

Owner's Manual

20.1" LCD Color TV / Monitor



Model: **LT-20AMP**



Warnings



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.

WARNING:
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.



PORTABLE CART WARNING

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

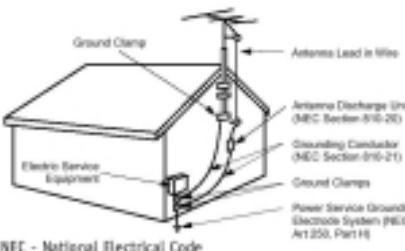
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

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



NEC - National Electrical Code

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

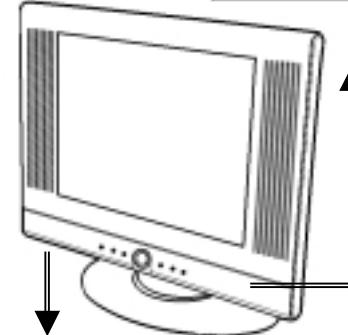
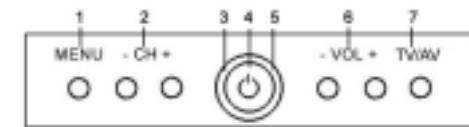
*Make Sure the following accessories are provided with Product.

1. AC/DC adaptor
2. AC cord
3. Remote controller
4. Batteries (2ea, AAA type)
5. Ant. adaptor
6. Owner's manual
7. PC IN cable

Controls

<<CONTROLLER OF PANEL>>

1. **MENU** Displays a menu.
2. – **CH +** (Channel Up/Down)
Selects a channel or a menu item.
3. **POWER STANDBY INDICATOR**
Illuminates brightly when the TV is in standby mode. / Dims when the TV is switched on.
4. **POWER** Switches TV set on or off.
5. **Remote control sensor** Accepts the IR signal of remote controller.
6. – **VOL+** (Volume Up/Down)
Adjusts the volume./ Adjusts menu settings.
7. **TV/AV**
Selects TV, COMPONENT, VIDEO, S-VIDEO or PC mode. / Clears the menu from the screen.



1. **Ant. (Antenna input)**
2. **PC/DTV INPUT**
3. **COMPONENT INPUT(Y CB CR L R)**
4. **HEADPHONE out**
Connect a headphone to this socket.
5. **S-VIDEO Input**

Connect the output of an S -VIDEO VCR to the S-VIDEO input.
Connect the audio outputs of an S-VIDEO VCR to the AV-IN audio inputs.

6. **A/V Inputs**
Connect the Audio/Video outputs of external equipment to these inputs.

7. **A/V Outputs**
Connect the Audio/Video Inputs of external equipment to these outputs.
8. **DC15V adaptor input**

Controls

All the TV functions can be controlled with the remote controller. Some functions can also be adjusted with the buttons on the controls on the TV front panel.

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 channel numbers.

4. PSM (Picture Status Memory)

Recalls your preferred picture settings.

5. SSM (Sound Status Memory)

Recalls your preferred sound settings.

6. TV/AV

Selects TV, COMPONENT, VIDEO, S-VIDEO or PC mode.

Clears the menu from the screen.

7. MENU

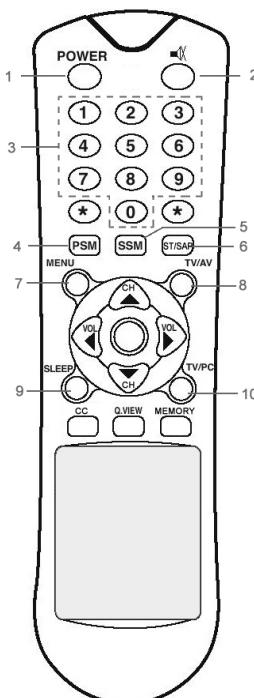
Displays a main menu.

8. ST/SAP

Selects the MTS-Stereo, Mono and SAP

9. Q.VIEW

Returns to the previously viewed channel.



