Color Television
Operating Instructions

Panasonic ®
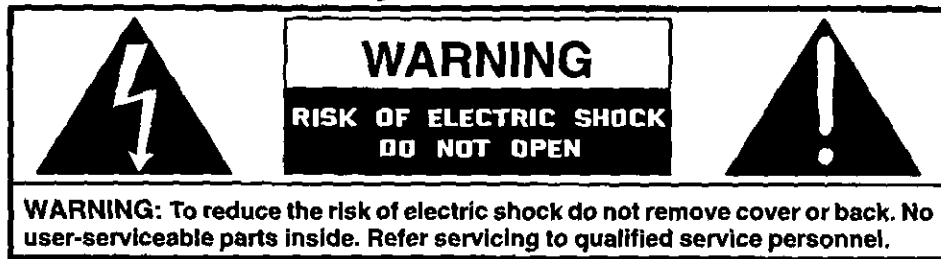
CT-27SF33

Read these instructions completely before operating this set.
Contents subject to change without notice or obligation.

Safety Instructions

WARNING

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

WARNING: To reduce the risk of electric shock do not remove cover or back. No user-serviceable parts inside. Refer servicing to qualified service personnel.

The lightning flash with arrow-head within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.
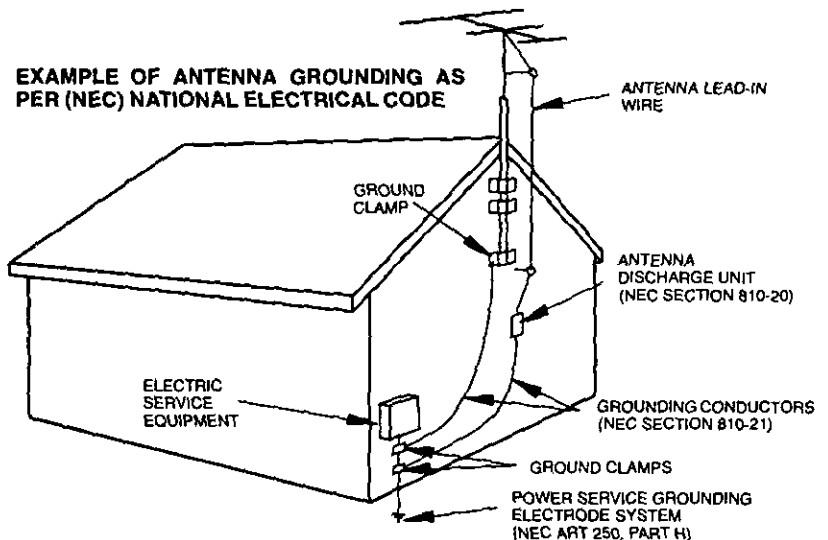
The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

Note To CATV System Installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC 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.

Safety Instructions For Television Receivers

1. Read and apply the operating instructions provided with your television receiver.
2. Read all of the instructions given here and retain them for later use.
3. Unplug this television receiver from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use attachments not recommended by the television receiver manufacturer as they may cause hazards.
5. Do not use this television receiver near water. For example: Avoid placing it near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
6. Do not place this television receiver on an unstable cart, stand or table. The television receiver may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the television receiver. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
7. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the television receiver and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the television receiver on a bed, sofa, rug or other similar surface. This television receiver should never be placed near or over a radiator or heat register. This television receiver should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
8. Operate only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home consult your television dealer or local power company. For television receivers designed to operate from battery power, refer to the operating instructions.
9. This television receiver is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
10. Do not allow anything to rest on the power cord. Do not locate this television receiver where the cord will be abused by persons walking on it.
11. Follow all warnings and instructions marked on the television receiver.
12. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
13. Never push objects of any kind into this television receiver through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television receiver.

EXAMPLE OF ANTENNA GROUNDING AS PER (NEC) NATIONAL ELECTRICAL CODE

ANTENNA LEAD-IN WIRE

GROUND CLAMP

ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)

ELECTRIC SERVICE EQUIPMENT

GROUNDING CONDUCTORS (NEC SECTION 810-21)

GROUND CLAMPS

POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

14 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 In the U S Section 810 of the National Electrical Code and in Canada Part 1 of the Canadian 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 See Figure

15 For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna This will prevent damage to the receiver due to lightning and power—line surges

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

17 Unplug this television receiver from the wall outlet, and refer servicing to qualified service personnel under the following conditions
   a   When the power cord or plug is damaged or frayed
   b   If liquid has been spilled into the television receiver
   c   If the television receiver has been exposed to rain or water
   d   If the television receiver does not operate normally by following the operating instructions Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the television receiver to normal operation
   e   If the television receiver has been dropped or the cabinet has been damaged
   f   When the television receiver exhibits a distinct change in performance – this indicates a need for service

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

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

20 Upon completion of any service or repairs to this television receiver, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition

21 **WARNING· To prevent fire or shock hazard, do not expose this appliance to rain or moisture.**

22 **CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH A RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE**

NOTE: This equipment is designed to operate in the U S A , Canada and other countries where the broadcasting system and AC house current is exactly the same as in the U S A and Canada

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

The extended use of fixed image program material can cause a permanent "shadow image" on the picture tube This background image is viewable on normal programs in the form of a stationary fixed image This type of irreversible picture tube deterioration can be limited by observing the following steps

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

NOTE: The marking or retained image on the picture tube resulting from fixed image use is not an operating defect and as such is not covered by Warranty This product is not designed to display fixed image patterns for extended periods of time.

Specifications

Power Source.	120V, 60Hz, AC
Channel Capability:	181 channels (See chart)
	VHF 2-13, UHF 14-69, Cable 125 channels
Video Input Jacks (3):	1V p-p, 75 ohm, phono jack type
Audio Input Jacks (3):	500mV rms, 47K ohm
To Audio AMP Jacks:	0–2 0V rms 4 7K ohm
S-VHS Input Jack (1):	S–Video (Y-C) Connector
Picture In Picture:	2 Tuner
Stereo Sound	
Surround Sound	
Closed Caption Display	

Channel Capability Chart

BAND	USA/CAN
VHF	12
UHF	56
CABLE (Mid–Band)	15
CABLE (Super Band)	14
CABLE (Hyper Band)	28
CABLE (Ultra Band)	56
TOTAL CHANNELS	**181**

Specifications are subject to change without notice or obligation

Introduction
Congratulations on Your New Purchase

Your new video component features an all solid state chassis which is designed to give you many years of enjoyment. It was thoroughly tested and adjusted at the factory for best performance.

In order for you to take full advantage of your new video component, please read and follow the installation and operating instructions supplied with this product.

Customer's Record

The model and serial number of this product may be found on its back cover. You should note the model and serial number in the space provided and retain this book as a permanent record of your purchase to aid in identification in the event of theft or loss.

Model Number: _____   Serial Number: _____

Table of Contents

Table of Contents (cont.)

Installation

Receiver Location

This unit is intended to be used with an optional stand or entertainment center Consult your dealer for available options

Locate for comfortable viewing Avoid placing where sunlight or other bright light (including reflections) will fall on the screen

Use of some types of fluorescent lighting can reduce remote control transmitter range

Adequate ventilation is essential to prevent internal component failure Keep away from areas of excessive heat or moisture

To insure optimum color purity do not position magnetic equipment (motors, fans, other speakers, etc) nearby

Optional External Equipment Connections

The Video/Audio connections between components can be made with shielded video and audio cables For best performance, video cables should utilize 75 ohm coaxial shielded wire Cables are available from your dealer or electronic supply house

Before you purchase any cables, be sure you know what type of output and input connectors your various components require Also determine the length of cable you'll need

AC Power Supply Cord

CAUTION: To prevent electric shock, match wide blade of plug to wide slot of ac outlet and fully insert Do not use this (polarized) plug with a receptacle or other outlet unless the blade can be fully inserted to prevent blade exposure
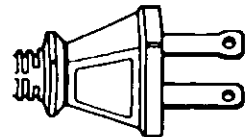
Polarized Plug

Remote Control Battery Installation

Requires two "AA" batteries

1   Turn the Transmitter face down Remove top cover by pressing down on marking and sliding cover off in the direction indicated
2   Install the batteries as shown in the battery compartment (Polarity (+) or (−) must match the markings in the compartment)
3   Replace the cover and slide in reverse until the lock snaps

Helpful Hint:

For frequent Remote Control users, replace old batteries with Alkaline batteries for longer life

Note: In order to maximize the life of the batteries, the lighted buttons on the Remote Control can be turned OFF and ON by pressing R−TUNE and RECALL at the same time.

Precaution on Battery Use

Incorrect installation can cause battery leakage and corrosion that will damage the Remote Control Transmitter

Observe the Following Precautions:

1   Batteries should always be replaced as a pair Always use new batteries when replacing the old set
2   Do not combine a used battery with a new one
3   Do not mix battery types (Example "Zinc Carbon" with "Alkaline")
4   Do not attempt to charge, short−circuit, disassemble, heat or burn used batteries
5   Battery replacement is necessary when Remote Control acts sporadically or stops operating the Receiver

Helpful Hint:

Whenever you remove the batteries to replace them, **you may need to reset the Remote Control Infrared Codes.** We recommend that you record the codes on page 42, prior to setting up the remote
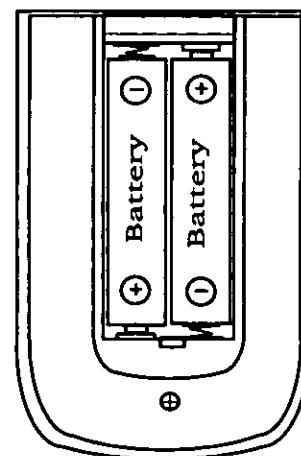
Press Down Here And Slide Cover Back

-6-
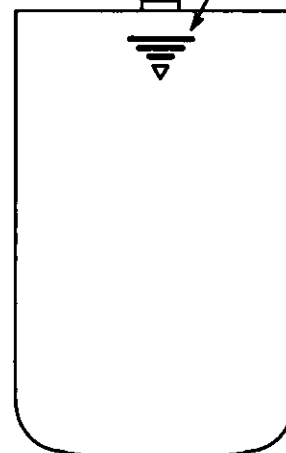
Installation (cont.)

