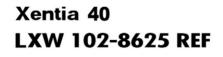
# COLOR TELEVISION



ENGLISH

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#### CONTENTS

- Quick and Easy Installation
- Versatility and Expandability
- That doesn't make you feel fatigue on your Eyes.
- Flat-Panel Digital Display easy on the Eyes.

# Safety Precautions

Power Supply	
Installation	
• Use and Maintenance 5~6	
Important Safety Instructions	

## User Guidance Information

What is the LCD TV? ······	9
Name of each part ······	10
Controls and Functions	11
Accessories	11
Mounting on a wall	12
Installation Precautions	12
Installing an Antenna	13
Remote controller	14
Precautions	15

#### Connections

VCR Connections	16
Cable TV Connections ······	17
Camcorder/ Game Console Connections	18
• DVD Connections	19
• DTV Connections	20
• PC Connections ·····	21
Audio Out Connections	
Headphone Connections ······	22
• External Adjustment ·····	23

#### **Basic Use**

## CONTENTS

## Basic Use

Changing Sound Settings	30
Custom Sound Adjustment	31
Sound Output ·····	31
Selecting the Menu Language	32
Setting OSD Tone Menu Background	32
Setting Blue Background	33
Setting Digital Noise Reduction	33

# Application

Changing Screen Size	4
Changing the Screen Size for WSS Signal Input	
Manual Store ······ 38	5
Sorting Program	6
Editing Program Name     32	
Adjusting Unclear Screen 38	8
To view the still picture	8
Viewing Picture in Picture 39~40	
Auto Volume Level 44	
Stereo Setting 44	
Resetting LCD TV Setting	
• Setting Time	3
Automatic Power On/ Off     44	
• Teletext 44	5

# External adjustment

External adjustment	46
Set ID	47
Special features	48
RS232C Communication Protocol     49	)~53

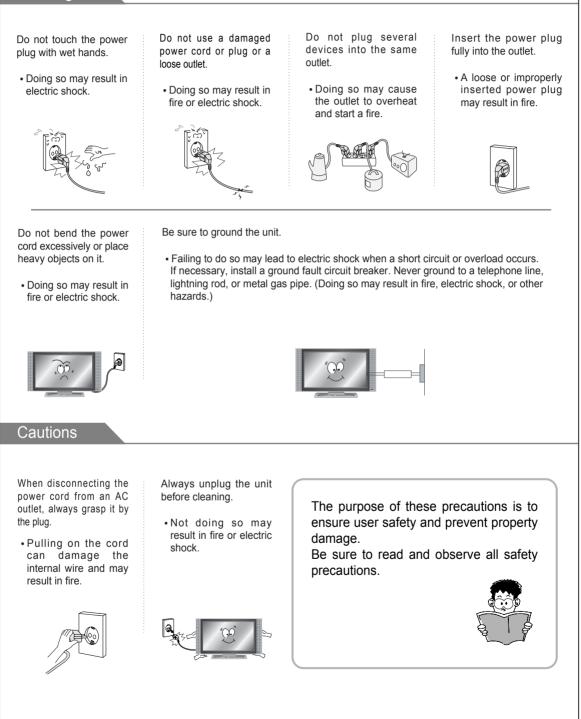
# Maintenance and Service

• Trouble shooting
Trouble shooting Tip
Supported Display Modes

#### Safety Precautions

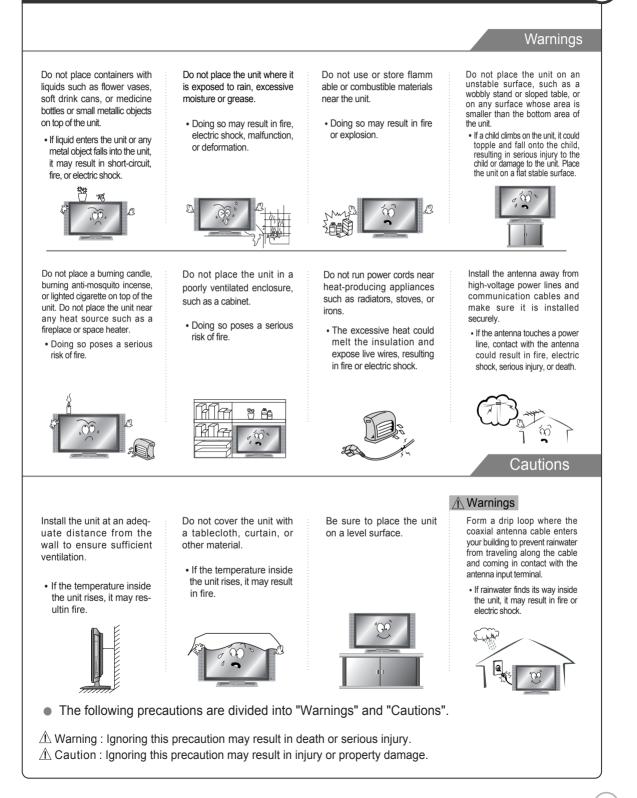
#### **Power Supply**

#### Warnings



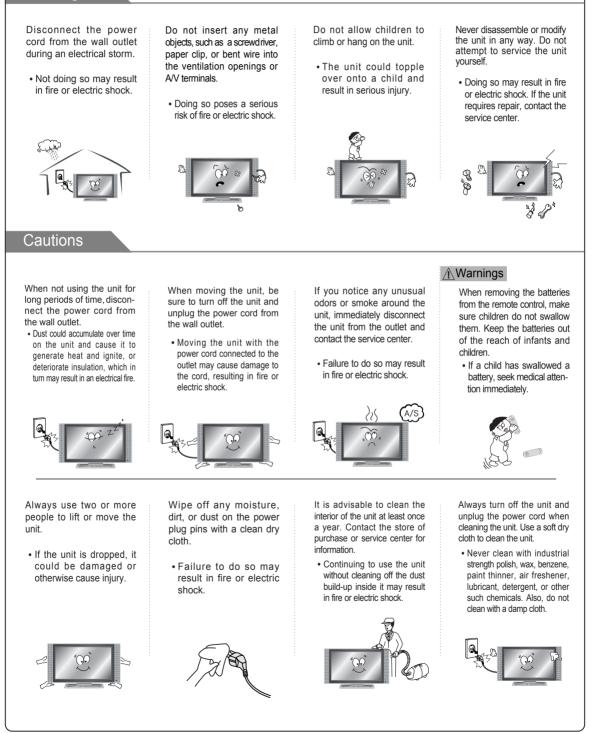
#### Safety Precautions

#### Installation



#### Use and Maintenance

#### Warnings



#### Important Safety Instructions

Important safeguards for you and your new product

Always be careful when using your LCD TV. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.

- 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 a dry cloth.
- 7) Do not block any of the 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 amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit 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 the attachments/accessories specified by the manufacturer.
- 12) Use only with a cart, stand, tripod, bracket, or table specified 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.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified 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.
- Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus

#### Safety Precautions

## Important Safety Instructions



#### CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF ELE-CTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product. This symbol alerts you that important literature concerning operation and maintenance has been included with this product.



#### WARNING

TO PREVENT DAMAGE WHICH MAY RESULT IN FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

#### Caution :

- These servicing instructions are for use by qualified service personnel only.
- To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### What is LCD TV?

## What is LCD TV?

LCD (Liquid Crystal Display) is a next generation flat-panel display module. Liquid crystal material is contained between sheets of glass and electricity causes the liquid crystal material to reflect or block the light emitted from a light source inside the display chassis.

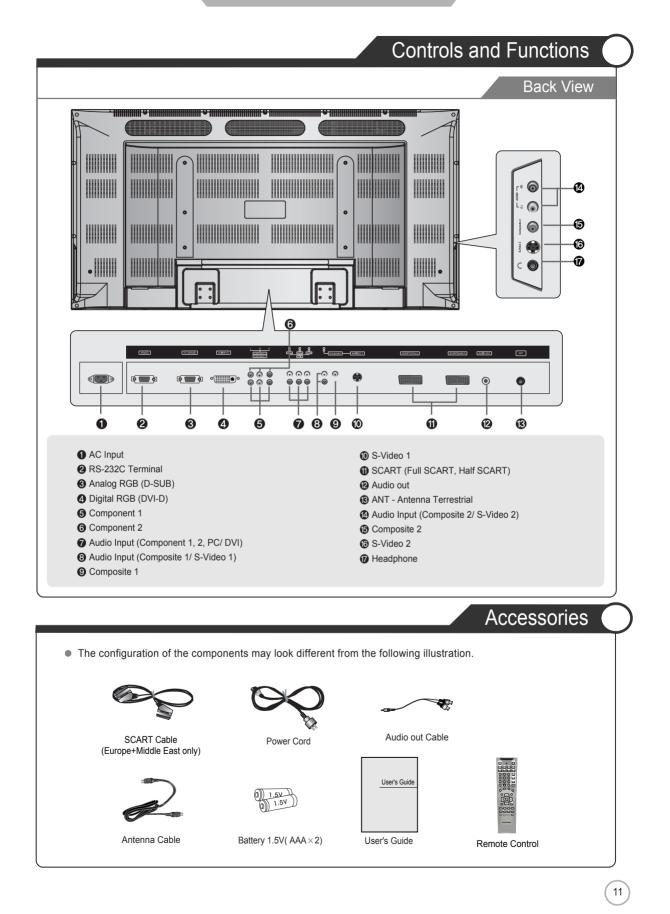
By incorporating this LCD display module, LCD TVs enable you to enjoy outstanding picture quality without the worries of space limitation and harmful radiation you may have experienced with conventional CRT TVs.

