



INSTRUCTION MANUAL

AVL-279

**27"* LCD High-definition Colour TV with
ATSC Digital Tuner**



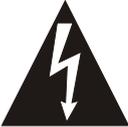
* Diagonal measure

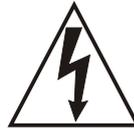
Help Line: 1-800-263-224
Monday to Friday 9am-5pm (Eastern)

www.sanyo.ca

Important Information

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION- To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to		



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.

"Note to CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code that 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 cable entry as practical."

This product utilizes tin-lead solder, and fluorescent lamp containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eia.org

FCC STATEMENT

FCC Notice

LCD TV: A CLASS B digital device

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 commercial environment.

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. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC CAUTION:

Pursuant to 47CFR, Part 15.21 of the FCC rules, any changes or modifications to this monitor not expressly approved by the manufacturer could cause harmful interference and would void the user's authority to operate this device.

WARNING: This is a CLASS B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to counter interference.

Important Safety Precautions

Electrical energy can perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. But **IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD**. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your LCD TV product, please read the following precautions carefully before using the product.

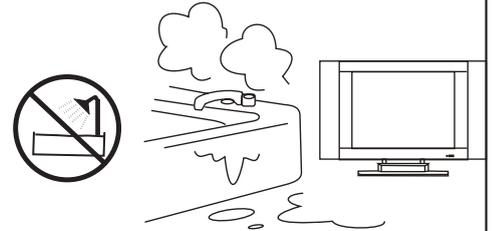
1. Read these instructions---All operating instructions must be read and understood before the product is operated.

2. Keep these instructions---These safety and operating instructions must be kept in a safe place for future reference.

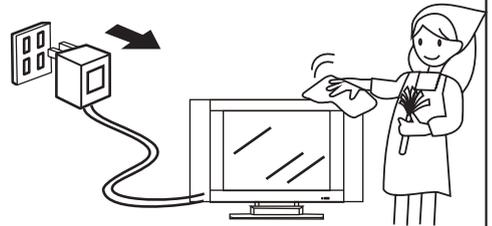
3. Heed all warnings---All warnings on the product and in the instructions must be observed closely.

4. Follow all instructions---All operating instructions must be followed.

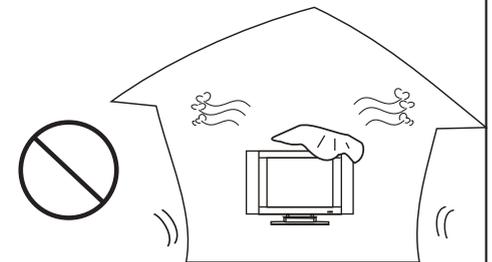
5. Do not use this apparatus near water---for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like. Do not use immediately after moving from a low temperature to high temperature environment, as this causes condensation, which may result in fire, electric shock, or other hazards.



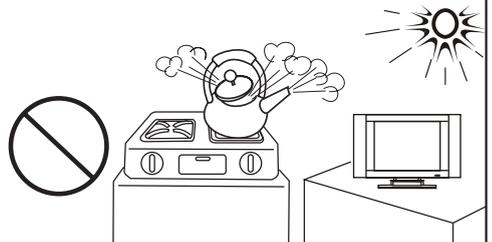
6. Clean only with dry cloth---Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.



7. Ventilation---Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.



8. Heat sources---Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



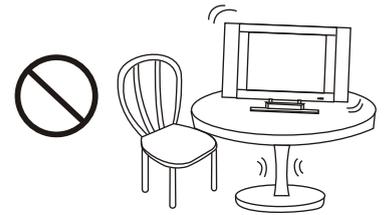
9. Grounding or Polarization---Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Power cord protection---Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Attachments---Only use attachments/accessories specified by the manufacturer. Do not use attachments not recommended by the manufacturer. Use of improper attachments can result in accidents.

Important Safety Precautions (continued)

12. Stand---Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. Do not place the product on an unstable trolley, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.

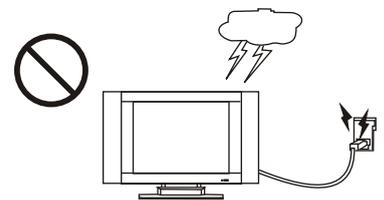


13. Move Carefully---When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. Sudden stops, excessive force and uneven floor surfaces can cause the product to fall from the trolley.



14. Lightning---Unplug this apparatus during lightning storms or when unused for long periods of time.

For added protection for this television equipment 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. This will prevent damage to the equipment due to lightning and power-line surges.



15. Servicing---Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

16. Replacement parts---In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.

17. Overloading---Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in a risk of fire or electric shock.

18. Entering of objects and liquids---Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.

19. Damage requiring service---If any of the following conditions occur, unplug the power cord from the AC outlet, and request a qualified service person to perform repairs.

- a. When the power cord or plug is damaged.
- b. When a liquid is spilled on the product or when objects have fallen into the product.
- c. When the product has been exposed to rain or water.
- d. When the product does not operate properly as described in the operating instructions.

Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.

- e. If the product has been dropped or the cabinet has been damaged in any way.
- f. When the product displays an abnormal condition or exhibits a distinct change in performance. Any noticeable abnormality in the product indicates that the product needs servicing.

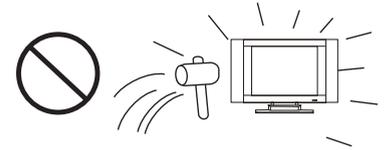
20. Safety checks---Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.

21. Wall or ceiling mounting---When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer. This is a safety feature.

Important Safety Precautions (continued)

22. Power source---This product is intended to be supplied by a listed power supply 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 added protection for this product 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 cable system. This will prevent damage to the product due to lightning and power line surges. When the unit has to be used with another power supply voltage, the power cable must be changed. Consult your product dealer. The socket outlet should be installed near the equipment and easily accessible. Use only the power cord designated by our dealer to ensure safety and EMC. When connecting other products such as VCRs and personal computers, you should turn off the power of the unit for protection against electric shock.

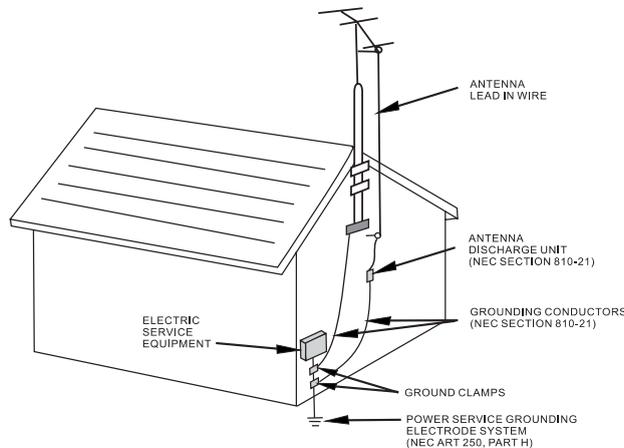
23. Panel protection---The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or impacted upon by other objects. Be careful not to be injured by broken glass pieces in case the LCD panel breaks.



24. Pixel defect---The LCD panel is a very high technology product, giving you finely detailed pictures. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.

< If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code provides information with respect 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 ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE



NEC—NATIONAL ELECTRICAL CODE

< 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 collide with 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.

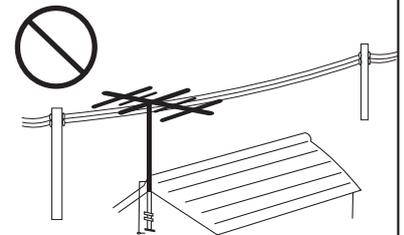


Table of Contents

Important Information	1
Important Safeguards	2
Table of Contents	5
Introducing the TV	7
Remove the TV from the Box.....	7
Installing the TV	7
Carrying or Moving the TV	7
Attach the Speaker to the Display.....	8
Remove the Stand	8
TV Controls and Connectors	9
Font Panel.....	9
Side Panel.....	10
Connecting the TV	11
Basic Connections	11
Overview	11
Connecting Antenna System.....	11
Connecting Cable System.....	11
Connecting Cable Box	12
Connecting Digital Cable Box	12
Connecting Satellite Receiver	13
Connecting Digital Satellite Receiver	13
Using External Equipment	14
Introduction	14
Equipment with HDMI Connection	14
Equipment with DVI Connection	15
Equipment with Coaxial Digital Audio	15
Connecting a VCR for Playing Back	16
Connecting a VCR for Recording.....	16
Connecting a DVD Player with Component Video Connectors	17
Connecting a DVD Player with S-Video and Audio Connectors	17
Connecting a PC.....	18
Connecting a Camcorder or “PlayStation”	18
Connecting a Second TV or Monitor.....	19
Connecting Headphones.....	19
Introducing the Remote Control	20
Insert Batteries into the Remote Control.....	20
Using the Remote Control.....	20
Button Descriptions	21
Getting Started	23
Running Initial Setup	23
Setting a Secret Number (Password)	24
Menu Navigation	24
Watching TV	25
Turning On/Off	25
Channel Numbers	25
Selecting Channels	25
Adjusting Volume	26
Using FREEZE button.....	26
Using ZOOM button	26

Adjusting MENU Options	28
Picture Control	28
Accessing Picture Menu.....	28
Selecting Picture Options.....	28
Adjusting Picture Settings	29
Adjusting Screen Settings	29
Audio Control	30
Accessing Audio Menu.....	30
Selecting Audio Options.....	30
Setting Channels	31
Accessing Channels Menu.....	31
Selecting Channel Options.....	31
Setting Channel List	31
Setting Favorite Channels.....	32
Using the FAVORITE button	32
Editing Channel Name	32
Using the Program Guide	33
Accessing Program Guide	33
Using the Program Guide.....	33
Setting System	34
Accessing Settings Menu.....	34
Setting Date & Time	34
Setting Timer.....	34
Input Select	35
Setting Captions.....	35
Using the CCD button	35
Setting Menu & Display.....	35
Editing Input Labels.....	36
Setting Screen Saver	36
Running Reset System	36
Parental Lock Control	37
Accessing Locks Menu	37
Selecting Locks Options.....	37
Viewing Locked or Blocked Programs	38
Other Information	39
Troubleshooting	39
Care and Maintenance.....	41
Specifications	42
Programming your Remote Control	43
Manufacturer's Codes	45
Warranty	61

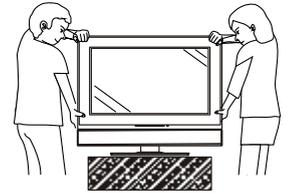
Introducing the TV

Thank you for choosing SANYO. This product incorporates latest-generation features including an ATSC digital tuner. Please read all instructions carefully to obtain maximum benefit of your product. Questions? Our toll-free number is 1-800-263-2244, 9am-5pm, Monday to Friday (Eastern time).

Remove the TV from the Box

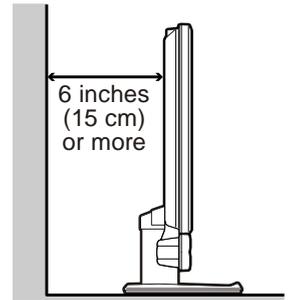
STOP! To safely remove the television from the box it's best to use 2 people to remove the television for stability.

1. Remove cardboard holders from the box.
2. Remove the cardboard; however, keep the wrapping on the television to protect it while moving.
3. Lift onto installation location as the diagram illustrates.



Installing the TV

- Keep enough space above and behind the Display.
- The TV should be installed near an easily accessible power outlet.
- To prevent internal heat buildup, do not block the ventilation openings.
- Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- Be sure to take measures to prevent the TV from toppling over and causing injury.
- To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the TV in a room where the floor and walls are not of a reflective material.



Cautions:

- Do not install the TV in protruding locations.
- Do not install this unit in restaurants where oily vapors occur. Dust absorbing oil may enter into the unit and damage the unit.
- Do not install this unit outdoors. If the unit is exposed to rain, it may result in fire or electric shock. If the unit is exposed to direct sunlight, the unit may heat up and cause damage to the unit.
- Do not install this unit in a vehicle or hang from the ceiling. Bumping of the vehicle may cause the unit to fall down and cause injury.
- Do not install this unit in a ship or vessel. If the unit is exposed to seawater, it may cause fire or damage the unit.
- If you install the unit on a non-level surface, the unit may fall or drop and cause injury or damage.
- If you place the unit on an unstable surface, the unit may fall and cause injury or damage.
- Do not hang anything on the unit. If you do so, the unit may fall from the stand or wall-mount bracket, causing damage or serious injury.

Carrying or Moving the TV

- When you move the TV, carry it by two people.
- When you move the TV, hold the upper and bottom frames of the TV, not the speaker.
- As the glass surface of the TV has a special coating, be careful to avoid touching the glass surface as far as possible.
- When transporting, do not subject the unit to shocks or vibration, or excessive force.

Attach the Speaker System to the Display

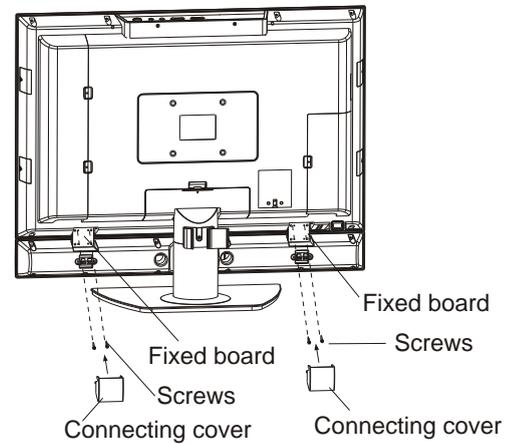
- 🔊 The appearance of the unit may differ from the actual one.
- 🔊 To deattach the speaker, perform the steps in reverse order.

Cautions:

1. Carefully handle the unit during setup and consult authorized service personnel to ensure successful installation.
2. Before performing work spread cushioning over the base area to lay the Display on. This will prevent it from being damaged.
3. Disconnect the AC power cord firstly.

Screw the Speaker and the Fixed board to the unit using the supplied screws and tighten securely, then install the two Connecting covers as the diagram illustrates.

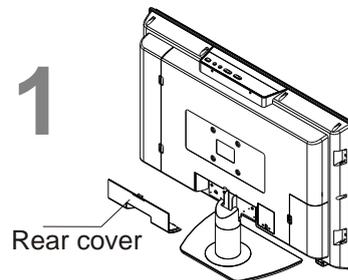
Connect **only** the supplied speaker audio cables between the speaker terminals on the unit and the speaker matching polarity according to the terminals' color.



If applicable: Removing the Stand for Wall-Mounting

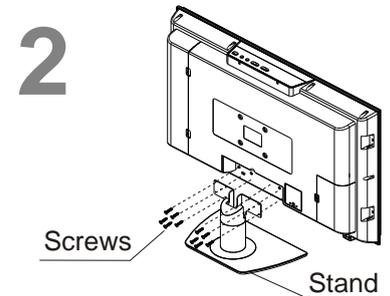
Cautions:

1. Carefully handle the unit during setup and consult authorized service personnel to ensure successful installation.
2. Before performing work spread cushioning over the base area to lay the Display on. This will prevent it from being damaged.
3. Disconnect the AC power cord firstly.

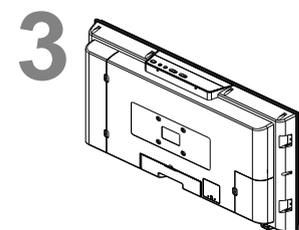


Take off the rear cover.

- 🔊 Do not remove the stand and speaker from the Display unless using an optional bracket to mount it.
- 🔊 The appearance of the unit may differ from the actual one.
- 🔊 To attach the stand, perform the steps in reverse order.



Loosen the screws on the Stand to remove the Stand.

