

## APPENDIX H

### : USER'S MANUAL

# 19" WIDE TFT LCD TV/MONITOR



Model: **LT-19LMF**

## Owner's Manual



# Warnings



## WARNING

RISK OF ELECTRIC SHOCK  
DO NOT OPEN.



### WARNING :

To reduce the risk of electric shock do not remove cover (or back).

No user serviceable parts inside. Refer servicing to qualified service personnel.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons..



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

TO PREVENT FIRE OR SHOCK HAZARD DO NOT EXPOSE THE SET TO RAIN OR MOISTURE.

### NOTE TO CABLE/TV INSTALLER:

This reminder is provided to call the cable TV system installer's attention to Article 820-40 of the National Electric Code (U.S.A.). The code provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

### REGULATORY INFORMATION:

This equipment has been tested and found to comply with the limits for a Class B DIGITAL device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential Installation. This equipment generates, uses and can radiate radio frequency energy and, if Not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### CAUTION:

Do not attempt to modify this product in any way without written authorization. Unauthorized modification could void the user's authority to operate this product.

# IMPORTANT SAFETY INSTRUCTIONS

## IMPORTANT SAFETY INSTRUCTIONS

### Important safeguards for you and your new product

Your product has been manufactured and tested with your safety in mind. However, improper use can result in potential electrical shock or fire hazards. To avoid defeating the safeguards that have been built into your new product, please read and observe the following safety points when installing and using your new product, and save them for future reference.

Observing the simple precautions discussed in this operating guide can help you get many years of enjoyment and safe operation that are built into your new product.

This product complies with all applicable U.S. Federal regulations and voluntary safety standards.

#### 1. Read Instructions

All the safety and operating instructions should be read before the product is operated.

#### 2. Follow Instructions

All operating and use instructions should be followed.

#### 3. Retain Instructions

The safety and operating instructions should be retained for future reference.

#### 4. Heed Warnings

All warnings on the product and in the operating instructions should be adhered to.

#### 5. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

#### 6. Water and Moisture

Do not use this product near water for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

#### 7. Accessories, Carts, and Stands

Do not place this product on a slippery or tilted surface, or on an unstable cart, stand, tripod, bracket, or table. The product may slide or fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

#### 8. Transporting Product

A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

#### 9. Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

#### 10. Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be locked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

#### 11. Power Sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

#### 12. Power Cord Polarization

This product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

#### 13. Power Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

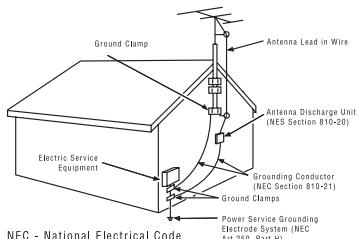


# IMPORTANT SAFETY INSTRUCTIONS

## 14. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code (U.S.A.), ANSI/NFPA 70 provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

### Example of Grounding According to National Electrical Code Instructions



## 15. Lightning

For added protection for this product (receiver) during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

## 16. Power Lines

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.

## 17. Overloading

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

## 18. Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

## 19. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

## 20. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a. If the power-supply cord or plug is damaged.
- b. If liquid has been spilled, or objects have fallen into the product.
- c. If the product has been exposed to rain or water.
- d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e. If the product has been dropped or the cabinet has been damaged.
- f. If the product exhibits a distinct change in performance.

## 21. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

## 22. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

## 23. Wall Mounting

The product should be mounted to a wall only as recommended by the manufacturer. The product may slide or fall, causing serious injury to a child or adult, and serious damage to the product.

## 24. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

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# Supplied Accessories

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## ■ Make Sure the following accessories are provided with Product.

1. AC Cord



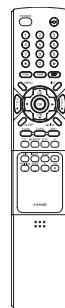
3. Batteries (type AAA)



4. Owner's manual



2. Remote controller



5. PC IN cable



6. PC Audio IN cable



# Controls

**1. ON/OFF** Switches TV set on or off.

**2. MENU**

Displays a menu.

**3. + CH** - (Program Up/Down)

Selects a program or a menu item.

**4. + VOL** - (Volume Up/Down)

Adjusts the volume./ Adjusts menu settings.

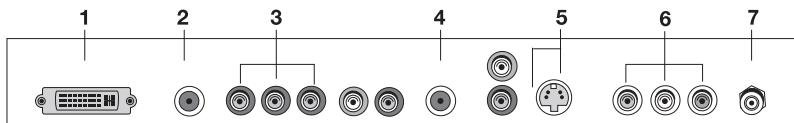
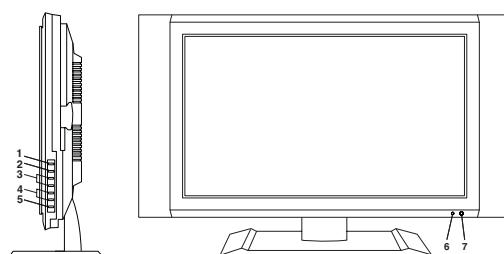
**5. TV/AV** Selects TV, COMPONENT, VIDEO, S-VIDEO, RADIO(Only when the set is Radio On.), PC or DTV mode. / Clears the menu from the screen.

**6. Power Indicator**

Illuminates in red when the TV is in standby mode./ Illuminates in green when the TV is switched on. Illuminates in amber when the power save mode (only PC mode).

**7. Remote control sensor**

Accepts the IR signal of remote controller.



**1. PC ANALOG IN(D-SUB)**

**2. PC AUDIO IN**

Connect the audio cable from the PC to the PC AUDIO IN of the set.

**3. COMPONENT**

**4. H/P (Headphone out)**

Connect a headphone to this socket.

**5. S-VIDEO IN**

Connect the output of the S -VIDEO on the VCR to the S-VIDEO input.

Connect the audio outputs of the S-VIDEO on the VCR to the Audio IN (L(MONO), R).

**6. A/V-IN**

Connect the Audio/Video outputs of external equipment to these inputs.

**7. ANT. (Antenna input)**

# Controls

All the functions can be controlled with the remote controller. Some functions can also be adjusted with the buttons on the side panel of the set.

## Remote controller

Before you use the remote controller, please install the batteries.

### 1. POWER

Turns the TV on from standby or off to standby mode.

### 2. MUTE

Turns the sound on and off.

### 3. NUMBER buttons

Selects program numbers.

### 4. TV/AV

Selects TV, COMPONENT, VIDEO, S-VIDEO, RADIO(Only when the set is Radio On,), PC or DTV mode.

