E	
DVB-T:	Frequency Range:UHF:50.5MHz to 862MHz	
	Channel Bandwidth:7MHz	
	Signal Level:-10~-78dBm	
	Input Connector:75 OhmFemale IEC-Connector	
	Demodulation Modes:QPSK,16QAM,64QAM	
	Profile Level:MPEG-2 MP@ML	
	Audio Sampling Frequency:32/44.1/48khz	

	1	
Product Model:	LCD37HWB	
Screen Size:	37" Inches	
Screen Area:	819.36mm(H)×460.89mm(V)	
Aspect Ratio:	16:9	
Vertical Frequency:	100Hz(Typical)	
External Size:	1165mm(W) x 245mm(H) x 695mm(D) (with Stand)	
Net Weight:	30.0kg (with Stand)	
Resolution:	1920 (H) x 1080(V) pixels (Each pixel has R/G/B 3 color cells)	
Pixel Dot Pitch:	426μm(H) x 426μm(V)	
Color:	16.7 millions of colors (R/G/B each 256 scales)	
Gray Scale:	256 (R/G/B each 10-bit)	
Brightness(Peak Value):	500cd/m² (Typical)	
Contrast(Dark Room):	1400:1 (Typical)	
TV System:	PAL B/G, MPEG2	
Tone Control	Yes	
Power Supply:	AC 100-240V, 50/60 Hz	
Power Consumption:	< 230 W	
Input Terminal:	D-Sub 15 Pin (Analog RGB Input)	
	HDMI×2	
	Component Video - YPbPr/YCbCr x 2 RCA Terminals	
	Video Input RCA Terminals ×3	
	Audio Input for YPbPr/YCbCr × 2 And Video	
	1 set of Stereo Audio Output Terminals (RCA, L&R)	
	Audio Input for Video 3	
	VGA (D-Sub 15 Pin)Audio Head Phone Input	
Output Terminal:	Video output RCA	
	SPDIF Output	
Agent System:	SAA N17653 A/10768E	
DVB-T:	Frequency Range:UHF:50.5MHz to 862MHz	
	Channel Bandwidth:7MHz	
	Signal Level:-10~-78dBm	
Input Connector:75 OhmFemale IEC-Connector		
	Demodulation Modes:QPSK,16QAM,64QAM	
	Profile Level:MPEG-2 MP@ML	
	Audio Sampling Frequency:32/44.1/48khz	

Product Model:	LCD42HWB	
Screen Size:	42.02 Inches(1067.3mm)diagonal	
Screen Area:	930.25mm(H) x 523.25mm(V)	
Aspect Ratio:	16:9	
Vertical Frequency:	100Hz(Typical)	
External Size:	1130mm(W) x 240mm(H) x 790mm(D) (with Stand)	
Net Weight:	32.0kg (with Stand)	
Resolution:	1920 (H) x 1080 (V) pixels (Each pixel has R/G/B 3 color cells)	
Pixel Dot Pitch:	227μm(H) x 681μm(V)	
Color:	16.7 millions of colors (R/G/B each 256 scales)	
Gray Scale:	256 (R/G/B each 10-bit)	
Brightness(Peak Value):	500cd/m² (Typical)	
Contrast(Dark Room):	1400:1 (Typical)	
TV System:	PAL B/G, MPEG2	
Tone Control	Yes	
Power Supply:	AC 100-240V, 50/60 Hz	
Power Consumption:	< 250 W	
Input Terminal:	D-Sub 15 Pin (Analog RGB Input)  HDMI×2  Component Video - YPbPr/YCbCr x 2 RCA Terminals	
	Video Input RCA Terminals ×3	
	Audio Input for YPbPr/YCbCr × 2 And Video	
	1 set of Stereo Audio Output Terminals (RCA, L&R)	
	Audio Input for Video 3	
	VGA (D-Sub 15 Pin)Audio Head Phone Input	
Output Terminal:	Video output RCA	
	SPDIF Output	
Agent System:	SAA N17653 A/10768E	
DVB-T:	Frequency Range:UHF:50.5MHz to 862MHz	
	Channel Bandwidth:7MHz	
	Signal Level:-10~-78dBm	
	Input Connector:75 OhmFemale IEC-Connector	
	Demodulation Modes:QPSK,16QAM,64QAM	
	Profile Level:MPEG-2 MP@ML	
	Audio Sampling Frequency:32/44.1/48khz	