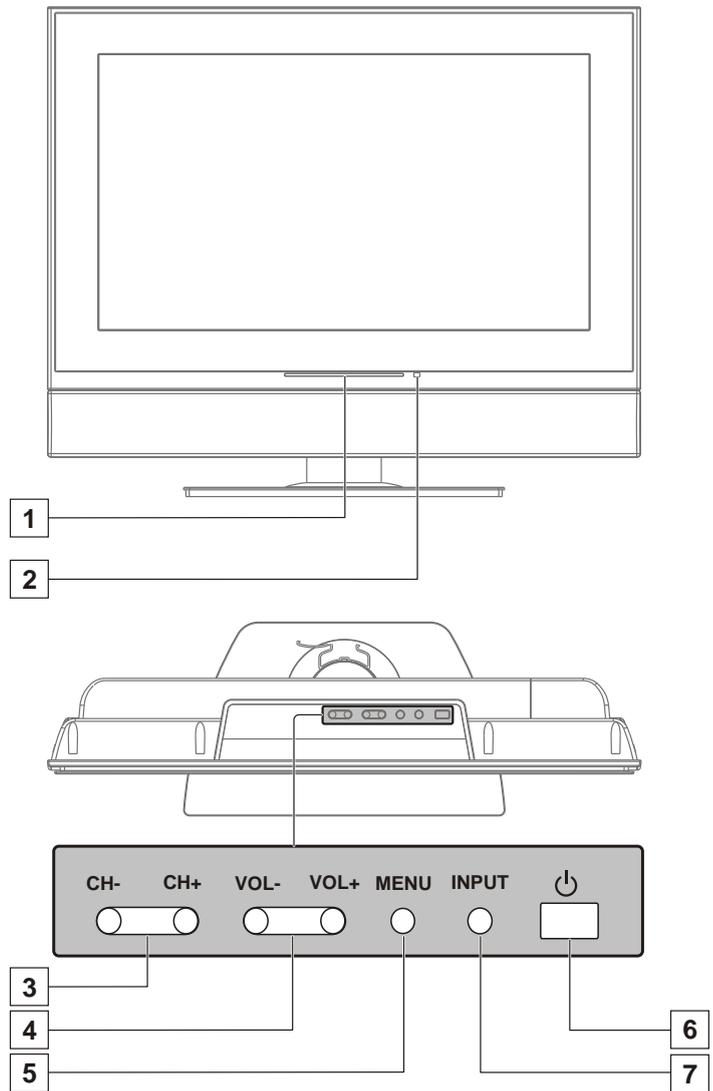


Replace the rear cover

Introducing the TV

TV Controls and Connectors

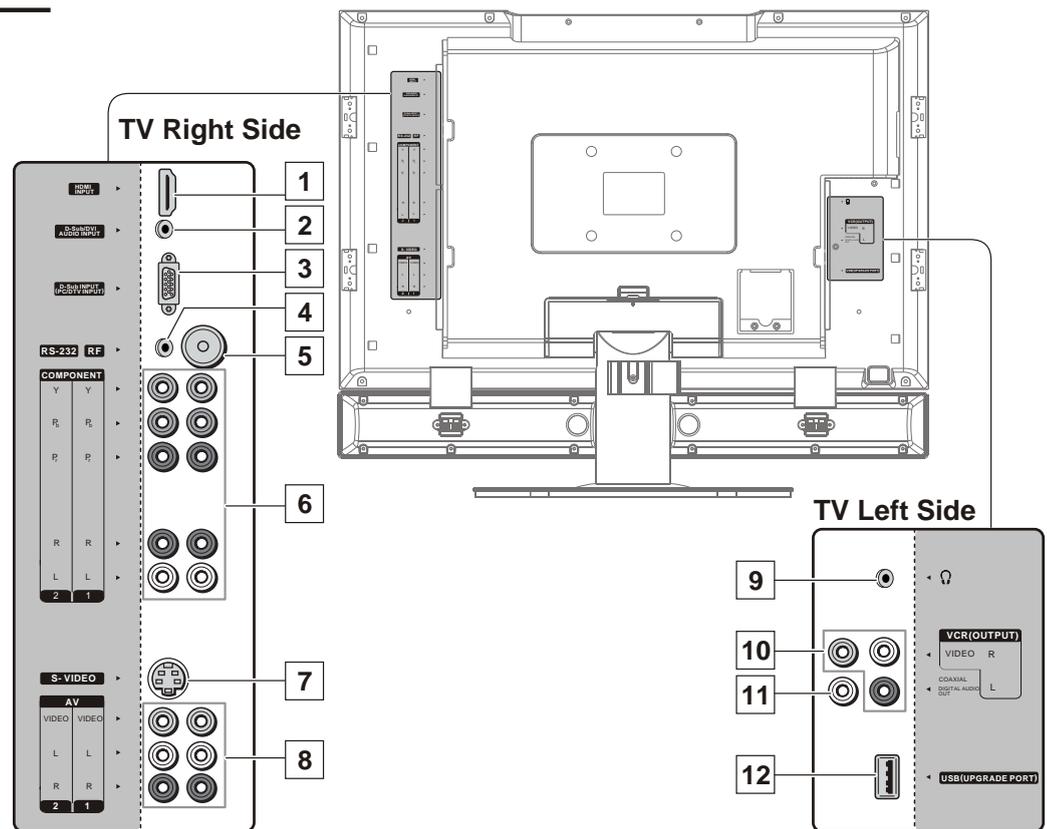
Front Panel



Item	Description
1 Power Indicator	
2 Remote Sensor	Receives IR (infrared) signals from the remote control.
3 CH-/CH+	Press to scan through channels. In menu operations, these buttons serve as down/up buttons.
4 VOL-/VOL+	Press to adjust the volume. In menu operations, these buttons serve as left/right buttons.
5 MENU	To access the Menu main page.
6 POWER 	Turn the unit on or off.
7 INPUT	To display the INPUT source list or to quickly select input source.

TV Controls and Connectors

Side Panel



Item	Description
1 HDMI IN	HDMI (High-Definition Multimedia Interface) provides an uncompressed, all-digital audio/video interface between this TV and any HDMI-equipped audio/video component, such as a set-top box and DVD player. HDMI supports enhanced, or high-definition video, plus two-channel digital audio.
2 Audio IN for DVI or D-Sub interface	Use this audio input when you are using DVI connection or D-Sub connection. A HDMI-to-DVI adapter is necessary when you are connecting a DVI-equipped device to this TV.
3 D-Sub IN	Connects to a PC or other Analog RGB devices such as Video Conferencing or Set-top Boxes.
4 RS-232 terminal	For service only. The user should not use this terminal.
5 RF IN	RF input that connects to your cable system or outdoor antenna.
6 Componet Video	Connect to your DVD player's or digital set-top box's component video (YPbPr) and audio (L/R) jacks. Component video provides better picture quality than the S-VIDEO or the composite video connections.
7 S-VIDEO input	Connects to the S-VIDEO output jack of your VCR or other video equipment that has S-VIDEO. S VIDEO provides better picture quality than the composite video connection.
8 Composite Video	Connect to the composite video and audio output jacks on your VCR or other video device.
9 Headphones jack	Connects to your headphones. If your headphones do not match the jack, use a suitable plug adaptor (not supplied).
10 Video/Audio OUT	Connects to your VCR to record programs as desired or connects to hook up a second TV or monitor. Only analog TV programs, AV1 and AV2 input sources can be output through the AV output jacks.
11 Coaxial Digital Audio OUT	Connects to the digital audio input of a digital audio component.
12 USB Port	For service only. The user should not use this port.

Connecting the TV

Basic Connections

Overview

To display clear crisp pictures, you must connect your TV correctly and choose the correct display format. It is strongly recommended to connect the cable and antenna input using a 75-ohm coaxial cable to receive optimum picture quality signal. A 300-ohm twin lead cable can be easily affected by radio noise and the like, resulting in signal deterioration. If you use a 300-ohm twin lead cable, keep it as far away as possible from the TV.

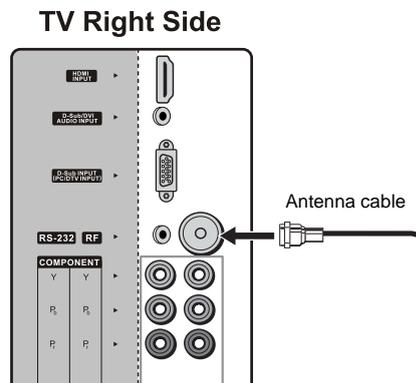
The way in which you connect your TV will vary, depending on how your home receives a signal (antenna and satellite; cable and cable box).

Do not use an indoor antenna, which is especially susceptible to radio noise.

🔊 **Disconnect all power sources before making any connections.**

Connecting Antenna System

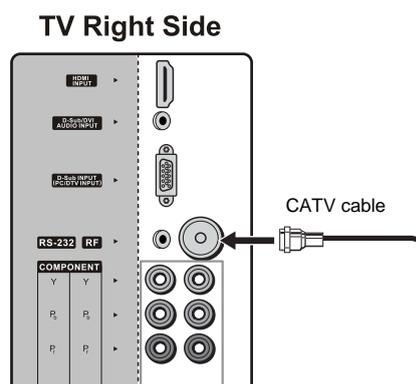
For best results, use this connection if you have an antenna system.



🔊 *Be sure to choose [Antenna] before you start Auto Program. See chapter [Getting Started] for details.*

Connecting Cable System

For best results, use this connection if you have a cable system.



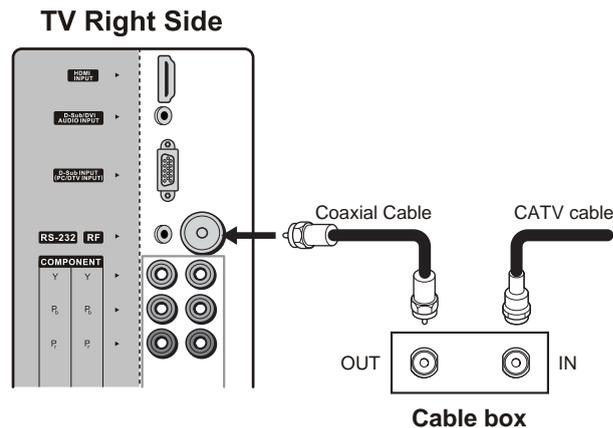
🔊 *Be sure to choose [Cable] before you start Auto Program. See chapter [Getting Started] for details.*

Basic Connections

Connecting Cable Box (Basic)

Use this connection if you have a cable system and your cable company scrambles some channels, such as premium channels or all channels (which requires you to use a cable box). Connect the CATV cable to the cable box's input jack. Then use a coaxial cable to connect the cable box's output jack to the TV's RF input jack. If the cable box has audio/video or S-Video jacks, connect your TV to them for better picture quality and stereo sound.

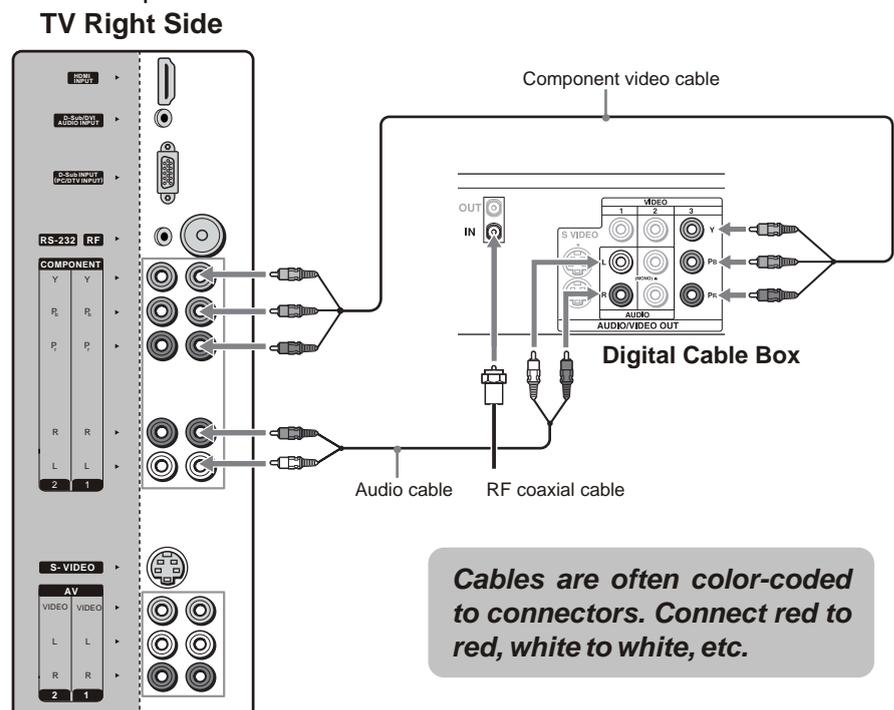
Note: Sound will be in mono only from the RF output jack of most cable



Be sure to choose [Cable] before you start Auto Program. See chapter [Getting Started] for details.

Connecting Digital Cable Box (Best)

Connect the RF coaxial cable from the cable wall outlet to the input of the digital cable box. Use a component video cable to connect the YPbPr jacks of your digital cable box to the TV's component jacks. Component video connection is necessary to view high-definition digital broadcasting in 1080i, 720p, 480i and 480p. This TV displays most format types of picture. The component jacks do not provide audio, so audio cables must be connected to provide sound.



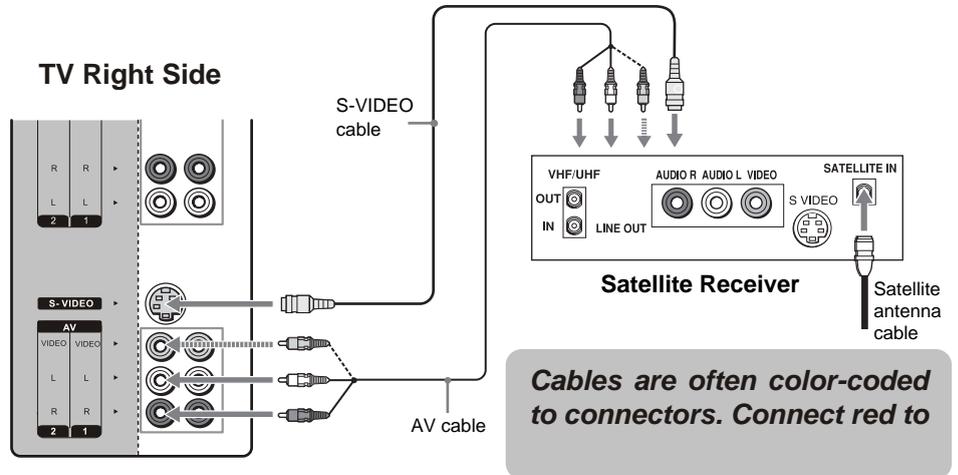
Cables are often color-coded to connectors. Connect red to red, white to white, etc.

Connecting the TV

Basic Connections

Connecting Satellite Receiver

Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack. Use AV cables to connect the satellite receiver's AUDIO and S-VIDEO OUT jacks to the TV's AUDIO and S-VIDEO IN jacks.



⦿ If your satellite receiver is not equipped with S-VIDEO, use a VIDEO cable (yellow) instead of the S-VIDEO cable.

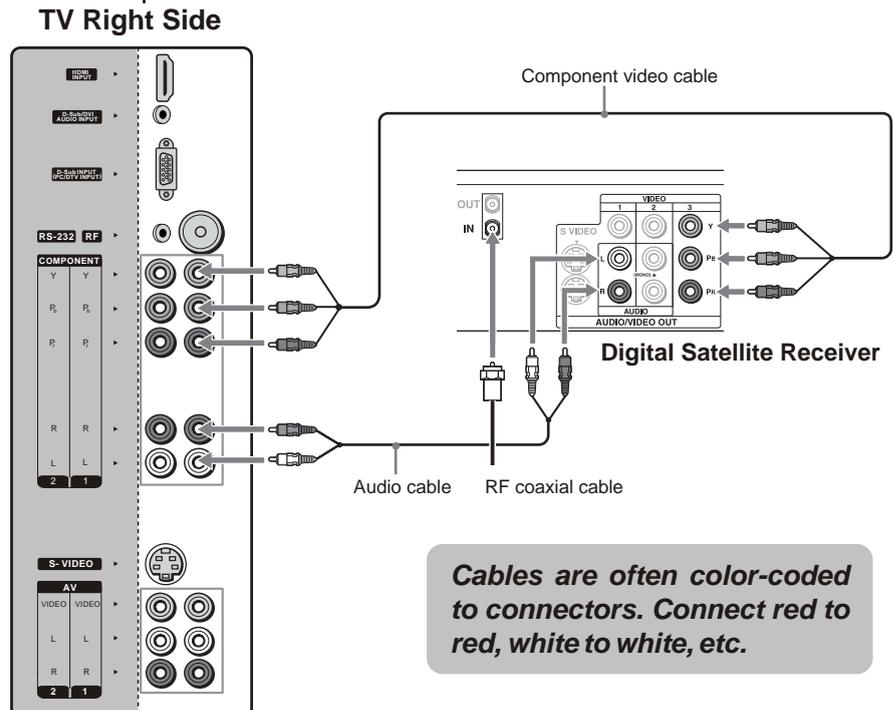
Connecting Digital Satellite Receiver

Connect the RF coaxial cable from the satellite dish to the input of the digital satellite receiver.

Use a component video cable to connect the YPbPr jacks of your digital satellite receiver to the TV's component jacks.

Component video connection is necessary to view high-definition digital broadcasting in 1080i, 720p, 480i and 480p. This TV displays most format types of picture.

The component Jacks do not provide audio, so audio cables must be connected to provide sound.



Using External Equipment

Introduction

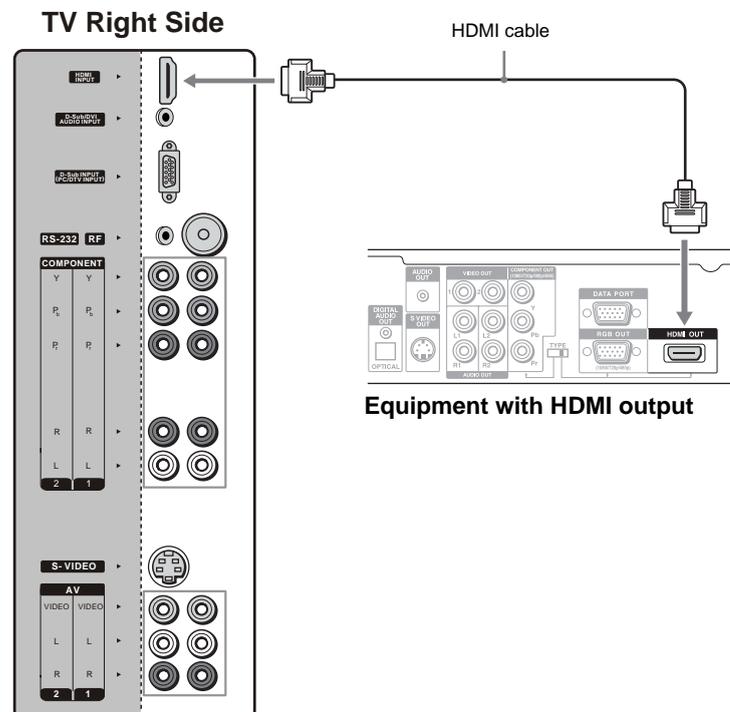
You can connect many types of external equipment to your TV, like a DVD player, VCR, Digital TV tuner, PC, HDMI equipment, game console and camcorder. To view external source images, select the input source from **INPUT** on the remote control unit or on the Display.