Clears the menu from the screen.

### 5. MENU

Displays a main menu.

### 6. LIST

Displays the program list menu.

### 7. SAP

Adjusts the MTS-stereo, Mono, SAP.

### 8. SLEEP

Sets the sleep timer.

### 9. Q.VIEW

Returns to the previously viewed program.

### 10. CH ▲ ▼ (Channel Up/Down)

Selects next Channel or a menu item.

### 11. OK

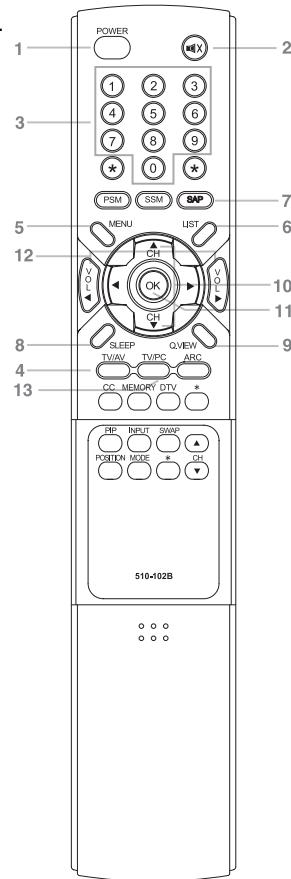
Accepts your selection or displays the current mode.

### 12. VOL ▲ ▼ (Volume Up/Down)

Adjusts the sound level. Adjusts menu settings.

### 13. TV/PC

Selects TV or PC mode directly.



# Controls

## 14. PSM (Picture Status Memory)

Recalls your preferred picture setting

## 15. SSM (Sound Status Memory)

Recalls your preferred sound setting

## 16. ARC

You can watch TV in various picture formats; **16:9, 14:9, 4:3, 16:9 Zoom, 14:9 Zoom, 4:3 Zoom.**

Repeatedly press the **ARC** button to select your desired picture format.

**Note.** 16:9 and 4:3 in PC mode are available.

## 17. CC

Set the caption funtion.

## 18. INPUT

Selects the AV source of sub picture in PIP mode.

## 19. PIP

Displays a PIP(Picture In Picture) screen.  
The PIP function is available in PC Analog or PC Digital mode.

## 20. POSITION

Selects a position of PIP screen.

## 21. SWAP

Switches a main picture for sub picture in PIP mode.  
The PIP screen will disappears after pressing the SWAP button.

## 22. MODE

Selects a PIP screen mode. – 16:1, 9:1 and 4:1 mode.

## 23. ▲ CH▼

Selects a program when RF signal is displayed in PIP mode.

## 24. MEMORY

Stores or removes the the current channel.

## 25. DTV

Selects DTV mode directly.

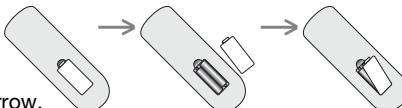
## 26. ▲ ▼

Adjusts menu settings.

## Battery installation

### ■ Inserting batteries

1. Remove the battery cover by pulling it upward in the direction shown by the arrow.
2. Insert the batteries with correct polarity ("+" to "+", and "-" to "-").
3. Replace the battery compartment cover.



\* Install two high-quality 1.5V "AAA" alkaline batteries. Don't mix old batteries with new batteries.

\* Remove batteries when you won't use the remote controller for a long time. Liquid leakage from old batteries may cause operation failure.

### ■ Notes for using remote controller

- Make sure there are no objects between the remote controller and its sensor.
- Don't place the remote control near a heater or in damp place. Strong impact to the remote control may cause operation failure.
- Signal from the remote control may be disturbed by sun light or other bright light. In this case, darken the room or move the TV.

# Basic Operation

## Turning the TV On and Off

Standby Setup: The AC power cord must be set up and connected to have the TV in standby mode ready to be turned on. Press the **ON/OFF** button on the side panel of the TV to go into standby mode.

1. If the TV is in standby mode, press the **POWER** button on the remote controller or the TV itself to turn the TV on.
2. Press the Power button again on the remote controller or the **ON/OFF** button the TV itself to turn the TV off.

**Note :** If the TV is on and the **POWER** button is pressed to turn the TV off, the TV goes into standby mode.

## Program selection

You can select a Program number with the **CH▲▼** button or **NUMBER** buttons.

## Volume adjustment

Press the **VOL◀▶** button to adjust the sound level.

## Quick view

Press the **Q.VIEW** button to view the last Program you were watching.

## Sound mute function

Press the **MUTE**(  ) button. The sound is switched off and the mute display  appears.

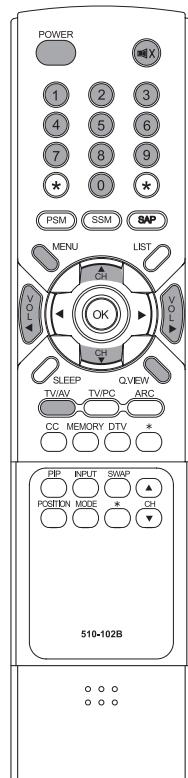
To cancel mute mode, press the **MUTE**(  ) button again, **VOL◀▶** or **SSM** button.

## On screen menu language selection

The menu can be displayed on the screen in desired language. First, select your language.

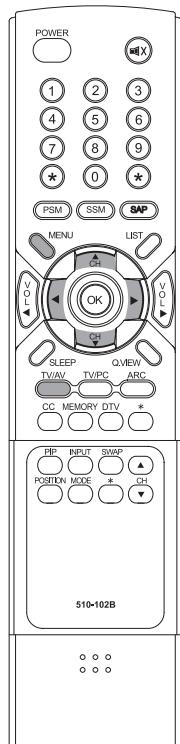
1. Press the  **MENU** button.
2. Select the **Setup** menu.
3. Select the **Language** menu.
4. Press the **CH▲▼** button to select your desired language.
5. Press the **TV/AV** button.

All the on screen displays will appear in the selected language.



# On Screen Menus and Displays

1. Press the **MENU** button to display main menu.
2. Press the **CH ▲▼** button to select menus-Picture, Sound, Special, Setup.
3. Adjust each menu with the **◀▶** button.
4. Press the **MENU** button to return to preceding menu.
5. Press the **TV/AV** button to finish adjusting menu.



# Setting up TV Program

Once you have preset the programs, you will be able to use the **CH▲▼** or **NUMBER** buttons to scan the programs you programmed.