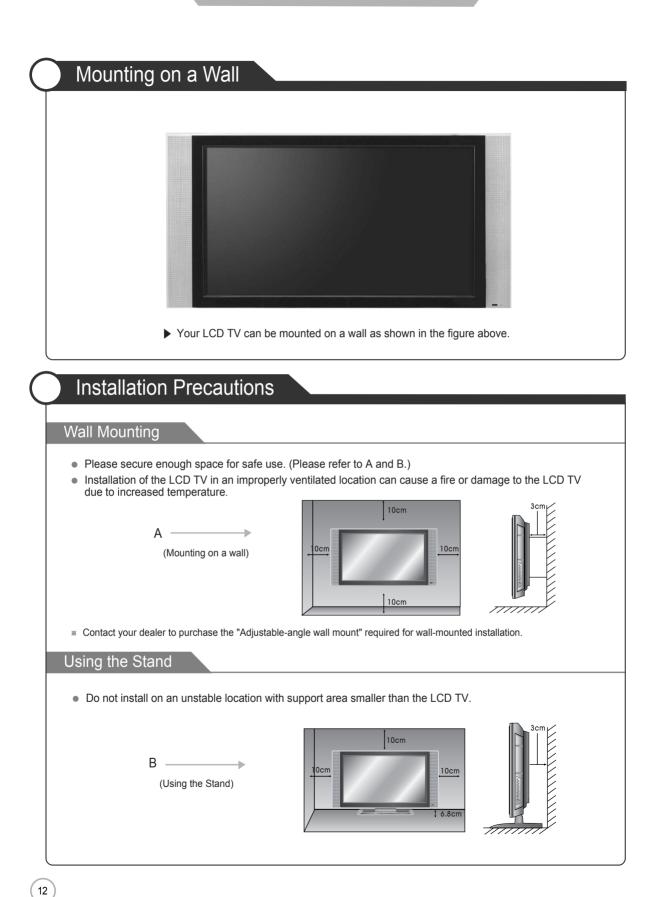


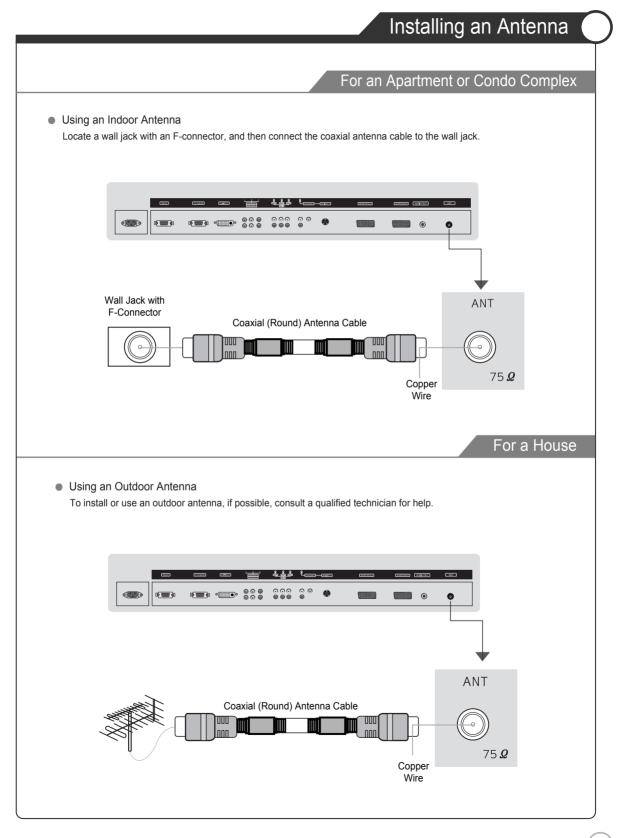
#### Features

- Picture-in-Picture : Enables you to simultaneously display two different image sources.
- PC Compatible Monitor : Enables you to connect PC (D-Sub) input for displaying high-resolution SXGA (1280x1024, 60Hz) PC images.
- HDTV-Ready Display : Enables you to view high-definition digital pictures using a DVD player or HDTV set-top receiver.
- Various Picture/Sound Controls : Enables you to set the picture and sound settings for a number of different types of programs and viewing and listening conditions.
- Auto Power On/Off Timer : Enables you to set the TV to automatically turn ON or OFF at a preset time.
- ATM : Enables you to set the TV to search for all available standard broadcast and cable TV channels and store them automatically.





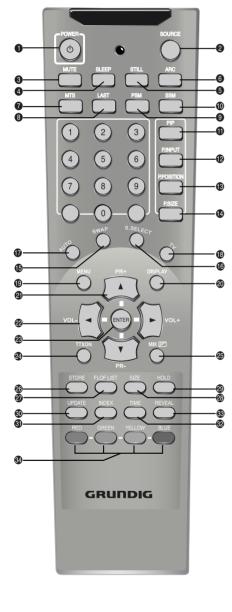




### Remote Controller

#### • Functions of remote control buttons

The remote control is using Infra-Red (IR). Point it towards the front of the LCD TV. The remote control may not work correctly if it is operated out of range or out of angle.



-0 -0 -0 -0 -0 -0	<ol> <li>POWER : TURNS THE TV ON AND OFF(page.24)</li> <li>SOURCE : USE TO SELECT AN INPUT SOURCE (page.26)</li> <li>MUTE : PRESS TO TEMPORARILY CUT OFF THE SOUND (page.25)</li> <li>SLEEP : PRESS TO SELECT A TIME FOR THE TV TO TURN OFF AUTOMATICALLY (page.44)</li> <li>STILL : PRESS TO STOP THE ACTION DURING A PARTICULAR SCENE (page.38)</li> <li>ARC (Aspect Ratio Control) : PRESS TO CHANGE THE SCREEN SIZE (page.34)</li> <li>MTS (Multi-Television Sound) : PRESS TO SELECT MONO OR STEREO MODE (page.41)</li> <li>LAST : TUNES TO THE PREVIOUS PROGRAM (page.25)</li> <li>PSM : PICTURE STATUS MEMORY KEY (page.30) (CUSTOM, DYNAMIC, STANDARD, MOVIE, MILD)</li> <li>SSM : SOUND STATUS MEMORY KEY (page.30) (CUSTOM, STANDARD, MUSIC, MOVIE, SPEECH)</li> </ol>
•	• PIP CONTROL KEY (page 39, 40)
-18	11. PIP : PIP ON/OFF
-@	12. P.INPUT : PIP INPUT SELECT KEY 13. P.POSITION : PIP POSITION CONTROL KEY
	14. P.SIZE : PIP AND PBP MODE CHANGE
-18	15. SWAP : PIP SOURCE SWAP
-16	16. S.SELECT : SOUND SWAP KEY
-@	17. AUTO (AUTO IN PROGRESS) : PRESS TO CONTROL THE
	MONITOR SCREEN AUTOMATICALLY 18. TV : TV INPUT SOURCE SELECT KEY
	19. MENU : DISPLAYS THE MAIN ON-SCREEN MENU
-@	20. DISPLAY : PRESS TO DISPLAY THE CURRENT PROGRAM AND AUDIO/ VIDEO SETTINGS (page.25)
-@	21. ▲, ▼ (PR+, PR-) : PROGRAM, MENU CONTROL OR PAGE UP
-@	22. ◀, ► (VOL-, VOL+) : PRESS TO INCREASE OR DECREASE THE VOLUME OR MENU CONTROL KEY
-89 -62	23. ENTER : SAVE THE VALUE
	TELETEXT CONTROL KEY (page 45)
	25. MIX 🗁 : MIX WITH TV SCREEN 26. STORE : STORE THE USER DEFINED FAVORITE PAGE
	27. FLOF LIST : EXCHANGE FLOF/LIST MODE
	28. SIZE : TELE TEXT SCREEN SIZE KEY 29. HOLD : HOLD FUNCTION DURING TELETEXT DISPLAY
	30. UPDATE : DISPLAY CANCEL OR TEXT UPDATE KEY
	31. INDEX : TEXT INDEX KEY 32. TIME: TIME DISPLAY
	33. REVEAL : SELECT HIDDEN CONTENT DURING TELETEXT DISPLAY
	34. RED, GREEN, YELLOW, BLUE : DIRECT ACCESS TELETEXT

LINKED PAGE KEY



Avoiding Remote Control Problems

- 1. Check the polarity (+,-) of the batteries in the remote controller.
- 2. Check that the batteries have power.
- 3. Check that the LCD TV is powered and that it is properly plugged in.
- 4. Check if any three-wavelength lamp, special fluorescent or neon sign is turned on near the LCD TV.

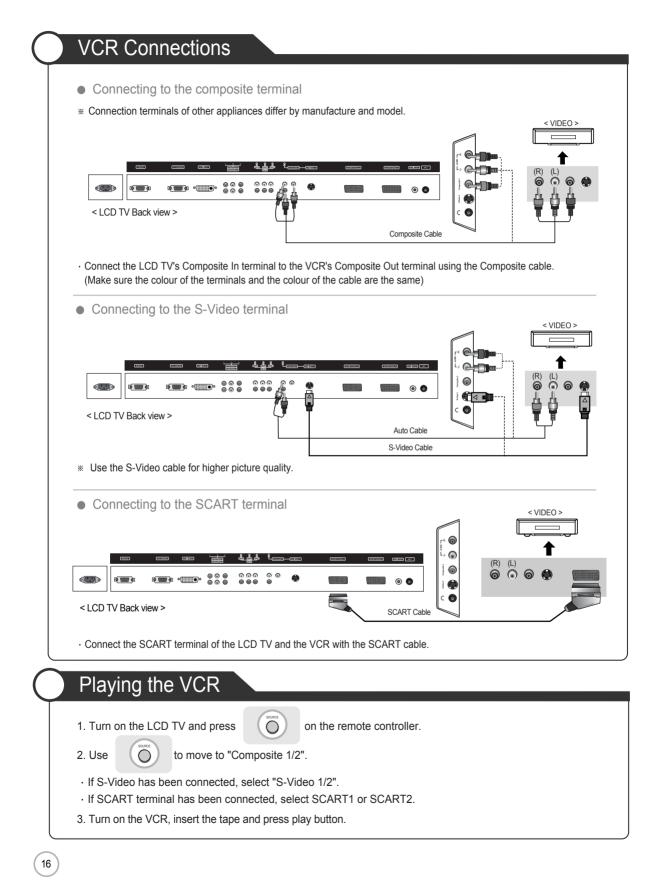
Instering Batteries in the Remote Controller

- 1. Open the cover out completely.
- 2. Insert the two supplied batteries (AAA, 1.5V). Ensure that the polarities (+ and -) of the batteries are aligned correctly.
- 3. Replay the cover.