Notes and Cautions:

- **Disconnect all power sources before making any connections.**
- Carefully check the terminals for position and type before making any connections.
- The packing contents of this TV may not include the cables or adaptors mentioned in this chapter.
- Refer to your external equipment operation manual carefully before making connections.
- Loose connectors can result in image or color problems. Make sure that all connectors are securely inserted into their terminals.
- Refer to your external equipment operation manual for the signal type.
- The illustration of the external equipment may be different depending on your model.

Equipment with HDMI Connection

For best results, use this connection if your equipment has a High-Definition Multimedia Interface (HDMI). Using a HDMI cable, connect the equipment's HDMI OUT jack to the TV's HDMI IN jack.



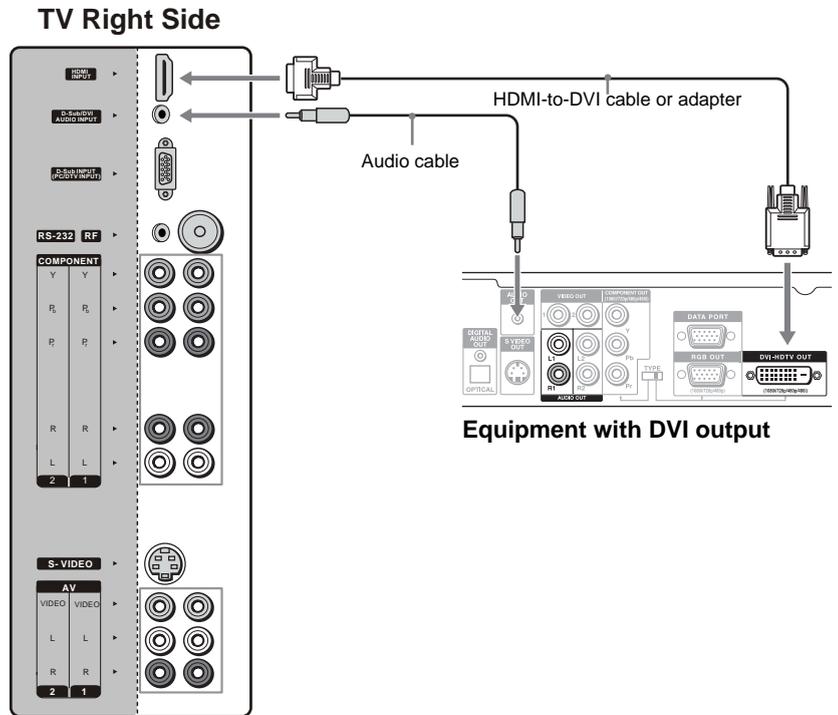
🔊 The HDMI jack provides both video and audio signals, so it is not necessary to connect the audio cable.

Connecting the TV

Using External Equipment

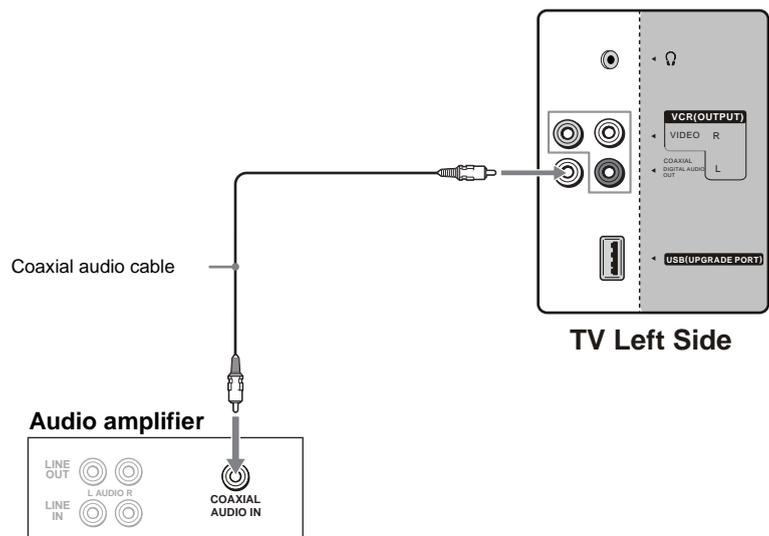
Equipment with DVI Connection

If you are connecting equipment with a DVI connector to this TV, you will need to use an adapter. You can use a commercial HDMI-to-DVI cable or an HDMI adapter. Both are available at your local electronics store. When you use the adapter, you will also need to use separate audio cables for sound as DVI connector is for video signals only.



Equipment with Coaxial Digital Audio

You can use the TV's Coaxial Digital Audio OUT jack to connect a digital audio device, such as an audio amplifier. Use an coaxial audio cable to connect the TV's Coaxial Digital Audio OUT jack to the device's Coaxial Digital Audio IN jack.

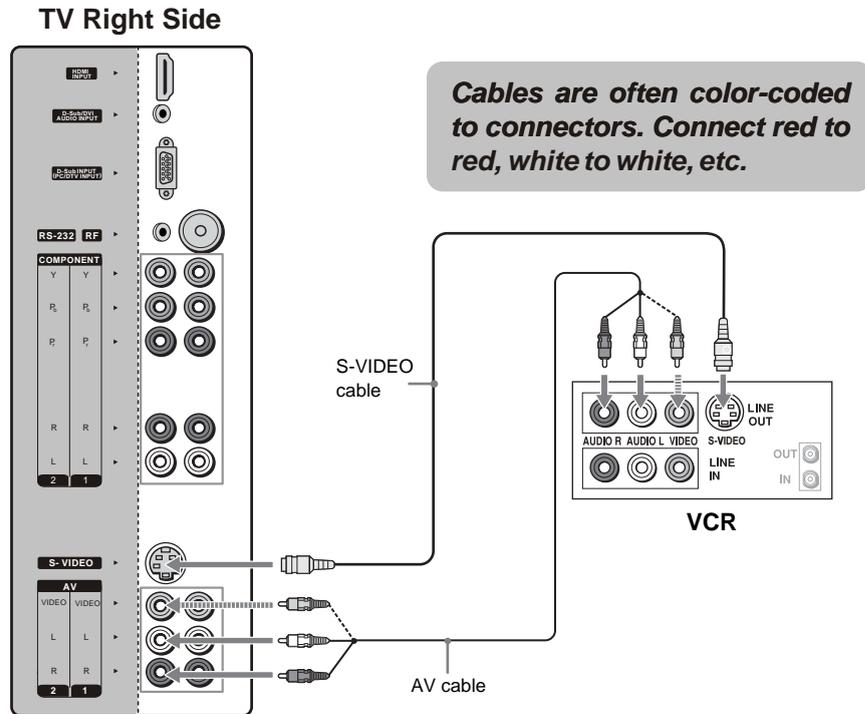


🔊 *The Digital Audio OUT jack is available only when a digital TV channel is received.*

Using External Equipment

Connecting a VCR for Playing Back

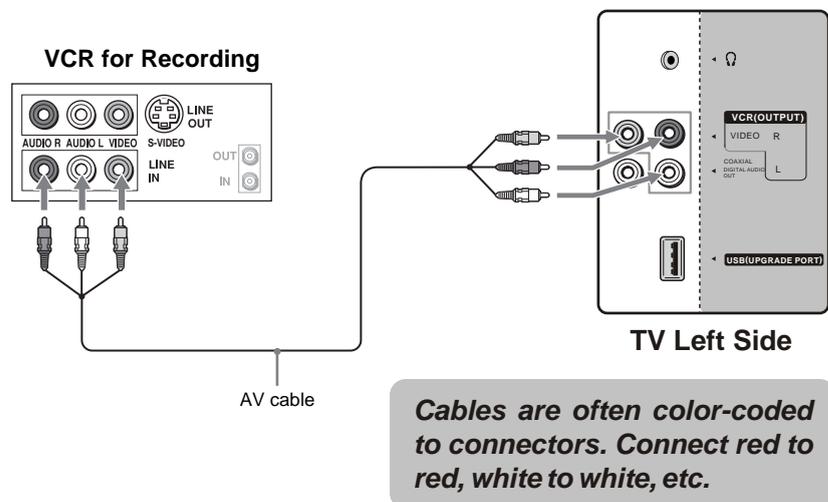
Use AV cables to connect the VCR's AV output jacks to the TV's AV input jacks. If your VCRs have S-VIDEO jacks, for best picture quality, use an S-VIDEO connection instead of the video cable (yellow) on your combined AV cable. Use a S-VIDEO cable to connect the VCR's S-VIDEO OUT jack to the TV's S-VIDEO IN jack. S-VIDEO does not provide audio, so audio cables must be connected to provide sound.



🔊 The S-video terminal share the same audio jacks with video2 and has priority over the video2 jack.

Connecting a VCR for Recording

Use AV cables to connect the VCR's AV input jacks to the TV's VCR output jacks.



🔊 Only analog TV programs, AV1 and AV2 input sources can be output through the AV output jacks.

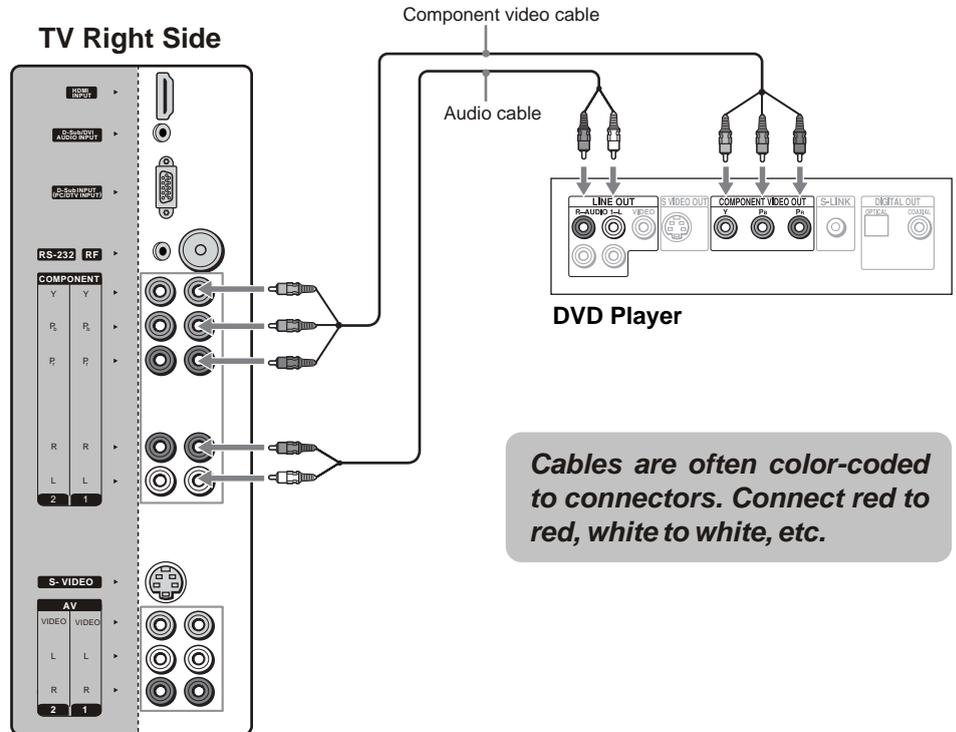
Connecting the TV

Using External Equipment

Connecting a DVD Player with Component Video Connectors

Use a component video cable to connect the DVD player's YPbPr jacks to the TV's YPbPr jacks.

Use an audio cable to connect the DVD player's AUDIO OUT jacks to the TV's AUDIO IN jacks. Be sure to use the same row of inputs that you used for the video connection.

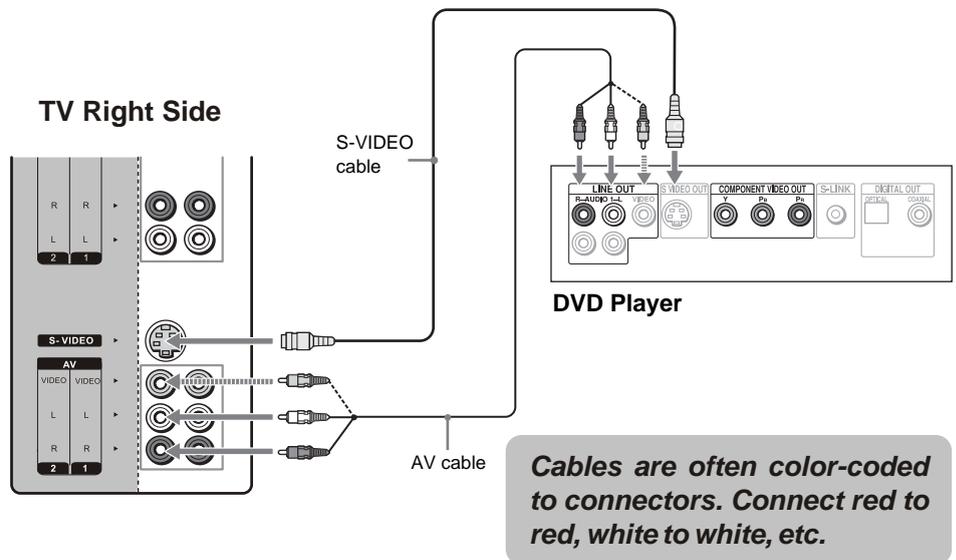


» The YPbPr jacks on your DVD player are sometimes labeled YCbCr, or Y, B-Y and R-Y. If so, connect the cables to like colors.

Connecting a DVD Player with S-Video and Audio Connectors

Use an AV cable to connect the DVD player's AUDIO OUT jacks to the TV's AUDIO IN jacks.

Use a S-VIDEO cable to connect the DVD player's S-VIDEO OUT jack to the TV's S-VIDEO IN jack.



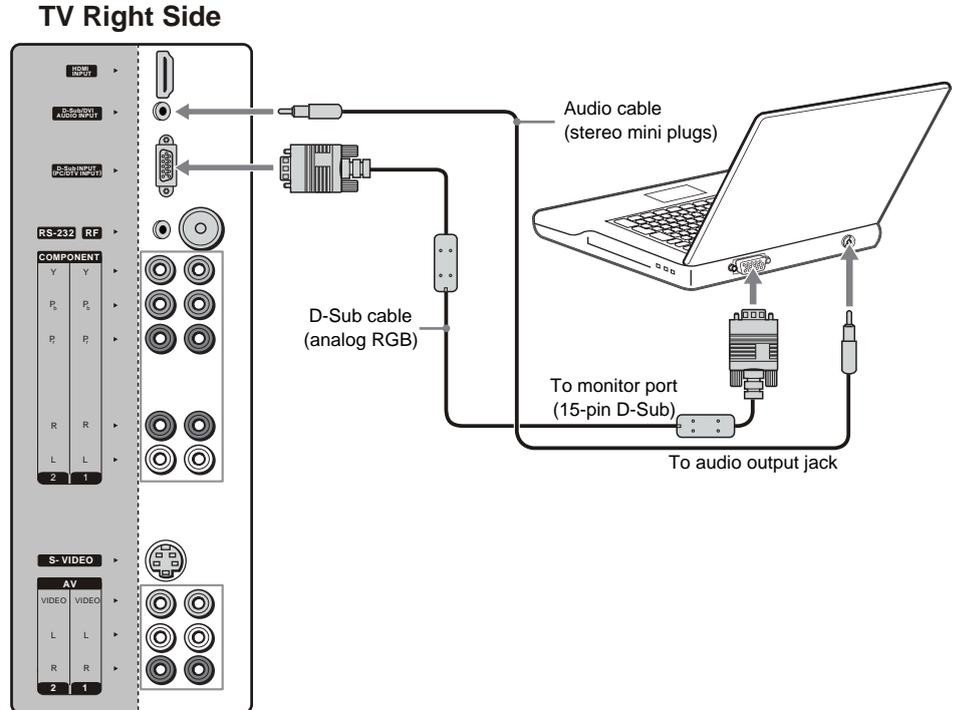
» If your DVD player is not equipped with S-VIDEO, use a VIDEO cable (yellow) instead of the S-VIDEO cable.

Using External Equipment

Connecting a PC

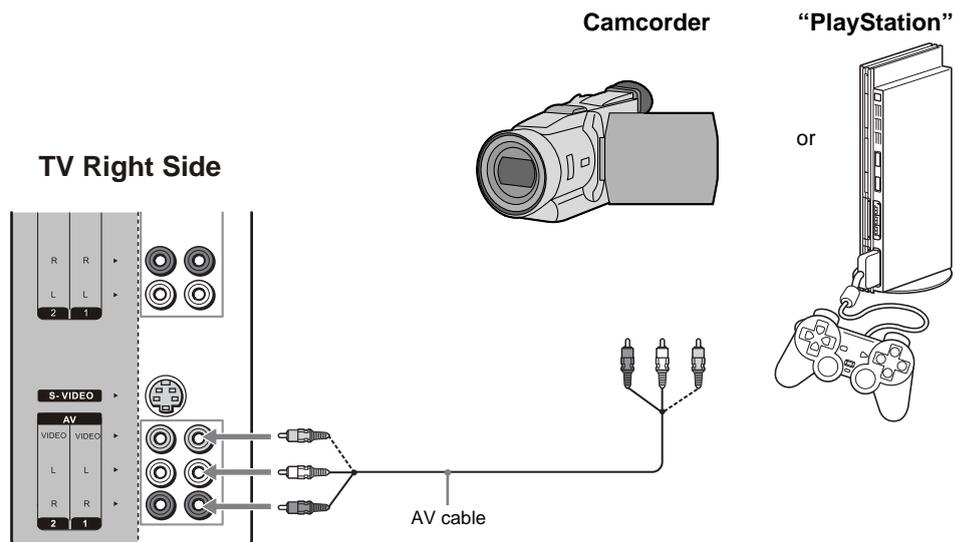
If you connect your PC to the TV, you can watch your personal computer's display on the TV.