Controls

10. CH▲▼ (Channel Up/Down)

Selects next channel or 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. SLEEP

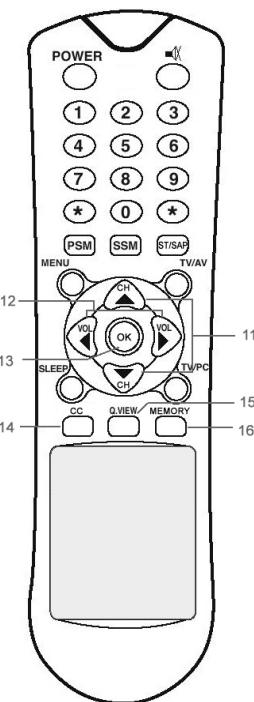
Sets the sleep timer.

14. CC

Sets the caption function

15. MEOMORY

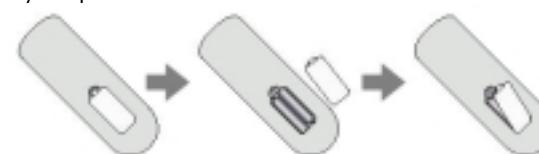
Stores or removes the current channel.



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 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 control 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 sunlight 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-DC converter and the AC power cord must be set up and connected to have the TV in standby mode ready to be turned on. Press the power button on the front 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 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.

Channel selection

You can select a Channel number with the CH \blacktriangle \triangledown or NUMBER buttons

Volume adjustment

Press the VOL \blacktriangleleft \triangleright button to adjust the sound level.

Quick view

Press the Q.VIEW button to view the last channel 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 \blacktriangleleft \triangleright or SSM button.

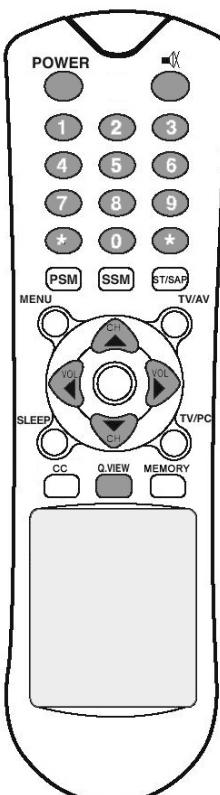
On screen menu language selection

The menu can be displayed on the screen in desired language.

First select your language.

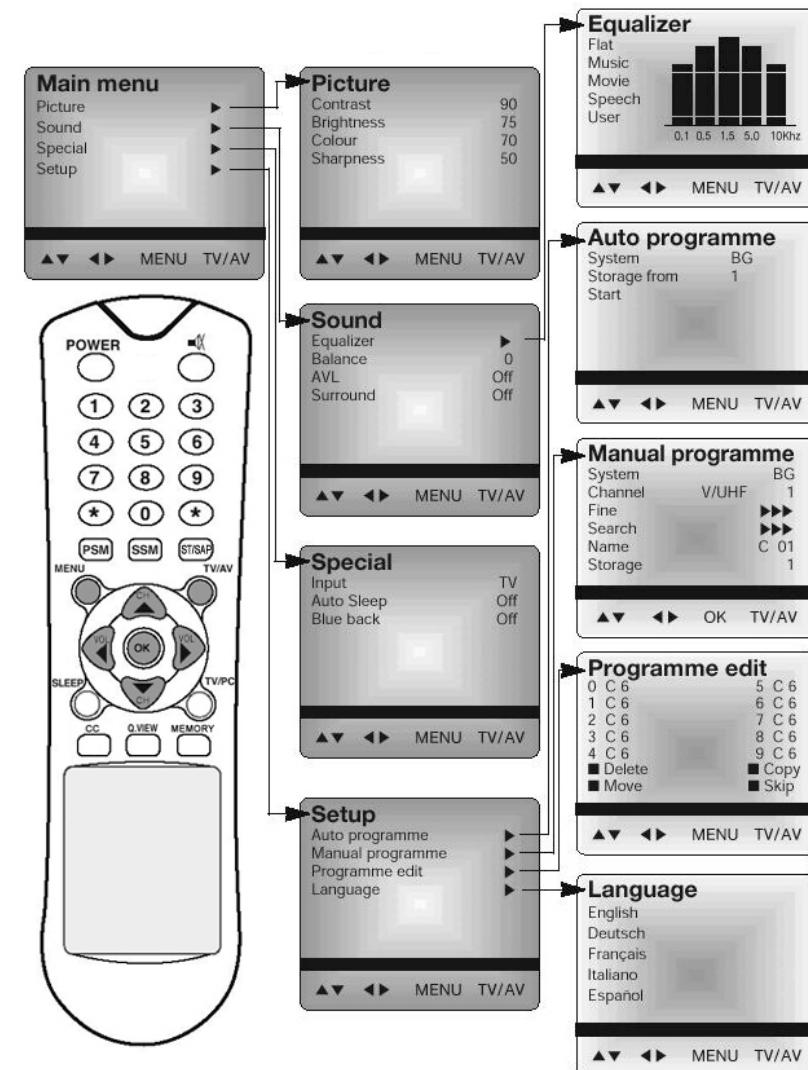
1. Press the MENU button.
2. Select the Setup menu.
3. Select the Language.
4. Press the CH \blacktriangle \triangledown button to select your desired language.
5. Press the TV/AV button.