Product Model:         LCD42HWA           Screen Size:         42.02" Inches(1067.3mm)diagonal           Screen Area:         930.25mm(H) x 523.25mm(V)           Aspect Ratio:         16:9           Vertical Frequency:         100Hz(Typical)           External Size:         1285mm(W) x 235mm(H) x 775mm(D) (with Stand)           Net Weight:         30.0kg (with Stand)           Resolution:         1920 (H) x 1080 (V) pixels (Each pixel has R/G/B 3 color cells)           Pixel Dot Pitch:         227µm(H) x 681µm(V)           Color:         16.7 millions of colors (R/G/B each 256 scales)           Gray Scale:         256 (R/G/B each 10-bit)           Brightness(Peak Value):         500cd/m² (Typical)           Contrast(Dark Room):         1400:1 (Typical)           TV System:         PAL B/G, MPEG2           Tone Control         Yes           Power Supply:         AC 100-240V, 50/60 Hz           Power Consumption:         < 250 W           Input Terminal:         D-Sub 15 Pin (Analog RGB Input)           HDMI × 2         Component Video - YPbPr/YCbCr x 2 RCA Terminals           Video Input RCA Terminals ×3         Audio Input for YPbPr/YCbCr × 2 And Video           1 set of Stereo Audio Output Terminals (RCA, L&R)           Audio Input for Video 3         VGA (D-Sub 15 P			
Screen Area: 930.25mm(H) x 523.25mm(V)	Product Model:	LCD42HWA	
Aspect Ratio:   16:9	Screen Size:	42.02 " Inches(1067.3mm)diagonal	
Vertical Frequency:         100Hz(Typical)           External Size:         1285mm(W) x 235mm(H) x 775mm(D) (with Stand)           Net Weight:         30.0kg (with Stand)           Resolution:         1920 (H) x 1080 (V) pixels (Each pixel has R/G/B 3 color cells)           Pixel Dot Pitch:         227µm(H) x 681µm(V)           Color:         16.7 millions of colors (R/G/B each 256 scales)           Gray Scale:         256 (R/G/B each 10-bit)           Brightness(Peak Value):         500cd/m² (Typical)           Contrast(Dark Room):         1400:1 (Typical)           TV System:         PAL B/G, MPEG2           Tone Control         Yes           Power Supply:         AC 100-240V, 50/60 Hz           Power Consumption:         250 W           Input Terminal:         D-Sub 15 Pin (Analog RGB Input)           HDMI × 2         Component Video - YPbPr/YCbCr x 2 RCA Terminals           Video Input RCA Terminals ×3         Audio Input for YPbPr/YCbCr x 2 And Video           1 set of Stereo Audio Output Terminals (RCA, L&R)           Audio Input for Video 3         VGA (D-Sub 15 Pin)Audio Head Phone Input           Output Terminal:         Video output RCA           SPDIF Output         SAA N17653 A/10768E           Frequency Range: UHF:50.5MHz to 862MHz           Channel Bandwidth:7MHz	Screen Area:	930.25mm(H) x 523.25mm(V)	
External Size: 1285mm(W) x 235mm(H) x 775mm(D) (with Stand)	Aspect Ratio:	16:9	
Net Weight:         30.0kg (with Stand)           Resolution:         1920 (H) x 1080 (V) pixels (Each pixel has R/G/B 3 color cells)           Pixel Dot Pitch:         227μm(H) x 681μm(V)           Color:         16.7 millions of colors (R/G/B each 256 scales)           Gray Scale:         256 (R/G/B each 10-bit)           Brightness(Peak Value):         500cd/m² (Typical)           Contrast(Dark Room):         1400:1 (Typical)           TV System:         PAL B/G, MPEG2           Tone Control         Yes           Power Supply:         AC 100-240V, 50/60 Hz           Power Consumption:         < 250 W	Vertical Frequency:	100Hz(Typical)	
Resolution:	External Size:	1285mm(W) x 235mm(H) x 775mm(D) (with Stand)	
Cells   Pixel Dot Pitch:   227µm(H) x 681µm(V)	Net Weight:	30.0kg (with Stand)	