When your PC is connected to the TV with the D-Sub cable and audio cable, you can view and listen to the PC's video and audio output on the TV.



Connecting a Camcorder or "PlayStation"

Use an AV cable to connect the camcorder or "PlayStation" AV output jacks to the TV's AV input jacks.



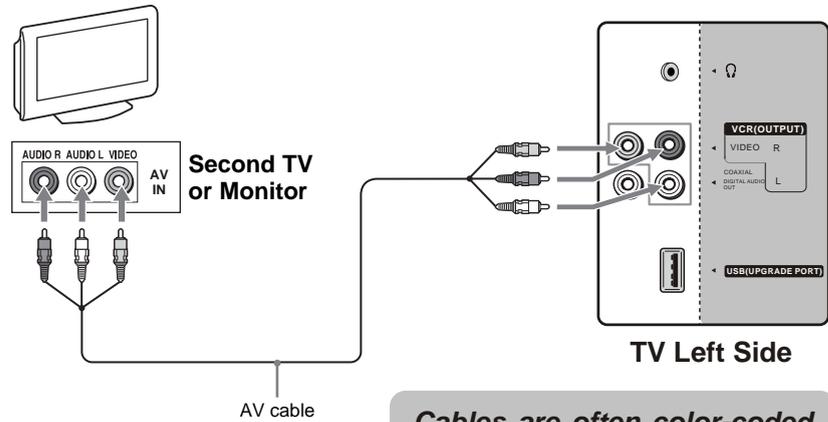
Cables are often color-coded to connectors. Connect red to red, white to white, etc.

Connecting the TV

Using External Equipment

Connecting a Second TV or Monitor

The TV has a special signal output capability which allows you to hook up a second TV or monitor. Connect the second TV or monitor to the TV's VCR output jacks. See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.

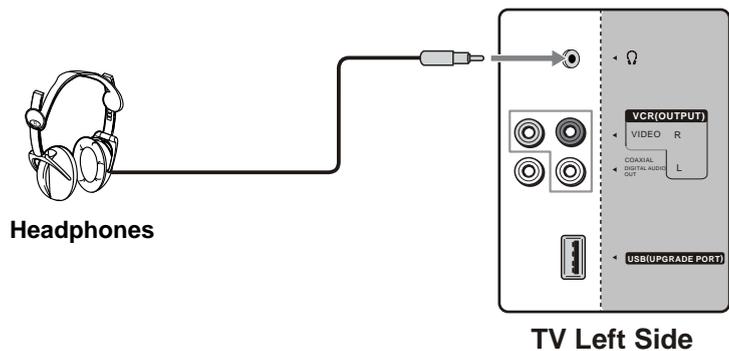


Cables are often color-coded to connectors. Connect red to red, white to white, etc.

🔊 *Only analog TV programs, AV1 and AV2 input sources can be output through the AV output jacks.*

Connecting Headphones

Insert the plug of the headphone into the TV's Headphone jack. When using headphones, adjust the headphone volume so to avoid excessive levels, as hearing damage may result.

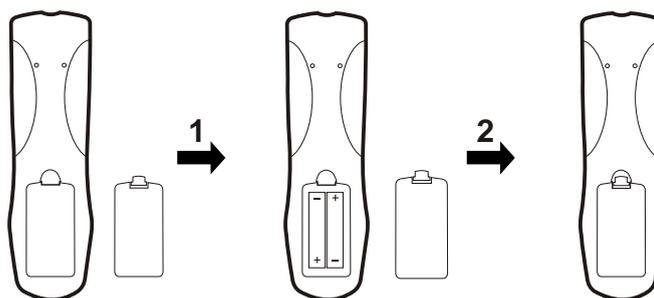


🔊 *If your headphones do not match the jack, use a suitable plug adaptor.*

Introducing the Remote Control

Insert Batteries into the Remote Control

Insert two size AA batteries by matching the \oplus and \ominus on the batteries to the diagram inside the battery compartment.



Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.

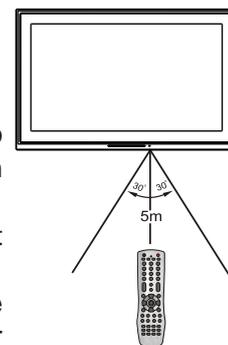
- Place batteries with their terminals corresponding to the (+) and (-) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are non-operable. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe with a cloth.
- The batteries supplied with the product may have a shorter life expectancy due to storage conditions.
- If the remote control is not used for an extended period of time, remove the batteries from the remote control.

Using the Remote Control

Use the remote control by pointing it towards the remote sensor window of the set. Objects between the remote control and sensor window may prevent proper operation.

Cautions regarding use of remote control

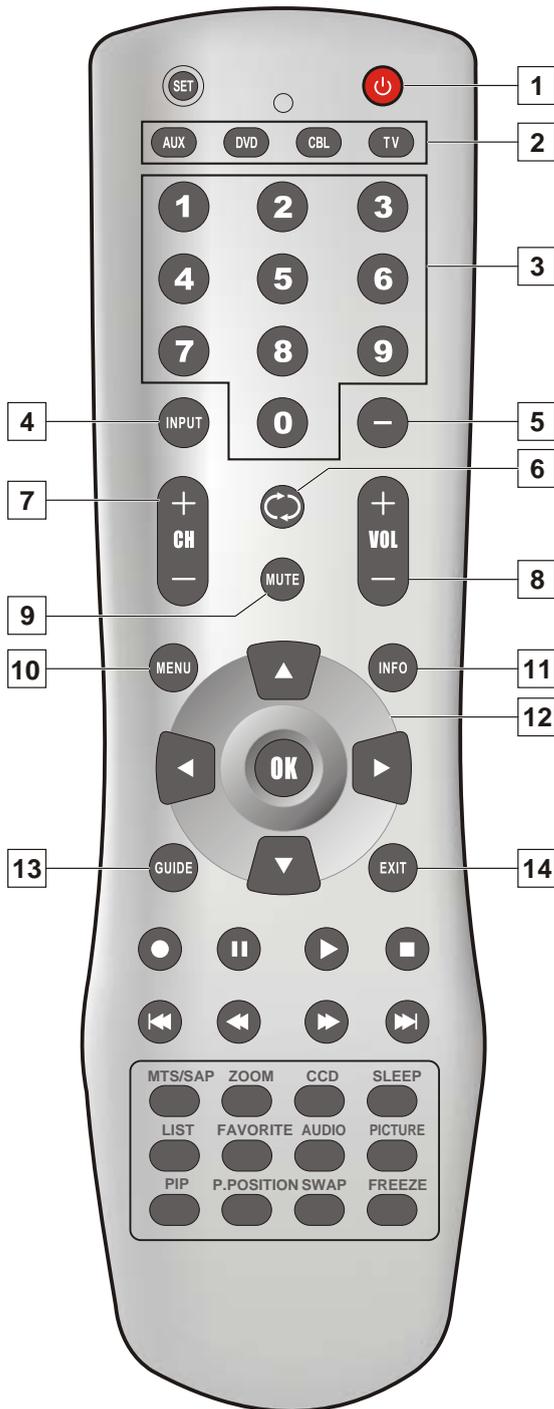
- Do not expose the remote control to shock. In addition, do not expose the remote control to liquids, and do not place in an area with high humidity.
- Do not install or place the remote control under direct sunlight. The heat may cause deformation of the unit.
- The remote control may not work properly if the remote sensor window of the main unit is under direct sunlight or strong lighting. In such a case, change the angle of the lighting or TV set, or operate the remote control closer to the remote sensor window.



🔊 *This above illustration is for reference only. The remote sensor may be in different locations on different models.*

Introducing the Remote Control

Button Descriptions



Button	Description
1 POWER	Turn the unit on or off.
2 AUX, DVD, CBL, TV	To select additional products to be controlled with remote control. <i>This is a universal remote control. If your remote control does not work correctly when you operate the unit, please try to press the TV button.</i>
3 0-9 number buttons	Use these number buttons to select channel or input password.
4 INPUT	To display the INPUT source list or to quickly select input source.
5 Dash (-)	To enter a program number for multiple program channels such as 2-1, 2-2, etc.
6 FLASHBACK	To switch between the currently tuned channel and the previously tuned channel.
7 CH+, CH-	To select channels upward or downward.
8 VOL+, VOL-	To adjust volume.
9 MUTE	To mute the sound.
10 MENU	To access the Menu main page.
11 INFO	To access the program guide.
12 ▲, ▼	To move upward or downward in menu operation;
▶, ◀	To move left or right in menu operation; To adjust selected menu item in menu operation;
OK	To confirm or alter the settings of the selected menu item.
13 GUIDE	To access the program guide.
14 EXIT	To exit menu.

Introducing the Remote Control

Button Descriptions



Button	Description
15 ZOOM	To select a screen aspect ratio.
16 CCD	To select closed caption mode.
17 MTS/SAP	To select a stereo, sap or mono for analog channels; also used to select audio track for digital channels.
18 SLEEP	To set sleep timer.
19 LIST	To access the master channel list.
20 PICTURE	To select a preset picture mode.
21 FREEZE	To freeze current picture.
22 FAVORITE	To access the favorite channel list and select from 3 different favorite lists.
23 AUDIO	To select a preset sound mode.

Getting Started

Running Initial Setup

Perform these steps before you press **POWER**  on the remote control to turn on your TV set.

1. Insert the batteries into the remote control unit.
2. Connect the antenna cable to the TV.
3. Plug in the AC power cord to the AC outlet.

After you finish connecting the TV, you can run the Initial Setup to create a list of available analog and digital channels. The Initial Setup screen appears when you turn on the TV for the first time. We strongly recommend you to perform initial setup according to the steps below.

Select Language

Press **▲/▼** to select the desired language listed on the screen, and then press **OK** to confirm and continue.

Select Time Zone

Press **▲/▼** to select a proper time zone according to your area, and then press **OK** to confirm and continue.

If you want to return to previous screen, please highlight **[GO BACK]** item and press **OK** to return.

Setting Daylight Saving

Press **▲/▼** to highlight **[Yes]** item if you want to observe daylight saving, or **[No]** to abandon daylight saving and then press **OK** to confirm and continue. If you want to return to previous screen, please highlight **[GO BACK]** item and press **OK** to return.

Selecting RF Input Source

Press **▲/▼** to select **[Antenna]** or **[Cable]** according to what kind of connection is made to your TV, and then press **OK** to confirm and continue. If you choose **[Antenna]**, the TV starts Auto Program automatically.

If you choose **[Cable]**, there are 3 kinds of CATV system, including **STD**, **HRC** and **IRC**. Select the one matches to your TV. Select **Automatic** when you do not know which one to select.

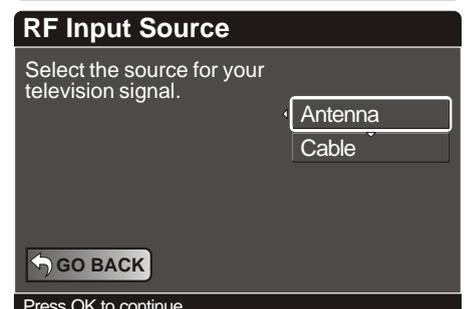
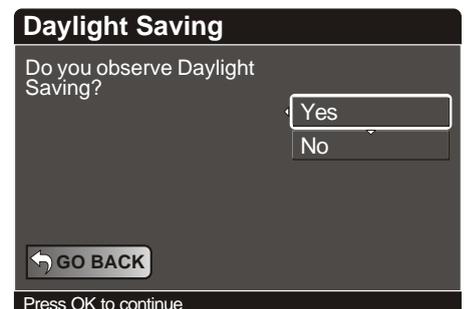
If you want to return to previous screen, please highlight **[GO BACK]** item and press **OK** to return.

Start Auto Program...

Once you have finished selecting RF input source, the unit starts auto program.

Auto Program may take a while to complete. A progress bar is displayed while available analogue and ATSC digital channels are being scanned. If you select **[Stop Scan]** to cancel the Auto Program before all receivable channels are scanned, you need to run Auto Program again at a later time.

Auto Program will create a list of receivable channels for the current input . You will be required to run Auto Program for RF input to create a list of available channels.



(Example)

Setting a Secret Number (Password)

For additional protection to your TV and to your user's settings from being accidentally changed, you may want to set a secret number first as below.

1. Press **MENU**.....

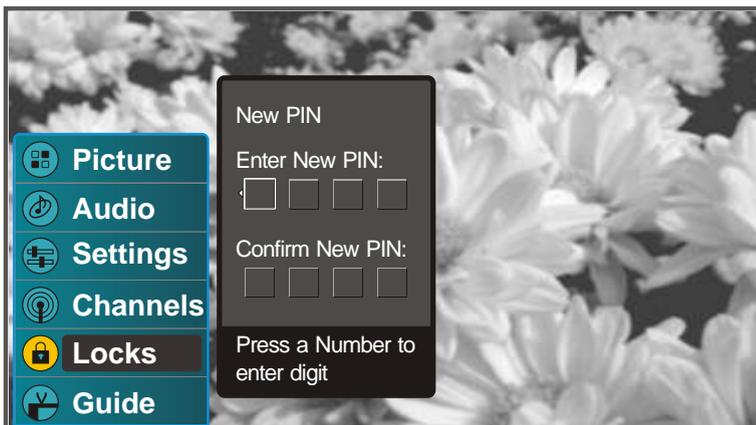


2. Highlight [**Locks**].....



Use  or  button.

3. Press **OK**.....



The TV allows you to set a secret number when you access the [Locks] menu for the first time.

You may use 0-9 number buttons to enter a new four-digit secret number, and then confirm the new secret number by entering it again.

Once the secret number is set successfully, the TV requests you to enter the secret number if you are going

- Access the [Locks] menu.
- Scan channels automatically.
- Find a channel manually.
- View a blocked program.
- Reset all settings to defaults by using the [RESET ALL] item in [Settings] menu.

As a precautionary measure, make a note of your secret number and keep it in a safe place.

Menu Navigation

1.  Press to display the Main menu.

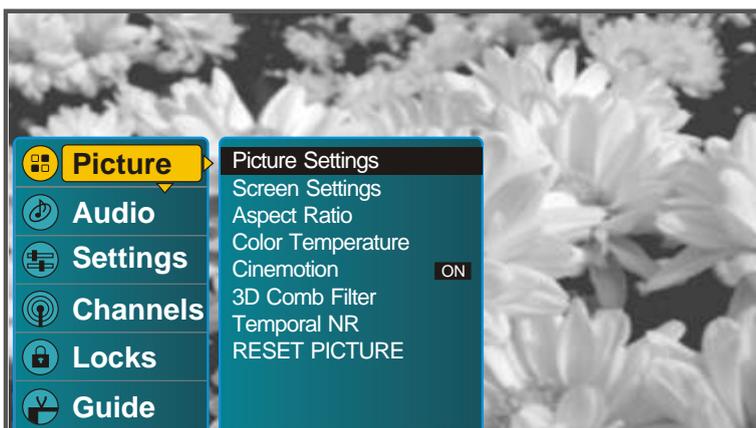
2.  Press to highlight the menu items.

3.  Press to enter the sub-menu field.

4.  Press to select items in the sub-
 Press to adjust the selected items or move the on-screen cursor in the sub-menu.
 Press to confirm your operation or alter the settings for some items such as [Cinemotion].

5.  Press to return to previous screen.

6.  Press to return to normal picture.



Watching TV

Turning On/Off

Turning On

First plug in the AC power cord to the AC outlet.

Press **POWER**  on the TV or press **POWER**  on the remote control.



 *Never attempt to move the TV unless the AC power cord has been disconnected.*

The initial setup starts when the TV powers on for the first time. If the TV has been turned on before, it displays current input signal directly.

Turning Off

Press **POWER**  on the TV or press **POWER**  on the remote control.

The TV enters standby mode and the image on the screen disappears.

 *The TV will still consume some power as long as the AC power cord is still inserted into the wall outlet.*

 *If you are not going to use this TV for a long period of time, be sure to remove the AC power cord from the power outlet.*

Channel Numbers

This television is capable of receiving the full range of cable-TV channels available today, from the digital and HDTV channels, to the traditional analog channels.

As the transition toward full digital TV continues, some cable-TV systems in North America will have a mixture of analog and digital channels in their lineups. So in most situations the ATSC PSIP channel number is composed of a major channel number and a minor channel number. The major channel number is same for both analog and digital channels (It is equal to the NTSC channel number for existing broadcasters). An analog channel usually has a minor channel number of zero, while a digital channel usually has a minor channel number of 1, 2 or larger.

Selecting Channels

You can select analog channels in several ways.

Method 1 - Using CH+ or CH- on the remote control or on the TV

Press the **CH+** or **CH-** to cycle among all available channels. Only those channels marked with a tick symbol can be selected by the **CH+** or **CH-** button.