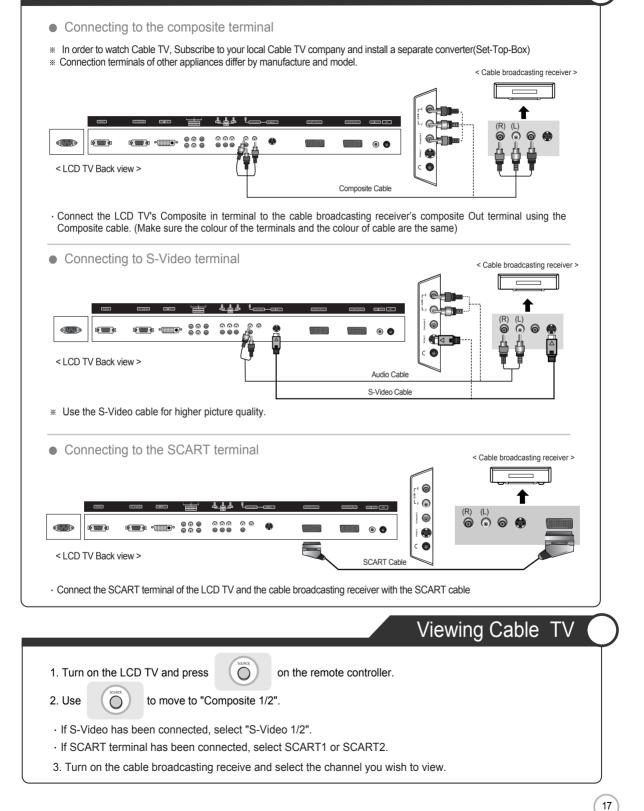
⚠ CAUTION : Risk of explosion if battery is replaced by an incorrect type.
Dispose of used batteries according to the national code (Recycling program).

#### How to use remote controller

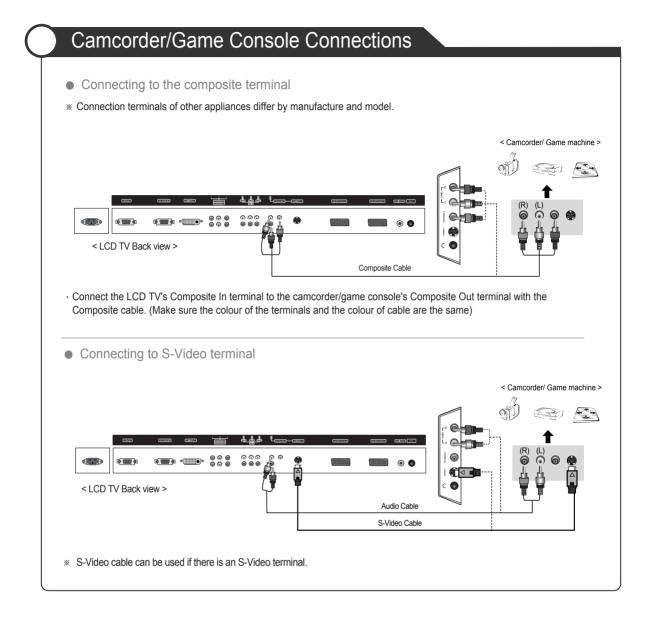
- The remote control should be operated within 23feet(7m) and 30° to the left and the right of the IR receiver on the front of the LCD TV.
- · Used batteries should be disposed properly.



#### Cable TV Connections







#### Using Camcorder/Game Console

1. Turn on the LCD TV and press

2. Use

ress (O)

to move to "Composite 1/2".

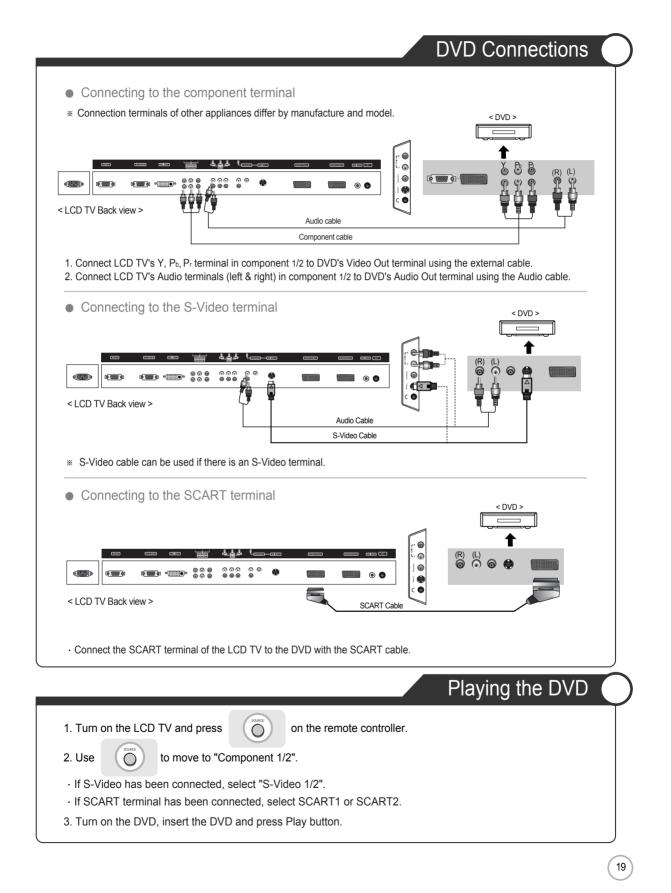
on the remote controller.

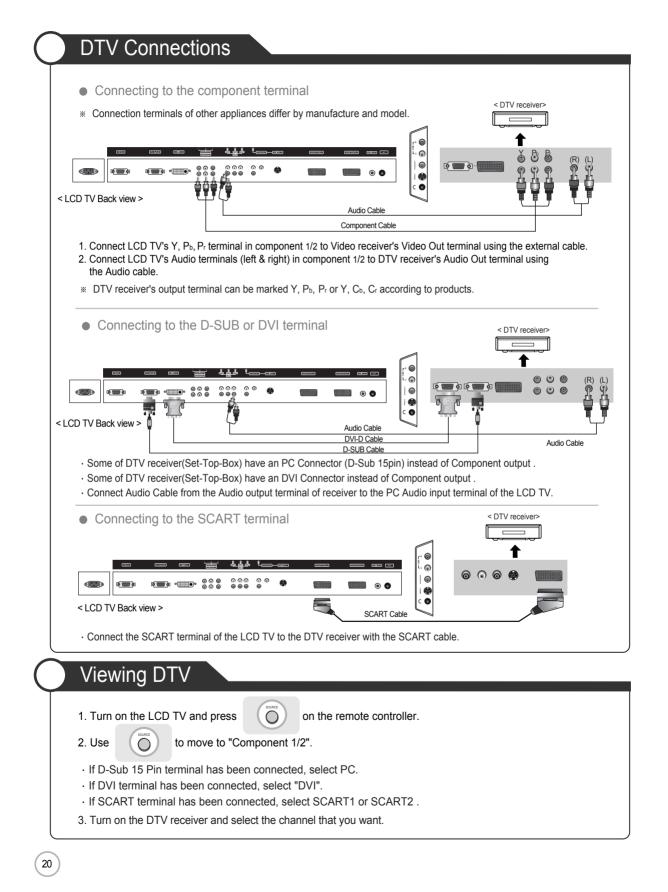
If S-Video has been connected, select "S-Video 1/2".

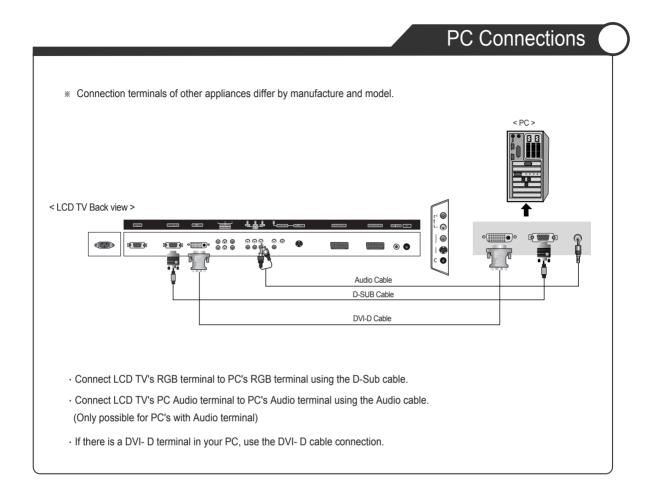
3. Turn on the Camcorder or video game and Set to Video mode.