Programs can be tuned using automatic or manual modes.

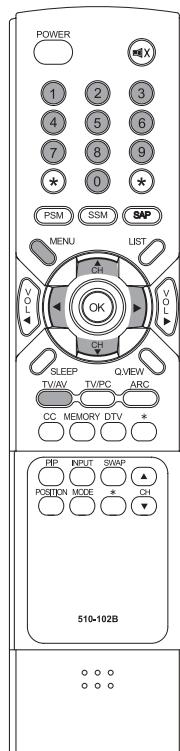
## Auto Program

All programs that can be received are stored by this method.

It is recommended that you use Auto program during installation of this set.



1. Press the **MENU** button.
2. Select the **Setup** menu.
3. Select the **Auto Program** menu.
4. Press the **CH▲▼** button to select **Table** mode.
5. Select a **Table** mode with the **◀▶** button.  
V/UHF ↔ Cable
6. Select the **Start** menu to start **Auto Program**.
7. Press the **MENU** button to stop Auto program.
8. Press the **TV/AV** button to return to normal TV viewing.



# Setting up TV Program

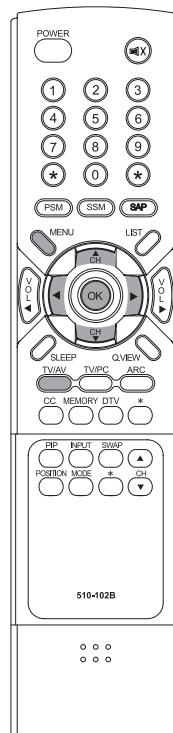
## Manual Program

Manual Program lets you manually tune and arrange the Channels in whatever order you desire. Also you can assign a Channel name with 5 characters to each channel number.

1. Press the **MENU** button.
2. Select the **Setup** menu.
3. Select **Manual Program** menu.
4. Press the **CH▲▼** button to select **Channel** .
5. Select the **Table** menu. Then select a tuner mode with the **◀▶** button.  
V/UHF ↔ Cable
6. Select the **Edit Name** with **CH▲▼** button.  
Then press the **◀▶** button.



7. Press the **CH▲▼** button repeatedly to edit program name. You can use the numeric 0 to 9, the alphabet A to z (capital and small letters.) a blank and -. With the **◀▶** button you can select in the opposite direction.
8. Press the **OK** button to store it.
9. Press the **MENU** button to return to prior menu.
10. Press the **TV/AV** button to return to normal TV viewing.



# Setting up TV Program

## Program List

You can check the Programs stored in the memory by displaying the Program list.

Also you can move some programs to other program numbers or insert a blank program data into the selected program number.

1. Press the **MENU** button.
2. Select the **Setup** menu.
3. Press the **CH▲▼** button select Program list.

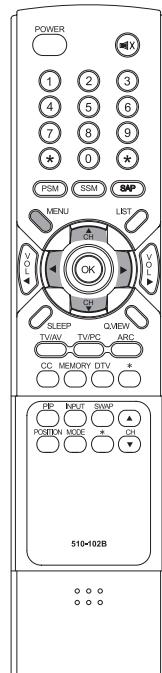


## Selecting a Channel in the Program list

Select a channel with the **CH▲▼** or **◀▶** button.  
The set switches to the chosen channel number.

## Paging through a Program list

When the set is TV mode, there are 7 program table pages in which contain 69 Programs and when the set is cable mode, there are 13 program table pages in Which contain 125 programs.  
Pressing the **CH▲▼** or **◀▶** button repeatedly turns the pages.



# Picture Control

You can adjust picture **Contrast**, **Brightness**, **Colour**, **Sharpness** and **Tint** to the levels you prefer.

## Manual Picture Control

1. Press the **MENU** button.
2. Select the **Picture** menu.
3. Press the **CH▲▼** button select a picture item.
4. Press the **◀▶** button to adjust the picture condition as you want.
5. Press the **TV/AV** button to store for the picture **User**.



Selected Item	Setting Change
Contrast	More darkness <b>◀ 0~100 ▶</b> More light
Brightness	Less bright <b>◀ 0~100 ▶</b> More bright
Colour	Lower color intensity <b>◀ 0~100 ▶</b> Higher color intensity
Sharpness	Soft picture <b>◀ 0~100 ▶</b> Sharp picture
Tint	More purple <b>◀ -50~50 ▶</b> More green

## Auto Picture Control

\*The Picture options - Dynamic, Standard, Mild and Game are programmed for good picture reproduction at the factory and cannot be changed.

## PSM (Picture Status Memory)

1. Press the **PSM** button.
2. Press the **PSM** button repeatedly to select [PSM].

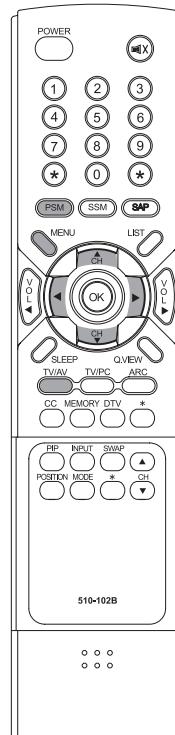
Each press of the button changes the screen display as below.

Dynamic → Standard → Mild → Game → User



- **Dynamic** : Vivid Picture Appearance
- **Standard** : Standard Picture Appearance
- **Mild** : Softer Picture Appearance
- **Game** : External Video Game Picture Setup
- **User** : Manual Picture Setup

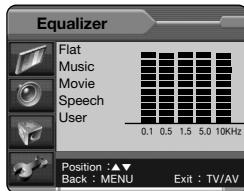
**Note.** In PC mode, **PSM** function isn't available.



# Sound Control

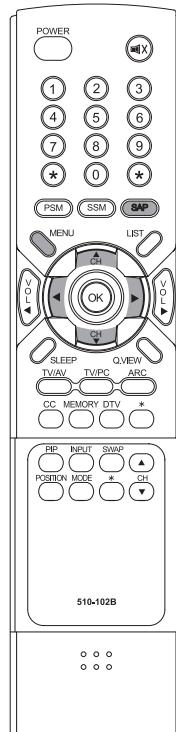
You can select your preferred sound setting; **Flat, Music, Movie or Speech**. You can also adjust the sound frequency of equalizer, balance. If you switch **AVL** to on, the set automatically keeps on an equal volume level even if you change programs.