Method 2 - Using FLASHBACK on the remote control

Press **FLASHBACK** to switch to the previously tuned channel.

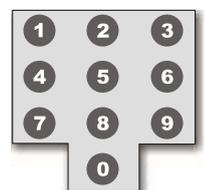
Press **FLASHBACK** again to switch back to the currently tuned channel.



Method 3 - Using 0-9 and OK on the remote control

• For analog TV channels

Press the **0-9** number buttons to input a channel number and confirm with **OK** to select up to 125 channels for VHF/UHF/CATV.



Selecting Channels

- **For digital TV channels**

Press the **0-9** number buttons and **dash(-)** to input a digital channel number; the TV goes to the selected channel directly. (e. g., channel 8-3, just press **8**, **-** and **3** one by one)

🔊 *If you enter channel number with 0-9 only (without pressing OK), channel selection will be made if there is no operation for a few seconds.*



Method 4 - Using master channel list

Press the **LIST** button to display the master channel list; you may select a channel with the **▲▼** and **OK** buttons.



Method 5 - Using favorite channel list

Press the **FAVORITE** button to display a desired favorite channel list; you may select a channel with the **▲▼** and **OK** buttons.



Adjusting Volume

Using VOL+ or VOL- on the remote control or on the TV

Press the **VOL+** or **VOL-** to increase or decrease the volume.



Using MUTE on the remote control

Press **MUTE** to mute the sound. Press it again to cancel the mute.



Using FREEZE button

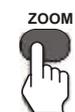
Press **FREEZE** to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc. You may press any key to cancel FREEZE and return to normal viewing.



🔊 *The TV automatically cancel FREEZE and return to normal viewing in about a minute.*

Using ZOOM button

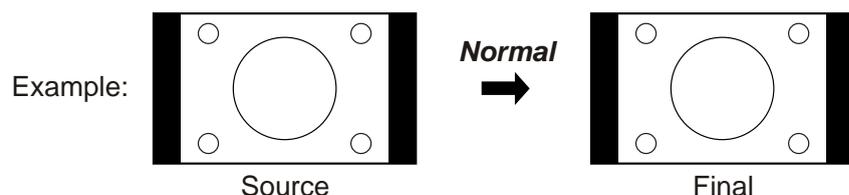
Press **ZOOM** repeatedly to choose a desired non-high definition screen aspect ratio.



Normal

Select to match the source's image. (4:3 to 4:3, 16:9 to 16:9)

🔊 *The zoom mode options may differ from different formats of the input signal.*



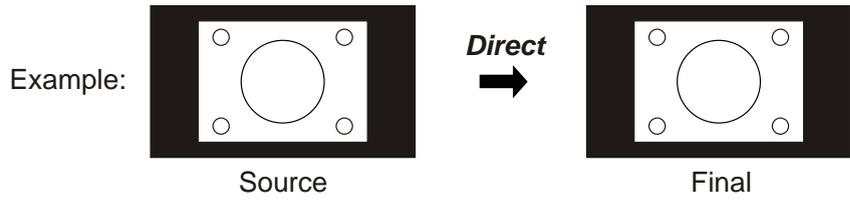
🔊 *When you choose **NORMAL** to view a 4:3 program, two black bars remain on the two sides of the screen.*

*To protect the screen, when you are viewing a 4:3 program, please **DO NOT** use the **NORMAL** feature for a long period of time.*

Using ZOOM button

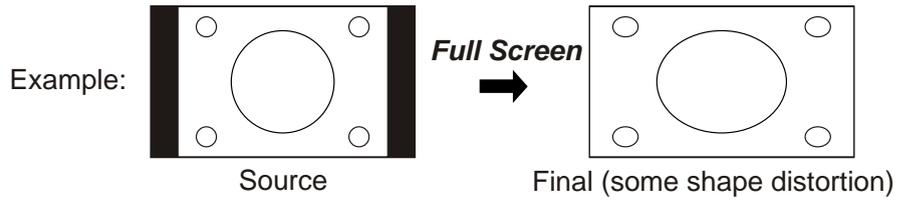
Direct

Select to detect the resolution of the signal and display an image with the same number of pixels on the screen.



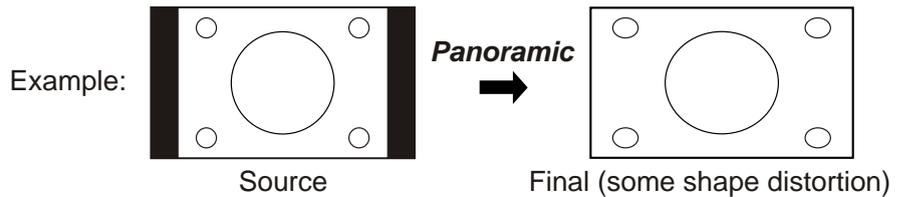
Full Screen

Select to enlarge the 4:3 picture horizontally only, to fill the display area.



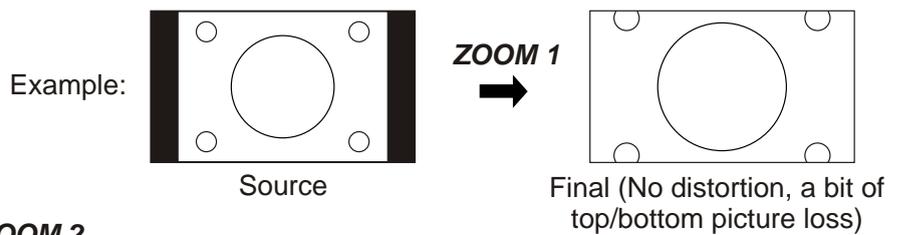
Panoramic

Select to enlarge the 4:3 picture to fill the 16:9 screen, keeping the original image as much as possible.



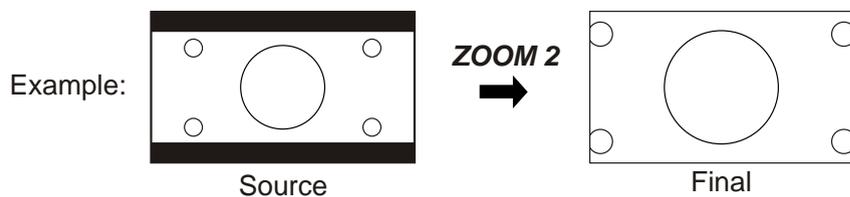
ZOOM 1

Select to enlarge the picture horizontally and vertically to an equal aspect ratio that fills the wide screen.



ZOOM 2

Select to view wide-screen DVDs in full screen.



Different zoom settings may be appropriate, depending on the program content.

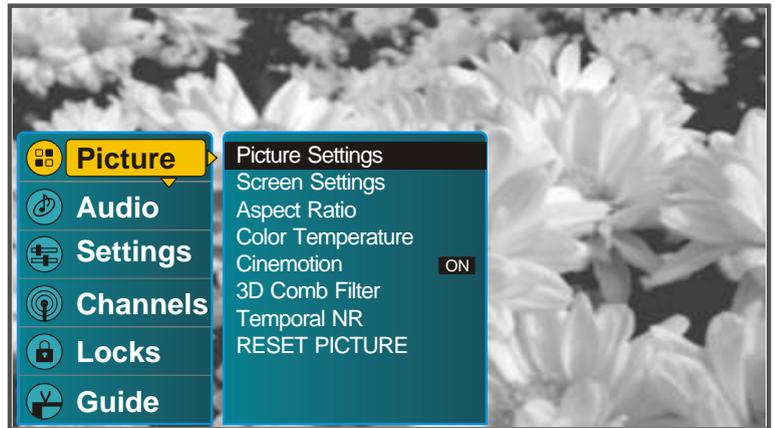
Adjusting MENU Options

Depending on the signal tuned, you may see different MENU options on your screen. As an example, Menus displayed below are based on TV mode.

Picture Control

Accessing Picture Menu

1. Press **MENU**..... 
2. Highlight [**Picture**]..... 
Use  or  button.
3. Press **OK**..... 



To highlight an option and to change settings, press **▲▼◀▶** . Press **OK** to confirm the selection or alter the settings. Press **EXIT** to exit.

Selecting Picture Options

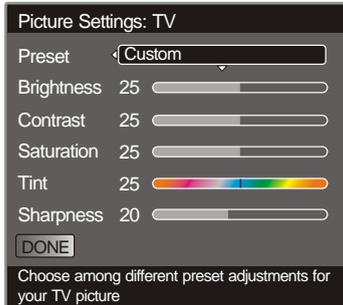
🔊 To quickly change the aspect ratio, press the **ZOOM** button repeatedly.

Option	Description
Picture Settings	Select to access a picture adjustment window, see [<i>Adjusting Picture Settings</i>] on next page.
Screen Settings	Select to access a screen adjustment window for VGA or Component input, see [<i>Adjusting Screen Settings</i>] on next page.
Aspect Ratio	Select to access a window in which you can choose a proper aspect ratio for 4:3 or 16:9 program, please refer to the explanation on the screen when making a choice. Select from [Normal], [Direct], [Full Screen], [Panoramic], [ZOOM 1] and [ZOOM 2].
Color Temperature	Choose from the following color temperatures: Cool Select to give the white colors a blue tint. Neutral Select to give the white colors a neutral tint. Warm Select to give the white colors a red tint.
Cinemotion	Select [ON] to optimize the screen display automatically detecting film content and applying a reverse 3-2 pull down process. Moving picture will appear clearer and more natural looking. Select [OFF] to disable the detection.
3D Comb Filter	Select to provides high quality images with minimal dot crawl and cross color noise. Off Select for normal images Low Select for lower Mosquito Noise Reduction. Medium For moderate Mosquito Noise Reduction High For enhanced Mosquito Noise Reduction
Temporal NR (Analog)	Select to reduce the noise level of connected equipment. This also reduces the noise level to the signal from the RF jack. Select from [Off], [Low], [Medium] and [High].
RESET PICTURE	Select to reset picture settings and adjustments to the defaults.

Adjusting MENU Options

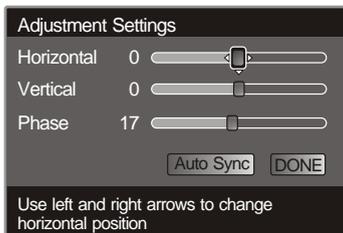
Picture Control

Adjusting Picture Settings



Option	Description
Preset	Select to choose a picture mode to best match the environment of the TV, which can vary due to factors like room brightness, type of program watched or the type of image input from external equipment. Standard Select for a highly defined image in a normally bright room. Vivid Select for enhanced picture contrast and sharpness. Movie Select for a movie. Pro Select for a normal picture. Custom Select to customize the picture as desired.
<p>🔊 To quickly change the picture mode, press the PICTURE button repeatedly.</p>	
Brightness	Select to adjust picture brightness.
Contrast	Select to adjust picture contrast.
Saturation	Select to adjust color saturation for current picture.
Tint	Select to adjust natural flesh tones.
Sharpness	Select to adjust clarity of outline detail.

Adjusting Screen Settings



Option	Description
Horizontal	Select to adjust horizontal position for the image.
Vertical	Select to adjust vertical position for the image.
Phase	Adjust when characters have low contrast or when the image flickers.
Auto Sync	Select to automatically adjust the PC image.

If there is no picture, check your computer's video refresh rate. Reduce to 60 Hz.

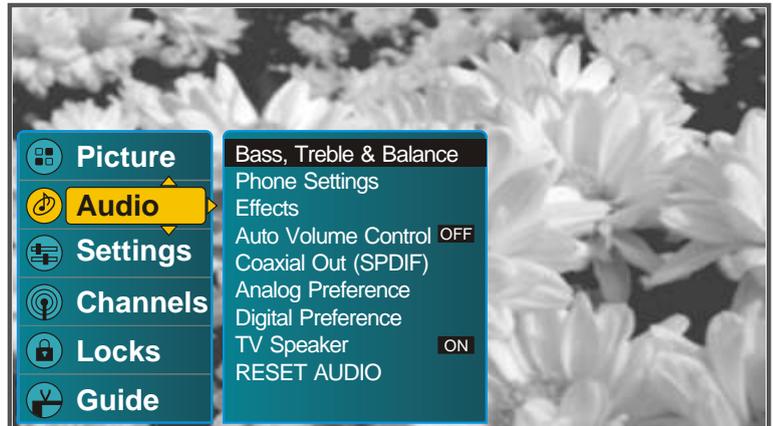
🔊 The [Screen Settings] window can't be accessed unless the TV works in VGA or Component mode.

🔊 When the TV works in Component mode, only [Horizontal] and [Vertical] items are available.

Audio Control

Accessing Audio Menu

1. Press **MENU**..... 
2. Highlight [**Audio**]..... 
Use  or  button.
3. Press **OK**..... 



To highlight an option and to change settings, press **▲▼◀▶**. Press **OK** to confirm the selection or alter the settings. Press **EXIT** to exit.

Selecting Audio Options

Option	Description
Bass, Treble & Balance	Select to access an audio adjustment window. Bass Adjust to increase or decrease lower-pitched sounds. Treble Adjust to increase or decrease higher-pitched sounds. Balance Adjust to emphasize left or right speaker balance.
Phone Settings	Select to access a phone settings window. All adjustments in this window have an effect on the headphone only. Volume Adjust to increase or decrease phone volume. Bass Adjust to increase or decrease lower-pitched sounds. Treble Adjust to increase or decrease higher-pitched sounds. Balance Adjust to emphasize left or right speaker balance.
Effects	None Select to turn off the sound effect. Hall Select for a concert program. Theater Select for a movie program. Music Select for a music program. Speech Select for a spoken dialog program.
Auto Volume Control	ON Select to equalize overall volume levels across all channels. OFF Select to turn off Auto Volume Control.
Coaxial Digital Out (SPDIF)	AUTO Select to output audio signal as its original format. PCM Select to output audio signal by PCM form.
Analog Preference	Mono Select for mono reception. Use to reduce noise during weak stereo broadcasts. Stereo Select for stereo reception when viewing a program broadcast in stereo. SAP Select to automatically switch the TV to second audio programs when a signal is received. If no SAP signal is present, the TV remains in Stereo mode.
Digital Preference	When you are viewing a digital program with which additional languages are broadcasted (usually English, Spanish or French), then you may use this item to select a language as desired.
TV Speaker	Select to turn the TV speakers ON or OFF.
RESET AUDIO	Select to reset audio settings to the defaults.

 To quickly change the audio mode, press the **AUDIO** button

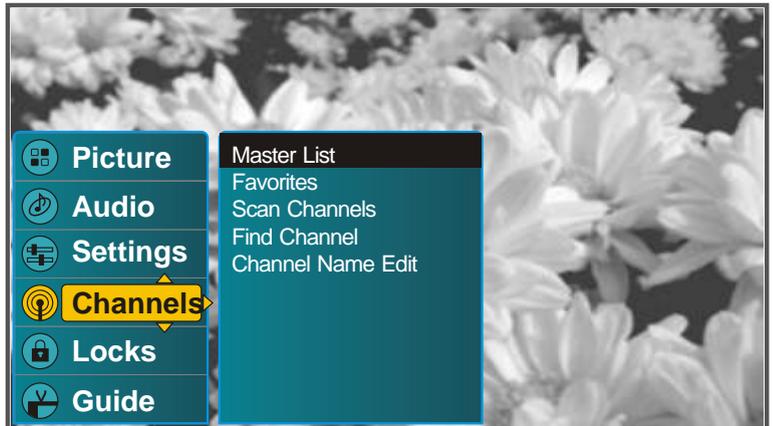
 For analog channels, you may use the **MTS/SAP** button to cycle through the Multi-channel TV Sound options.
For digital channels, you may use the **MTS/SAP** button to quickly

Adjusting MENU Options

Setting Channels

Accessing Channels Menu

1. Press **MENU**..... 
2. Highlight [**Channels**]... 
Use  or  button.
3. Press **OK**..... 



To highlight an option and to change settings, press **▲▼▶◀**. Press **OK** to confirm the selection or alter the settings. Press **EXIT** to exit.

Selecting Channel Options

Option	Description
Master List	Select to display all available channels scanned by Auto Program in initial setup. See [<i>Setting Channel List</i>] on this page.
Favorites	Allows you to setup favorite channels in 3 different categories. See [<i>Setting Favorite Channels</i>] on next page.
Scan Channels	Allows you to run Auto Program manually. You may need to run Auto Program manually if you interrupt the Auto Program process in initial setup. Please refer to [<i>Running Initial Setup</i>] for the detailed steps. You will be asked to input a correct secret number before you access the [Channel Scan] screen.
Find Channel	Allows you to find channel manually by input the RF channel number. Please contact your local station or cable operator for this RF channel number information. You will be asked to input a correct secret number before you access the [Find Channel] screen.
Channel Name Edit	Allows you to assign labels (such as station call letters) to a selected channel. See [<i>Editing Channel Name</i>] on next page.

Setting Channel List

In the [Master Channel List] window, you may mark or unmark the desired channels. Only those channels marked with a tick symbol can be selected by the **CH+** or **CH-** button. The unmarked channel(s) can be selected only by 0-9 number buttons.
 Mark All: select to mark all channels.
 Unmark All: select to unmark all channels.
 Digital Only: Select to mark digital channels only.
 Be sure to select [Done] if you finish setting channel list.



 Also, you may access the master channel list by pressing the **LIST** button.

Setting Channels

Setting Favorite Channels

The unit allows you to setup 3 groups (FAV 1, FAV 2 and FAV 3) of favorite channels. You may set up to 16 channels for each favorite channel list.