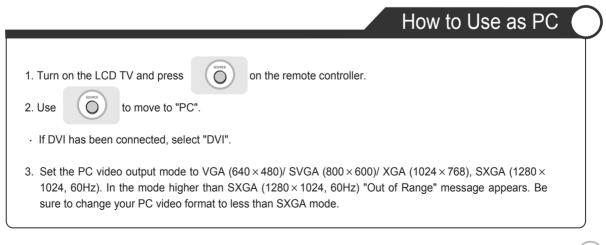
(Please refer to the User's manual of Camcorder/ Video game for more information)

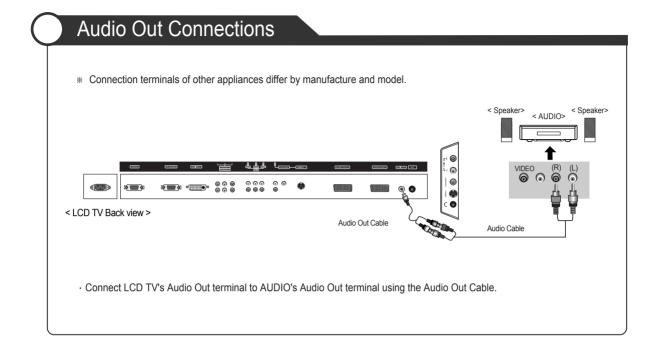
4. Insert tape into Camcorder and press play button or insert disc into the Video game console.

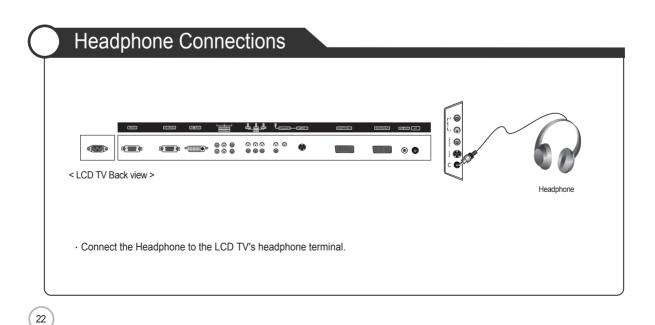




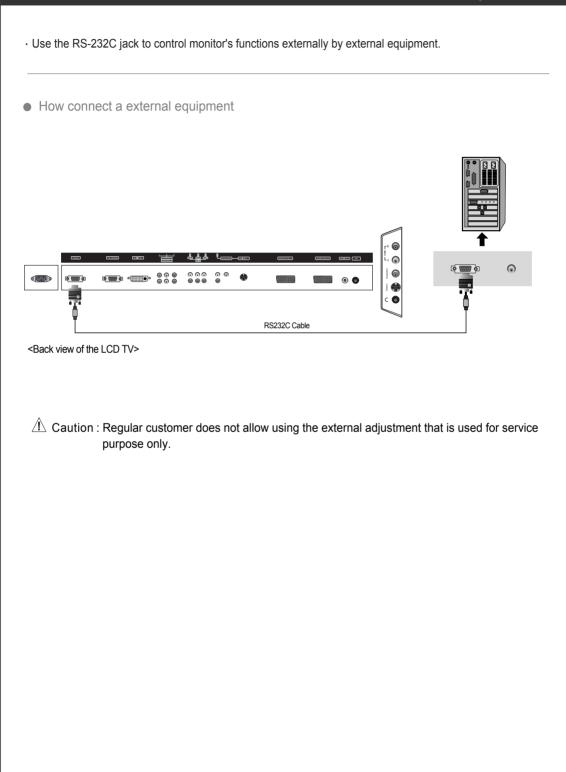








# External Adjustment



#### Powering the LCD TV

- Power on/ off
  - To turn the LCD TV on : Press the "Main Power" button of LCD TV and then press the "Standby" button. • To turn the LCD TV off :
  - Press "Standby" button on the LCD TV and then press the "Main Power" button. Turning the main power switch off will save energy. It is the same as unplugging the power cord. If ON Time setting is set, the main power should be ON.
  - To turn on/off by remote controller : Press the Power button of remote controller (If the LCD TV is not turned on, check that the "Main Power" button on the LCD TV main body is turned on. The main power indicator will light up red if turned on).
- 🗥 CAUTION After turning off the main Power, please wait at least more than 3 seconds to turn the main power back on.

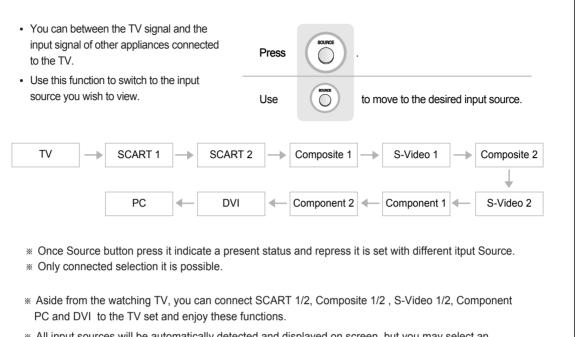
#### **Initial Settings**

- · When the brand new television set it turned on for the first time, following settings can be set using the plug and play function of the TV.
- · Press the "Main power" button of LCD TV and then press the "Stand by" button. You will see the country mode selection menu.

<ul> <li>Usin</li> </ul>	g the menu		
Pres	SS MENU		
Use		to move to Setup	
Pres	SS ENTER	to select.	Setup Reset Plug & Play Lunguage English
Pres	ss (T)	to move to "Plug & Play".	Blue Screen Off
Pres	SS ENTER	to select.	Previous Menu
Use		to move to the desired "country".	Country Australia Belgium Creatia Demask
Pres	SS ENTER	<ul><li>to select.</li><li>Automatically "ATM" beginning.</li><li>After "ATM" ends, select the desired Language.</li><li>Select other of none expressed country.</li></ul>	Finland France CO
Use		to move to the desired "Language".	Language Explicit German French Dutch
Pres	SS ENTER	to select.	Spanish Italy Ext(Menu)
Pres	SS MENU	to go back to the previous menu.	

		Watching TV
Channel Sel	ection	
	55001	
	increases the channel.	
	decreases the channel.	
PR		
<ul> <li>To go back t</li> </ul>	o the previous channel	
Press	to go back to the channel previously viewed.	
Volume Con	trol	
Voit	increases the volume.	
	Volume	20
(Vol - )	decreases the volume.	
• To turn off or	nly sound	
Use the mute fur	nction to turn off the LCD TV sound for a while, when a	phone or a bell rings.
Press	button again to hear the sound again.	Ŕ
INFO - To ch	eck the current state	
Press	button on the remote control.	Information Abc
		Screen Mode Custom Sound Mode Custom Sleep Timer Off
Display shows use	er's setting and selections.	Clock Abc : Abc Size Auto Wide
Press OBERLAY	button or wait 10 seconds for the display to disappea	ar.

### Selecting TV/External Input



\* All input sources will be automatically detected and displayed on screen, but you may select an activated source when the input cable is connected only.

Press	MENU	. • The menu screen will appear.	
Use		to move the cursor to the desired function.	MAIN MENU Picture CH (pip Sound Setup Time
Press	ENTER	to select.	Picture Screen Mode Custom Adjust Size
Press	MENU	to go back to the previous menu.	Digital NR On Paral Safety Previous Mar

			To Set Location
Press	MENU		
Use		to move to CH.	
Press	(Internet) V	to select.	MAIN MENU Picture GH Sound Setup Time
Press	PR-	to move to "Country".	Ext(Menu)
Use	() m	to select the desired country.	Channel Courty Australia Ante Manual Store FaddEnse Program Sort
Press	MENU	to go back to the previous menu.	Program Name Free Tune Previous Manu
I/PAL : B.G/PA B/PAL D/PAL B.H/PA L/SECA	L : Germany : Australia, N : China, No L : Belgium AM : France	dom, Hongkong v ,Netherland, Switzerland, Italy, Austria, Yugosla lew Zealand, Singapore, Norway, India, Thailan th Korea	
	CAM : Russ AM : Egypt,	ia, Poland, Czechoslovakia, Hungary Iran, Iraq	

С	Settin	ng Cha	nnels	
T	Use th	e Auto Searc	h function to preset all channels that are being broadcast	
	Press	MENU		
	Use		to move to CH	Channel
	Press	ENTER	to select.	Country Australia AttM Manual Store AddErase
	Press		to move to "ATM".	Program Son Program Name Fine Tune
	Press	ENTER	to select.	Previous Menu
	Use		to move to "Start".	ATTM 0 %6 Preq. Search : Also Mile Prog. Mo. : 3 CH : G Abro Ch : G Abro
	Press	ENTER	<ul> <li>to select.</li> <li>Press "Start" to start the automatic channel search/set func All broadcasting channels will be set.</li> </ul>	tion.
	Press	MENU	to go back to the previous menu.	
	• ATM : .	Auto tuning	management.	
$\overline{\mathbf{C}}$	) To se	et or er	ase a channel	
$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$				
	Press	MENU		
	Use		to move to CH.	Channel
	Press	ENTER	to select.	Country Australia ATM Manual Store Add/Erase
	Press		to move to "Add/ Erase".	Program Soit Program Name File Tune Previous Menu
	Press	ENTER	to select.	
	Use	-32-	to move to "Add" or "Erase".	Add/Erase Prog. No. : 3
	Press	ENTER	to select.	Add/Erase : Not in Mermory Add Erase
	Press	MENU	to go back to the previous menu.	Previous Menu
L				

Press	MENU					
Use		to move to Picture.		Custom	$\rightarrow$	Dynamic
	Ŷ			Î		Standard
Press		to select.	_			
	Ŷ			Mild	-	Movie
Press		to move to "Screen Mode".				
Use	C. Jacobian	select between Custom/ Dynamic/ Standard/ Move/ Mild.	<ul> <li>Dynam</li> <li>Standa</li> <li>Movie</li> </ul>	brightly lit ard : It is the b : Select when	en using f environm est screer watching	the LCD TV in a lent. n setting.
Press	MENU	to go back to the previous menu.		environment.		
Use		to move to Picture.			Picture	
Use		to move to Picture .			Picture Screen M Custom A Size	
Press	ENTER	to select.			Digital N/F	R On
Press		to move to "Custom Adjust".				
Press	ENTER	to select.				
Use		to move to the desired category.			Picture Brightness Contrast	50
Use		to adjust the setting.			Colour Sharpness	
Use		select between Brightness/ Contrast/ Colour/ Sharpness				Previous Menu
Press	MENU	to go back to the previous menu.				
					>	Custom Mode

Changing Picture Settings

- · Brightness : It adjusts the brightness of the image.
- $\cdot$  Contrast : It adjusts the contrast of image.
- Tint : It adjust the natural tint of the image.
- $\cdot$  Colour : It adjusts the intensity of the colour.
- $\cdot$  Sharpness : It adjusts the clarity of the image.