Antenna/Cable Connections

Antenna Connection – For proper reception of VHF/UHF channels, an external antenna is required. For best reception an outdoor antenna is recommended. Antenna Mode must be set to TV. (Refer to Antenna Mode section.)

Indoor   Outdoor
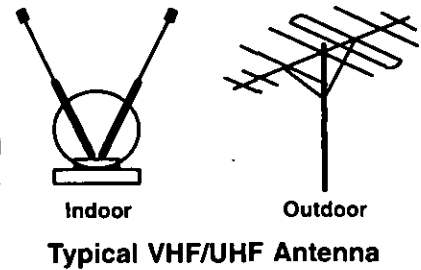
Typical VHF/UHF Antenna

Incoming Cable From Home Antenna (75 Ohm)

VHF/UHF
on Back of Set
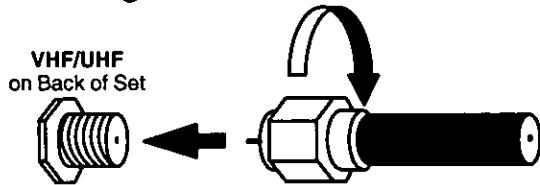
Incoming Cable From Home Antenna (300 Ohm)

VHF/UHF
on Back of Set

300 to 75 ohm Matching
Transformer (Not Included)
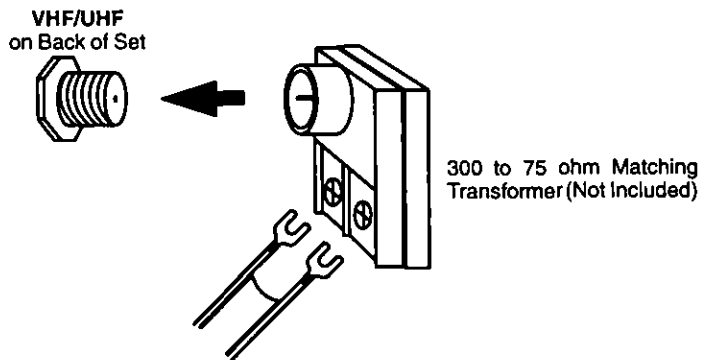
Cable Connection – For reception of cable channels (01~125) connect the cable supplied by your local cable company. Antenna Mode must be set to CABLE. (Refer to Antenna Mode section.)

Incoming 75 Ohm Cable (From Cable Company)

VHF/UHF
on Back of Set
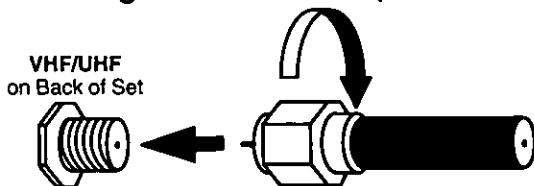
NOTE: Certain cable systems offset some channels to reduce interference or have Premium (scrambled) channels. A cable converter box is required for proper reception. Check with your local Cable company for its compatibility requirements.

Other Video Equipment

VCRs, Video Disc Players, Computers, TV games, and Teletext equipment can also be connected to the antenna input connection.

Installing Your TV Set

1 Determine if a Cable Box or VCR is going to be connected to the TV

2 Connect the TV according to the following illustrations

3 Turn the equipment on (TV, Cable Box, VCR) and set up the TV mode and antenna input using the *SET UP FEATURES* and *INPUT SELECT* sections of this manual
- Antenna users, please select "TV" in the SET UP menu
- Cable users, please select "CABLE" in the SET UP menu
- If a Cable Box is used, select "ANT 2" in the INPUT SELECT menu and tune the TV to the apropriate channel for the Cable Box (usually channel 3 or 4)
- If no Cable Box is used, select "ANT 1" in the INPUT SELECT menu

Antenna and External Video Connection

The following shows the standard connections which can be used for most situations

Note: This Receiver has the "PICTURE IN PICTURE" feature that uses two (2) tuners This allows you to watch two (2) live broadcasts at the same time without an external video source No special connections are required for PIP

Antenna Connection (No Cable Box or VCR)

Use this configuration when connecting the TV directly to the antenna or Cable TV system (without a Cable Box) Be sure to select the correct mode (see the *Set Up Features* section in this Manual for details)

TERMINALS ON BACK OF RECEIVER
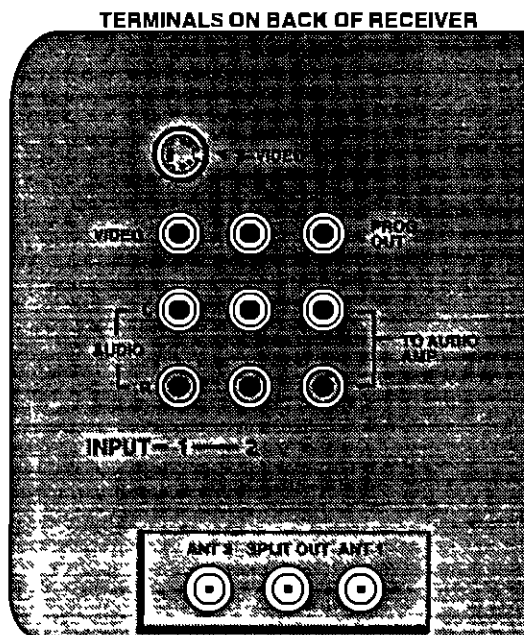
1 Connect the cable from the antenna (or cable system) to the ANT 1 terminal on the back of the TV

◄ To ANT Terminal

Incoming Cable from Antenna or Cable TV System

Antenna Connection (VCR, no Cable Box)

Use this configuration when connecting a VCR to the TV, when the TV is connected directly to the antenna or Cable TV system (without a Cable Box) Be sure to select the correct mode (see the *Set Up Features* section in this Manual for details)

4 Connect the video cable from the Video Out terminal on the back of the VCR to the Video In terminal on the back of the TV If connecting S-Video, connect the S-Video cable instead of the standard video cable

TERMINALS ON BACK OF RECEIVER

1 Connect the cable from the antenna (or cable system) to the ANT 1 terminal on the back of the TV

◄ To ANT Terminal

Incoming Cable from Antenna or Cable TV System

◄ To VCR ANT Input

2 Connect the cable from the SPLIT OUT terminal on the back of the TV to the antenna input of the VCR

VCR

TERMINALS ON BACK OF VCR

ANT INPUT

ANT OUTPUT

VCR S-Video is optional

S-VIDEO OUT

OR

VIDEO OUT

L
AUDIO OUT
R

3 Connect the audio cables from the Audio Out terminals on the back of the VCR to the Audio In (L or R) terminals on the back of the TV

Antenna Connection (Cable Box, no VCR)

Use this configuration when connecting the TV to the Cable TV system using a Cable Box. Be sure to select ANT 2 and Cable Mode (see the *Input Select* and *Set Up Features* sections in this Manual for details).

TERMINALS ON BACK OF RECEIVER

1 Connect the cable from the antenna or cable system to the ANT 1 terminal on the back of the TV.

Incoming Cable from Antenna or Cable TV System

2 Connect the cable from the SPLIT OUT terminal on the back of the TV to the Input terminal on the back of the Cable Box.

INPUT

OUTPUT

CABLE BOX

3 Connect the cable from the Output terminal on the back of the Cable Box to the ANT 2 terminal on the back of the TV.

TERMINALS ON BACK OF CABLE BOX
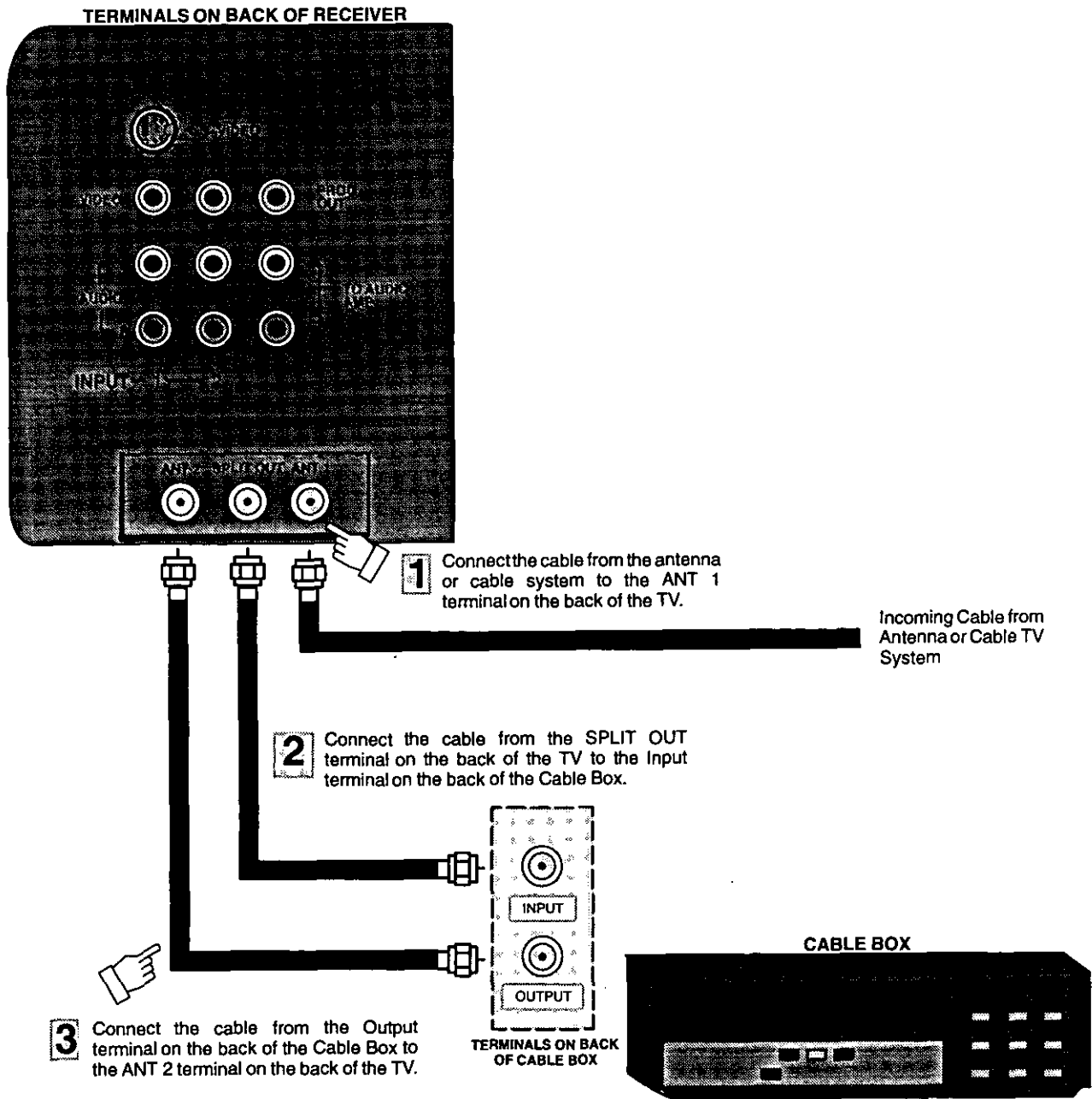
Antenna Connection (Cable Box and VCR)