Use this item to choose FAV 1, FAV 2 or FAV 3

Use this item to deselect all channel

Use this item to rename current favorite channel list

Select this item when you finish setting the favorite channel list

Rename Favorite Channels List

The unit has assigned a name for each favorite list. For example, the preset name of FAV 2 is Sports. The unit also allows you to rename each list as desired.

Press **▲▼▶◀** to move through the label characters (A-Z, 0-9, etc.). Then press **OK** to select the highlighted character. Repeat to add characters to the label.

Back: select to move cursor backward for one character.

Shift: select to change uppercase or lowercase for A-Z.

Clear: select to clear current inputs.

Select [Done] when you finish labeling current list.

Using the FAVORITE button

Press **FAVORITE** button repeatedly to quickly select [FAV 1], [FAV 2] or [FAV 3]. The screen displays current favorite list name and those favorite channels under current list so that you can easily accessing them by press **▲** or **▼** buttons.

If current channel has been assigned to current list, the unit allows you to remove current channel from current list by selecting [Remove] item. Also, if current list does not include current channel, the unit allows you to add current channel into current list by selecting [Add] item.

Editing Channel Name

Press **OK** or **?** button.

Press **OK** button.

The unit allows you to assign a label to all available channels as desired by using this feature. In the [Channel Name Edit] window, you need to select a desired channel you want to rename. Please use **▲▼▶◀** and **OK** buttons to input a desired label name. Be sure to select [Done] item when you finish input.

Adjusting MENU Options

Using the Program Guide

Accessing Program Guide

1. Press **MENU**.....

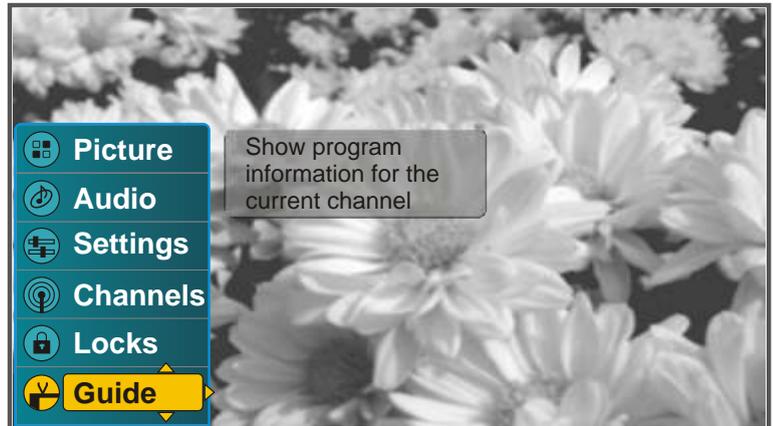


2. Highlight [**Guide**].....



Use  or  button.

3. Press **OK**.....

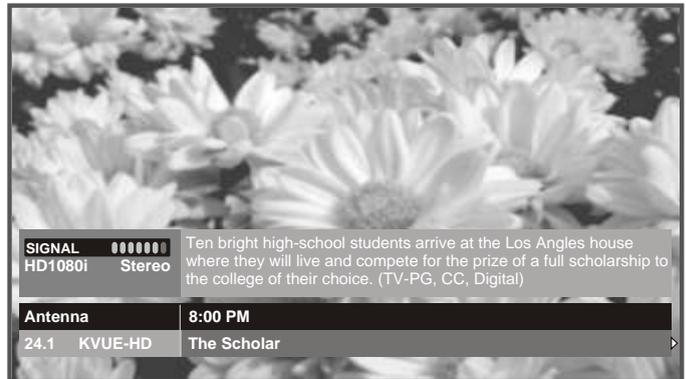


Using the Program Guide

This TV is equipped to show program information if it is available from the station. The Program Guide provides some information for current viewing program and next program if next program information is available. The information may include channel number, channel name, program title, broadcast time, brief introduction, etc. Normally, you may access program guide by:

- Using the [**Guide**] menu.
- Using the **GUIDE** button.
- Using the **INFO** button.

Press the **GUIDE** button while watching a program, a simplified information windows appears with channel number, channel name, program title, etc. If you want to view more detailed information such as program introduction, press the **▲** or **GUIDE** button.



If the information of next program is available, a triangle appears on the bottom-right part of the screen, you may press the **▶** button to access.



Setting System

Accessing Settings Menu

1. Press **MENU**.....

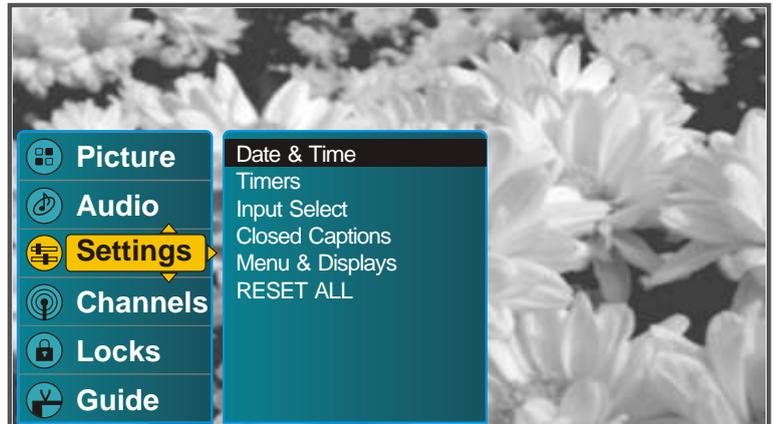


2. Highlight [**Settings**].....



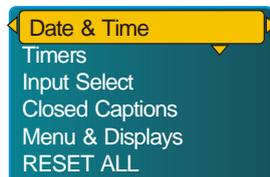
Use  or  button.

3. Press **OK**.....



To highlight an option and to change settings, press **▲▼▶◀**. Press **OK** to confirm the selection or alter the settings. Press **EXIT** to exit.

Setting Date & Time



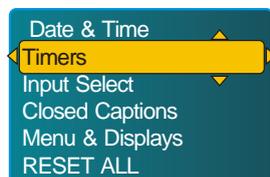
Press **OK**
or **▶** button.



Option	Description
Today's Date	Select to set date.
Current Time	Select to set current time.
Time Zone	Select a proper time zone according to your local area.
Adjust for Daylight Saving Time	Select to observe daylight saving time.
Auto-Update Time	Select to automatically update time from the service provider if this information is broadcasted with the program as well.

🔊 When the [Auto-Update Time] is set to ON, the [Today's Date] and [Current Time] items can't be accessed.

Setting Timer



Press **OK**



Option	Description
Timer is on	Select to activate current timer.
Start Time	Select to set a start time so that the TV automatically turns on at the selected time.
Duration	Select to set a duration time that you want the TV to remain on before shutting off automatically.

🔊 By using the **SLEEP** button, the TV allows you to set the amount of time (15 minutes, 30 minutes, 45 minutes, 60 minutes or 90 minutes) that you want the TV to remain on before shutting off automatically. If you select [Leave TV on], the unit cancel the sleep timer setting.

🔊 When the TV automatically turns on at the select time, if you operates the TV by pressing any button, the TV automatically cancels the duration time and remains on unless the user turns off the TV. You need to set the Timer again to use this feature another time.

Adjusting MENU Options

Setting System

Input Select



Press **OK** or **▶** button.

TV	Select to view TV programs
AV1	Select to view programs from AV1 inputs.
SV/AV2	Select to view programs from AV2 or S-video
Component1	Select to view programs from Component1 inputs.
Component2	Select to view programs from Component2 inputs.
HDMI	Select to view programs from HDMI input.
Analog RGB	Select to view programs from VGA input.

🔊 To quickly change the input type, press the **INPUT** button repeatedly.

Setting Captions

Option	Description
Basic Selection	Allows you to select basic closed caption options. CC1, CC2, CC3, CC4 Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.) Text1, Text2, Text3, Text4 Displays network/station information presented using either half or the whole screen (if available).
Advanced Selection	Allows you to select advanced digital closed caption options. Select from the available options.
Advanced Appearance	Allows you to make additional settings for digital closed caption options. You may set the following items as desired: Text Style, Text Color, Text Opacity, Text Size, Text align Edge Color, Edge Style, Background Color, Background Opacity, Frame Color and Frame Opacity.
Caption Preference	Allows you to set digital closed captioning to Basic (digital EIA-608) or Advanced (digital EIA-708). Select from [Always Basic], [Always Advanced] and [Automatic].
RESET CC	Select to reset Closed Captions to the default settings.

Using the CCD button

Press the CCD button repeatedly to select [Off], [On] or [On when muted].

Option	Description
On	Select to turn on the Closed Captions.
Off	Select to turn off the Closed Captions.
On when muted	Select to turn on the Closed Captions when the TV is muted.

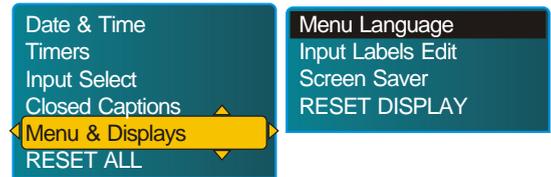
Setting Menu & Display

Option	Description
Menu Language	Allows you to select an on-screen menu language. Select from [English], [French] and [Spanish].
Input Labels Edit	Select to edit input labels as desired or according to the connected device. See [Editing Input Labels] on next page.
Screen Saver	Select to set screen saver. See [Setting Screen Saver] on next page.
RESET DISPLAY	Select to reset display settings to the defaults.

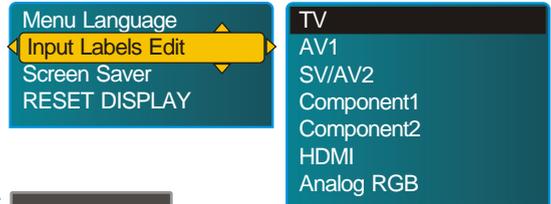
Setting System

Editing Input Labels

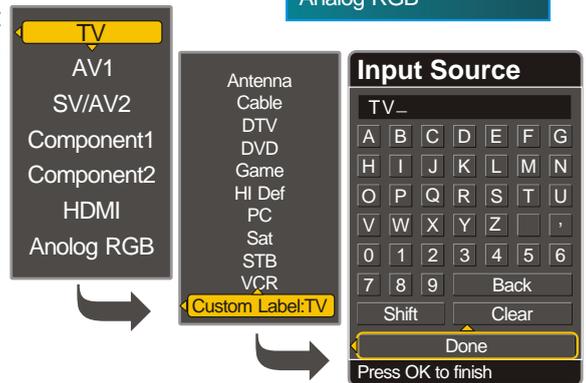
1. Highlight [Menu & Displays] item in [Settings] menu.
Press **OK** or **▶** button to access the sub-menu.



2. Highlight [Input Labels Edit] item.
Press **OK** or **▶** button to enter.



3. Highlight a desired Input Label you want to edit. As an example, highlight [TV].
Press **OK** or **▶** button to enter.



4. Highlight [Custom Label] item.
Press **OK** button to enter.

5. The Label editing window appears. Please use **▲▼▶◀** and **OK** buttons to input a desired label name. Be sure to select [Done] item when

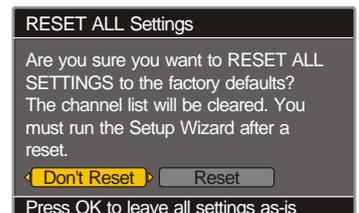
Setting Screen Saver

Option	Description
Activation Delay	Select to set a delay time before the screen saver is activated when there is no input signal.
Background Color	Select to set a background color when the screen saver is activated.
Test	Select to preview the screen saver.
RESET SCREEN SAVER	Select to reset the settings of the screen saver to the defaults.

Running Reset System

WARNING: Running the [RESET ALL] item will clear all of your customized settings.

Please make sure that you want to reset all settings to the factory defaults before you perform this operation. You will be asked to input a correct secret number when you select [RESET ALL] item in the [SETTINGS] menu. When the system is reset successfully, all customized settings will be cleared and the unit runs initial setup wizard.

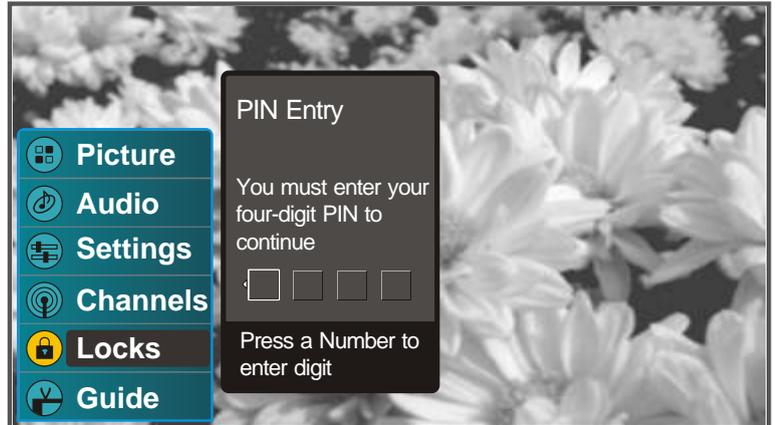


Adjusting MENU Options

Parental Lock Control

Accessing Locks Menu

1. Press **MENU**..... 
2. Highlight [**Locks**]..... 
Use  or  button.
3. Press **OK**..... 
4. Enter a correct PIN.
Use **0-9** number buttons. 



If it is the first time to access the [**Locks**] menu, the unit allows you to set a secret number as desired, please refer to [**Setting a Secret Number**] in chapter [**Getting Started**].

Once the correct PIN is entered, the [**Locks**] menu displays as below.

To highlight an option and to change settings, press  . Press **OK** to confirm the selection. Press **EXIT** to exit.

Selecting Locks Options



Option	Description
Ratings Locks	The rating control gives parents a great degree of control over broadcasts accessed by their children. It allows parents to select programs judged suitable for child viewing while blocking ones judged not suitable. It does so automatically once you activate this feature in your TV. See [Selecting Locks Options] on next page.
Channel Locks	Select to access [Channel Locks] window, in which you may lock channels as desired. In this window, you may select [Lock All] to lock all available channels, or select [Unlock All] to unlock all channels. Also, you may use the   and OK buttons to lock individual channel one by one as desired. The Lock channels will be marked with a  symbol. Be sure to select [Done] when you finish setting.
Front Panel Lock	ON Select to enable the panel buttons. OFF Select to disable the panel buttons.
Change PIN	Select to change PIN as desired. The old PIN is necessary if you want to change the PIN.
RESET LOCKS	Select to reset the locks settings to the defaults. The customized lock settings will be cleared if you select [RESET].

Parental Lock Control

Selecting Locks Options

🔊 To ensure maximum blocking capability, the age-based ratings should be used.

US Custom Rating Options

Option	Description
USA-TV	Age-Based Options
	TV-Y All children.
	TV-Y7 Directed to children age 7 and older.
	TV-G General audience.
	TV-PG Parental guidance suggested.
	TV-14 Parents strongly cautioned.
	TV-MA Mature audience only.
	Content-Based Options
	FV Fantasy violence.
	D Suggestive dialog.
	L Strong language.
	S Sexual situations.
	V Violence.
USA-Movie	G All children and general audiences.
	PG Parental guidance suggested.
	PG-13 Parental guidance for children under 13.
	R Restricted viewing, parental guidance is suggested for children under 17.
	NC-17 No one 17 and under admitted.
	X X is an older rating that is unified with NC-17 but may be encoded in the data of older movies.

Canadian Custom Rating Options

Option	Description
CAN-French	G General programming.
	8 ans+ Not recommended for ages under 8.
	13 ans+ Not recommended for ages under 13.
	16 ans+ Not recommended for ages under 16.
	18 ans+ Programming restricted to adults.
CAN-English	C All children.
	C8+ Children 8 years and older.
	G General programming.
	PG Parental guidance.
	14+ Viewers 14 and older.
	18+ Adult programming.

The content ratings will increase depending on the level of the age-based rating. For example, a program with a TV-PG V (Violence) rating may contain moderate violence, while a TV-14 V (Violence) rating may contain more intense violence.

Viewing Locked or Blocked Programs

You can view a locked or blocked program by entering the secret number.

1. Tuned to a locked or blocked program.
 2. Enter your secret number using the 0-9 buttons.
- Parental Lock will be canceled temporarily until you turn your TV off.

Other Information

Troubleshooting

If, after reading these operating instructions, you have additional questions related to the use of your television, please call the services center in your local area.

Before calling service, please check the symptoms and follow suggested solutions.

Remote Control

<i>Problem</i>	<i>Possible Solutions</i>
Remote control does not operate	<ul style="list-style-type: none">• The batteries could be weak. Replace the batteries.• Check the orientation of the batteries.• Make sure the power cord is plugged in.
Remote control does not operate other brand equipment	<ul style="list-style-type: none">• If you replaced the batteries to the remote recently, the code numbers for the video equipment may need to be reset.• There may be more than one code for the equipment that you are attempting to operate.• There is a possibility that this equipment can only be operated by its original remote control.