Changing	Sound	Settings
----------	-------	----------

Press	MENU		Sound
Use		to move to Sound.	Sound Volume Cutom Adjust Auto Volume Level MITS Sound Output Etaince
Press	ENTER	to select.	Previous Menu
Press	() m	to move to "Custom Adjust".	Equalizer
Press	ENTER	to select.	10 KHz 3 KHz 1 KHz 300 Hz 100 Hz
Use		select between Custom, Standard, Music, Movie, Speech.	
Press	MENU	to go back to the previous menu.	
	Custom	→ Standard → Music → Movie	Speech

>Sound

· Volume : It adjusts the sound volume.

- $\cdot$  Balance : It adjusts the volume of speakers on the left and the right.
- · Equalizer : It adjusts the volume by frequency bands and the user can select the desired sound quality.

			Cu	stom Sound Adjustment
	MENU			
Press	$\bigcirc$			Sound Volume Custom Adjust
Use		to move to Sound		Mate Volume Level     On       MTS     Stareo       Sound Output     Internal       Balance     Internal
Press		to select.		Equalizer
Press	(T) Bk	to move to "Custom A	\djust".	Custom >
Press	ENTER	to select.		10 KHz Skritz 1 KHz 300 Hz 100 Hz
Use		to move to the desired	d category.	Equalizer
Use		to adjust the setting.		10 KHz S KHz 1 KHz 300 Hz 100 Hz
Press	MENU	to go back to the prev	rious menu.	Previous Manu
				Sound Output
				Ť
Press	MENU			
11000	MENU			Sound
Use		to move to Sound		
	$\bigcirc$	to move to Sound to select.		Volume Custom Adjust Auto Volume Level MITS Source Cound Output Internal
Use				Volume Cruiton Alput Mats Volume Level Starto Batance Cruiton Alput Internal
Use Press		to select.		Volume Cruiton Alput Mats Volume Level Starto Batance Cruiton Alput Internal
Use Press Press		to select. to move to "Sound O	al" or "Internal".	Volume Cruiton Alput Mats Volume Level Starto Batance Cruiton Alput Internal
Use Press Press Use		to select. to move to "Sound O to select the "Externa	al" or "Internal".	Volume Cruiton Alput Mats Volume Level Starto Batance Cruiton Alput Internal
Use Press Use Press		to select. to move to "Sound O to select the "Externa to go back to the prev	al" or "Internal". vious menu.	Volume     Cit       Mats     Volume       Mats     Volume       Mats     Volume       Belance     Volume   Periodes Mens

Selecting the	Menu	Language
---------------	------	----------

• Menu screen can be viewed in the language preferred by the user.

MENU	
	to move to Setup
ENTER	to select.
	to move to "Language".
	to select the desired language.
MENU	to go back to the previous menu.

applianc		set to display blue screen when no TV signal or s received. If there is an incoming signal, the blue sc n.	
Press	MENU		
Use		to move to Setup	Setup
Press	CP CENTER CP	to select.	Reset Prug & Prey Language English Elue Screen On
Press		to move to "Blue Screen".	Previous Menu
Use	-99-	to select the "On" or "Off".	
Press	MENU	to go back to the previous menu.	

# Setting Digital Noise Reduction

• Use v	Use when screen is noise or lines appear.				
Pres	IS MENU				
Use		to move to Picture			
Pres	s (ref)	to select.			
Pres	s (T)	to move to "Digital N/R".			
Use		to select the "On" or "Off".			
Pres	is Menu	to go back to the previous menu.			

#### Application

Chang	ging Screen Size
Press	ARC .
Auto wide	$\rightarrow wide \rightarrow Panorama \rightarrow Zoom1 \rightarrow Zoom2 \rightarrow 4:3 (normal) \rightarrow 14:9$
In Compo	out mode, you can only select either the wide or the normal (4 : 3) mode. onent 1/2 input mode, you can't Select Auto Wide. onent 1/2 input mode (1080i), you can't Select Zoom2.
	uto wide wide Panorama
	$\uparrow$ $\downarrow$

#### >Screen Size

- · Auto wide It automatically displays for the screen format of input signal.
- wide It makes 16 : 9 format for input signal.
- $\cdot$  Panorama It makes 4 : 3 format fit into 16 : 9 format with minimal loss in content.
- $\cdot$  Zoom 1 It enlarges the natural screen factor by approx. 5 %
- $\cdot$  Zoom 2 It enlarges the natural screen factor by approx. 10 %
- · 4 : 3 It is the standard format of broadcasting.
- 14 : 9 It makes 14 : 9 format for input signal.

# Application

		Changing the Screen Size for WSS Signal Input
When V	VSS signal is	ncoming from a connected external appliance, screen size can be changed to panorama or 4 : 3.
Press	MENU	
Use		to move to Setup
Press	ENTER	to select.
Press	€	to move to "WSS ".
Use		to select the Panorama or 4 : 3.
Press	MENU	to go back to the previous menu.
• WSS :	Wide Scree	Size.
		Manual Store
Colour	system and s	bund system can be setup for each channel.
Press	MENU	
Use		to move to CH .
Press	ENTER	to select.
Press	(T) Ph	to move to "Manual Store".
Press	ENTER	to select.  Manual Store  Frogram No.  SECAM  Sound System  L
Use		to move to the desired category.
Use		to adjust the setting.
Press	MENU	to go back to the previous menu.
<ul> <li>Select '</li> </ul>	"OK" in Manu	al Store to save the Program settings.

# Application

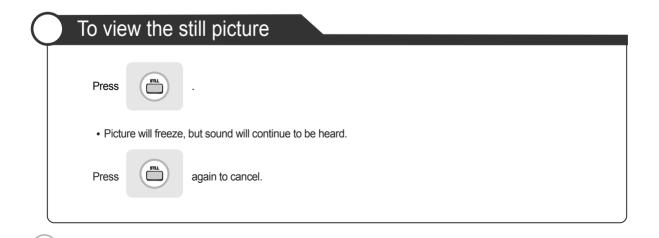
Sorting	Program
---------	---------

• In this m	In this mode, you can arrange programs in numerical order.		
Press	MENU		
Use		to move to CH.	
Press		to select. Channel Country Australia Management Program Sort	
Press	€ v v v	to move to "Program Sort".	
Press		to select.	
Use	\$ \$	to move to the desired Program Number.	
Press		to move to the next category.	
Use		to move to the Preferred Program Number.	
Press	Cherrer (Marchander)	to sort.	
Press	MENU	to go back to the previous menu.	

Press	MENU		
1655			
Jse		to move to CH	Channel Country (ATM Australia
ress	ENTER	to select.	Manual Store Manual Store Program Sort Program Name Fine Tune
Press		to move to "Program Name".	Previous Menu
Press	CD- ENTER	to select.	
Jse		to move to the desired Program Number.	Program Name Prog.No. CH Program Name
ress	C C	to move to program name.	Exit/Menu)
Jse		to register program name.	
ress	MENU	to go back to the previous menu.	

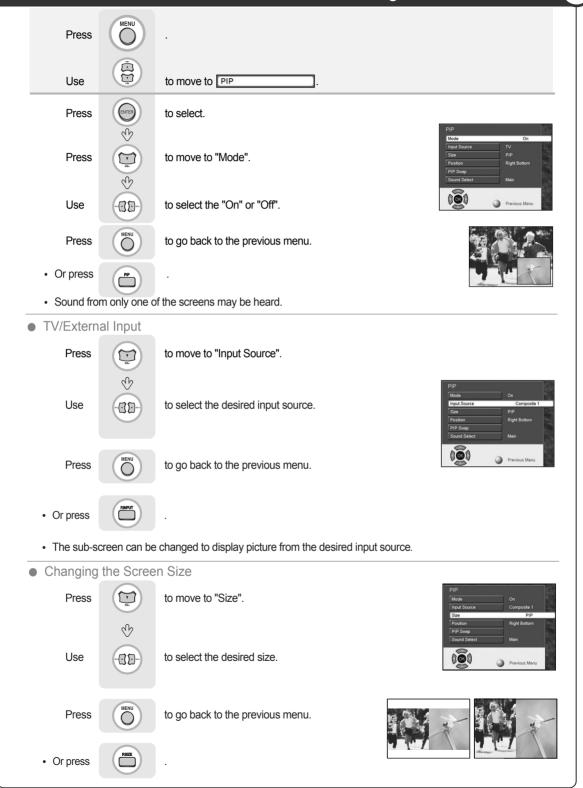
• Use screen fine-tune controls to adjust the screen when picture quality is unclear or lines appear.