1. Press the **MENU** button.
2. Select the **Sound** menu.
3. Press the **CH▲▼** button to select the desired sound item; **Equalizer, Balance, AVL, Surround** or **Sound Mode**.
4. Press the **◀▶** button to make desired adjustment.
5. Press the **◀▶** button in **Equalizer** to set the **Equalizer**.



6. Press the **CH▲▼** button to select your preferred setting ; **Flat, Music, Movie, Speech or User**.  
To set the Equalizer User.
  - a. Select **User** by pressing the **CH▲▼** button.
  - b. Select a sound band by pressing the **◀▶** button.
  - c. Make appropriate sound level with the **CH▲▼** button.
  - d. Press the **MENU** button to return to preceding menu.
7. Press the **CH▲▼** button to the **Balance** menu.
8. Select the **Balance** menu with the **◀▶** button and adjust the balance of speaker.
9. Select the **AVL**(Automatic Volume Leveler) menu **ON** or **OFF**.
10. Select the **Surround** menu **On** or **Off**.
11. Select the **Sound Mode** menu.  
Mode is displayed one by one as shown below.(You can select it with **SAP** button on the remote controller.)

**MONO → STEREO → SAP**



# Parental Control

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If used, this optional feature can “block” undesirable programming from appearing on the TV. Parental Control offers the user a wide variety of options and settings that restrict or “block” the programming that can appear on the TV. Parental control allows the user the capability of defining which program rating they consider acceptable, to the younger or more sensitive viewer. It can be preset and turned either on or off by the user who specifies the secret 4-number code, the password. The number of hours blocked are specified. General audience and children viewer blocks should both be programmed into the TV’s memory. Viewer ratings are specified for both TV and the motion picture industry; both rating systems should be used, for complete coverage. The ratings are based on the ages of children.

## Overview

To insure complete coverage for all TV programs, (movies and regular TV shows) choose a rating for MPAA, from the selections below. AND choose ratings from the TV Parental Guidelines Rating System on the next page, using the Age Block option for General Audiences, and for Children. In addition to those, you may wish to add additional restrictions from the Content Block menu. See the Parental Control menu, and submenus example on the next page.

## Things to Consider before Setting Up Parental Control

Determine which rating you consider acceptable to the viewer. (For example, if you choose TV-PG, all more restrictive ratings will be automatically blocked; the viewer will not be able to see: TV-PG, TV-14, or TV-MA rated programming.)

Do you want to block the auxiliary video source entirely? (Blocks the signal sent by the equipment, such as a VCR, connected to the TV Audio/Video input jacks)

Or leave unblocked, then choose allowable ratings.

Block program “Content” based on individual parameters such as: Strong Dialog, Bad Language, Sex Scenes, Violence Scenes, or Fantasy Violence Scenes; in the Content Blk option.

How many hours do you want Parental Control to be active? You can set the Hours option for up to 99 hours.

If you want to set the hours option all the time, select the always.

Select a secret password; in the Set Password option. Use the number keys on the remote. Don’t forget the password, it is the only way you can access the Parental Control menu and change rating selections, or turn Parental Control off.

Do you want Parental Control to be active all the time? If not, you can turn it on or off with the Lock On/Off option.

\* You can set different Parental Control viewing restrictions for general audiences and for children - - both can be active at the same time.

\* Simply specifying one content block such as Sex Scenes, will not automatically block another content in the programs from appearing.

\* Even if you choose to leave the Aux inputs unblocked, the ratings you specify will automatically restrict the programming that appears from the video sources.

\* You can not disable Parental Control by disconnecting the TV from power. Block hours will automatically reset to the original block time setting specified if power is disconnected.

# Parental Control

1. Press the **MENU** button.
2. Select the **Special** menu.
3. Press the **CH▲▼** button to select the Parental Control, then press the **◀▶** button.
4. The "Enter Password" screen will appear.  
Enter your 4-digit password.

**Note :** The default Input password for a new TV set is "0000".

5. After entering a valid Enter password, the "Parental Control" screen will appear.



TV Rating	
TV-Y	ALL FV V S L D
TV-Y7	U U
TV-G	U
TV-PG	U U U U U U
TV-14	U U U U U U
TV-MA	U U U U U U
Position : ▲▼	Adjust : ▶▶
Back : MENU	Exit : TV/AV

MPAA Rating	
G	U
PG	U
PG-13	U
R	U
NC-17	U
X	U
No Rating	U
Position : ▲▼	Adjust : ▶▶
Back : MENU	Exit : TV/AV

Change Password	
Enter Password	----
Confirm Password	----
Back : MENU	Exit : TV/AV

6. Use the **◀▶** and **CH▲▼** button to select and adjust or set the rating for the TV or MPAA.
7. Press the **◀▶** buttons to select the TV Rating.  
Then press the **CH▲▼** buttons to move to one of the six age-based categories in column and press the **◀▶** buttons to move to one of the levels in each row.
8. At this point, one of the TV-Ratings is selected.  
Press the **CH▲▼** buttons:  
Depending on your existing setup, a letter 'U' or 'B' will be highlighted.  
(U=Unblocked, B=Blocked)
9. While the 'U' or 'B' is highlighted, press the **◀▶** buttons to block or unblock the category.  
To select a different TV-Rating, press the **CH▲▼** buttons with cursor in the first column.
10. Press the **◀▶** buttons to select the MPAA Rating. Then press the **CH▲▼** buttons to select particular MPAA Rating.  
Press the **◀▶** buttons to change the 'U' or 'B'.
11. If you want to change password, select the Change Password menu.
12. Then enter your new password.  
Re-enter the same 4 digits. Press the OK button to memorize your new password.

# INFORMATION

## MOTION PICTURE ASSOCIATION OF USA (MPAA) RATING SYSTEM

Grade		Meaning
G	General Audiences	Content not offensive to most viewers
PG	Parental Guidance Suggested	Content is such that parents may not want their children to view the program.
PG-13	Parental Guidance Suggested	Program is inappropriate for preteens, with a greater degree of offensive material Suggested than a PG rated program
R	Restricted viewing	Not for children under age 17. Strong elements of sex and/or violence.
NC-17	Restricted Viewing	Not for children under age 17 under any circumstances. Strong sexual content.
X	Hard Core Films	Same as NC-17 rating.
No Rating	No Rating	MPAA Not Rated

## TV PARENTAL GUIDELINE RATING SYSTEM

Grade		Meaning
TV-Y	Children	Considered suitable for all children under 7 years old.
TV-Y7	Children 7 and over	Considered suitable for children over 7, may contain Fantasy Violence Scenes.
TV-G	General Audience	Considered suitable for all audiences; children may watch unattended.
TV-PG	Parental Guidance	Suggested Unsuitable for younger children, may contain: Suggestive Dialog, Bad Language, Sex, and Violence Scenes
TV-14	Parents Strongly Cautioned	Unsuitable for children under 14, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.
TV-MA	Mature Audience Only	Adults only, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.