Video and Audio

<i>Problem</i>	<i>Possible Solutions</i>
No picture (screen not lit), No sound	<ul style="list-style-type: none">• Make sure the power cord is plugged in.• Press POWER on the TV or on the remote control.• Press the input source select button to cycle through the connected video sources.• Try another channel; it could be station trouble.
Dark, poor or no picture (Screen lit), good sound	<ul style="list-style-type: none">• Select a proper picture mode.• Adjust the brightness in the video setting.• Check the antenna/cable connections.
No color/dark picture/color is not correct	<ul style="list-style-type: none">• Adjust the color saturation in the video setting.
Only snow and noise appear On the screen	<ul style="list-style-type: none">• Check the antenna/cable connections.• Try another channel; it could be station trouble.
Dotted lines or stripes	<ul style="list-style-type: none">• Adjust the antenna.• Move the TV away from noise sources such as cars, neon signs, or hair dryers.
Double images	<ul style="list-style-type: none">• Using a highly directional outdoor antenna or a cable may solve the problem.
“Black box” on screen	<ul style="list-style-type: none">• You have selected a text option in the Setup setting and no text is available. Please try to turn off the Close Caption feature or select CC1 instead of Text1-4.
Good picture, no sound	<ul style="list-style-type: none">• The sound may be muted. Press MUTE again to cancel.• Make sure the speaker option is set to On in the Audio settings.• Make sure the stereo mode is set to stereo or mono.
Audio noise	<ul style="list-style-type: none">• Communication problems may occur if infrared communication equipment (e.g., infrared cordless headphones) is used near the TV. Move the infrared communication equipment away from the TV until the noise is eliminated.

Troubleshooting

General

<i>Problem</i>	<i>Possible Solutions</i>
One or some channels can't be displayed	<ul style="list-style-type: none">• These channels may be locked. Please unlock them (see Lock settings).• These channels may be set to hidden in the master channel list. You may mark them with the tick symbol to cancel hidden or select them with 0-9 number buttons.
Lost password	<ul style="list-style-type: none">• On the password screen, enter the following master password: 1397. You may use the master password to set a new password as desired. Please remember your new password and store it carefully.
Some items can't be accessed	<ul style="list-style-type: none">• If a setting option appears in gray, this indicates that the settings option is unavailable in current input mode.
TV cabinet creaks	<ul style="list-style-type: none">• When the TV is in use, there is a natural rise in temperature, causing the cabinet to expand or contract and may be accompanied by a slight creaking noise. This is not a malfunction.
Control buttons do not operate	<ul style="list-style-type: none">• Disconnect the power cord and wait for a few seconds. Then re-plug the power cord and turn on the unit again.

Notes:

If your problem is not solved, turn your unit off and then on again.

Cautions:

Never attempt to repair a defective TV yourself.

Other Information

Care and Maintenance

About Temperature

- Do not use in hot and cold rooms (locations)
- When the unit is used in rooms (locations) with low temperature, the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the screen to malfunction.
- Storage temperature: 0°C to +50°C
- Working temperature: 5°C to +40°C

About After-Image

The extended use of fixed image program material can cause a permanent after-image on the screen.

This background image is viewable on normal programs in the form of a stationary fixed image. This type of irreversible screen deterioration can be limited by observing the following steps:

- A. Reduce the brightness/contrast setting to a reasonable viewing level.
- B. Do not display the fixed image for extended periods of time.
- C. Turn the power off when not in actual use.

Important Information Regarding Use of Video Games, Computers, Captions or Other Fixed Image Displays.

- Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the screen.

Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.

CAUTIONS:

- The permanent after-image on the screen resulting from fixed image use is not an operating defect and as such is not covered by the warranty.
- This product is not designed to display fixed images for extended periods of time.

To clean this unit, wipe with a soft, dry cloth.

Cleaning and Maintenance

If the surfaces are extremely dirty, use a soft cloth dipped in a soap and water solution or a weak detergent solution.

- Use eyeglass cleaner to remove stubborn dirt from the screen.
- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using a chemically treated cloth, read the instructions that came with the cloth carefully.

Specifications

Type:	LCD TV	
Panel:	27" TFT LCD, 16:9 aspect ratio	
TV system:	American TV standard ATSC/NTSC System	
Receiving Channel:		
	VHF/UHF:	VHF 2-13ch, UHF 14-69ch
	CATV:	1-125ch
	Digital Terrestrial Broadcast:	2-69ch
	Digital cable:	1-135ch
Audio multiplex:	BTSC System	
Audio out:	8W 2	
Power Requirement:	AC 120 V, 60 Hz for North America	
	AC 100-240 V, 50/60Hz for others	
Power Consumption:	140 W	
Dimensions (W X H X D in inches):	27.6 22.9 9.1	
Weight:	41.9 lbs/19 kg	
Terminals:		
IN	Composite Video/Audio(L/R):	2
	S-video:	1
	Component Video/Audio(L/R):	2
	HDMI interface:	1
	D-Sub/Audio:	1
	Antenna:	1
OUT	Composite Video/Audio(L/R):	1
	Coaxial Digital Audio Out:	1
	Headphone jack:	1
Control	RS-232:	1
	USB Port:	1

- As part of policy of continuous improvement, the manufacturer reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.**

Other Information

Programming your Remote Control (on applicable models)

Introduction

On some models your remote lets you control four devices with one easy-to-use, compact unit. After installing batteries, you can program the remote to control your Universal TV, VCR or DVD, Cable or Satellite Receivers, Amplifier or Tuner, and Auxiliary devices. To do so, follow the instructions in "Programming a Device". For best results, please read and follow all the remaining instructions. Keep this guide for future reference.

A Quick Look at Programming a Device

To control VCR or DVD, Cable or Satellite Receivers, Amplifier or Tuner, and Auxiliary devices, follow these steps. Before proceeding, find the codes for the devices you want to program in [Manufacturer's Codes] and write them down or highlight them.

🔊 *To program a DVD Player, TV/DVD Combo, TV/VCR/DVD Combo, portable DVD player, or mobile DVD player, use the **DVD** key.*

1. Turn on the device (for example, DVD player) and, if needed, load media (for example, a DVD).
2. Press a device key (**VCR/DVD**, **CBL/SAT**, or **AUX**).
3. Press and hold **SET** until the red LED blinks twice; then release.
4. Enter the first five-digit code for your device. The LED blinks once as each digit is entered. If the code is correct, the LED blinks twice.

🔊 *If the LED does not blink twice, repeat steps 2 to 4 and try entering the code again.*

5. Aim the remote at the device and press **Power**. The device should turn off. If it does not, repeat steps 3 to 5, trying each code for your brand until you find one that works. If you cannot find a code that works, see "Searching for Your Code".
6. Repeat steps 1 to 5 for the other devices you want to control. For future reference, write down each working device code below:

AUX Code: _____

CBL Code: _____

CD Code: _____

DVD Code: _____

SAT Code: _____

TNR Code: _____

VCR Code: _____

7. Press **SET** to save and exit

Searching for your Code

If your device does not respond to the remote after trying all codes listed for your brand, or if your brand is not listed, try searching for your code:

1. Press a device key once.
2. Press and hold **SET** until the red LED blinks twice; then release.
3. Enter **9-9-1**, then the device group number (0= Cable, 1= TV, 2= VCR, 3= Audio). The LED blinks twice.
4. Aim the remote at the device and press **Power**. The remote sends IR codes from its library to the selected device, starting with the most popular code first. If the device responds, go to step 7.
5. If the device does not respond, press **CH+**. The remote will try the next code. Continue until the device responds.

🔊 *Press **CH-** to try the previous code.*

6. To search for other device codes, repeat steps 1 to 5.
7. Press **SET** to save and exit.

Checking the Codes

If you have set up the remote using the procedure in "Searching for Your Code", you may need to find out which four-digit code is operating your equipment. For example, to find out which code is assigned to your TV:

1. Press **TV** once.
2. Press and hold **SET** until the red LED blinks twice; then release.
3. Enter **9-9-0**. The LED blinks twice.
4. To view the code for the first digit, press **1**. Count the LED blinks (for example, three blinks = 3), and write down the number in the appropriate code listing in step 8 under "Programming a Device".

🔊 *If a code digit is 0, the LED does not blink.*

5. Repeat step 4 for the four remaining digits, using **2** for the second digit, **3** for the third digit, **4** for the fourth digit, and **5** for the fifth digit.
6. To check for other device codes, repeat steps 1 to 5, substituting the device key for **TV**.

Programming your Remote Control

Changing Volume Lock

The remote comes preset to allow independent volume control of each selected device (Global Volume Unlock). However, you may change the Volume Lock setting to Global Volume Lock so that one device's volume will control volume in all other modes. After that, you can perform Individual Volume Unlock on a selected device to set its volume control for independent operation or Global Volume Unlock to remove all volume locking.

Locking Volume Control to One Mode (Global Volume Lock)

1. Press and hold **SET** until the red LED blinks twice; then release.
2. Enter **9-9-3** and then press the mode key for the device you want to control volume (for example, **TV**). The LED blinks twice. Now when you press **VOL+**, **VOL-**, or **Mute**, the selected device (for example, **TV**) will control the volume regardless of the current mode.

Unlocking All Volume Control (Restoring Global Unlock)

1. Press and hold **SET** until the red LED blinks twice; then release.
2. Enter **9-9-3** and then press **VOL+**. The LED blinks four times.
Volume is now independently controlled for all programmed devices.

Unlocking a Single Device's Volume Control

1. Press a device key (**TV**, **VCR/DVD**, **CBL/ SAT**, or **AUX**).
2. Press and hold **SET** until the red LED blinks twice; then release.
3. Enter **9-9-3** and then press **VOL-**. The LED blinks four times.
Volume is now independently controlled for the selected devices.

Troubleshooting

Problem	Solution
LED does not blink when you press a key.	Replace new batteries.
LED blinks when you press a key, but device does not respond.	Make sure the remote is aimed at your device and is not more than 15 feet away. An entry error has occurred (for example, wrong key). Try entry sequence again.
Remote does not control devices or commands are not working properly.	Try all listed codes for the device. Make sure the device operates with an infrared remote control.
CH+ , CH- , and LAST do not work for your RCA TV.	Due to RCA design from 1983 to 1987, only the original remote control will operate these functions.
Channels do not change properly.	If the original remote control required you to press Enter to change channels, press Enter on this remote after entering the channel number.

CARE

- Keep the remote dry. If it gets wet, wipe it dry immediately.
- Use and store the unit only in normal temperature environments.
- Handle the remote gently and carefully. Don't drop it.
- Wipe the remote with a damp cloth to keep it looking like new.

Other Information

Manufacturer's Codes

Audio Amplifiers

Manufacturer	Codes
Bose	30674
GE	30078
JVC	30331
Marantz	30321
Nakamichi	30321
NEC	30264
Optimus	30395
Realistic	30395
Sansui	30321
Shure	30264
Sony	30689
Soundesign	30078
Victor	30331
Wards	30078
Yamaha	30354, 30133

Audio Amp/Tuners

Manufacturer	Codes
ADC	30531
Aiwa	31405, 31243, 30121
Anam	31609, 31074
Audiotronic	31189
Bose	31229
Capetronic	30531
Carver	31189
Coby	31263
Denon	31360, 31142, 30904
Fonmix	31360
Glory Horse	31263
Harman/Kardon	30110
Hitachi	31273
Inkel	30027
Integra	30135
JBL	30110
JVC	30074, 31263
Kenwood	31313, 31570, 30027
KLH	31428
Magnavox	31189, 31269, 30531
Marantz	31189, 31269, 30039
MCS	30039
Onkyo	30842, 30135
Optimus	31023, 30670, 30531, 31074
Panasonic	31518, 30039

Manufacturer's Codes

Audio Amp/Tuners	Manufacturer	Codes
	Philips	31189, 31269
	Pioneer	31023, 30150, 30014, 30630, 30531
	Proscan	31254
	Qisheng	31609
	Quasar	30039
	RadioShack	31263
	RCA	31023, 31609, 31254, 30531, 31074
	Sharper Image	31263
	Silsonic	30176
	Sony	31258, 31759
	Soundesign	30670
	Stereophonics	31023
	Sunfire	31313
	Teac	31074, 31267
	Technics	31308, 31518, 30039
	Thorens	31189
	Victor	30074
	Wards	30014
	Yamaha	30176, 31276, 31176

Cable Converter Boxes	Manufacturer	Codes
	ABC	00003, 00008, 00014
	Americast	00899
	Bell & Howell	00014
	Bell South	00899
	Clearmaster	00883
	ClearMax	00883
	Coolmax	00883
	Daeryung	01877, 00877, 00477, 00008
	Digi	00637
	Director	00476
	Dumont	00637
	Gehua	00476
	General Instrument	00476, 00810, 00276, 00003, 00014
	GoldStar	00144
	Hamlin	00009, 00273
	Hitachi	00014
	Jerrold	00476, 00810, 00276, 00003, 00012, 00014
	KNC	00008
	LG	00144
	Memorex	00000
	Motorola	00476, 00810, 00276, 01254, 01376
	MultiVision	00012

Other Information

Manufacturer's Codes

Cable Converter Boxes	Manufacturer	Codes
	Pace	01877, 00237
	Panasonic	00000, 00008, 00107
	Panther	00637
	Paragon	00000
	Philips	00317, 01305
	Pioneer	01877, 00877, 00144, 00533
	Pulsar	00000
	Quasar	00000
	RadioShack	00883
	Regal	00279, 00273
	Runco	00000
	Samsung	00000, 00144
	Scientific Atlanta	01877, 00877, 00477, 00008
	Sony	01006
	Starcom	00003, 00014
	Supercable	00276
	Supermax	00883
	Tocom	00012
	Torx	00003
	Toshiba	00000
	Trans PX	00276
	Tristar	00883
	TS	00003
	V2	00883
	Viewmaster	00883
	Vision	00883
	Vortex View	00883
	Zenith	00000, 00525, 00899

CD Players

Manufacturer	Codes
Aiwa	30157
Burmester	30420
California Audio Labs	30029
Carver	30157, 30179
Denon	30873
DKK	30000
DMX Electronics	30157
Dynamic Bass	30179
Fisher	30179
Garrard	30420
Genexxa	30032

Manufacturer's Codes

CD Players

Manufacturer	Codes
Harman/Kardon	30157, 30173
Hitachi	30032
Integra	30101
JVC	30072
Kenwood	30826, 30626, 30028, 30037, 30036, 30190
Krell	30157
Linn	30157
Magnavox	30157
Marantz	30626, 30029, 30157
MCS	30029
Miro	30000
Mission	30157
MTC	30420
NSM	30157
Onkyo	30868, 30101
Optimus	31063, 30000, 30032, 30037, 30420, 30179, 31075, 30145
Panasonic	30029
Parasound	30420
Philips	30626, 30157
Pioneer	31063, 31062, 30032
Polk Audio	30157
Proton	30157
QED	30157
Quad	30157
Quasar	30029
RadioShack	31075
RCA	31062, 30032, 30420, 30179, 30053
Realistic	30420, 30179
Rotel	30157, 30420
SAE	30157
Sansui	30157
Sanyo	30179
SAST	30157
Sharp	30861, 30037
Silsonic	30888, 30036
Sonic Frontiers	30157
Sony	30490, 30000, 30100
Soundesign	30145
TAG McLaren	30157
Tascam	30420
Teac	30420
Technics	30029

Other Information

Manufacturer's Codes

CD Players

Manufacturer	Codes
Victor	30072
Wards	30157, 30053
Yamaha	30888, 30036
Zonda	30157

DVD Players

Manufacturer	Codes
Aiwa	20641, 21912
Akai	20770
Allegro	20869
Apex Digital	20672, 20717, 20797, 21061, 20796, 21056, 21937, 20794, 21020, 21915
Blaupunkt	20717
Blue Parade	20571
Broksonic	20695
Changhong	20627, 21061
CineVision	20869
Coby	21086
Curtis Mathes	21087
CyberHome	21024, 21023, 21129, 20816, 21117
Daewoo	20833, 21172, 20869
Denon	20490
DVD2000	20521
Emerson	20591, 20675
Enterprise	20591
Fisher	21919
Funai	20675
Gateway	21158, 21073
GE	20522, 20717
Go Video	20744, 20833, 21099, 20783, 21075, 20869, 21730
Greenhill	20717
Harman/Kardon	20582, 20702
Hitachi	20573, 20664, 21919
Hiteker	20672
Initial	20717
Integra	20627, 21924
JBL	20702
JVC	20558, 20623, 20867
Kenwood	20490, 20534
KLH	20717, 21020, 21149
Koss	20651, 21980

Manufacturer's Codes

DVD Players

Manufacturer	Codes
Lasonic	20798
LG	20591, 20869, 20801
Liquid Video	21980
Lite-On	21158, 21058
Loewe	20511
Magnavox	20503, 20539, 21976, 21914, 20675
Marantz	20539
Memorex	20695
Microsoft	20522
Mintek	20717
Mitsubishi	21521, 20521
Nesa	20717
Norcent	21003
Onkyo	20503, 20627, 21924, 20792
Oritron	20651, 21980
Panasonic	20490, 21762, 21990
Philips	20503, 20539, 20646, 21914
Pioneer	20525, 20571
Polaroid	21086, 21061
Polk Audio	20539
Portland	20770
Proscan	20522
Qwestar	20651
RCA	20522, 20571, 20717, 20822
Rio	20869
Rotel	20623
Sampo	20752, 20698
Samsung	20490, 20573, 21932, 21075, 20820
Sansui	20695
Sanyo	20695
Sharp	20630, 20752
Sharper Image	21117
Sherwood	20770
Shinco	20717
Shinsonic	20533
Sonic Blue	20869, 21099
Sony	20533, 20864, 21033, 21904, 21903
SVA	20717
Sylvania	20675
Symphonic	20675