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



On Screen menu and Display

1. Press the MENU button to display main menu.
2. Press the CH \blacktriangle \triangledown button to select menus-Picture, Sound, Special, Setup
3. Adjust each menu with the VOL \blacktriangleleft \triangleright button.
4. Press the MENU button to return to preceding menu.
5. Press the TV/AV button to finish adjusting menu.

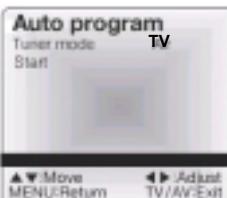


Setting up TV Channel

* This function can be operated only when the set can receive input signal from broadcasting stations and the antenna cable is connected.

* Auto program memorizes all the channels from terrestrial TV signals or CATV.

Up to 129 TV Channels can be stored in this set by channel numbers. Once you have preset the Channels, you will be able to use the **CH▲▼** or **NUMBER** buttons to scan the Channels you Programmed. Channels can be tuned using automatic or manual modes.



Auto Program

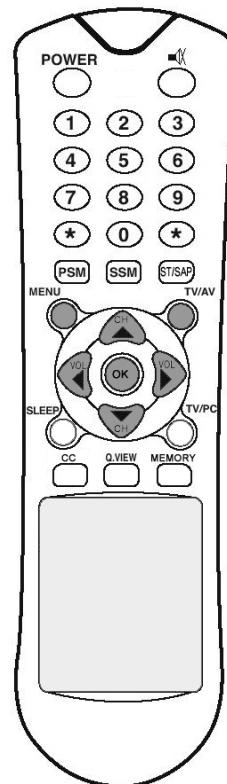
All Channels that can be received are stored by this method. It is recommended that you use Auto Program to find available channels.

1. Press the **MENU** button.
2. Select the **Setup** menu.
3. Select **Auto Program**.
4. Press the **CH▲▼** button to select **Tuner Mode**.
5. Select a TV system with the **VOL◀▶** button;
 TV ↔ CATV
6. Select the Start menu with the **CH▲▼** button.
7. Start Auto Program by pressing the **VOL◀▶** button.
8. Press the **MENU** button to finish auto Program.
9. Press the **TV/AV** button to return to normal TV viewing.

* Press the **CH▲▼** button to check the memorized channels after auto programming is finished.

* If you press the **MENU** button in auto programming, the function will stop and only channels programming up to that time will remain.

* Auto program can memorize only the channels, which are being received at that time.



Setting up TV Channel

Manual Program

Fine -Tuning Channel Reception

Fine tuning lets you adjust the signal reception for the best picture.

Storage (Channel Add-Delete)

Storage lets you retain the channel or delete it from the channels in memory.

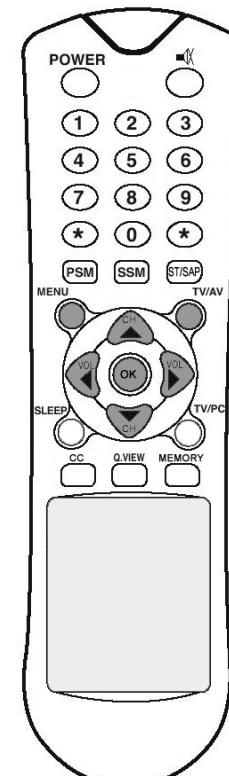
1. Press the **MENU** button.
2. Select the **Setup** menu.
3. Select **Manual Program** menu.
4. Select the Fine and adjust the received signal with the **VOL◀▶** button.
(VOL◀)◀◀◀ ↔ ▶▶▶ (VOL▶)
5. Select Storage "On" or "Off" with the **VOL◀▶** button .