**Note :** The V-Chip will automatically block certain categories that are 'more restrictive'.

If you block TV-Y category, then TV-Y7 will be automatically blocked.

Similarly, if you block TV-G category, then all the categories in the 'young adult' will be blocked(TV-G, TV-PG, TV-14 and TV-MA).

# INFORMATION

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## The sub-rating of TV rating

Grade	Meaning
FV	Fantasy Violence
V	Violence
S	Sexual Situation
L	Adult Language
D	Sexual Suggestive Dialog

**Note** ; The TV-Y7, TV-PG, TV-14 and TV-MA have additional options. See the next step to change.

To set the FV, D, L, S and V sub-ratings, first select one of these TV-Ratings: TV-Y7, TV-PG, TV-14 and TV-MA

Next, while the TV-Ratings is highlighted, repeatedly press the **◀▶** buttons.

This will cycle through the available sub-ratings(FV, D, L, S or V).

A highlighted letter('U' or 'B') will be displayed on each sub-ratings.

While the 'U' or 'B' is highlighted. Press the **CH ▲▼** buttons to change the sub-ratings.

# Captions

The captions is a process which converts the audio portion of a television program into written words which then appear on the television screen in a form similar to subtitles. Closed captions allow viewers to read the dialogue and narration of television programs.



Captions are the subtitles of the dialogue and narration of television programs. For prerecorded programs, program dialogue can be arranged into captions in advance. It's possible to caption a live program by using a process called real-time captioning, which creates captions instantly. Professional reporters using a machine shorthand system and computer for translation into English normally do real-time captioning.

Captioning is an effective system for the hearing-impaired, and it can also aid in teaching language skills.

The picture at left shows a typical caption.

Poor reception conditions are encountered:

## • IGNITION:

Picture may flutter, drift, suffer from black spots or horizontal streaking. Usually caused by interference from automobile ignition systems, neon lamps, electrical drills, and other electrical appliances.

## • GHOSTS:

Ghosts are caused when the TV signal splits and follows two paths. One is the direct path and the other is reflected off tall buildings, hills or other objects. Changing the direction or position of the antenna may improve reception.

## • SNOW:

If your receiver is located at the weak, fringe area of a TV signal, your picture may be marred by small dots. It may be necessary to install a special antenna to improve the picture.

An old, bad, or illegally recorded tape is played.

Strong, random signals from a car or airplane interference with the TV signal.

The signal from the antenna is weak.

The program wasn't captioned when it was produced, transmitted or taped.

1. Press the **MENU** button.
2. Select the the **Special** menu
3. Press the **CH ▲▼** buttons to select Caption menu.
4. Press the **◀▶**button, select the Caption mode.
5. Each time you press the **◀▶** buttons, the caption mode is displayed one by one as shown below.

→ OFF ↔ CC1 ↔ CC2 ↔ CC3 ↔ CC4 →  
↑ ↓  
← TEXT4 ↔ TEXT3 ↔ TEXT2 ↔ TEXT1 ←



6. Press the **TV/AV** button

\* This TV is programd to remember which mode it was last set to, even if you switch the POWER off.

# Other functions

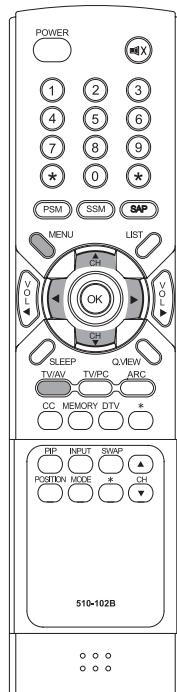
## Clock

Setting the clock is necessary in order to use the various timer features of the TV. You can set automatic TV **On** or **Off** time.

1. Press the **MENU** button.
2. Press the **CH▲▼** button to select the **Special** menu.  
Then press the **◀▶** button.
3. Press the **◀▶** button to select **Clock** menu.



4. Set the present time with the numeric buttons and the **CH▲▼** button on remote controller. Store a time value between 00:00 ... 23:59(hours:minutes)
5. Press the **CH▲▼** button to select **Off Time**.
6. Set the TV off time with the numeric buttons and the **CH▲▼** button. Then press the **◀▶** button. Select **On** or **Off** with **CH▲▼** button.(When the setting is off, the TV set will be switched off to stand by mode.)
7. Press the **CH▲▼** button to select **On Time**.
8. Set the TV on time with the numeric buttons and the **CH▲▼** button. Then press the **◀▶** button. Select **On** or **Off** with **CH▲▼** button. When the setting is On, the set will be switched On automatically to the last selected program.
9. Press the **CH▲▼** button to select **On Program**.  
You can select the first displayed program with the **◀▶** button when the set is switched on automatically.
10. Press the **TV/AV** button to return to normal TV viewing.



**Note.** The present time must be set for using the **Clock** function.

## Blue Back

If no signal is being received or the signal is very weak, a blue screen automatically replaces the noisy picture background.

If you wish to continue viewing the poor picture, you must select the **Blue Back On**. (Pressing the **◀▶** button will alternate between "On" and "Off".)

# Other functions

## Auto Sleep

If you select **Auto Sleep On** the set will automatically switch itself to standby mode approximately ten minutes after a TV Channel stops broadcasting.

1. Press the  **MENU** button.
2. Select the **Special** menu.
3. Press the **CH▲▼** button to select **Auto Sleep**.
4. Press the **◀▶** button to select **On**.

5. Press the **TV/AV** button to return to normal TV viewing.

**Note.** If the set connects with the external input source in the middle of a lapse of 10 minutes after a TV channel stops broadcasting, Auto Sleep function is automatically canceled.

## Childlock

Childlock menu is necessary in order to disable the buttons on the side panel of the set. Especially it is useful to prevent unauthorized viewing.

1. Press the **CH▲▼** button to select **Childlock**.
2. Press the **◀▶** button repeatedly to select **On** or **Off**.

\* When the setting is **Childlock On**, the buttons on the side panel of the set is disabled.