Color: 16.7 millions of colors (R/G/B each 256 scales)  Gray Scale: 256 (R/G/B each 10-bit)  Brightness(Peak Value): 500cd/m² (Typical)  Contrast(Dark Room): 1400:1 (Typical)  TV System: PAL B/G, MPEG2  Tone Control Yes  Power Supply: AC 100-240V, 50/60 Hz  Power Consumption: < 250 W  Input Terminal: D-Sub 15 Pin (Analog RGB Input)  HDMI × 2  Component Video - YPbPr/YCbCr x 2 RCA Terminals  Video Input RCA Terminals × 3  Audio Input for YPbPr/YCbCr x 2 And Video  1 set of Stereo Audio Output Terminals (RCA, L&R)  Audio Input for Video 3  VGA (D-Sub 15 Pin)Audio Head Phone Input  Output Terminal: Video output RCA  SPDIF Output  Agent System: SAA N17653 A/10768E  DVB-T: Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10~78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML	Resolution:		
Gray Scale:         256 (R/G/B each 10-bit)           Brightness(Peak Value):         500cd/m² (Typical)           Contrast(Dark Room):         1400:1 (Typical)           TV System:         PAL B/G, MPEG2           Tone Control         Yes           Power Supply:         AC 100-240V, 50/60 Hz           Power Consumption:         < 250 W	Pixel Dot Pitch:	227μm(H) x 681μm(V)	
Brightness(Peak Value): 500cd/m² (Typical)  Contrast(Dark Room): 1400:1 (Typical)  TV System: PAL B/G, MPEG2  Tone Control Yes  Power Supply: AC 100-240V, 50/60 Hz  Power Consumption: < 250 W  Input Terminal: D-Sub 15 Pin (Analog RGB Input)  HDMI × 2  Component Video - YPbPr/YCbCr x 2 RCA Terminals  Video Input RCA Terminals × 3  Audio Input for YPbPr/YCbCr × 2 And Video  1 set of Stereo Audio Output Terminals (RCA, L&R)  Audio Input for Video 3  VGA (D-Sub 15 Pin)Audio Head Phone Input  Output Terminal: Video output RCA  SPDIF Output  Agent System: SAA N17653 A/10768E  DVB-T: Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10~78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML	Color:	16.7 millions of colors (R/G/B each 256 scales)	
Contrast(Dark Room):         1400:1 (Typical)           TV System:         PAL B/G, MPEG2           Tone Control         Yes           Power Supply:         AC 100-240V, 50/60 Hz           Power Consumption:         < 250 W	Gray Scale:	256 (R/G/B each 10-bit)	
TV System:         PAL B/G, MPEG2           Tone Control         Yes           Power Supply:         AC 100-240V, 50/60 Hz           Power Consumption:         < 250 W	Brightness(Peak Value):	500cd/m² (Typical)	
Tone Control Power Supply: AC 100-240V, 50/60 Hz Power Consumption:    Component Video - YPbPr/YCbCr x 2 RCA Terminals	Contrast(Dark Room):	1400:1 (Typical)	
Power Supply: AC 100-240V, 50/60 Hz  Power Consumption: < 250 W  Input Terminal: D-Sub 15 Pin (Analog RGB Input)  HDMI×2  Component Video - YPbPr/YCbCr x 2 RCA Terminals  Video Input RCA Terminals ×3  Audio Input for YPbPr/YCbCr × 2 And Video  1 set of Stereo Audio Output Terminals (RCA, L&R)  Audio Input for Video 3  VGA (D-Sub 15 Pin)Audio Head Phone Input  Video output RCA  SPDIF Output  Agent System: SAA N17653 A/10768E  DVB-T: Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10*-78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML	TV System:	PAL B/G, MPEG2	
Power Consumption: < 250 W  Input Terminal: D-Sub 15 Pin (Analog RGB Input)  HDMI × 2  Component Video - YPbPr/YCbCr x 2 RCA Terminals  Video Input RCA Terminals × 3  Audio Input for YPbPr/YCbCr × 2 And Video  1 set of Stereo Audio Output Terminals (RCA, L&R)  Audio Input for Video 3  VGA (D-Sub 15 Pin)Audio Head Phone Input  Output Terminal: Video output RCA  SPDIF Output  Agent System: SAA N17653 A/10768E  DVB-T: Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10~78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML	Tone Control	Yes	
Input Terminal:  D-Sub 15 Pin (Analog RGB Input)  HDMI×2  Component Video - YPbPr/YCbCr x 2 RCATerminals  Video Input RCATerminals ×3  Audio Input for YPbPr/YCbCr × 2 And Video  1 set of Stereo Audio Output Terminals (RCA, L&R)  Audio Input for Video 3  VGA (D-Sub 15 Pin)Audio Head Phone Input  Video output RCA  SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10^-78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML	Power Supply:	AC 100-240V, 50/60 Hz	