Other Information

Manufacturer's Codes

DVD Players

Manufacturer	Codes
Teac	20717, 21984, 20809
Technics	20490
Theta Digital	20571
Toshiba	20503, 20695
Urban Concepts	20503
Xbox	20522
Yamaha	20490, 20539, 20545
Zenith	20503, 20591, 20869

Satellite Receivers

Manufacturer	Codes
AlphaStar	00772
Chaparral	00216
Crossdigital	01109
DirecTV	00392, 00566, 00639, 01142, 00247, 00749, 01749, 00724, 00819, 01856, 01076, 01109, 00099, 01392, 01640, 01442, 01414, 01108
Dish Network System	01005, 00775, 01505
Dishpro	01005, 00775, 01505
Echostar	01005, 00775, 01505
Expressvu	00775
GE	00566
General Instrument	00869
GOI	00775
Goodmans	01246
Hisense	01535
Hitachi	00819, 00222, 01250
HTS	00775
Hughes Network Systems	01142, 00749, 01749, 01442
I-Lo	01535
JVC	00775
LG	01414, 01226
Magnavox	00724, 00722
Memorex	00724
Mitsubishi	00749
Motorola	00869
NEC	01270
Next Level	00869
Panasonic	00247, 00701
Paysat	00724
Philips	01142, 00749, 01749, 00724, 01076, 00722, 00099, 01442
Proscan	00392, 00566
Proton	01535

Manufacturer's Codes

Satellite Receivers

Manufacturer	Codes
RadioShack	00869
RCA	00392, 00566, 00855, 00143, 01392
Samsung	01276, 01109, 01108
Sanyo	01219
SKY	00856
Sony	00639, 01640
Star Choice	00869
Tivo	01142, 01442
Toshiba	00749, 01749, 00790, 01285
UltimateTV	01640, 01392
Uniden	00724, 00722
US Digital	01535
USDTV	01535
Voom	00869
Zenith	00856, 01856

Televisions

Manufacturer	Codes
Addison	10092
Admiral	10093, 10463
Advent	10761, 10842
Aiko	10092
Aiwa	11914
Akai	10812, 10702, 10030, 10672, 11903
Albatron	10700, 10843
America Action	10180
Anam	10250, 10180, 10700
Anam National	10250, 10650
Anhua	10051
AOC	10451, 10093, 10180, 10060, 10030, 10178, 10092
Apex Digital	10748, 10765, 10879, 10767, 11943
Audiovox	10451, 10180, 10875, 10092, 10623
Baile	10661
Beijing	10812, 10661
Bell & Howell	10154
BenQ	11032
Bradford	10180
Broksonic	10236, 10463, 11911, 11938, 11905, 11935, 11929
Cailing	10748
Candle	10030
Carnivale	10030
Carver	10054
Celebrity	10000
Celera	10765

Other Information

Manufacturer's Codes

Televisions

Manufacturer	Codes
Changcheng	10051, 10661
Changhong	10156, 10765, 11156, 10767
Ching Tai	10092
Chun Yun	10000, 10180, 10700, 10092, 10843
Chung Hsin	10180, 10053
Cinema	10672
Citizen	10180
Commercial Solutions	11447, 10047
Conrowa	10156, 10145, 11156
Contec	10180
Craig	10180
Crosley	10054
Crown	10180
Curtis Mathes	10047, 10054, 10154, 10451, 10093, 10060, 10702, 10030, 10145, 10166
CXC	10180
Daewoo	10154, 10451, 10180, 10030, 10178, 10672, 11928, 10092, 10661, 11909, 10623, 10700
Dayu	10661
Dell	11080
Denon	10145
Dumont	10017
Durabrand	10463, 10180, 10178, 10171, 11034
Electroband	10000
Emerson	10154, 10236, 10463, 10180, 10178, 10171, 11944, 11909, 11929, 11905, 11928, 10623, 11911
Envision	10030
Ether	10030
Firststar	10236
Fisher	10154
Fortress	10093
Fujitsu	10809, 10853
Funai	10180, 10171, 11904
Furi	10145
Futuretech	10180
Gateway	11756, 11755
GE	11447, 10047, 11454, 10051, 10451, 10180, 10030, 10178, 11917, 10092, 11907, 11922
Gibraltar	10017, 10030
GoldStar	10154, 10030, 10178, 11926
Grunpy	10180
Haier	11034
Hallmark	10178

Manufacturer's Codes

Televisions

Manufacturer	Codes
Hankook	10180, 10030, 10178
Harley Davidson	11904
Harman/Kardon	10054
Harvard	10180
Havermy	10093
Helios	10865
Hello Kitty	10451
Hisense	10156, 10748, 10145, 11156
Hitachi	10156, 10030, 10178, 11145, 10145, 10092, 11904, 11156
Hongmei	10093
Huafa	10145
Huari	10145
Huodateji	10051
Imperial Crown	10661
Infinity	10054
Inteq	10017
JBL	10054
JCB	10000
Jean	10156, 10051, 10236, 10092
Jensen	10761
Jiahua	10051
Jinfeng	10051
Jinxing	10054, 10156, 10145
JVC	10053, 11923, 11253
Kangli	10661
KEC	10180
Kenwood	10030
KLH	10765, 10767
Kolin	10180, 10150, 10053
KTV	10180, 10030
Kunlun	10051, 10661
LG	10060, 10030, 10178, 10856, 10700, 10025
Lloyd's	11904
LXI	10047, 10054, 10154, 10156, 10178
Magnasonic	11928, 11913
Magnavox	11454, 10054, 10030, 10706, 11931, 11254, 11913, 11904, 11944
Magnin	11907
Marantz	10054, 10030, 10704
Matsushita	10250, 10650
Maxent	11755
Megapower	10700

Other Information

Manufacturer's Codes

Televisions

Manufacturer	Codes
Megatron	10178, 10145
Memorex	10154, 10463, 10150, 10178, 11911, 11926, 11924, 11920, 11927
MGA	10150, 10030, 10178, 11907
Midland	10047, 10017, 10051
Mitsubishi	10154, 10250, 10093, 10236, 10180, 11250, 10150, 10030, 10178, 11917, 10836
Monivision	10843, 10700
Motorola	10093
MTC	10060, 10030
Mudan	10051
Multitech	10180
NAD	10156, 10178, 10866
National	10051
NEC	10154, 10156, 10051, 10053, 10030, 10178, 11704
Newave	10093, 10178, 10092
Nikko	10030, 10178, 10092
Norcent	10748, 10824
NTC	10092
Onwa	10180
Optimus	10154, 10250, 10166, 10650, 11927, 11924, 11913
Optonica	10093
Orion	10236, 10463, 11929, 11911, 11905
Panasonic	10054, 10250, 10051, 10650, 11941, 11927, 11924
Panda	10051, 10706
Penney	10047, 10156, 10051, 10060, 10030, 10178, 11926, 11907
Philco	10054, 10180, 10030, 10178
Philips	11454, 10054, 10000, 10051, 10030, 10178, 10092, 10690
Pilot	10030
Pioneer	10166, 10866, 10679
Portland	10092
Prima	10761
Princeton	10700
Prism	10051
Proscan	11447, 10047, 11922
Proton	10030, 10178
Pulsar	10017
Qingdao	10051
Quasar	10250, 10051, 11924, 10650
RadioShack	10047, 10154, 10180, 10030, 10178, 11920, 11904
RCA	11447, 10047, 11454, 10000, 10030, 10178, 11547, 11922, 11917, 10092, 11907, 11948, 10090, 10679

Manufacturer's Codes

Televisions

Manufacturer	Codes
Realistic	10154, 10180, 10030, 10178
Rowa	10748
Runco	10017, 10030
Sampo	10154, 10093, 10030, 10178, 10171, 10700, 10650, 11755, 10092
Samsung	10154, 10156, 10060, 10812, 10702, 10030, 10178, 11060, 10814, 10092, 11903, 10090, 10766
Sansui	10463, 11904, 11935, 11929, 11911
Sanyo	10154, 10156, 10180, 10145, 11907
Sanyuan	10093
Scotch	10178
Scott	10236, 10180, 10178
Sears	10047, 10054, 10154, 10156, 10178, 10171, 11926, 11904
Shaofeng	10145
Sharp	10093, 10030, 10650, 11917
Shen Ying	10092
Shencai	10145
Sheng Chia	10093, 10236
Skygiant	10180
Skyworth	10748
Sony	11100, 10000, 10650, 11925, 11904
Soundesign	10180, 10178
Sowa	10156, 10051, 10060, 10178, 10092
Squareview	10171
SSS	10180
Starlite	10180
Studio Experience	10843
Supreme	10000
SVA	10748, 10865
Sylvania	10054, 10030, 10171, 11944, 11931
Symphonic	10180, 10171, 11913, 11904
Synco	10000, 10451, 10093, 10060, 10178, 10092
Tacico	10178, 10092
Tandy	10093
Tashiko	10092, 10650
Tatung	10054, 10154, 10156, 10051, 10060, 11156, 11756, 11254
Technics	10250, 10051
Techwood	10051
Teco	10051, 10093, 10178, 10092
Teknika	10054, 10180, 10150, 10060, 10092
Telefunken	10702
Tera	10030

Other Information

Manufacturer's Codes

Televisions

Manufacturer	Codes
Thomas	11904
Tiane	10093
TMK	10178
TNCi	10017
Tobo	10748
Toshiba	10154, 10156, 10060, 10145, 11945, 11704, 11936, 11156, 11935, 10650, 11918
Tuntex	10030, 10092
TVS	10463
V Inc.	11756, 10885, 10864
Vector Research	10030
Victor	10250, 10053, 10650
Vidikron	10054
Vidtech	10178
Viewsonic	11755, 10885, 10864
Wards	10054, 10030, 10178, 10866, 11156
Warumaia	10661
Waycon	10156
White Westinghouse	10463, 11909, 10623
Yamaha	10030
Yapshe	10250
Zenith	10017, 10463, 10178, 11904, 11929, 11911, 11909, 10092

VCRs

Manufacturer	Codes
ABS	21972
Admiral	20048, 20209
Aiko	20278
Aiwa	20037, 20479
Alienware	21972
America Action	20278
American High	20035
Amoisonic	20479
Anam	20162, 20037, 20240, 20278
Anam National	20162
Asha	20240
Audiovox	20037, 20278
Beaumarck	20240
Bell & Howell	20104
Broksonic	20184, 20121, 20209, 20002, 20479
Calix	20037
Canon	20035
Carver	20081
CCE	20072, 20278

Manufacturer's Codes

VCRs

Manufacturer	Codes
Changhong	20048, 20081
Citizen	20037, 20278
Colt	20072
Craig	20037, 20047, 20240, 20072
Curtis Mathes	20060, 20035, 20162
Cybernex	20240
CyberPower	21972
Daewoo	20045, 20104, 20278
Dell	21972
Denon	20042
DirecTV	20739
Durabrand	20039, 20038
Electrohome	20037
Electrophonic	20037
Emerex	20032
Emerson	20035, 20037, 20184, 20240, 20045, 20121, 20043, 20209, 20002, 20278, 20479
Fisher	20047, 20104
Fuji	20035, 20033
Fujitsu	20045
Gateway	21972
GE	20060, 20035, 20240
General	20045
Go Video	20432
GoldStar	20037, 20209, 20038, 20225
Haojie	20240
Harman/Kardon	20081, 20038
Harwood	20072
Hewlett Packard	21972
HI-Q	20047
Hitachi	20037, 20042, 20055
Howard Computers	21972
HP	21972
Hughes Network Systems	20042, 20739
iBUYPOWER	21972
JVC	20045, 20067
KEC	20037, 20278
Kenwood	20067, 20038
KLH	20072
Kodak	20035, 20037
Kolin	20043

Other Information

Manufacturer's Codes

VCRs	Manufacturer	Codes
	LG	20037, 20045, 20042, 20209, 20038
	Logik	20072
	LXI	20037
	Magnavox	20035, 20039, 20081
	Magnin	20240
	Marantz	20035, 20081
	Marta	20037
	Matsushita	20035, 20162
	Media Center PC	21972
	MEI	20035
	Memorex	20035, 20162, 20037, 20048, 20039, 20047, 20240, 20104, 20209, 20479
	MGA	20240, 20043
	MGN Technology	20240
	Microsoft	21972
	Mind	21972
	Minolta	20042
	Mitsubishi	20067, 20043
	Motorola	20035, 20048
	MTC	20240
	Multitech	20072
	NEC	20035, 20037, 20048, 20104, 20067, 20038
	Newave	20037
	Nikko	20037
	Noblex	20240
	Northgate	21972
	Olympus	20035
	Optimus	21062, 20162, 20037, 20048, 20104, 20432
	Orion	20184, 20209, 20002, 20479
	Panasonic	21062, 20035, 20162, 20616, 20225
	Penney	20035, 20037, 20240, 20042, 20038
	Pentax	20042
	Philco	20035, 20479
	Philips	20035, 20081, 20739, 20618
	Pilot	20037
	Pioneer	20042, 20067
	Polk Audio	20081
	Profitronic	20240
	Proscan	20060
	Protec	20072
	Pulsar	20039
	Qisheng	20060

Manufacturer's Codes

VCRs

Manufacturer	Codes
Quasar	20035, 20162
Radix	20037
Randex	20037
RCA	20060, 20035, 20240, 20042, 20880
Realistic	20035, 20037, 20048, 20047, 20104
ReplayTV	20616
Runco	20039
Sampo	20037, 20048
Samsung	20240, 20045, 20432
Sanky	20048, 20039
Sansui	20067, 20209, 20479
Sanyo	20047, 20240, 20104
Scott	20184, 20045, 20121, 20043
Sears	20035, 20037, 20047, 20042, 20104
Sharp	20048, 20209
Shintom	20072
Shogun	20240
Singer	20072
Sonic Blue	20616
Sony	20035, 20032, 20033, 20636, 21972
STS	20042
Sylvania	20035, 20081, 20043
Systemax	21972
Tagar Systems	21972
Tashiko	20037
Tatung	20045, 20067
Technics	20035, 20162
Teco	20035, 20037, 20048, 20038
Teknika	20035, 20037
Tivo	20636, 20618, 21503, 20739
TMK	20240
Toshiba	20045, 20042, 20067, 20043, 21503, 21008, 21972
Totevision	20037, 20240
Touch	21972
Unitech	20240
Vector	20045
Vector Research	20038
Victor	20067
Video Concepts	20045
Videomagic	20037
Videosonic	20240
Viewsonic	21972

Other Information

<i>Manufacturer's Codes</i>

VCRs

Manufacturer	Codes
Wards	20060, 20035, 20048, 20047, 20081, 20240, 20042, 20072
White Westinghouse	20209, 20072
XR-1000	20035, 20072
Yamaha	20038
Zenith	20039, 20033, 20209, 20479
ZT Group	21972

SANYO COMFORT WARRANTY

WARRANTY APPLICATION

New, unused Sanyo Color Television products purchased in Canada through a Sanyo authorized dealer are warranted against manufacturing defects in materials and workmanship for ONE YEAR for parts and labor, from the date of purchase by the original retail purchaser for non-commercial use. This warranty only applies in favor of the original retail purchaser of the warranted product.

SANYO CANADA INC.'S RESPONSIBILITY

During the warranty period, SANYO Canada Inc. will repair, or at our option, replace a Color Television product which shows evidence of a manufacturing defect in materials or workmanship.

Replacement PARTS are warranted for the remaining portion of the warranty period.

WHAT IS NOT COVERED

- (a) Color Television products purchased outside Canada.
- (b) Color Television products purchased in a used condition.
- (c) Problems due to product set-up and installation.
- (d) Adjustments that are outlined in the Operating Manual.
- (e) Accessory items including antenna, batteries and connecting cables.
- (f) Damage in or due to transportation.
- (g) Damage due to improper maintenance, accident, abuse, misuse or negligence.
- (h) Damage caused by lightning and power surges.

ORIGINAL RETAIL PURCHASER'S RESPONSIBILITY

You, the original retail purchaser, must present your original, dated bill-of-sale together with this warranty to SANYO Canada Inc. or to an authorized Sanyo Service Depot* when you make a claim under this warranty.

You, the original retail purchaser, are responsible for any costs of TRANSPORTING the product to and from SANYO Canada Inc. or an authorized Sanyo Service Depot. You also are responsible for the cost of any MAINTENANCE necessary in respect of the product.

*In-home service is only available to the units whose screen size is 25 inches or over, and limited to the locations within a 30-km radius of any authorized Sanyo Service Depot, throughout Canada.

WARRANTY BECOMES VOID This warranty becomes void if the product's serial numbers are altered or removed or if any repair to the product is made other than by SANYO Canada Inc. or by an authorized Sanyo Service Depot.

LIMITATIONS

- (a) SANYO Canada Inc. reserves the right to change or improve the design of the model of the product warranted hereunder without incurring any obligation to make any modifications to or to install any improvement in or on the product.
- (b) In no event shall SANYO Canada Inc. or any of its Authorized Dealers be liable for special or consequential damage arising from the use of this product.

STATUTORY WARRANTIES

The above provisions do not preclude the operation of any applicable provincial statute which in certain circumstances may not allow some of the limitations and exclusions described in this Warranty. Where any terms of this Warranty are prohibited by such a statute, they shall be deemed null and void but the remainder of this warranty shall remain in effect.

HOW TO OBTAIN WARRANTY SERVICE

Please contact the Sanyo Authorized Dealer from whom the product was purchased or contact us directly at:

SANYO Canada Inc.
300 Applewood Cres.
Concord Ont. L4K 5C7
(905) 760-9944
1-800-263-2244