\* When the setting is **Childlock Off**, the buttons on the side panel of the set is enabled.

## Radio

You can listen to radio with the set.

1. Press the  **MENU** button.
2. Press the **CH▲▼** button to select the **Special** menu.  
Then press the **◀▶** button.
3. Press the **CH▲▼** button to select Radio.
4. Press the **◀▶** button to select Radio **On** or **Off**.

**Note.** When the setting is **On**, you can adjust radio function in radio mode. (see page 20)

## ARC (Aspect Ratio Control)

You can watch TV in various picture formats: **16:9, 14:9, 4:3, 16:9 Zoom, 14:9 Zoom, 4:3 Zoom**. Repeatedly press the **ARC** button to select your desired picture format.

**16:9** You can enjoy the cinema or general TV program through the 16:9 mode.  
The screen 16:9 is viewed just like that but the screen 4:3 is magnified to the left and right so that the screen 16:9 is full.

**14:9** You can enjoy the picture format of 14:9 or general TV program through the 14:9 mode.  
The screen 14:9 is viewed just like that the screen 4:3 is magnified to the upper/lower and left/right.

**4:3** This picture format is 4 to 3 of general TV.

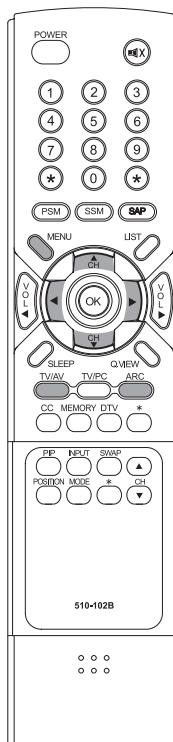
**16:9 Zoom** Magnifies the size of the picture on screen 16:9.

**14:9 Zoom** Magnifies the size of the picture on screen 14:9.

**4:3 Zoom** Magnifies the size of the picture on screen 4:3.

**Note.** In **Zoom** mode, you can adjust the position of the picture with **CH▲▼** button.

(It's possible when the **ARC** information is displayed on screen.)



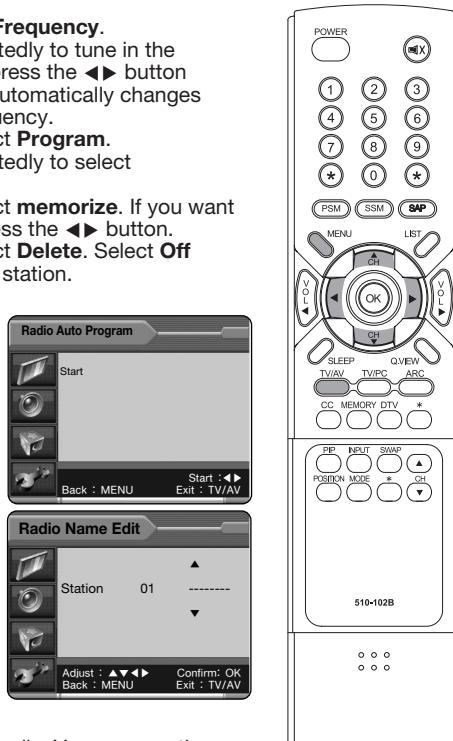
# Radio Control

This function is possible only when the set is in Radio mode.(Radio mode is displayed when the Setting for special menu is radio On.)

1. Use **TV/AV** button on remote controller to select **Radio mode**.
2. Press the **MENU** button to set **Radio Setup** menu.
3. Press the **◀▶** button repeatedly to select **Mode Auto or Manual**.
  - \* When the Radio Setup Mode is **Auto**, only the programs stored in memory are selected.
  - \* When the Radio Setup Mode is **Manual**, all frequencies are selected.
4. Press the **CH▲▼** button select **Frequency**. Then press the **◀▶** button repeatedly to tune in the desired station manually. If you press the **◀▶** button continually above 2 seconds, It automatically changes present frequency into next frequency.
5. Press the **CH▲▼** button to select **Program**. Then press the **◀▶** button repeatedly to select program.
6. Press the **CH▲▼** button to select **memorize**. If you want to memorize this radio setup, press the **◀▶** button.
7. Press the **CH▲▼** button to select **Delete**. Select **Off** with the **◀▶** button to delete the station.
8. Press the **CH▲▼** button to select **Auto Program**.
9. Press the **◀▶** button repeatedly to automatically scans and tunes to the next available station.
10. Press the **PR▲▼** button to select **Off Time**. Then press the **◀▶** button repeatedly to select Off, 5, 10, 30(minutes). The on-screen displays disappear after time selected.(when you select Off, the on-screen displays will not disappear.) The displays identifies the status of radio settings.
11. Press the **CH▲▼** button to select **Edit Name**. Then press the **◀▶** button to edit radio name.
12. You can assign a radio name with 8 characters. Press the **CH▲▼** button repeatedly. You can use the numeric 0 to 9, the alphabet A to z(capital and small letters.) and a blank. With the **◀▶** button, you can select in the opposite direction.
13. Press the **MENU** button to return to prior menu.
14. Press the **TV/AV** button to exit. Then the radio setting condition is displayed.

**Note.** If you want to listen to the radio, the ANT.jack must be connected to the antenna input of the set.

And Radio function is available when the setting for Special menu is Radio On.

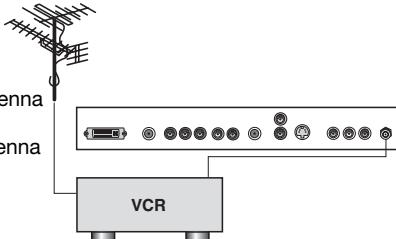


# External Equipment Connection

You can connect additional equipment, such as VCRs, camcorders etc. to your set. Examples are shown below.

## Antenna connection

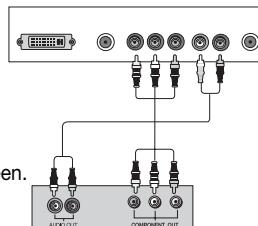
1. Connect RF out on the VCR to the Antenna input on the rear of the TV.
2. Connect the antenna cable to the antenna in jack on the VCR.
3. Press the **TV/AV** button to select Antenna Input source.
4. Press the **PLAY** button on the VCR.