Each time you press the **VOL◀▶** button, you can select as below alternatively.

On: Stores this channel.

Off: Deletes this channel.

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



Parental Control

If used, this optional feature can "block" undesirable programming from appearing on the TV.
Note: Parental Control is not available in PC Mode. To block Computer inputs, use the block AUX SOURCES option in the Parental Control menu in TV Mode; computer inputs will not be available.

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 Movie rating 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; in the Aux. Block option.) 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.

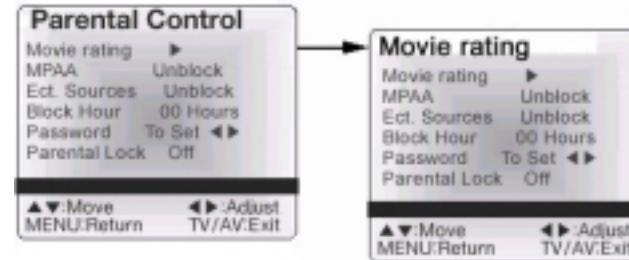
Select a secret password; in the Set Password option. Use the number keys on the remote. Don't forget the password, it is the only way you can access the Parental Control menu and change rating selections, or turn Parental Control off.

Do you want Parental Control to be active all the time? If not, you can turn it on or off with the Parental Lock 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 Movie rating 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 cannot 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 **Setup** menu.
3. Select the **Parental Control**.
4. Press the **CH ▲▼** buttons to select.
5. Adjust each item with **VOL ▶◀** button.



Parental Control

Selected Item	Setting Change
MPAA	Unblock↔G and Above↔ PG and Above↔ PG-13 and Above↔ R and Above↔NC-17 and Above↔X
Ect. Sources	Unblock ↔ Block
Block Hours	00~99 hours
Parental Lock	On↔Off
Movie rating	
General	Unblock↔ TV-G and Above↔TV-PG and Above↔TV-14 and Above↔TV-MA
Children	Unblock↔ TV-Y and Above↔ TV-7
Dialog	Unblock↔TV-PG and Above↔TV-14
Language	Unblock↔TV-PG and Above↔TV-14 and Above↔ TV-MA
Sex Scenes	Unblock↔TV-PG and Above↔TV-14 and Above↔ TV-MA
Violence	Unblock↔TV-PG and Above↔TV-14 and Above↔ TV-MA
F- Violence	Unblock↔TV-Y7

- As shown above, with the Parental Control menu on-screen, use the UP arrow to highlight an option like Movie rating, then press the Right arrow.
- Use the Up/Left/Right arrows to select and adjust or set the rating for an option. For Sex Scenes for example, use the "From TV-PG" setting. (See the Mini Glossary, Ratings Charts on this and the previous page for rating definitions.)
- After you have selected and adjusted the parental control menu options to your preferences:
 - Set the hours you want Parental Control active.
 - Set a 4-number password.
 - Set the Parental Lock option to either on or off.

Parental Control

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.

2/3 TV PARENTAL GUIDELINE RATING SYSTEM

Grade	Meaning
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.

CHILDREN'S CLASSIFICATIONS

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.

Closed caption function

Closed captioning 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.

Using Closed Captions



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.

If captions are not displayed properly, following are some possible causes:

- Captions may not be available on program.

Poor reception conditions may exist:

- **IGNITION:**

Picture may flutter, drift, and 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.

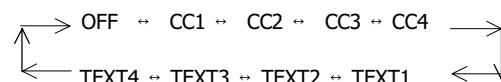
An old, bad, or illegally recorded tape is played.

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

The signal from the antenna is weak.

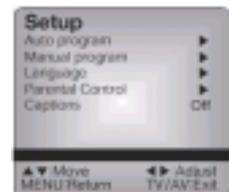
The program wasn't captioned when it was produced, transmitted, or taped.