Use this configuration when connecting the TV to the Cable TV system using a Cable Box and a VCR. Be sure to select ANT 2 and CABLE Mode (see the *Input Select* and *Set Up Features* sections in this Manual for details)

TERMINALS ON BACK OF RECEIVER

1 Connect the cable from the antenna or cable system to the ANT 1 terminal on the back of the TV

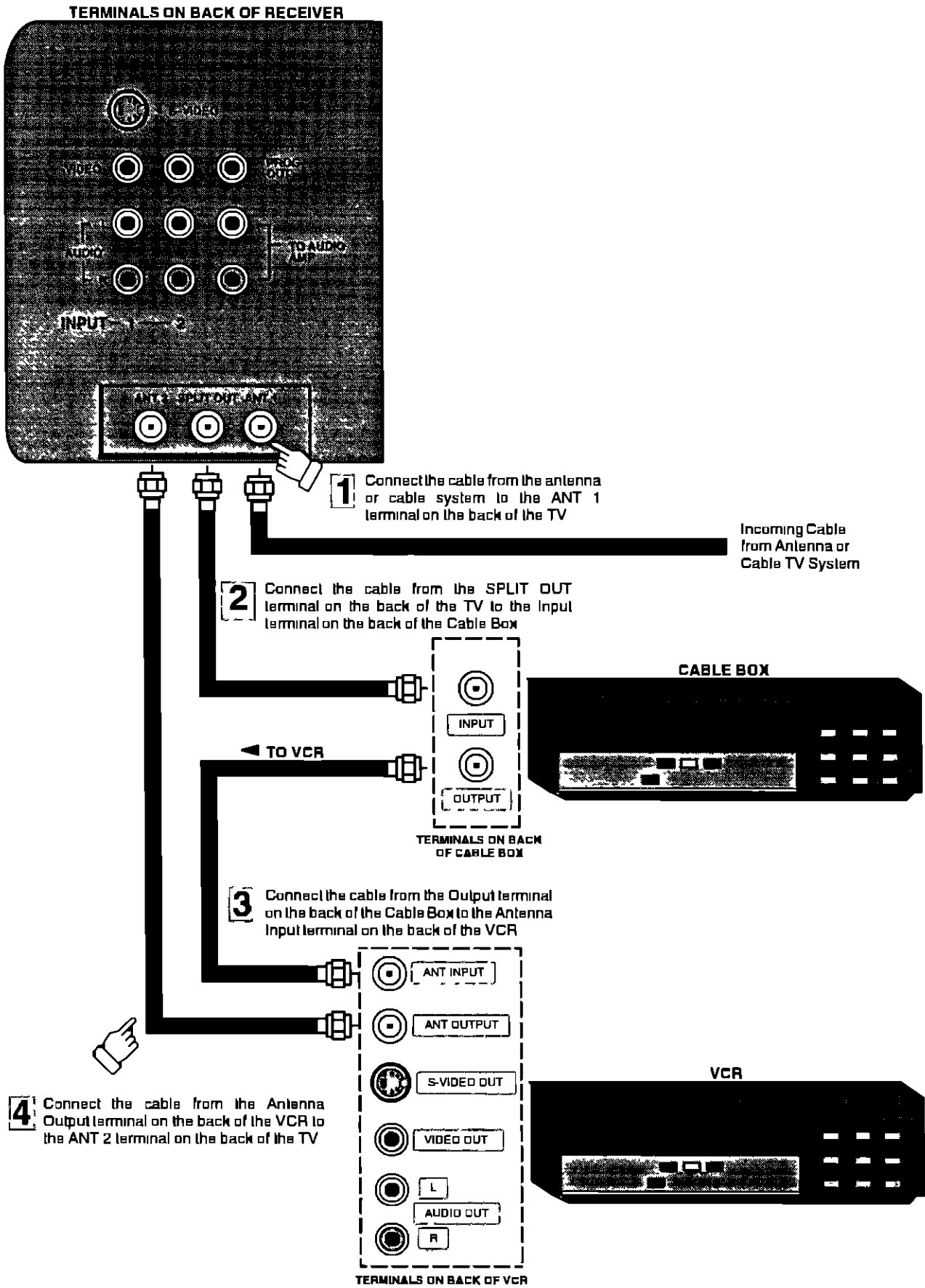Incoming Cable from Antenna or Cable TV System

2 Connect the cable from the SPLIT OUT terminal on the back of the TV to the Input terminal on the back of the Cable Box

CABLE BOX

INPUT

◀ TO VCR

OUTPUT

TERMINALS ON BACK OF CABLE BOX

3 Connect the cable from the Output terminal on the back of the Cable Box to the Antenna Input terminal on the back of the VCR

ANT INPUT

ANT OUTPUT

S-VIDEO OUT

VCR

VIDEO OUT

L

AUDIO OUT

R

4 Connect the cable from the Antenna Output terminal on the back of the VCR to the ANT 2 terminal on the back of the TV

TERMINALS ON BACK OF VCR

– 11 –

Optional Equipment Connection and Operation

TERMINALS ON BACK OF RECEIVER

Helpful Hints:

These terminals can also be used to connect to a VCR or another TV/Monitor Connect them to the input of the desired device See figure for details replacing the Audio Amp with either a VCR or TV/Monitor Don't forget to connect the video (PROG OUT) as needed (not shown in figure)

To Auxiliary Input ▶

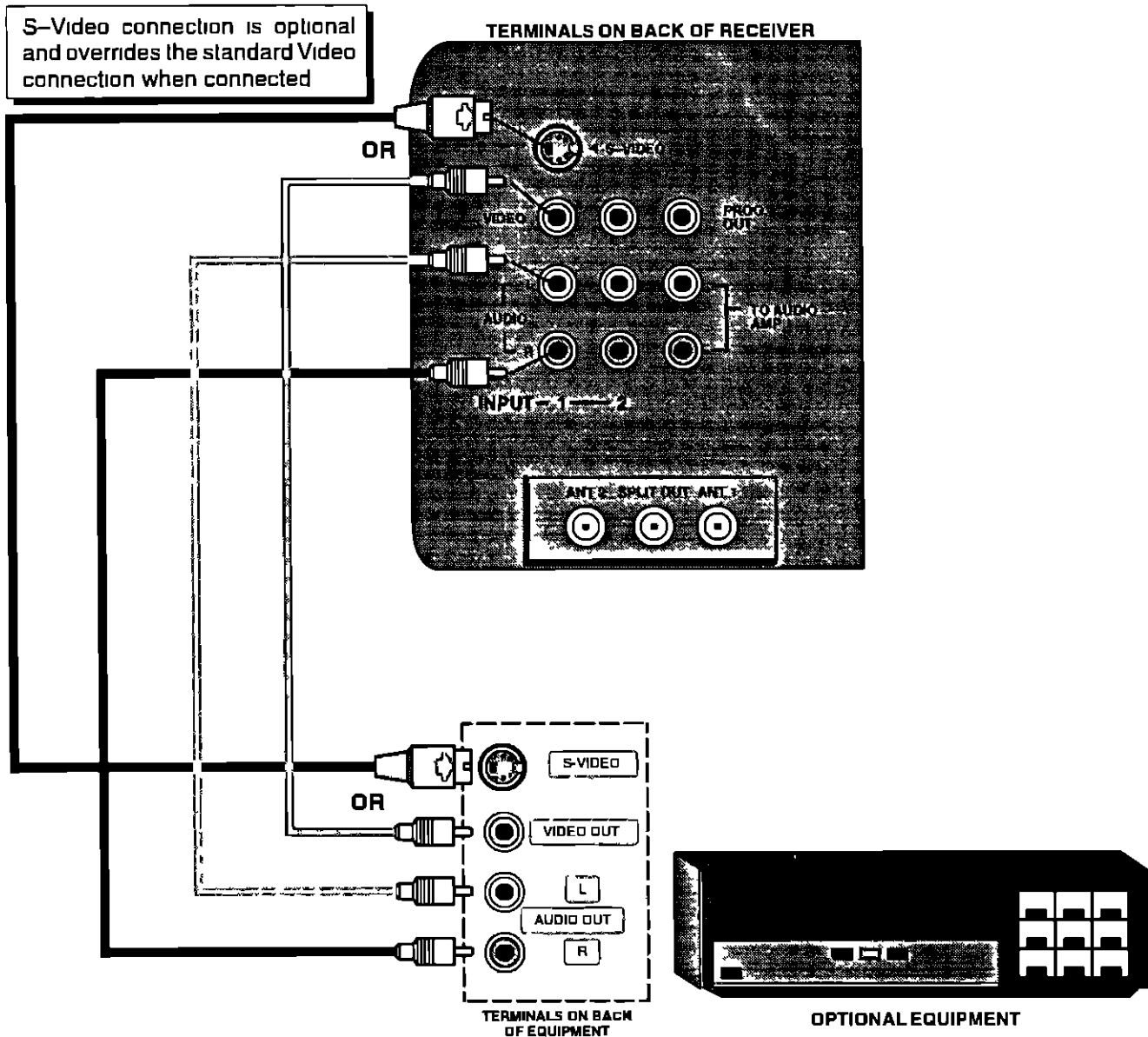## To Audio AMP Connection (Stereo)

- **To Audio AMP**

Connect to an external audio amp auxiliary input for monitoring sound through a stereo system

> **Note:** "TO AUDIO AMP" terminals cannot be used directly with external speakers.