## COMPONENT INPUT

1. Connect the COMPONENT video output sockets (Y Cb Cr) of the COMPONENT to the **COMPONENT INPUT** sockets of the set.
2. Connect the audio cable from the **COMPONENT** to the **COMPONENT INPUT** sockets of the set.
3. Press the **TV/AV** button to select **COMPONENT** the screen.
4. Press the **PLAY** button on the DVD.

The COMPONENT playback picture appears on the screen.

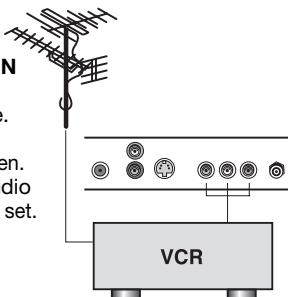


## A/V Input

1. Connect the A/V out jacks on a VCR to **A/V-IN** jacks on the TV.
2. Use the **TV/AV** button to select **VIDEO** mode.
3. Press the **PLAY** button on the VCR.

The VCR playback picture appears on the TV screen.

**Note :** If you have a mono VCR, connect the audio cable from the VCR to the **L(MONO)** socket of the set.



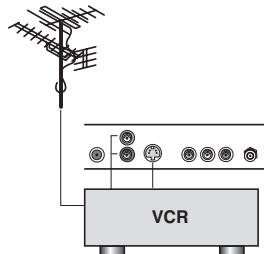
# External Equipment Connection

## S-VIDEO INPUT

If using an **S-VIDEO** source, the picture quality will be improved over a video source.

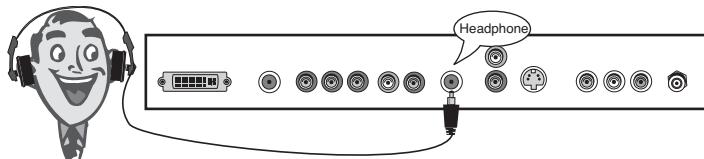
1. Connect the S-VIDEO output of a VCR to the **S-VIDEO** input on the TV.
2. Connect the audio cables from the S-VIDEO on the VCR to the **L (MONO)**, **R** inputs on the TV.
3. Select **S-VIDEO** mode by pressing the **TV/AV** button repeatedly.
4. Press the **PLAY** button on the VCR.

The VCR playback picture appears on the screen.



## Headphone jack

Insert the headphone plug to the headphone jack on the TV. You can listen to the sound through the headphone; To adjust the headphone volume, press the VOL $\blacktriangleleft\blacktriangleright$  button. If you press the **MUTE**( $\text{M}\times$ )button, the sound from the headphone is turned off.



# Connecting the PC as a monitor

This function is possible only when the set is in PC mode.  
Use the **TV/AV** button on remote controller.

## Picture adjustment

You can adjust picture **Contrast, Brightness, Temperature, Clock, Phase** and **ARC** as you prefer.

1. Press the **TV/AV** button to select the PC mode.
2. Press the **MENU** button.
3. Select the **Picture**.
4. Press the **CH▲▼** button to select the desired picture item.
5. Press the **◀▶** button to make appropriate adjustments.
6. Press the **TV/AV** button to exit menu.

### Contrast

This function is to adjust **picture** to light/dark.

### Brightness

This function is to adjust **brightness** of picture.

### Temperature

Temperature is a measure of the warmth of the image color.

### Clock

This function is to minimize any vertical bars or stripes visible on the screen background. And the horizontal screen size will also change.

**Note :** This mediation range is different according to the supported resolution.

### Phase

This function allows you to remove any horizontal noise and clear or sharpen the image of characters.

### ARC (Aspect Ratio Control)

Selects a screen mode.-4:3 or 16:9

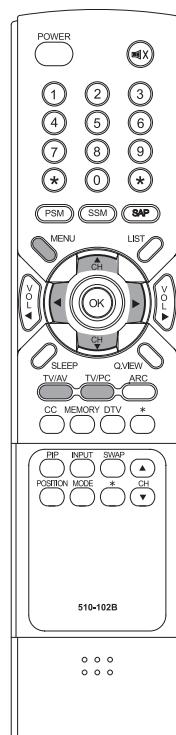
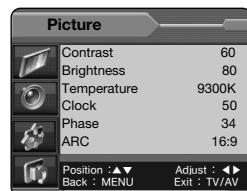
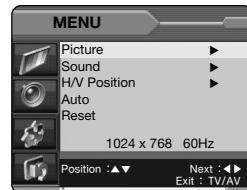
- \* 4:3 mode : Sets the picture to 4:3 normal mode.
- \* 16:9 mode : Sets the picture to 16:9 wide mode.



4 : 3



16 : 9



# Connecting the PC as a monitor

## Sound adjustment

1. Press the **MENU** button.
2. Select the **Sound** menu.
3. Press the **CH▲▼** button to select the desired sound item; **Equalizer**, **Balance**, **AVL**, **Surround** or **Sound Mode**.
4. Press the **◀▶** button to make desired adjustment.
5. Press the **◀▶** button in **Equalizer** to set the **Equalizer**.
6. Press the **CH▲▼** button to select your preferred setting ; **Flat**, **Music**, **Movie**, **Speech** or **User**.  
To set the Equalizer User.
  - a. Select **User** by pressing the **CH▲▼** button.
  - b. Select a sound band by pressing the **◀▶** button.
  - c. Make appropriate sound level with the **CH▲▼** button.
  - d. Press the **MENU** button to return to preceding menu.
7. Press the **CH▲▼** button to the **Balance** menu.
8. Select the Balance menu with the **◀▶** button and adjust the balance of speaker.
9. Select the **AVL**(Automatic Volume Leveler) menu **ON** or **OFF**.
10. Select the **Surround** menu **ON** or **OFF**.
11. Select the **Sound Mode** with **CH▲▼** button.
12. Press the **◀▶** button to select sound mode – **L+R**, **L+L**, **R+R**.

**L+R** : Audio signal from audio L input is sent to left loudspeaker and audio signal from audio R input is sent to right loudspeaker.

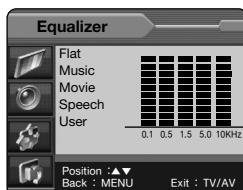
**L+L** : Audio signal from audio L input is sent to left and right loudspeakers.