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



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

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

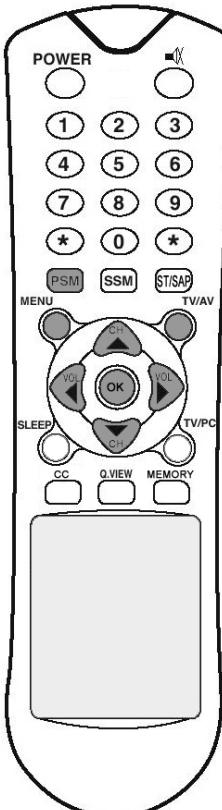
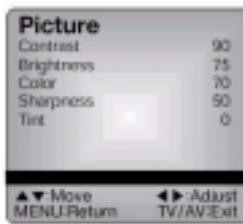


Picture Control

You can adjust picture contrast, brightness, color, sharpness and Tint to the levels you prefer.

Manual Picture setup

1. Press the **MENU** button, select the screen as right side
2. Press the **CH▲▼** buttons to select a **picture** item.
3. Press the **VOL◀▶** buttons to adjust the picture condition as you want.
4. Press the **TV/AV** button to store for **User mode**.



Auto Picture setup

PSM (Picture Status Memory)

* Picture options **Dynamic, Standard, Mild, Game** are programmed for optimum reproduction at the factory and cannot be changed.

1. Press the **PSM** button
2. Press the **PSM** button repeatedly to select desired option.
3. Press the **OK** button.

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

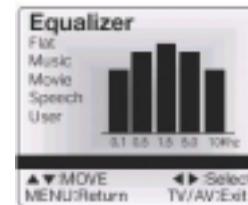
Dynamic → **Standard** → **Mild** → **Game** → **User**

- Dynamic : Vivid Picture Status
- Standard : Standard Picture Status
- Mild : Soft Picture Status
- Game : External Video Game Picture Status
- User : Manual Picture Status

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 VIDEOL to on, the set automatically keeps on an equal volume level even if you change Programs.

1. Press the **MENU & CH▲▼** button, select the screen as right side.
2. Press the **CH▲▼** button to select the desired sound item; **Equalizer, Balance, AVL** or **MTS**.
3. Press the **VOL◀▶** button to make desired adjustments.
4. Press the **OK** button in **Equalizer** to set the **Equalizer User**.



5. 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 **VOL◀▶** button.
- c. Make appropriate sound level with the **CH▲▼** button.
- d. Press the **OK** button to store it for the sound **User**.

The display **Stored** appears.

- e. Press the **TV/AV** button to return to previous menu and the **TV/AV** button to return to normal TV viewing.

Selected Item	Setting Change
Equalizer	Flat ↔ Music ↔ Movie ↔ Speech ↔ User
Balance	-50~+50
AVL	On/Off
MTS	SAP↔MONO↔STEREO

Auto Sound setup

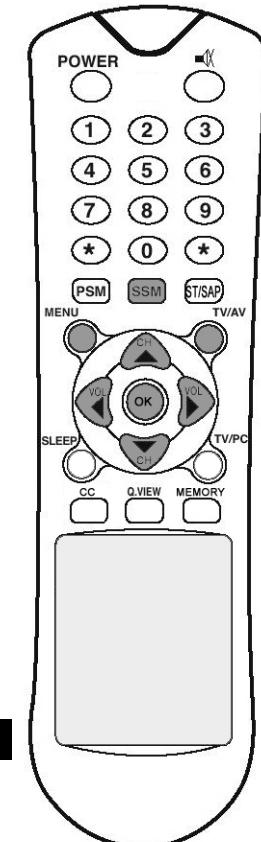
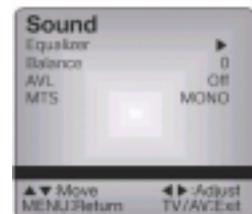
SSM (Sound Status Memory)

* The sound **Flat, Music, Movie and Speech** are programmed for good sound reproduction at the factory and cannot be changed.

1. Press the **SSM** button
2. Press the **SSM** button repeatedly to select SSM option.
3. Press the **OK** button.

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

Flat → **Music** → → **Movie** → **Speech** → **User**



Other functions

TV, COMPONENT, VIDEO and S-VIDEO modes

(You can't set PC mode in this menu. Use the TV/AV or TV/PC button).