Adjustment – When an audio amp is connected to "TO AUDIO AMP" terminals

1 Select SPEAKER "ON" Mode (Refer to the Audio Menu Speaker section)
2 Set volume of audio amp to near minimum
3 Adjust volume of TV to desired listening level
4 Adjust volume of audio amp to match the volume of the TV
5 Select SPEAKER "OFF&VAO" (Variable Audio Output) Mode (Refer to the Audio Menu Speaker section)
6 Audio bass, treble, balance, volume, and mute can now be controlled by the TV Remote Control When "OFF&FAO" (Fix Audio Output) mode is selected in the Audio Menu, the external amplifier speakers are controlled by the Audio Amplifier

Optional Equipment Connection and Operation (cont.)

S–Video connection is optional and overrides the standard Video connection when connected

TERMINALS ON BACK OF RECEIVER

OR

OR

TERMINALS ON BACK OF EQUIPMENT

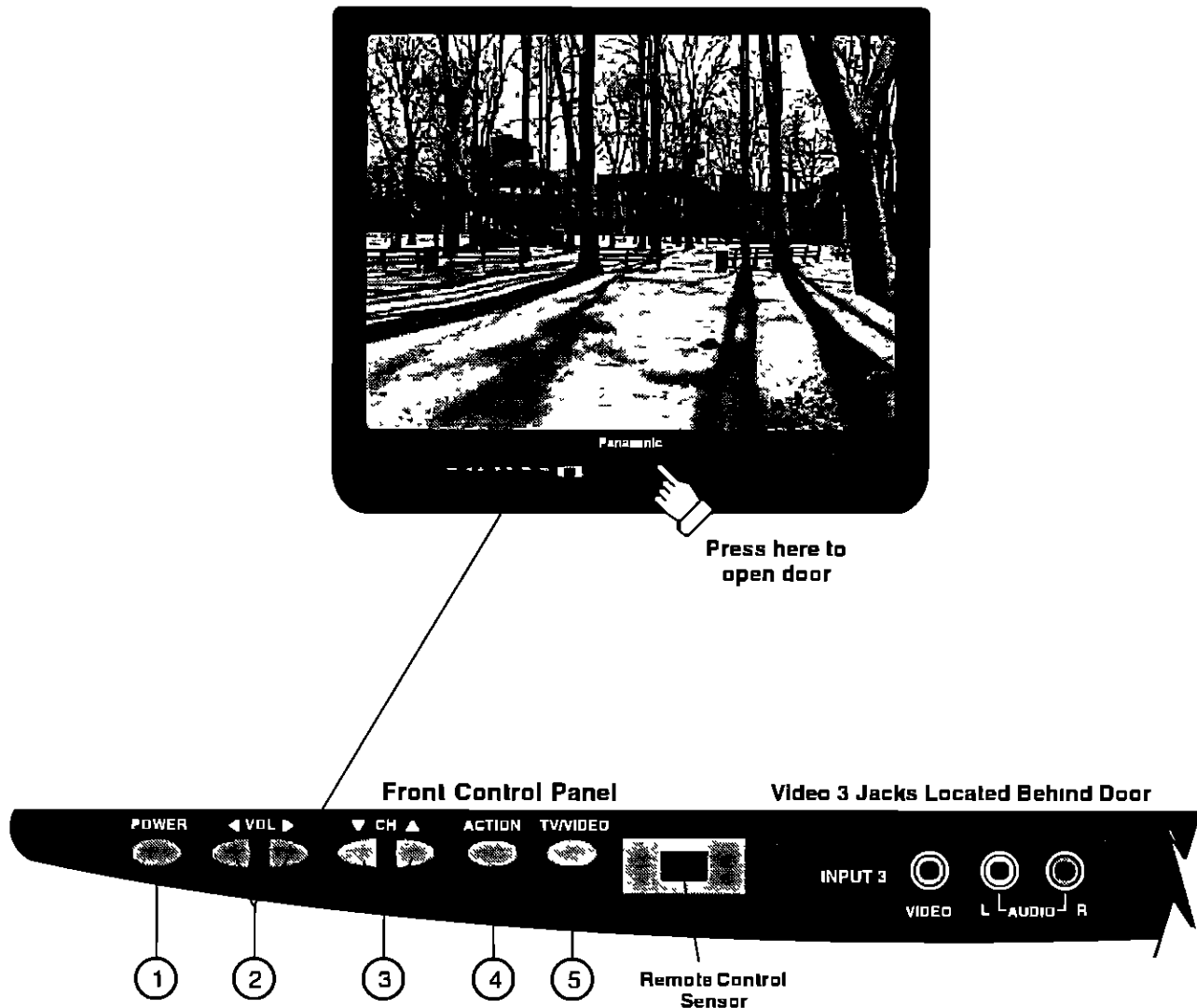OPTIONAL EQUIPMENT

Audio/Video Connection

Operation

1   Connect optional equipment as shown to INPUT 1, 2, or 3 (input 3 is located on front of Receiver)

2   Select the desired Video mode by pressing the TV/VIDEO button (or refer to the Input Select Menu)

Note   • You must select the VIDEO Mode that corresponds with the terminal that the equipment is connected to– VIDEO 1 for INPUT 1, VIDEO 2 for INPUT 2, or VIDEO 3 for INPUT 3
       • S–Video is only available with VIDEO 1.
       • Connection of optional S–Video automatically disconnects the normal INPUT 1 Video terminal

3   Operate optional equipment (VCR-VDP) as instructed in the manual that came with that equipment

Location of Controls (Receiver)

Press here to open door

Front Control Panel   **Video 3 Jacks Located Behind Door**

POWER   ◀ VOL ▶   ▼ CH ▲   ACTION   TV/VIDEO   INPUT 3

(1)   (2)   (3)   (4)   (5)   **Remote Control Sensor**

VIDEO   L ⌐AUDIO⌐ R

Quick Reference Control Operation

(1) **Power Button** – Press to turn ON or OFF

(2) **Volume Buttons** – Press to adjust Sound Level Press to adjust Audio Menus, Video Menus, and to select operating features when menus are displayed

(3) **Channel Buttons** – Press to select programmed channels Press to highlight desired features when menus are displayed

(4) **Action Button** – Press to display Main Menu and to access or to exit On–Screen feature and Adjustment Menus

(5) **TV/Video Button** – Press to select TV or one of three Video Inputs, for the Main Picture or the PIP frame (when PIP frame is displayed)

Location of Controls for the Illuminated Home Theater Remote Unit
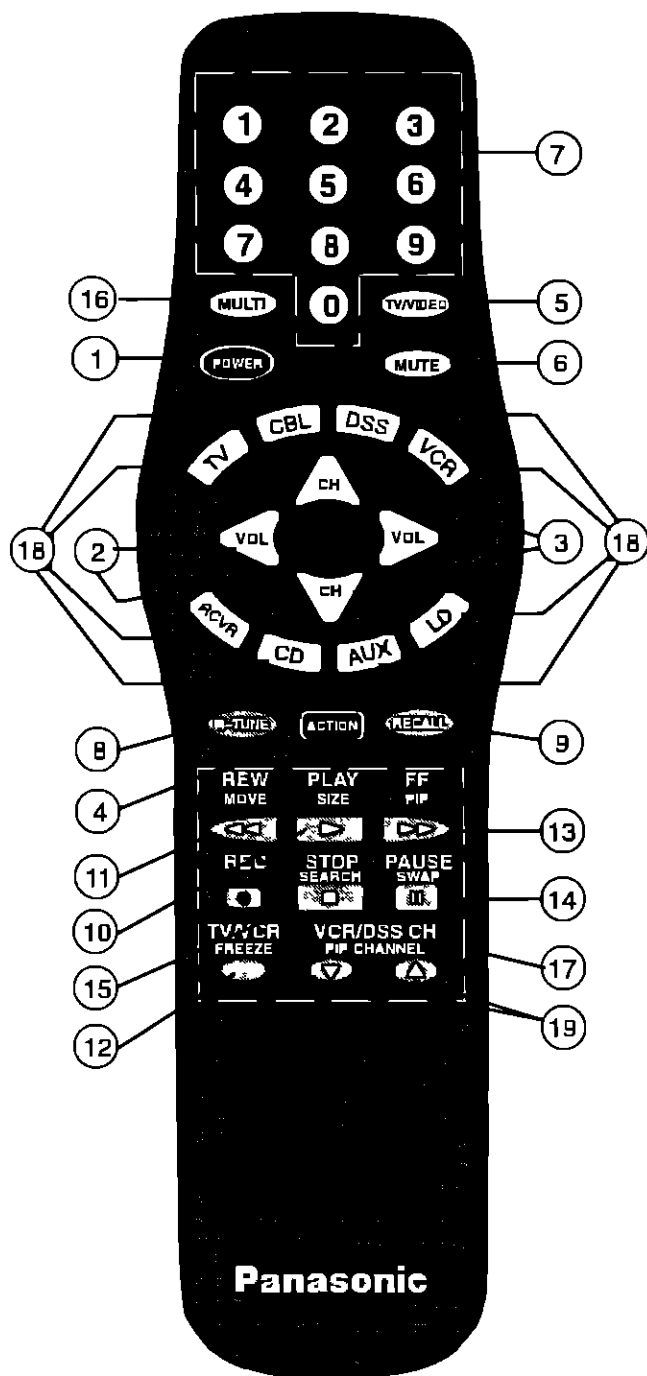
Basic Remote Control Functions for Television Operation

The following is a basic overview of the remote control unit for television operation Ensure the TV mode is selected by initially pressing ⊘