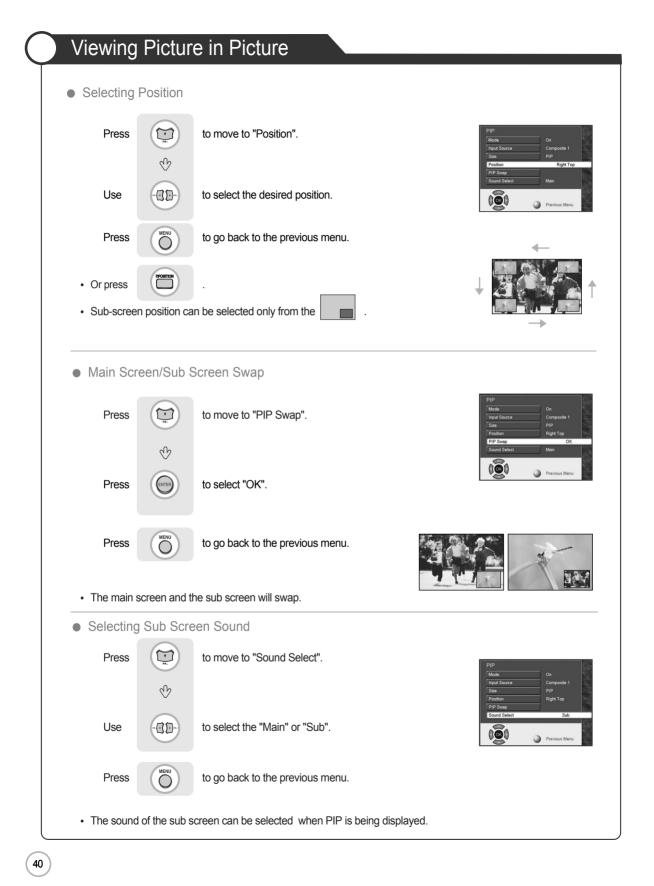
Press	MENU	
Use		to move to CH Channel
Press	ENTER	to select. Australia Meanual Store AddRase Program Sort
Press		to move to "Fine Tune".
Press	ENTER	to select.
Use	-32-	to tune.
Press	MENU	to go back to the previous menu.
To retu	m to initial se	tting or Auto Setting, use to select "Reset" and press .



38

# Viewing Picture in Picture





				Auto Volume Level
	This fea	ature maintai	ns an equal Volume level ; even if you change channel	S.
	Press	MENU		
	Use		to move to Sound.	Sound Volume Cruston Adjust
	Press	(INTER)	to select.	Auto Volume Level On MTS Mono Balance Previous Mena
-	Press	( Fr.	to move to "Auto Volume Level".	Previous Menu
	Use		to select the "On" or "Off".	
	Press		to go back to the previous menu.	

				Stereo Settings
Ρ	Press	MENU		
	Jse		to move to Sound.	Sound
F	Press		to select.	Custom Adjust Auto Volume Level On MI3 Stereo Balance
F	Press		to move to "MTS".	Previous Menu
U	lse		to select the desired category.	
Р	Press	MENU	to go back to the previous menu.	
• Or p	oress		. (Multi Television Sound)	

# Resetting LCD TV Settings

• It resets all of the parameters to the factory default.

Press	MENU	
Use		to move to Setup.
Press	C C C C C C C C C C C C C C C C C C C	to select.
Press	() Ph	to move to "Reset".
Press	MENU	to select "OK".
The LCD	TV will turn o	off. The parameters will be set to factory default.

42

			Setting Time
Dress	MENU		
Press			Time
Use		to move to Time.	Clock         Abc         Abc           On Timer         Abc         State         Off           Off Timer         Abc         Abc         Off           On Time Program         Program         Program         On           Timer Mode         0         On         Timer Mode
Press	ENTER	to select.	Vine mode Vine mode Vine Manu Previous Manu
Press	₹	to move to "Clock".	Time         Abb         Abb           Clock         Abb         Abb         Abb           On Timer         Abb         Abb         Off           Off Timer         Abb         IAbb         Off           Off Timer         Abb         IAbb         Off           On Time Program         Frog 0         0         0
Press	Vot	to move one step.	Timer Mode Cince
Use		to adjust the desired hour.	Time Clock Abc Abc On Timer Abc : Abc On Timer Abc : Abc
Press	Vor.	to move one step.	Off Timer Abs: : /Abc: [ Abc: [ Off On Time Program On Timer Volume Timer Mode Once Previous Menu
Use		to adjust the desired minute.	
Press	MENU	to go back to the previous menu.	
You can	set your loca	time by adjusting the differences from GMT, according to you	Ir location.

•		me mus	ower On/		
	Press	MENU	) .		
_	Use		to move to	Time	Time Clock On Timer Asc   Asc   Off
	Press	ENTER	to select.		Off Timer         Abc         Abc         Off           On Time Program         Prog         0           On Time Volume         0         0           Timer Mode         Once         0
	Press		to move to de	esired category.	Previous Menu
Press to go back to the		the previous menu.			
Setting Hour Use				Setting Time for Power On	Setting Time for Power Off
			to select,		
	000		to set	On Timer : 10 : 000 Off	Off Timer 22 - 00 Off
Setting Minute					
	Use	-35-	to select,	On Timer : 10 : 30 Off	Off Timer : 22 : 20 Off
			to set		
	Set/Ca	incel			
	Use	-99-	to select,	On Timer : 10 : 30 On	Off Timer : 22 : 20 On
			to select the "On" or "Off"		
	Chann	el Select			
	Use		to set program	On Timer Program : Prog 7	
	Volum	e Control			
	Use	-35-	to set volume	On Timer Volume 3	
	if the ma	ain power	is off, the time is turn off after y	reset. To retain the time setting, o you fall a sleep	. The time settings are retained only to not turn the main power switch off.
Р	ress	SLEEP	. • Depending	ically turns off the TV after a designa g on the number of times the "Sleep' after 30, 60, 90, 120, 150 or 180 mir	button is pressed, the TV will be

44

## Teletext

### **Basic Function**

- TEXT On/Off
- 1. Press "ON" once , then displays the Teletext pages.
- 2. If you press "ON" once more, Text mode is off.

#### TOP TEXT

The user guide displays four fields-red, green, yellow and blue at the bottom of the screen. The yellow field denotes the next group and the blue field indicates the next block.

- Group/Block/Page selection
- 1. With the blue button you can progress block to block.
- 2. Use the Yellow button to proceed to the next group with automatic overflow to the next block.
- 3. With the Green button you can proceed to the next existing page with automatic overflow to the next group.
- 4. The RED button permits to return to previous selection.

#### FLOF TEXT

The teletext pages are colour coded along the bottom of the screen and are selected by pressing the corresponding coloured button.

- Page selection
- 1. Press the Index button to select the index page.
- 2. You can select the pages, which are colour coded along the bottom line with the same coloured buttons.

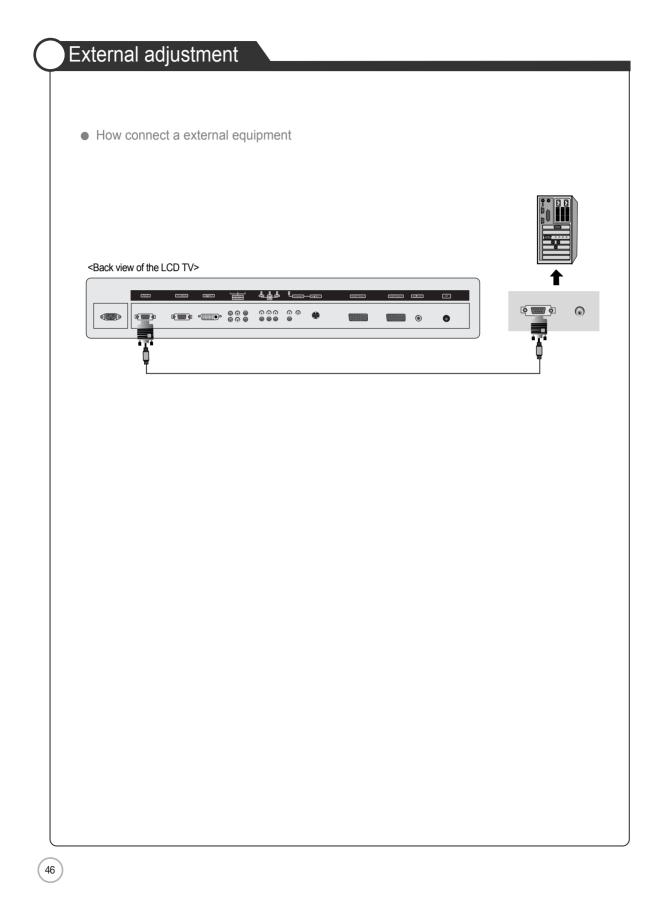
### Special Teletext Function key

- MIX : In the mix mode display, the underlying video and the teletext page display are both simultaneously visible on the screen. This command turns the display to mix mode and is enabled only in the text mode.
- STORE : This command stores the user defined favorite pages. This command is enabled only if the list mode is active.
- LIST : This command toggles between list mode and current. Text mode(FLOF, TOP or normal)
- SIZE : Toggle the display page size between double-size top, double-size bottom and normal.
- HOLD : The update of the current display page is halted so that the content will not be changed.
- CANCEL : Press this button to view the updated teletext page or display cancel.
- INDEX : Return to the index page.
- TIME : When watching a TV program, press this button to display the time at the top right hand corner of the screen.

Press this button again to remove the display.

- REVEAL : Press this button to display the concealed information. Such as solutions of riddles or puzzles.
- RED, GREEN, YELLOW, BLUE-In the TOP/FLOF automatic navigation mode, these keys select and display the linked page.