HDMI×2 Component Video - YPbPr/YCbCr x 2 RCA Terminals Video Input RCA Terminals ×3 Audio Input for YPbPr/YCbCr × 2 And Video 1 set of Stereo Audio Output Terminals (RCA, L&R) Audio Input for Video 3 VGA (D-Sub 15 Pin)Audio Head Phone Input  Output Terminal:  Video output RCA SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range: UHF:50.5MHz to 862MHz Channel Bandwidth:7MHz Signal Level:-10~78dBm Input Connector:75 OhmFemale IEC-Connector Demodulation Modes:QPSK,16QAM,64QAM Profile Level:MPEG-2 MP@ML	Power Consumption:	< 250 W	
Component Video - YPbPr/YCbCr x 2 RCA Terminals  Video Input RCA Terminals ×3  Audio Input for YPbPr/YCbCr × 2 And Video  1 set of Stereo Audio Output Terminals (RCA, L&R)  Audio Input for Video 3  VGA (D-Sub 15 Pin)Audio Head Phone Input  Video output RCA  SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10~-78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML	Input Terminal:		
Video Input RCA Terminals ×3  Audio Input for YPbPr/YCbCr × 2 And Video  1 set of Stereo Audio Output Terminals (RCA, L&R)  Audio Input for Video 3  VGA (D-Sub 15 Pin)Audio Head Phone Input  Output Terminal:  Video output RCA  SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10 <sup>-</sup> -78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML			
Audio Input for YPbPr/YCbCr × 2 And Video  1 set of Stereo Audio Output Terminals (RCA, L&R)  Audio Input for Video 3  VGA (D-Sub 15 Pin)Audio Head Phone Input  Video output RCA  SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10~-78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML		Component Video - YPbPr/YCbCr x 2 RCA Terminals	
1 set of Stereo Audio Output Terminals (RCA, L&R) Audio Input for Video 3 VGA (D-Sub 15 Pin)Audio Head Phone Input  Output Terminal:  Video output RCA SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz Channel Bandwidth:7MHz Signal Level:-10~-78dBm Input Connector:75 OhmFemale IEC-Connector Demodulation Modes:QPSK,16QAM,64QAM Profile Level:MPEG-2 MP@ML		Video Input RCA Terminals ×3	
Audio Input for Video 3  VGA (D-Sub 15 Pin)Audio Head Phone Input  Output Terminal:  Video output RCA  SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10~-78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML		Audio Input for YPbPr/YCbCr × 2 And Video	
VGA (D-Sub 15 Pin)Audio Head Phone Input  Video output RCA SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10 <sup>-</sup> -78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML		1 set of Stereo Audio Output Terminals (RCA, L&R)	
Output Terminal:  Video output RCA  SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10~-78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML		Audio Input for Video 3	
SPDIF Output  Agent System:  SAA N17653 A/10768E  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10~-78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML		VGA (D-Sub 15 Pin)Audio Head Phone Input	
Agent System:  DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10¯-78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML	Output Terminal:	Video output RCA	
DVB-T:  Frequency Range:UHF:50.5MHz to 862MHz  Channel Bandwidth:7MHz  Signal Level:-10~-78dBm  Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML	·	SPDIF Output	
Channel Bandwidth:7MHz Signal Level:-10~-78dBm Input Connector:75 OhmFemale IEC-Connector Demodulation Modes:QPSK,16QAM,64QAM Profile Level:MPEG-2 MP@ML	Agent System:		
Signal Level:-10 <sup>-</sup> -78dBm Input Connector:75 OhmFemale IEC-Connector Demodulation Modes:QPSK,16QAM,64QAM Profile Level:MPEG-2 MP@ML	DVB-T:	Frequency Range:UHF:50.5MHz to 862MHz	
Input Connector:75 OhmFemale IEC-Connector  Demodulation Modes:QPSK,16QAM,64QAM  Profile Level:MPEG-2 MP@ML	Channel Bandwidth:7MHz		
Demodulation Modes:QPSK,16QAM,64QAM Profile Level:MPEG-2 MP@ML		Signal Level:-10~-78dBm	
Profile Level:MPEG-2 MP@ML	Input Connector:75 OhmFemale IEC-Connector		
		Demodulation Modes:QPSK,16QAM,64QAM	
Audio Sampling Frequency:32/44.1/48khz			
		Audio Sampling Frequency:32/44.1/48khz	