External equipment inputs: VIDEO or S-VIDEO mode are used for video devices like

VCRs, DVDs, etc.), COMPONENT, is used for component type devices.

Note: If a VCR is connected to the antenna jack, use TV mode. See

External Equipment Connection section.

1. Press the **MENU** button.
2. Select the **Special** menu.
3. Press the **CH▲▼** button to select **Input**.
4. Press the **VOL ▲▼** button to select **TV, COMPONENT, VIDEO and S-VIDEO**.

COMPONENT: Device connected to the COMPONENT INPUT jacks.

VIDEO: VIDEO device connected to the TV's VIDEO input.

S-VIDEO: S-VIDEO device connected to the TV's S-VIDEO input.

Note: You can also select the TV, COMPONENT, VIDEO, or S-VIDEO sources using the TV/AV button.

PC: PERSONAL COMPUTER connected to the PC socket of the set

Alternatively you can select the **TV, COMPONENT, VIDEO, S-VIDEO and PC modes** by pressing the **TV/AV** button.

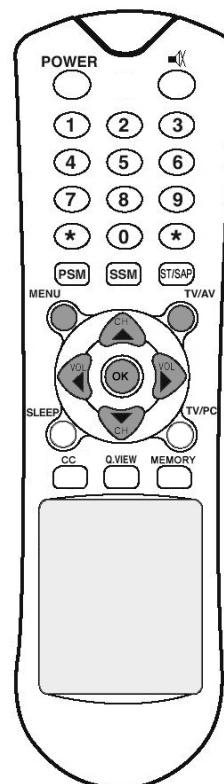
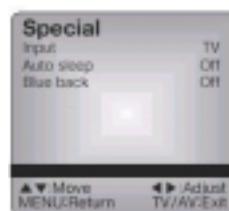
Auto sleep

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. Repeatedly press the **MENU** button to select the Special menu.
2. Press the **CH▲▼** button to select **Auto sleep**.
3. Press the **VOL ▲▼** button to select **On**.
4. Press the **TV/AV** button to return to normal TV viewing

Blue Back

Channels without a program signal appear in blue.



Other functions

Sleep timer

Sleep timer automatically turns the TV off and switches it to standby mode after the preset time expires.

You don't have to remember to switch the set off before you go to sleep. The sleep timer automatically switches the set to standby after the preset time elapses.

Press the **SLEEP** button to select the number of minutes. The display **will** appear on the screen, followed by **0, 10, 20, 30, 60, 90, 120, 180 and 240**. The timer begins to count down from the number of minutes selected.

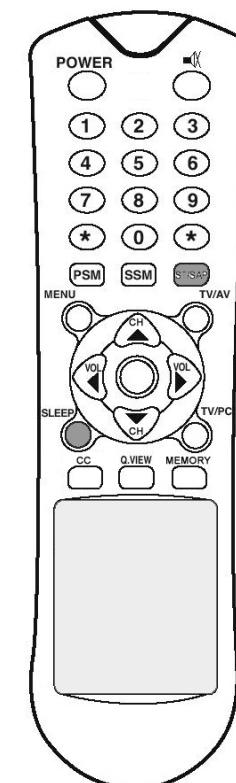
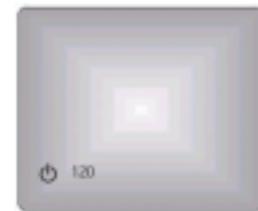
Note:

- a. To view the remaining sleep time, press the **SLEEP** button once.
- b. To cancel the sleep time, repeatedly press the **SLEEP** button until the display appears.

ST/SAP

Press the ST/SAP button.

You can select the Sound output system-Stereo, Mono and SAP and the language during dual language broadcast.

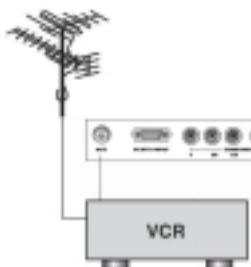


External Equipment Connection

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

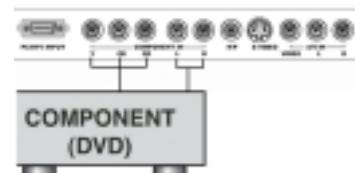
Antenna connection

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. Use the **TV/AV** button to select **VIDEO** mode.
4. Press the **PLAY** button on the VCR.