# External adjustment



# External adjustment

Use       Image: Constraint of the sector of t	Press Image: Setup   Use Image: Setup   Press Image: Setup   Press Image: Setup   Image: Setup Image: Setup   Press Image: Setup   Image: Setup Image: Setup <th></th> <th></th> <th></th> <th>Set ID</th>				Set ID
Press       Image: Constraint of the select of the desired ID number.         Press       Image: Constraint of the select of the desired ID number.         Press       Image: Constraint of the select of the desired ID number.         Press       Image: Constraint of the select of the desired ID number.         Press       Image: Constraint of the select of the desired ID number.         Press       Image: Constraint of the select of the desired ID number.         Image: Constraint of the select of the desired ID number.       Image: Constraint of the select	Press Image: set of the				
Press       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of the select.       Image: set of the select.         Image: set of t	Press       It is select.         Image: Select	Press	MENU		
Press       Image: select.         Vo       to select.         Vise       Image: select.         Use       Image: select.         Press       Image: select.         Vise       Image: select.         Press       Image: select.         Vise       Image: select.         Vise <t< td=""><td>Press       Image: Control of the select.         Image: Control of the select.       Image: Control of the select is the s</td><td>Use</td><td></td><td>to move to Setup</td><td>Reset</td></t<>	Press       Image: Control of the select.         Image: Control of the select.       Image: Control of the select is the s	Use		to move to Setup	Reset
Press       Image: Constraint of the previous menu.         Press       Image: Constraint of the previous menu.	Press       Ito move to "Set ID".         Use       Ito select the desired ID number.         Press       Ito go back to the previous menu.	Press	ENTER	to select.	Language English Blue Screen Off Set ID 0
Press to go back to the previous menu.	Press to go back to the previous menu.	Press		to move to "Set ID".	Previous Menu
Press to go back to the previous menu.	Press to go back to the previous menu.	Use	-30-	to select the desired ID number.	
121	The adjustment range of Set ID is 0 ~ 99.	Press	MENU	to go back to the previous menu.	Reset Plug & Play Language Blus Screen Off
ne adjustment range of Set ID is 0 ~ 99.		Гhe adjı	ustment rang	e of Set ID is 0~99.	Previous Meru

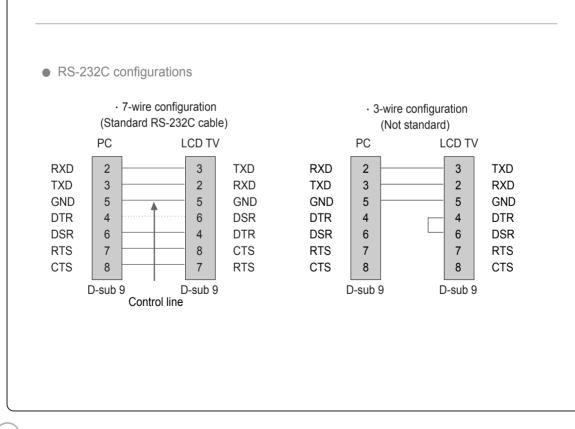
## Special features

#### • Type of connector : D-Sub 9-pin male

No.	Pin name	0
1	No connection	<b>6</b>
2	RXD (Receive data)	
3	TXD (Transmit data)	
4	DTR (DTE side ready)	
5	GND	
6	DSR (Dce side ready)	Pin NO.4 and Pin
7	RTS (Ready to send)	NO.6 must be
8	CTS (Clear to send)	connected on
9	No Connection	monitor side

 $\cdot$  Use a crossed (reverse) cable.

Wire the cable so that each pair of data lines cross between the two devices. These data line pairs are RXD (Receive to send) and TXD (Transmit data), DTR (DTE side ready) and DSR (DCE side ready), and RTS (Ready to send) and CTS (Clear to send).



### COMMUICATION PARAMETERS

- BAUD RATE : 9600 bps
- Data Length : 8bits
- Parity : None
- Stop bit : 1bit
- \* The Remote Control and LCD TV Key Control(Except Main Power) Don't Operate When Controlling LCD TV Set by PC.

#### Command List

Item	ASCII Code	Data(hex)
1. Power	р	00h~01h
2. Input Source	i	00h~07h
3. Aspect Ratio	r	00h~08h
4. Volume Mute	W	00h~01h
5. Volume Control	V	00h~64h
6. Screen Mode	S	00h~04h
7. Brightness	b	00h~64h
8. Contrast	k	00h~64h
9. Colour	С	00h~64h
10. Tint	t	00h~64h

Item	ASCII Code	Data(hex)
11. Sharpness	h	00h~64h
12. Information	f	00h~01h
13. Pip On	0	00h~01h
14. Pip Source	u	00h~07h
15. Pip Location	n	00h~03h
16. Pip Sound set	е	00h~01h
17. Pip Mode	d	00h~02h
18. Remote Control O	n j	00h~01h
19. Abnormal State	q	00h~01h
20. Sound Mode	у	00h~04h

Tramsmission / Receiving Protocol List

#### \* Transmission

### {Command}{ }{SET ID}{ }{Data}Cr}

- {Commad} To Control Code LCD TV
- { } "Space , ASCII Code = 0x20"
- {SET ID} You Can Adjust SET ID Setup
- Menu of LCD TV
   {Data}
   Data Command Transmit 'FF' data to data read mode
   (Cr)
- {Cr} Carriage Return
   ASCII Code 0x0d

### \* Ok Acknowledge {SET ID}{:}{OK}{x}{Data}{x}

- The LCD TV set transmits ASCII based on this format When receiving normal data. At this time, If the data is data read mode, it indicates present status data if the data is data write mode, it returns the data of PC.
- \* In case set ID is 0, Ack data doesn't feed back, and you can adjust all LCD TV set.

External adjustment

## **RS232C** Communication Protocol

1. Power : p

- ▶ To Control Power On/Off of the LCD TV \* Transmission {p}{ }{SET ID}{ }{Data}{Cr} Data 0 : Off Data 1 : On \* Ack {SET ID}{:}{OK}{x}Data}{x} Data 0 : Off Data 1 : On Read Power On Source Status \* Transmission {p}{ }{SET ID}{ }{FF}{Cr} \* Ack {SET ID}{:}{OK}{x}Data}{x} Data 0 : Power Off Data 1 : Power On Data 2 : TV Data 3 : Scart 1 Data 4 : Scart 2 Data 5 : Composite 1 Data 6 : S-Video 1 Data 7 : Composite 2 Data 8 : S-Video 2 Data 9 : Component 1 Data 10 : Component 2 Data 11 : DVI Data 12 : PC \* If Other Functions Transmit 0xFF data based on this format. Ack data feeds back present status about each function. 2. Input Source : i ▶ To Input Source Select \* Transmission {i}{ }{SET ID}{ }{Data}{Cr} Data 0 : TV Data 1 : Scart 1 Data 2 : Scart 2 Data 3 : Composite 1 Data 4 : S-Video 1
- Data 5 : Composite 2 Data 6 : S-Video 2 Data 7 : Component 1 Data 8 : Component 2 Data 9 : DVI Data 10 : PC

\* Ack {SET ID}{:}{OK}{x}{Data}{x} Data 0 : TV Data 1 : Scart 1 Data 2 : Scart 2 Data 3 : Composite 1 Data 4 : S-Video 1 Data 5 : Composite 2 Data 6 : S-Video 2 Data 7 : Component 1 Data 8 : Component 2 Data 9 : DVI Data 10 : PC

#### 3. Aspect Ratio : r

► To adjust screen format \* Transmission {r}{ SET ID}{ }Data}Cr Data 0 : Auto wide Data 1 : Wide Data 2 : Panorama Data 3 : Zoom1 Data 4 : zoom2 Data 5 : 4:3 Data 6 : 14:9 Data 7 : 4:3(In PC Mode) Data 8 : Wide(In PC Mode)

Ack {SET ID}{:}{OK}{x}{Data}{x} Data 0 : Auto wide Data 1 : Wide Data 2 : Panorama Data 3 : Zoom1 Data 4 : zoom2 Data 5 : 4:3 Data 6 : 14:9 Data 7 : 4:3(In PC Mode) Data 8 : Wide(In PC Mode)

## 4. Volume Mute : w

► To Select volume mute on/off

\* Transmission

{w}{ }{SET ID}{ }{Data}{Cr} Data 0 : On Data 1 : Off

\* Ack

{SET ID}{:}{OK}{x}{Data}{x} Data 0 : On Data 1 : Off

### 5. Volume Control : v

- To adjust volume
- \* Transmission {v}{ }{SET ID}{ }{Data}{Cr}
  - Data : Min : 00h~Max : 64h

\* Ack

{SET ID}{:}{OK}{x}{Data}{x} Data : Min : 00h~Max : 64h

## 6. Screen Mode : s

- ► To Select Screen Mode
- \* Transmission

{s}{ }{SET ID}{ }{Data}{Cr}

- Data 0 : Custom
- Data 1 : Dynamic (In PC Mode : High)
- Data 2 : Standard (In PC Mode : Middle)
- Data 3 : Movie (In PC Mode : Low) Data 4 : Mild

Dala

\* Ack

{SET ID}{:}{OK}{x}{Data}{x}

- Data 0 : Custom
- Data 1 : Dynamic Data 2 : Standard
- Data 2 : Standar Data 3 : Movie
- Data 3 : Mild
- Data 4 : Mild