Product Model:	LCD47HWA	
Screen Size:	46.96 " Inches(1192.87mm)diagonal	
Screen Area:	1039.68mm(H) x 584.82mm(V)	
Aspect Ratio:	16:9	
Vertical Frequency:	100Hz(Typical)	
External Size:		
Net Weight:	46.0kg (with Stand)	
Resolution:	1920 (H) x 1080 (V) pixels (Each pixel has R/G/B 3 color cells)	
Pixel Dot Pitch:	541.5 μm(V) x 541.5 μm(V)	
Color:	16.7 millions of colors (R/G/B each 256 scales)	
Gray Scale:	256 (R/G/B each 10-bit)	
Brightness(Peak Value):	500cd/m² (Typical)	
Contrast(Dark Room):	1400:1 (Typical)	
TV System:	PAL B/G, MPEG2	
Tone Control	Yes	
Power Supply:	AC 100-240V, 50/60 Hz	
Power Consumption:	< 280 W	
Input Terminal:	D-Sub 15 Pin (Analog RGB Input)	
	HDMI×2	
	Component Video - YPbPr/YCbCr x 2 RCATerminals  Video Input RCATerminals ×3	
	Audio Input for YPbPr/YCbCr × 2 And Video	
	1 set of Stereo Audio Output Terminals (RCA, L&R)	
	Audio Input for Video 3	
	VGA (D-Sub 15 Pin)Audio Head Phone Input	
Output Terminal:	Video output RCA	
	SPDIF Output	
Agent System:	SAA N17653 A/10769E	
DVB-T:	Frequency Range:UHF:50.5MHz to 862MHz	
	Channel Bandwidth:7MHz	
	Signal Level:-10~-78dBm	
	Input Connector:75 OhmFemale IEC-Connector	
	Demodulation Modes:QPSK,16QAM,64QAM	
	Profile Level:MPEG-2 MP@ML	
	Audio Sampling Frequency:32/44.1/48khz	

## 2. Support the Signal Mode

### A. D-Sub Mode (VGA)

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640 x 480	31.50	60.00
800 x 600	35.16	56.25
000 X 000	37.90	60.00
1024 x 768	48.40	60.00
1280 x 1024	64.00	60.00

### B. HDTV Mode (YPbPr)

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
480i	15.734	60.00
576i	15.625	50.00
480p	31.468	60.00
720p(50Hz)	37.50	50.00
720p(60Hz)	45.00	60.00
1080i(50Hz)	28.125	50.00
1080P(60Hz)	33.75	60.00

### C. HDMI Mode

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
480p	31.468	60.00
720p(50Hz)	37.50	50.00
720p(60Hz)	45.00	60.00
1080i(50Hz)	28.125	50.00
1080P(60Hz)	33.75	60.00

- When the signal received by the Display exceeds the allowed range, a warning message shall appear on the screen.
- You can con?rm the input signal format from the on-screen.

AS Reference only. Panels Feature depends on the type of the Panels. Specifications are subject to change for engineering and design reason. Without prior notice.



ENGLAON ELECTRONIC TECHNOLOGY CO.,LTD

P/N:304-MD10901A