COMPONENT INPUT sockets

1. Connect the COMPONENT video outputs (Y Cb Cr) on a DVD to the COMPONENT INPUTS on the TV.
2. Use the **TV/AV** button to select COMPONENT source.
3. Press the **PLAY** button on the DVD.

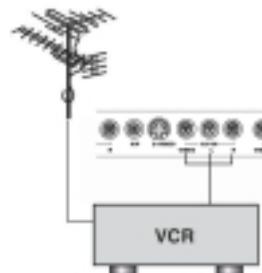


AV input

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 **A/V-IN** socket of the set.

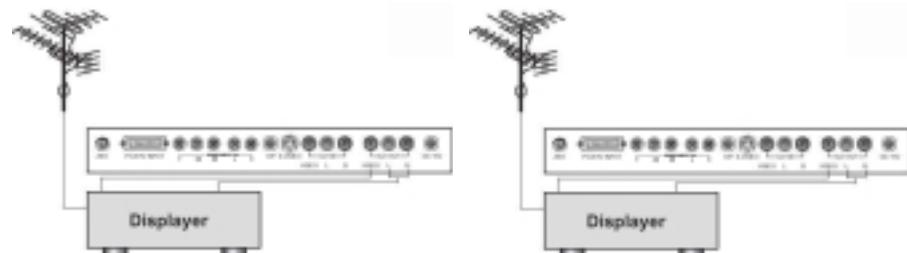


External Equipment Connection

A/V OUT

1. Connect the Audio outputs(L, R) of the TV to Audio-IN(L, R) of another display or the amplifier system. If you connect the amplifier system, you can also play the TV sound through the stereo amplifier system.
2. Connect the Video output of the TV to Video IN of another display.

Note: If you press the mute button, only the sound of the TV's speaker's is switched off.

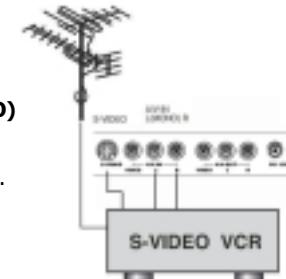


S-VIDEO input

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 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; no sound from the speaker on the TV. To adjust the headphone volume, press the **VOL ▲▼** button. If you press the **MUTE** button, the sound from the headphone is turned off.

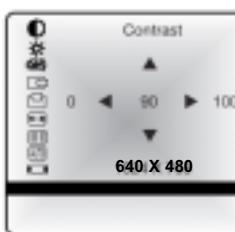


Connecting PC as monitor

Picture adjustment

You can adjust picture Contrast, Brightness, Temperature, H-Position/V-Position, Clock, Phase, Auto and Reset as you prefer.

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



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.

Horizontal Position/Vertical Position

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

Clock

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

Phase

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

Auto

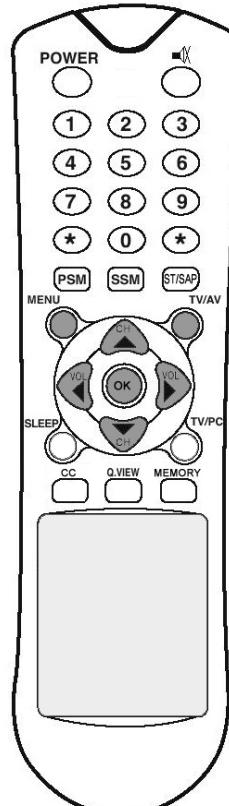
This function is for the automatic adjustment of the screen position, clock and clock phase. The displayed image will disappear for a few seconds while the Auto-configuration is in process.

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 programmed at the factory and cannot be changed.

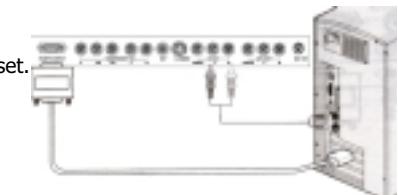
5. Press the **TV/AV** button to return to normal TV.