## 7. Brightness : b

- ► To adjust Brightness
- \* Transmission

{b}{ }{SET ID}{ }{Data}{Cr} Data : Min : 00h~Max : 64h

\* Ack

{SET ID}{:}{OK}{x}{Data}{x} Data : Min : 00h~Max : 64h

## 8. Contrast : k

- ► To adjust Contrast
- \* Transmission

{k}{ }{SET ID}{ }{Data}{Cr} Data : Min : 00h~Max : 64h

\* Ack {SET ID}{:}{OK}{x}{Data}{x}

Data : Min : 00h~Max : 64h

## 9. Colour : c

\* Ack

{SET ID}{:}{OK}{x}{Data}{x} Data : Min : 00h~Max : 64h

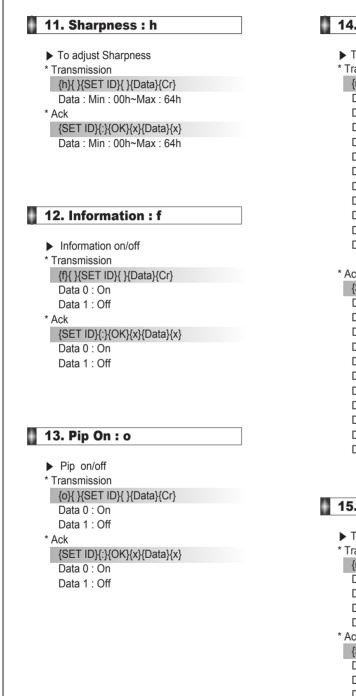
### 🚺 10. Tint : t

To adjust Tint (Not available in PC Mode)
 \* Transmission

{t}{ }{SET ID}{ }{Data}{Cr} Data : Min : 00h~Max : 64h

\* Ack

{SET ID}{:}{OK}{x}{Data}{x} Data : Min : 00h~Max : 64h



### 14. Pip Source : u

► To Select Pip Source \* Transmission {u}{ }{SET ID}{ }{Data}{Cr} Data 0 : TV Data 1 : Scart 1 Data 2 : Scart 2 Data 3 : Composite 1 Data 4 : S-Video 1 Data 5 : Composite 2 Data 6 : S-Video 2 Data 7 : Component 1 Data 8 : Component 2 Data 9 : DVI Data 10 : PC \* Ack {SET ID}{:}{OK}{x}{Data}{x} Data 0 : TV Data 1 : Scart 1 Data 2 : Scart 2 Data 3 : Composite 1

- Data 4 : S-Video 1 Data 5 : Composite 2
- Data 6 : S-Video 2
- Data 6 : S-Video 2 Data 7 : Component 1
- Data 8 : Component 2
- Data 9 : DVI
- Data 10 : PC

## 15. Pip Location : n

To Select Pip Position
 \* Transmission
 {n}{ }SET ID} } Data Cr}
 Data 0 : Right Bottom
 Data 1 : Right Top
 Data 2 : Left Top
 Data 3 : Left Bottom
 \* Ack
 \* SET ID} SOK A Characteristic Sector Sector

#### 16. Pip Sound Set : e

- To Select Pip Sound
   \* Transmission

   {e}{ }{SET ID}{ }{Data}Cr
   Data 0 : Main
   Data 1 : Sub
   \* Ack
   {SET ID}{:}OK}x{Data}x
  - Data 0 : Main Data 1 : Sub

### 17. Pip Mode : d

- To Select Pip Mode
- \* Transmission {d}{ }{SET ID}{ }{Data}Cr} Data 0 : PIP Data 1 : PBP1 Data 2 : PBP2

#### \* Ack

{SET ID}{:}{OK}{x}{Data}{x} Data 0 : PIP Data 1 : PBP1 Data 2 : PBP2

#### 18. Remote Control On : j

- To Select Remote Control on/off
   \* Transmission

   {jj} {SET ID} {Data}Cr
   Data 0 : Pc Control
   Data 1 : Remote Conroller On
   \* Ack

   {SET ID}:{OK}x{Data}x
   Data 0 : Pc Control
  - Data 1 : Remote Conroller On

### 19. Abnormal Status : q

- ▶ You Can Read LCD TV Status
- \* Read Only Mode
- \* Transmission
- {q}{ }{SET ID}{ }{FF}{Cr}
- \* Ack
  - {SET ID}{:}{OK}{x}{Data}{x}
  - Data 0 : OK
  - Data 1 : Stanby
  - Data 2 : AC Downr

### 20. Sound Mode : y

- To Select Sound Mode
- \* Transmission
  - {s}{ }{SET ID}{ }{Data}{Cr}
  - Data 0 : Custom
  - Data 1 : Standard
  - Data 2 : Music
  - Data 3 : Movie
  - Data 4 : Speech
- \* Ack
  - {SET ID}{:}{OK}{x}{Data}{x}
  - Data 0 : Custom
  - Data 1 : Standard
  - Data 2 : Music
  - Data 3 : Movie
  - Data 4 : Speech

# Trouble shooting

- In case a problem occurs with your LCD TV, please take the following steps first.
- If you still have the problem, turn the power off and contact your dealer or an authorized service center.
- Screen related Matters

Problem	Action
The screen does not appear.	Is the power plug pulled out? Insert the power plug. Turn the main power button on and press the power button of the remote controller.
The screen appears too slowly after the power is turned on.	This problem occurs for a brief time in the process of image elimination processing in order to hide temporary screen noise that occurs when the power is turned on. But if the screen does not come after 1 minute has passed, contact your dealer or an authorized service center.
Screen is too bright or too dark.	Perform brightness adjustment or Contrast adjustment. (Please refer to page 29)
Screen is too large or too small.	Adjust the screen size. (Please refer to page 34)
Stripes appear on the screen and it shakes.	Stop using wireless telephones, hair driers and electric drills.
Simultaneous Screen does not appear.	Check that LCD TV and external equipment are connected. Check the inputs of simultaneous screen by pressing sub-screen selection.
The screen does not move.	Press the STILL button. (Please refer to page 38) Check if the Pause button is pressed on external equipment.
Computer Input Screen is abnormal.	Perform manual fine adjustment (Please refer to page 21).
Automatic Turn On does not work.	Automatic Turn On function works only when turning the LCD TV off with the remote controller or Standby button.
The screen shows snow or black patt- erns and then reverts to a clear picture.	The problem only occurs with DVI input when an abnormal signal is issued during an authorization process for a High-bandwidth Digital Content Protection (HDCP) compatible device. While it may vary depending on the actual device, the screen reverts to normal within a short time (5-7 seconds).
The screen flickers in multi-screen mode (PIP/PBP).	The problem occurs when both main and sub screens are supplied with interlaced signals. Whilst an internal de-interlacer should remove any trembling that occurs with interlaced signal input, either of the screens can still tremble when both screens are input with interlaced signals, because there is only one de-interlacer available.

#### Sound related Matters

Problem	Action
Screen appears, Voice is not heard	<ol> <li>Press the "Mute"button. (page 25)</li> <li>Increase the sound by pressing volume adjustment button.</li> <li>Check if voice terminal of external input is connected properly.</li> <li>Check if speaker cables are connected properly.</li> <li>If it is on PIP mode, convert audio of main screen and sub screen by pressing S.SELECT.</li> <li>Select and check the other input. If the sound still does not work and the other channels are the same after you have done as the above, contact your dealer or an authorized service center.</li> <li>Check if the headphone jack gets pluged in.</li> <li>Check if the speaker on/off selection at "On" in sound mode.</li> </ol>
Lots of noise (static) occurs.	When connecting a Set-Top-Box, check that it is on stereo broadcasting. If is, the TV program may not be available or the reception may be bad. Check the audio source with another player. If that source is good, contact your dealer or an Authorized service center.

## Trouble shooting Tips

#### Others

Problem	Action
Remote controller does not work.	<ol> <li>Check if main power is On.</li> <li>Check that the batteries of the remote controller were loaded properly.</li> </ol>
	3. Check to see if any obstacle exists between the LCD TV and the remote controller and remove it, if any.
	4. If the batteries have no power, replace them with two new batteries.
	5.Please check out current mode of fnuction key.
LCD TV makes strange noise.	It is the noise when the mechanism expands or contracts from to changes to the environment due to factors such as humidity, temperature, etc. It is not a failure.
LCD TV indication lamp is On.	The red means the Stand-by power is ON. It will take a few seconds to turn off as the main power is off.

• This LCD TV is for household use and registered as suitable on electromagnetic waves.

- Therefore, you can use it in every location as well as residential areas.
- For improvement of product's quality, program can be upgrade without costomer's agreemant.

## Supported Display Modes

### PC mode

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
	31.47	60
640×480	37.86	72
	37.50	75
720×400	31.47	70
	35.15	56
000000	37.88	60
800×600	48.88	72
	46.88	75
	48.36	60
1024×768	56.48	70
	60.02	75
1280×1024	64.0	60

- Considerations in Installation
- If any signal of unsupported resolution is input, the "Out of Range" message appears.

# Supported Display Modes

## • Component Mode [Y, C<sub>b</sub>(P<sub>b</sub>), C<sub>r</sub>(P<sub>r</sub>)]

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	
720×480	15.73	60.00	SDTV, DVD 480i
720×576	15.63	50.00	SDTV, DVD 576i
720×480	31.47	59.94	SDTV, 480p
720×576	31.25	50.00	HDTV, 576p
1280×720	37.50	50.00	HDTV, 720p
1280×720	45.00	60.00	HDTV, 720p
1920×1080	28.12	50.00	HDTV, 1080i
1920×1080	33.75	60.00	HDTV, 1080i

• If any signal of unsupported resolution is input, the "Out of Range" message appears.

## • Specifications

Aspect Ratio	16:9
Screen Size (H × V)	885.168(H)×497.664(V)mm
Resolution	1366×768
Pixel pitch (H $\times$ V)	0.648(H)×0.216(V)mm (RGB Vertical Script)
Displayable Colors	16.7M
Brightness	500cd/m <sup>2</sup> (center of screen)
Contrast	1000:1
Viewing Angle	89° /89° /89° /89°
Input signal	PAL, SECAM, SD, HD, VGA~SXGA
Tuner	PAL, SECAM
PC Input	Analog RGB, DVI-D
AC Input	AC100-240V~, 50/60Hz, 2.8A(MAX)
Power Consumption	240W (Typical)

# Maintenance and Service

 Memo

# Maintenance and Service

Μ	em	10

# Maintenance and Service

 Memo

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