(1) Power Button – Press to turn the TV ON or OFF

(2) Volume Buttons – Press to adjust TV sound level Use with Channel buttons to navigate in menus

(3) Channel Buttons – Press to select channels Use with Volume buttons to navigate in menus

(4) Action Button – Press to display Main Menu and access or exit On-Screen feature and Adjustment Menus

(5) TV/Video Button – Press to select TV or one of three (3) Video Inputs, for the Main Picture or the PIP frame when the PIP frame is displayed

(6) Mute Button – Press to mute sound A second press returns sound

(7) Numeric Keypad (0 through 9 Buttons) – Press desired channel number to access any channel

(8) R-Tune (Rapid Tune) Button – Press to switch to the previous channel

(9) Recall Button – Press to display Time, status of Sleep Timer, Channel, Video Mode, Channel Caption (Station Identifier), and Audio Mode

(10) Size Button – Press to select size of PIP frame when the PIP frame is displayed

(11) Move Button – Press to position PIP frame to any corner of the Main Picture when PIP frame is displayed

(12) Freeze Button – Press to stop action of the Main Picture or PIP frame when the PIP frame is displayed

(13) PIP (Picture In Picture) Button – Press to display the PIP frame, press again to remove PIP frame

(14) Swap Button – Press to interchange PIP frame with Main Picture when the PIP frame is displayed

(15) Search Button – This button is used to select PIP Search to automatically scan channels within the PIP Frame

(16) Multi Button – Programmable to operate up to six (6) Remote Function buttons simultaneously

(17) VCR Function Buttons – Programmable to operate many brands of VCR's

(18) Mode Selection Buttons – Selects the operation mode for the remote control

(19) VCR/DSS (PIP) Channel Buttons – These buttons are used to select VCR or DSS channels UP or Down, or to move the channels within the PIP frame UP or DOWN

Note: In order to maximize the life of the batteries, the lights can be turned OFF and ON by pressing R-TUNE and RECALL at the same time.
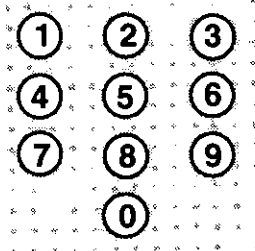
Helpful Hints:

If the selected component does not respond to the remote control, ensure that the proper mode is selected First, press the **Mode Selection Button** that corresponds to that component For example, after first pressing the **TV Mode Button**, the remote will remain in the TV mode for any following commands If another mode button is pressed while operating the television, the TV mode button must be pressed again to reset the TV mode condition

Note. For more information on the Remote Control, please refer to the Remote Control Quick Reference Functional Key Chart

Remote Control
Quick Reference Functional Key Chart

KEY	MODE	FUNCTION
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⓪	TV VCR CABLE, DSS	Selects Channel Selects Channel Selects Channel
	RECEIVER/AMPLIFIER	④ Selects Tuner ⑤ Selects CD Player ⑥ Selects Tape Cassette Player ⑦ VCR 1 ⑧ VCR 2 ⑨ VCR 3
	CD PLAYER	Selects Track Number
	LD PLAYER	Selects Track Number
MULTI	ALL COMPONENTS	Programmable Button That Can Operate Up To Six Remote Functions At Once
TV/VIDEO	TV	Selects the TV Input Mode
POWER	ALL COMPONENTS	Turns On and Off Selected Components
MUTE	TV, DSS, VCR, LDP CABLE RECEIVER/AMPLIFIER	Mutes TV Audio Mutes Audio Mutes Audio
TV	TV	TV Mode Selection for Remote Control
CBL	CABLE	Cable Mode Selection for Remote Control
DSS	DSS (DIGITAL SATELLITE SYSTEM)	DSS Mode Selection for Remote Control
VCR	VCR	VCR Mode Selection for Remote Control
RCVR	RECEIVER/AMPLIFIER	Receiver/Amplifier Mode Selection for Remote Control
CD	COMPACT DISC	CD Mode Selection for Remote Control
AUX	CASSETTE PLAYER, DVD	AUX Mode Selection for Remote Control Enables User to Operate a Tape Cassette Player, or Digital Video Disc
LD	LASER DISC PLAYER	LD Mode Selection for Remote Control
CH	TV CABLE DSS LDP CD RECEIVER/AMPLIFIER DVD	Channel Up/Down, Menu Navigation Channel Up/Down DSS Guides and Menu Navigation Skip FF, REW Preset or Tuning Frequency Skip FWD / Skip REW
VOL VOL	TV CABLE DSS RECEIVER/AMPLIFIER VCR LDP	Volume Up/Down, Menu Navigation Volume Up/Down DSS Guides and Menu Navigation Volume Up/Down TV Volume Up/Down TV Volume Up/Down

Remote Control
Quick Reference Functional Key Chart

KEY	MODE	FUNCTION
R-TUNE	LDP	Side A/B
	TV	Selects Previously Tuned Channel
	CABLE	Selects Previously Tuned Channel
	VCR	Selects Previously Tuned Channel
	DSS	Selects Previously Tuned Channel
	RECEIVER/AMPLIFIER	Switches between AM and FM
	CD	Selects Next Disc
	TAPE CASSETTE PLAYER	Selects Tape Cassette Player A or B
ACTION	TV	Activates TV Menus
	DSS	Acts as Menu Button for DSS
RECALL	TV	Displays Channel, Time, and Audio Mode
	DSS	Displays Current DSS Settings
	VCR	Displays Current VCR Settings
	LDP	Displays Current LDP Settings
REW MOVE	TV	PIP Move
	DSS	DSS Guide
	VCR	Rewind
	LDP	Rewind
	TAPE	Rewind
	CD	Selects Previous Track
	DVD	Rewind
PLAY SIZE	TV	PIP Size
	DSS	Enter/Select
	VCR	Play
	LDP	Play
	TAPE	Play (in Normal Direction)
	CD	Play
	DVD	Play
FF PIP	TV	PIP On/Off
	DSS	Exit/Clear
	VCR	Fast Forward
	LDP	Fast Forward
	TAPE	Fast Forward
	CD	Selects Next Track
	DVD	Fast Forward
REC	DSS	One Touch Record in DSS Mode
	VCR	Record
	TAPE	Record
	CABLE	VCR Record
STOP SEARCH	TV	PIP Search
	DVD	Stop
	VCR	Stop
	LDP	Stop
	TAPE	Stop
	CD	Stop
	CABLE	VCR Stop
PAUSE	DVD	Pause
	TV	PIP Swap
	VCR	Pause
	LDP	Pause
	TAPE	Pause
	CD	Pause
	CABLE	VCR Pause
TV/VCR FREEZE	TV	PIP Freeze
	VCR	Selects TV/VCR Mode
	DSS	Selects TV/DSS Mode
	CABLE	Selects TV/VCR Mode
VCR/DSS CH PIP CHANNEL	TV	PIP Channel Up/Down (2 Tuner PIP Models Only)
	VCR	Channel Up/Down
	DSS	Channel Up/Down
	CABLE	VCR Up/Down

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Control Operation

Power Button – Press the POWER button after selecting a mode to turn ON Press again to turn OFF

Volume Button – Press the VOLUME (VOL) LEFT or RIGHT button for desired listening level (when On-Screen menus are not displayed)

Located On Remote Control

Increases Volume Level

Decreases Volume Level
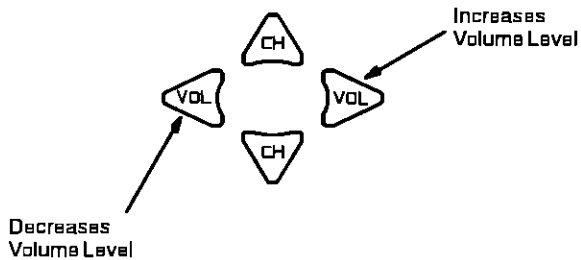
Mute Button – Press the MUTE button to quickly reduce sound level "MUTE" will appear on screen momentarily Press again to restore sound

Channel Buttons (UP/DOWN)

Press the CHANNEL (CH) UP/DOWN button to sequentially scan through programmed channels (when On-Screen menus are not displayed)

Note: Press the TV Mode button to operate TV Remote functions, if necessary

Located On Remote Control

Selects Next Higher Channel

Selects Next Lower Channel
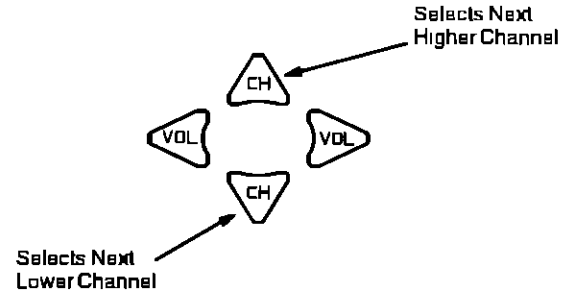
Numeric Keypad (0 through 9 Buttons)

These buttons let you directly access any channel (Example press 5 for channel 5, press 1 then 3 for channel 13) For channels over 99, press three number buttons
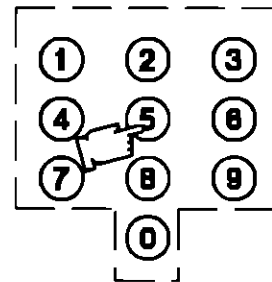
VCR Function Buttons – The VCR function buttons have been designed to operate numerous brands of VCRs The infrared code must be obtained prior to use (Please refer to Programming the Universal Remote for programming instructions)

Note: Press the VCR Mode Selection button to operate VCR Remote functions

```
REW    PLAY   FF
MOVE   SIZE   PIP

REC    STOP   PAUSE
       Search SWAP

TV/VCR VCR/DSS CH
FREEZE PIP CHANNEL
```

– 18 –
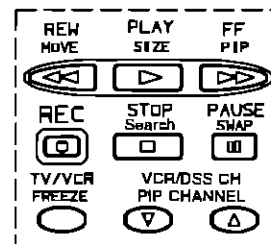
Recall Button – Press the RECALL button to review:

① Audio Mode status
② CH number or Video Input selected
③ Sleep Timer status
④ Clock time
⑤ Channel Caption (Station Identifier)

R-Tune Button – Pressing the R-TUNE (RAPID TUNE) button will switch between the last two channels selected on the numeric keypad.