Connecting PC as monitor

VGA/DTV INPUT

1. Connect the VGA IN cable (D sub jack) from the monitor output socket of the PC to the PC/DTV input socket of the set.
2. Connect the Audio cable from the PC to the A/V IN(L(MONO), R) of the set.
3. Press the **TV/AV** 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 (RECOMMENDED)	640X480	31.5 KHz	60 Hz
	640X480	35 KHz	67 Hz
	640X480	37.9 KHz	72 Hz
	640X480	37.5 KHz	75 Hz
	640X480	43.5 KHz	85 Hz
	720X400	31.5 KHz	70 Hz
SVGA	800X600	35.2 KHz	56 Hz
	800X600	37.9 KHz	60 Hz
	800X600	48.1 KHz	72 Hz
	800X600	46.9 KHz	75 Hz
	800X600	53.7 KHz	85 Hz
DTV	1920X1080i	33.8 KHz	60Hz
	1280X720i	45 KHz	60 Hz
	720X480p	31.5 KHz	60 Hz

Note:

- 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.
- 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.

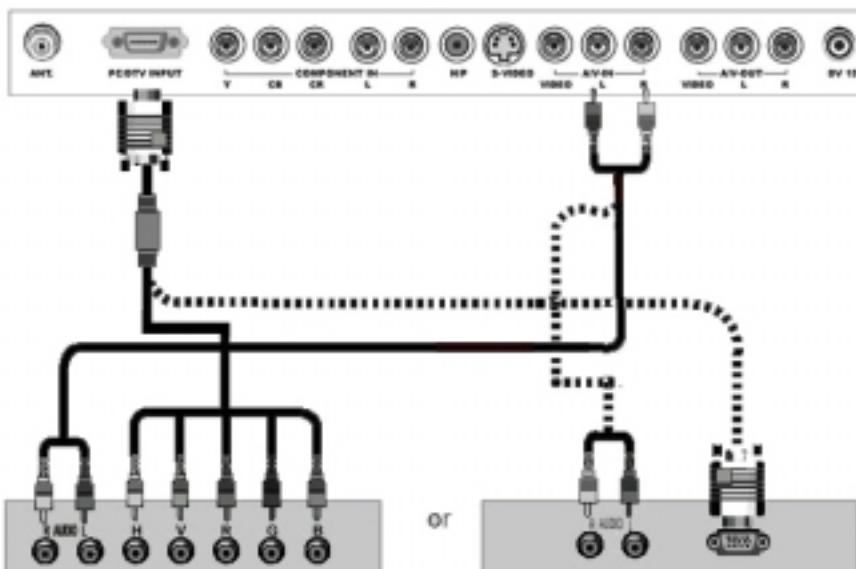
Connecting DTV

PC/DTV INPUT

1. Connect the PC IN cable (D sub jack) from the monitor output socket of the DTV SET TOP BOX to the PC/DTV INPUT of the set.
2. Connect the audio cable from the DTV receiver (Set-top Box) to the **L (MONO)** and **R** of the set.
3. Press the **TV/AV** button to select **PC** mode.
4. Try this after turning on the DTV set.

NOTE:

To receive the DTV program, it is necessary to purchase DTV receiver (Set-top Box) and connect it to the TV



< Back panel of DTV >

Product Spec.

Model	LT-20AMP	
Main body	Horizontal size	580 mm
	Thickness	80 mm
Height	504 mm	Weight
Power requirements	DC 15V/4.5A	
Television system	NTSC	
Television Program	VHF: 2~13 UHF: 14~69 Cable: 01~125	
Tube	LG Philips LCD 20.1" TFT LCD panel	
Power consumption	70W	
External antenna impedance	75Ω	
Audio output	3WX4	
External input ports	<input type="checkbox"/> AV IN <input type="checkbox"/> AV OUT <input type="checkbox"/> S-VIDEO IN <input type="checkbox"/> HEADPHONE OUT <input type="checkbox"/> PC/DTV IN <input type="checkbox"/> COMPONENT IN <input type="checkbox"/> DC 15V POWER IN <input type="checkbox"/> ANT. IN	
AC Power Adaptor	AC 100~240, 50/60Hz Output : 15Vdc, 4.5A	

Troubleshooting

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

LIMITED WARRANTY