**R+R** : Audio signal from audio R input is sent to left and right loudspeakers.

13. Select the **Input** with **CH▲▼** button.
14. Press the **◀▶** button to select Input – **PC**, **Radio**.

**Note:**

- a. When selecting radio mode, sound mode alternates between **MONO** and **STEREO** according to the received signal.
- b. In **PC** mode, radio mode supports only **Auto**.
- c. In **PC** mode, radio control function is on an equality with Radio function in the front.(See page 20)

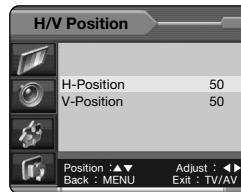


# Connecting the PC as a monitor

## Position Adjustment

This function is to adjust picture to left/right and up/down as you prefer.

1. Press the **MENU** button.
2. Select the **H/V Position** menu.
3. Press the **CH▲▼** button to select the desired position item.
4. Press the **◀▶** button to adjust horizontal position and vertical position.
5. Press the **TV/AV** button to exit menu.



## Auto

This function is for the automatic adjustment of the screen position, clock and clock phase. The displayed image will disappear for a few seconds while the Auto-configuration is in process.

**Note:** Some signal from some graphics boards may not function properly.  
If the results are unsatisfactory, adjust your monitor's position, clock and clock phase manually.

## Reset

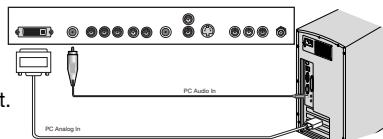
This function allows you to return to the good picture reproduction programd at the factory and cannot be changed.

# Connecting the PC as a monitor

## PC INPUT

1. Connect the PC IN cable (D-sub jack) from the monitor output socket of the PC to the PC ANALOG input socket of the set.
2. Connect the PC Audio IN cable from the PC to the **PC AUDIO IN** of the set.
3. Press the **TV/AV** or **TV/PC** button to select **PC** mode.
4. Switch on the PC, and the PC screen appears on the set.

The set can be operated as the PC monitor.



### Resolution

Mode	Resolution	Horizontal frequency(KHz)	Vertical frequency(Hz)
VGA	640 x 480	31.5 KHz	60 Hz
	640 x 480	37.9 KHz	72 Hz
	640 x 480	37.5 KHz	75 Hz
	720 x 400	31.4 KHz	70 Hz
SVGA	800 x 600	35.1 KHz	56 Hz
	800 x 600	37.9 KHz	60 Hz
	800 x 600	48.1 KHz	72 Hz
	800 x 600	46.9 KHz	75 Hz
XGA	1024 x 768	48.4 KHz	60 Hz
	1024 x 768	56.5 KHz	70 Hz
	1024 x 768	60.0 KHz	75 Hz
WXGA	1280 x 768	47.4 KHz	60Hz RB
	1280 x 768	47.8 KHz	60 Hz
DTV	720 x 480p	31.5 KHz	60 Hz
	720 x 576p	31.2 KHz	50 Hz
	1280 x 720p	45.0 KHz	60 Hz
	1280 x 720p	37.5 KHz	50 Hz
	1920 x 1080i	33.7 KHz	60 Hz
	1920 x 1080i	28.1 KHz	50 Hz

### Note:

- a. If the set is cold, there may be a small "flicker" when the set is switched on. This is normal, there is nothing wrong with the set.
- b. Some dot defects may appear on the screen, like Red, Green or Blue spots. However, this will have no impact or effect on the monitor performance.
- c. The resolution which is not supported will appear at the resolution which gets near to the resolution which is supported  
\* The standard of the resolution which gets near : H/V sync.

# Product Specification

Model	LT-19LMF	
Main body (With stand)	Horizontal size 597 mm	Thickness 95(180) mm
	Height 328(375) mm	Weight 12.81(14.56) kg
Television system	NTSC	
Television program	VHF: 2~13 UHF :14~69 Cable : 01~125	
LCD Panel	19" WIDE TFT LCD panel	
Resolution	WXGA(1280 X 768)	
Power consumption	100W	
External antenna impedance	75Ω	
Audio output	3W + 3W	
External input ports	<ul style="list-style-type: none"><li>• HEADPHONE OUT</li><li>• PC AUDIO IN</li><li>• PC IN</li><li>• COMPONENT IN</li><li>• AV IN</li><li>• S-VIDEO</li><li>• ANTENNA</li></ul>	
AC Input	100-240Va.c. 50/60Hz, 1.8~1.0A	

# Troubleshooting

Problem	Check item
No picture on screen and no sound from speakers	<ul style="list-style-type: none"><li>Insert the AC power cord plug securely in AC power outlet.</li><li>Make sure the set is not in the standby mode (The POWER/Standby indicator is red.)</li></ul>
No picture/No picture from AV terminal	<ul style="list-style-type: none"><li>Check the brightness setting of the display.</li><li>Lamp may have malfunction.</li><li>Make sure a cable with no VIDEO input signal is connected to the S-VIDEO INPUT terminal.</li></ul>
Picture is displayed, but no sound from the speakers.	<ul style="list-style-type: none"><li>Check the sound setting.</li><li>Make sure the sound is not muted.</li><li>Make sure a pair of headphones is not connected.</li><li>Make sure the connectors of the optional speaker system are securely inserted.</li></ul>
Picture is too light	<ul style="list-style-type: none"><li>Make sure COLOR and CONTRAST settings.</li></ul>
Picture is too dark.	<ul style="list-style-type: none"><li>Make sure BRIGHTNESS setting is not set too low.</li><li>Lamp may have malfunction.</li></ul>
Remote control does not work.	<ul style="list-style-type: none"><li>Change the batteries.</li><li>Make sure the infrared transmitter window is not receiving strong light such as light from fluorescent lamps.</li></ul>
The picture is not sharp. The picture moves.	<ul style="list-style-type: none"><li>The reception may be weak.</li><li>The state of the broadcast may also be bad.</li><li>Make sure the antenna is facing the right direction.</li><li>Make sure the outside antenna is not disconnected.</li></ul>
The picture is doubled or tripled.	<ul style="list-style-type: none"><li>Make sure the antenna is facing the right direction.</li><li>There may be reflected electric waves from mountains or buildings.</li></ul>
The picture is spotted.	<ul style="list-style-type: none"><li>There may be interference from automobiles, trains, high voltage lines, neon lights, etc.</li><li>There may be interference between the antenna cable and power cable. Try positioning them further apart.</li></ul>
There are stripes on the screen or colors fade.	<ul style="list-style-type: none"><li>Is the unit receiving interference from other devices? Transmission antennas of radio broadcasting stations and transmission antennas of amateur radios and cellular phones may also cause interference.</li><li>Use the unit as far apart as possible from devices that may cause possible interference.</li></ul>