NOTE: When rapidly scanning channels with the CHANNEL UP/DOWN button, pressing the R-TUNE button will switch between the last channel scanned, and initial channel at the start of scanning.

CHANNEL NOW BEING VIEWED		CHANNEL PREVIOUSLY VIEWED
	Press Button →	
	← Press Button Again	

Multi Button

The MULTI button can be programmed to operate up to 6 Remote function buttons at the same time.

For Example: TV Power/On, VCR Power/On, and Cable box Power/On (selected brands) can be operated at the same time with one press of the MULTI button.

Procedure

1. Program the Remote for the selected device Infrared access code. Confirm that the Remote Control is compatible with the device.
2. Face the Remote Control transmitter away from all equipment remote sensors.
3. Press and hold the Remote POWER button, then press and hold the ACTION button down at the same time for three seconds. (All previous commands are erased.)

PRESS AT THE SAME TIME FOR THREE SECONDS

4. After three seconds, all the illuminated buttons will begin to flash. Release the POWER and ACTION buttons.
5. Press the MULTI button. (Waiting more than 30 seconds without pressing another button will exit the programming mode.)
6. Press a maximum of six (6) function buttons on the Remote Control.
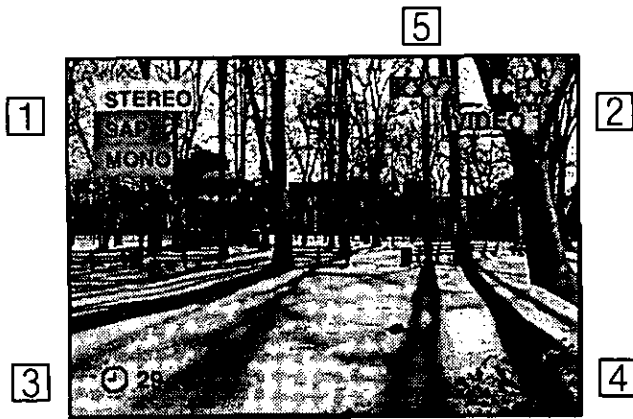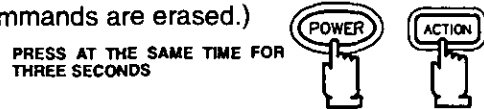   Each button you press is equal to one function. If six (6) Remote button functions are entered, all will register in the MULTI button memory in the sequence entered. When finished, press the MULTI button to exit the programming mode.

The following is an example flow chart of Remote functions that can be programmed into the MULTI button. (The VCR Mode button should be programmed before starting procedure see pg. 42).
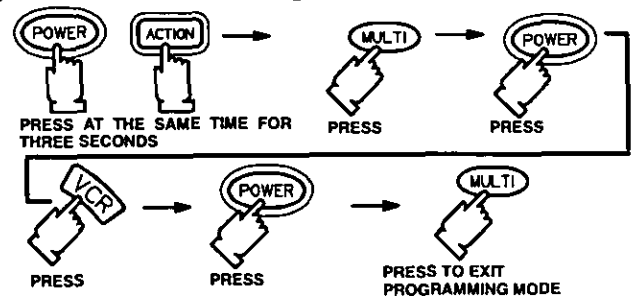
You can now turn the TV and VCR ON/OFF at the same time with one press of the MULTI button.

To delete entered functions – Press and hold the Remote POWER button, then press and hold the ACTION button down at the same time for three seconds. You can now enter from one to six different Remote functions.

Note:
You can also program the MULTI button to perform most individual Remote Control button functions. Buttons which continuously perform a function as long as pressed (Volume Up/Down, Channel Up/Down, etc.) cannot be programmed; only those buttons which perform a function when initially pressed (Power On/Off, Mute, Direct Channel Entry, etc.) can be programmed.

TV/Video Button – Press the TV/VIDEO button to select desired input for Main Picture or PIP frame (when the PIP Frame is displayed)

Signal coming from:

FRONT INPUT 3 TERMINAL	VIDEO 3
REAR INPUT 2 TERMINAL	VIDEO 2
REAR INPUT 1 TERMINAL	VIDEO 1
TV or CABLE	CH 02

Signal coming from:

FRONT INPUT 3 TERMINAL	PIP VIDEO 3
REAR INPUT 2 TERMINAL	PIP VIDEO 2
REAR INPUT 1 TERMINAL	PIP VIDEO 1
TV or CABLE	PIP CH 02

PIP Frame

PIP (Picture in Picture) Button – This feature allows the viewer to monitor one program while watching another The monitored source (PIP) can be a different channel or a different video source (such as a VCR) when connected to the input jacks

- S-Video connection will also operate the PIP feature (refer to OPTIONAL S-VIDEO VHS CONNECTION section)
- When the Main Picture is in Video mode with no signal, the PIP will not operate properly

PIP Operation

1   Press the TV Mode Selection button to operate TV Remote functions, if necessary

2   Press the PIP button The PIP frame will appear at the position it was last displayed The Main Picture Video Source and PIP Video Source will display on screen momentarily Audio will be that of Main Picture

Main Picture with Audio

CH 2 — Main Picture Channel

PIP CH 5 — Picture in Picture Channel

Picture in Picture Frame
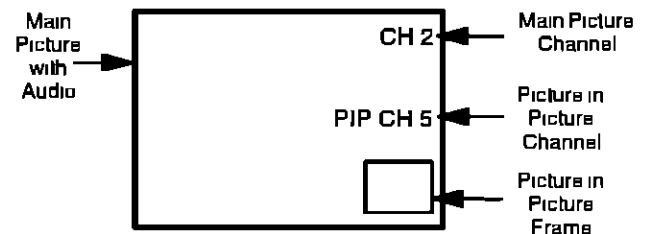
3   Press the PIP button again to cancel PICTURE IN PICTURE feature (if desired)
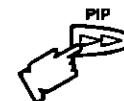
Note: For PIP Video source connection, refer to the Standard Antenna and External Video Connections section

Swap Button – Press the SWAP button (when the PIP frame is displayed) to interchange what is being viewed on the Main Picture with that of the PIP frame

CH 2	VIDEO 1
PIP VIDEO 1	PIP CH 2
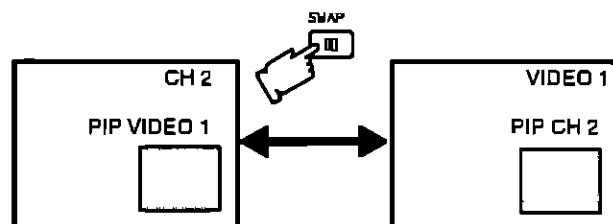
◆ Audio will be that of the Main Picture

Size Button — Press the SIZE button (when the PIP frame is displayed) to choose either the large or small PIP frame
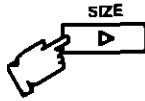
Large PIP Frame

Small PIP Frame

Freeze Button — Press the FREEZE button to stop action in the PIP frame

Main Picture

Freeze Frame

Note:
- Pressing the FREEZE button when the PIP frame is not displayed will stop action in the Main Picture and display it within a PIP frame
- Pressing the FREEZE button when PIP frame is displayed will stop action in the PIP frame Press the FREEZE button again to continue action
- Press the PIP button to delete PIP frame

PIP Channel Buttons

Press the PIP CHANNEL UP/DOWN button while the PIP frame is displayed to sequentially scan through Channels

PIP CHANNEL
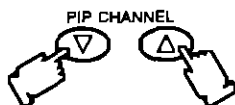
Scan Channel Down
(next lower)

Scan Channel Up
(next higher)

Search Button — The SEARCH button allows you to scan channels in "Channel Scan memory" one at a time This feature will work with or without an external video signal as the Main Picture

PIP CH 2
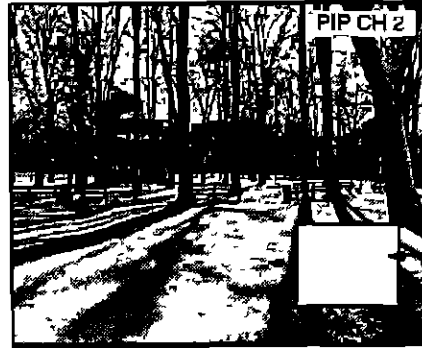
SEARCH

Press Search to Scan

Search Operation

1 Press the SEARCH button A PIP frame will appear on the Main Picture The PIP frame will continuously scan channels in sequence as programmed into channel memory

2 Press the PIP button to stop Search feature on desired picture for PIP frame Press the SWAP button to switch between the Main Picture and the PIP frame Press the PIP button again, the PIP frame will disappear

Move Button — This feature allows the viewer to move the PIP frame to any corner of the Main Picture Activate the PIP frame Press the MOVE button to move the PIP frame to the desired location

MOVE

Note: Each time MOVE button is pressed (when the PIP frame is displayed), the PIP frame will move counterclockwise as illustrated

– 21 –
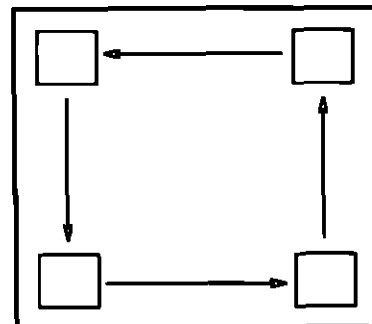
Main Menu (Trilingual Animated Icons)
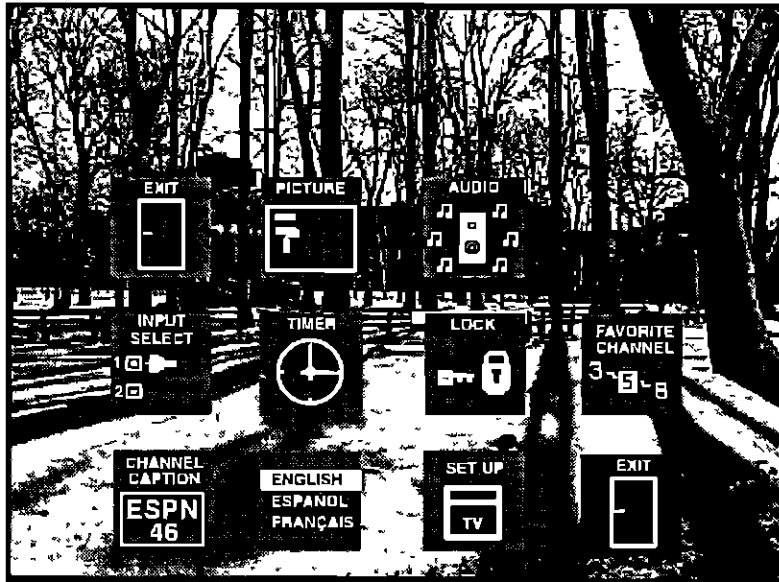
NOTE: Only the selected Icon will be animated

Located On Remote Control

Displays and Exits Menus

Selects or Adjusts
Features when
Menu is Displayed
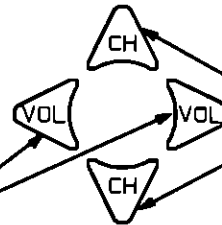
Highlight Desired
Feature when
Menu is Displayed

1   Press the ACTION button to display the Main Menu with Icons
2   Press the CH UP/DOWN and the VOL LEFT/RIGHT buttons to select the desired Icon when the Main Menu is displayed (selected Icon will be indicated in Red)
3   Press the ACTION button to select and display the desired menu
4   To exit the Main Menu first select the EXIT Icon, then press the ACTION button

Trilingual Menu Selection

The LANGUAGE MENU is factory set to ENGLISH. Follow these instructions to change the Language Menu to SPANISH or FRENCH and back to ENGLISH.

1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Language ENGLISH/ESPAÑOL (Spanish)/FRANÇAIS (French) Icon
3   Press the ACTION button to display the Language select Menu

4   Press the CH UP/DOWN button to select ENGLISH, SPANISH, or FRENCH for the Language Menu
5   Press the ACTION button twice to exit the Language Select Menu

Picture Adjustments

- Picture Norm
- Color
- Tint
- Brightness
- Picture
- Sharpness
- Color Temp (Temperature)
- Auto Color
- Video NR
- AI Picture

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed
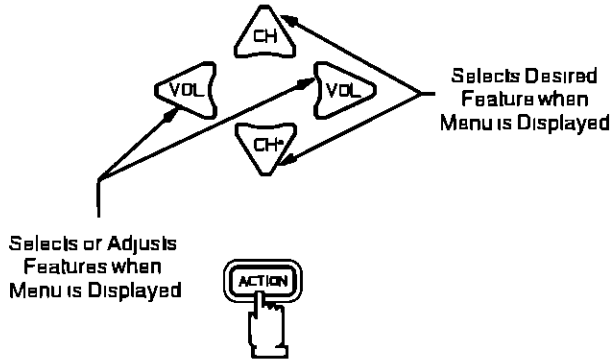
Displays and Exits Menus

Picture Norm – This feature is used to reset Color, Tint, Brightness, Picture, and Sharpness adjustments back to a factory preset level

1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Picture Icon
3   Press the ACTION button to display the Picture Adjustment Menu
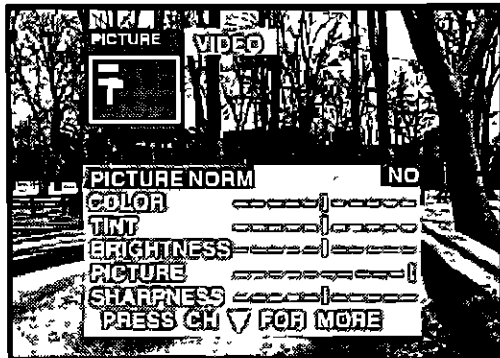
4   Press the CH UP/DOWN button to highlight PICTURE NORM
5   Press the VOL LEFT/RIGHT button to select "SET" to Normalize Color, Tint, Brightness, Picture, and Sharpness
6   Press the ACTION button twice to exit the Picture Adjustment Menu

Color, Tint, Brightness, Picture, and Sharpness Adjustments

Before setting the following Picture Adjustments select the desired mode of AI Picture (ON or OFF) Picture Adjustments may require re–adjustment when changing between AI Picture ON or OFF

1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Picture Icon
3   Press the ACTION button to display the Picture Adjustment Menu
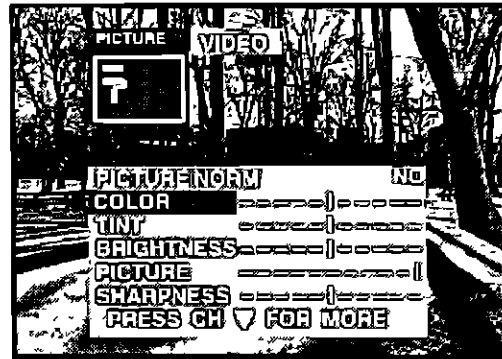
4   Press the CH UP/DOWN button to select the desired Picture Adjustment (Color, Tint, Brightness, Picture, or Sharpness)
5   Press the VOL LEFT/RIGHT button to adjust your selection (The Selected Picture Adjustment will be displayed)
6   Repeat steps 4 and 5 for the remaining Picture Adjustments
7   Press the ACTION button twice to exit the Picture Adjustment Menu

Helpful Hints:
Picture Adjustments:
• **COLOR** – adjust for desired color intensity
• **TINT** – adjust for natural flesh tones
• **BRIGHTNESS** – adjust so dark areas of picture just become black for a crisp detail
• **PICTURE** – adjust the white areas of the picture as desired
• **SHARPNESS** – adjust for best clarity of outline detail

Picture Adjustment (cont.)

Color Temp (Temperature) — This feature selects three (3) options for picture temperature

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Picture Icon
3 Press the ACTION button to display the Picture Adjustment Menu

4 Press the CH UP/DOWN button to highlight COLOR TEMP
5 Press the VOL LEFT/RIGHT button to select NORMAL, WARM, or COOL
   - NORMAL (no tint)
   - WARM (reddish tint)
   - COOL (bluish tint)
6 Press the ACTION button twice to exit the Picture Adjustment Menu

Auto Color — This feature automatically optimizes color adjustment to compensate for signal variations

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Picture Icon
3 Press the ACTION button to display the Picture Adjustment Menu

4 Press the CH UP/DOWN button to highlight AUTO COLOR
5 Press the VOL LEFT/RIGHT button to turn Auto Color feature ON or OFF
6 Press the ACTION button twice to exit the Picture Adjustment Menu

Video NR (Noise Reduction) — This feature reduces video noise (snow in picture) due to weak signal

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Picture Icon
3 Press the ACTION button to display the Picture Adjustment Menu

4 Press the CH UP/DOWN button to highlight VIDEO NR (Noise Reduction)
5 Press the VOL LEFT/RIGHT button to turn Video NR feature ON or OFF
6 Press the ACTION button twice to exit the Picture Adjustment Menu

AI Picture — This feature provides Flesh Tone Correction, Color Edge Correction, Color Noise Reduction, and Optimum Flesh Tone Brightness For the best possible picture quality this feature should be activated (ON)

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Picture Icon
3 Press the ACTION button to display the Picture Adjustment Menu

4 Press the CH UP/DOWN button to highlight AI PICTURE
5 Press the VOL LEFT/RIGHT button to select ON or OFF
6 Press the ACTION button twice to exit the Picture Adjustment Menu

Audio Adjustment

- Audio Norm
- Bass
- Treble
- Balance
- Audio Mode
- [TV] Speaker
- Surround
- AI Sound

Located On Remote Control

Selects Desired
Feature when
Menu is Displayed

Selects or Adjusts
Features when
Menu is Displayed

Displays and Exits Menus

Audio Norm — This feature is used to reset BASS, TREBLE and BALANCE back to a factory preset level

1. Press the ACTION button to display the Main Menu
2. Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Audio Icon
3. Press the ACTION button to display the Audio Adjustment Menu

4. Press the CH UP or DOWN button to highlight AUDIO NORM
5. Press the VOL LEFT or RIGHT button to select "SET" to Normalize Bass, Treble and Balance
6. Press the ACTION button twice to exit the Audio Adjustment Menu

Bass, Treble and Balance

1. Press the ACTION button to display the Main Menu
2. Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Audio Icon
3. Press the ACTION button to display the Audio Adjustment Menu

4. Press the CH UP/DOWN button to highlight BASS, TREBLE or BALANCE
5. Press the VOL LEFT/RIGHT button to adjust for desired audio response
6. Repeat steps 4 and 5 for remaining Audio functions
7. Press the ACTION button twice to exit the Audio Adjustment Menu

Note: Pressing the ACTION button again will return to Audio Icon

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Helpful Hints:

- **BASS** – To increase or decrease the Bass response
- **TREBLE** – To increase or decrease the Treble response
- **BALANCE** – To emphasize the Right and Left Speaker's volume

While the AI (Artificial Intelligence) Sound is "ON" the Bass and Treble cannot be adjusted

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Audio Adjustments (cont.)

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus

Mode – Stereo/SAP/Mono

When Audio is broadcast in Stereo or SAP an ON Screen display will appear on initial "Turn On" and "Channel Change" The available choices will be indicated in red
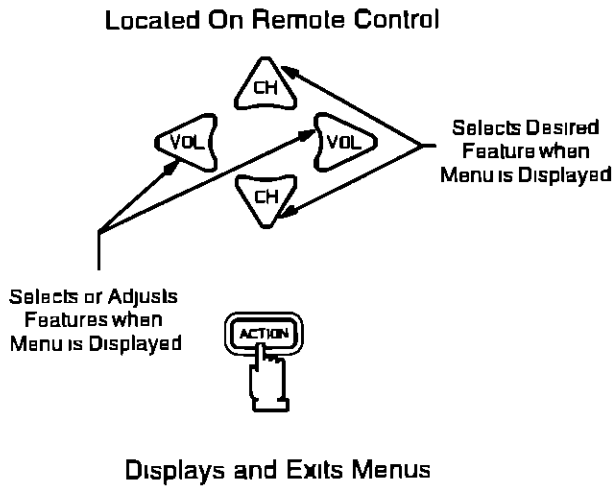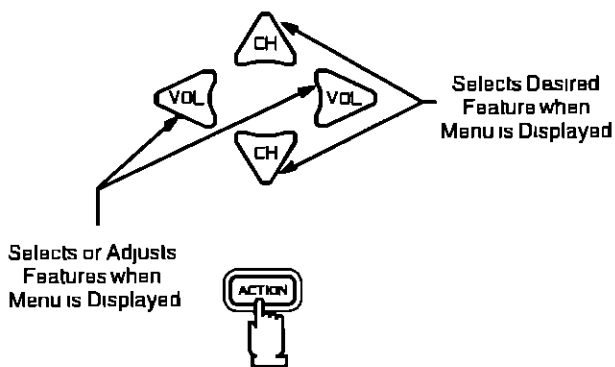
1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Audio Icon
3 Press the ACTION button to display the Audio Adjustment Menu

4 Press the CH UP/DOWN button to highlight MODE
5 Press the VOL LEFT/RIGHT button to select STEREO, SAP (Second Audio Programming) or MONO The selected mode will be highlighted
6 Press the ACTION button twice to exit the Audio Adjustment Menu

---

Helpful Hints:

- **STEREO** – Two channel Audio reception
- **SAP** – Second Audio Programming (typically used for bilingual audio)
- **MONO** – Use when stereo signal is weak

[TV] Speaker – This feature is used to turn the internal speakers "ON" or "OFF" It is used when the Receiver is connected to an External Audio Amplifier (Refer to "To Audio Amp" Connection section for further information)

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to select the Audio Icon
3 Press the ACTION button to display the Audio Adjustment Menu

4 Press the CH UP/DOWN button to highlight SPEAKER
5 Press the VOL LEFT/RIGHT button to select ON, OFF&VAO or OFF&FAO
   - ON – TV SPEAKERS operate normally
   - OFF&VAO (Variable Audio Output) – TV SPEAKERS off, the sound output varies according to the TV volume, use the TV remote to control the volume, muting, bass, treble and balance of the External Audio System
   - OFF&FAO (Fixed Audio Output) – TV SPEAKERS off, sound output is constant and not adjustable from the TV Use External Audio System's volume control to adjust the sound level
6 Press the ACTION button twice to exit the Audio Adjustment Menu

Audio Adjustments (cont.)

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus

Surround — Use the Surround Feature to enhance audio response when listening to Stereo broadcasts

1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Audio Icon
3   Press the ACTION button to display the Audio Adjustment Menu

4   Press the CH UP/DOWN button to highlight SURROUND
5   Press the VOL LEFT/RIGHT button to select SURROUND ON or OFF
6   Press the ACTION button twice to exit the Audio Adjustment Menu

AI Sound — This feature is used to enhance sound quality through automatic adjustment of Bass and Treble during Speech or Music segments of the audio broadcast It also regulates the volume between program and commercial audio to maintain a constant sound output level

1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Audio Icon
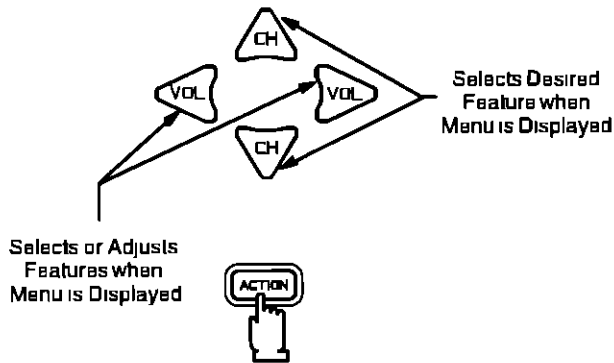3   Press the ACTION button to display the the Audio Adjustment Menu
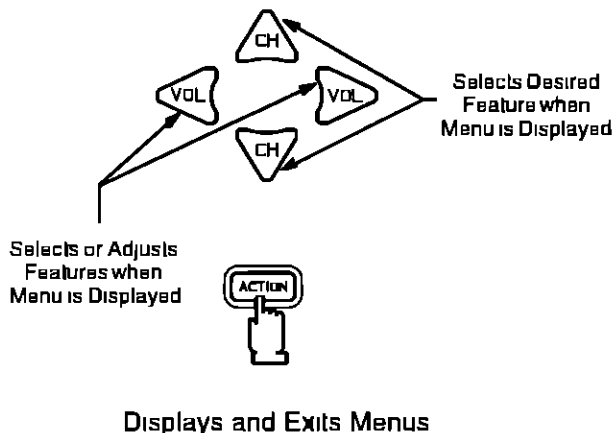

4   Press the CH UP/DOWN button to highlight AI SOUND
5   Press the VOL LEFT/RIGHT button to select AI SOUND ON or OFF
6   Press the ACTION button twice to exit the Audio Adjustment Menu

Input Select

- Antenna Input Selection
- Main Picture Input Selection
- PIP (Picture in Picture) Input Selection
  (When PIP the frame is displayed)

Located On Remote Control

Selects Desired
Feature when
Menu is Displayed

Selects or Adjusts
Features when
Menu is Displayed

Displays and Exits Menus

Antenna Input Selection

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Input Select Icon
3 Press the ACTION button to display the Input Select Menu

4 Press the CH UP/DOWN button to highlight ANTENNA
5 Press the VOL LEFT/RIGHT button to select ANT 1 or ANT 2
6 Press the ACTION button twice to exit the Input Select Menu

Main (Picture) Input Selection

This feature is used to select TV Mode Operation or one of three Video Inputs for the Main Picture (used with optional accessory Video equipment)

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Input Select Icon
3 Press the ACTION button to display the Input Select Menu

4 Press the CH UP/DOWN button to highlight MAIN
5 Press the VOL LEFT/RIGHT button to select TV, Video 1, Video 2, or Video 3 for Main Picture Input
6 Press the ACTION button twice to exit the Input Select Menu

PIP Input Selection

This feature is used to select TV Mode Operation or one of three Video Inputs for the PIP (Picture in Picture) frame when the PIP frame is displayed (used with optional accessory Video equipment)

1 Press the PIP button to display the PIP frame
2 Press the ACTION button to display the Main Menu
3 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Input Select Icon
4 Press the ACTION button to display the Input Select Menu

5 Press the CH UP/DOWN button (when the PIP frame is displayed) to highlight PIP
6 Press the VOL LEFT/RIGHT button to select TV, Video 1, Video 2, or Video 3 for the PIP frame Input
7 Press the ACTION button twice to exit the Input Select Menu

Timer Feature

- Sleep Timer
- (Dual Program) Timer

Located On Remote Control

Selects Desired
Feature when
Menu is Displayed

Selects or Adjusts
Features when
Menu is Displayed

Displays and Exits Menus
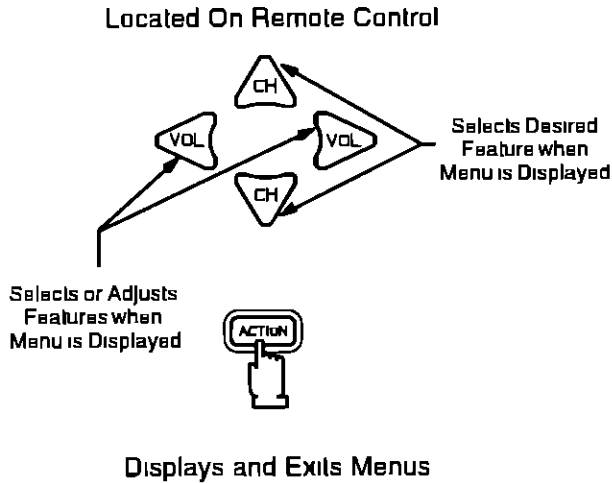
Sleep Timer – This feature is used for automatic OFF in 30, 60, or 90 minutes as desired

Note: Display will flash 3, 2, and 1 to indicate the last three remaining minutes prior to turn OFF

1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Timer Icon
3   Press the ACTION button to display the Timer Control Menu

4   Press the VOL RIGHT button to select NO, 30, 60, or 90 (minutes) for Sleep Timer to be activated
5   Press the ACTION button twice to exit the Timer Control Menu

Note: To deactivate Sleep Timer repeat steps 1 through 4 In step 4, select "NO" instead of minutes

Timer Feature (cont.)

Special Feature:
Automatic "OFF" after 90 minutes.

The TV has a special feature that will shut itself OFF after 90 minutes when turned **ON** by the program timer, unless a function key is pressed during the 90 minutes.
This feature is useful so that the TV will not remain **ON** unattended for an extended period of time.
Programming the **OFF** timer will also cancel the automatic **OFF** feature.

(Program) Timer — The (Dual Program) Timer
feature is capable of turning the TV on to a desired channel and then turning the set OFF at a predetermined time.

Note: The clock and day must be set for this feature to operate. (Refer to Set Up Menu to Set Time and Day.)

1. Press the ACTION button to display the Main Menu.
2. Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Timer Icon.
3. Press the ACTION button to display the Timer Control Menu.

4. Press the CH UP/DOWN button to highlight the TIMER 1 or TIMER 2 setting.
   - Day or days you wish the Timer to activate.
   - ON (time) – hours and minutes
   - OFF (time) – hours and minutes
   - CH – channel you want tuned when the ON Timer activates.
   - SET – NO (Timer feature will not activate)
     – YES (Timer feature will activate)

5. Highlight the Timer 1 Day/Days option.
6. Press the VOL LEFT/RIGHT button to set the day or days you wish the Receiver to turn ON.
   The options for setting day are: (MON~FRI), (SAT~SUN), (DAILY), (SUN), (MON), (TUE), (WED), (THR), (FRI), (SAT), (EVR SUN), (EVR MON), (EVR TUE), (EVR WED), (EVR THR), (EVR FRI), (EVR SAT).
7. Press the CH DOWN button to highlight the ON (Hours) position.
8. Press the VOL LEFT/RIGHT button to set the desired time for the Receiver to turn ON.
   Note: Press CH DOWN to change selection from hours to minutes.
9. Press the CH DOWN button to highlight the OFF (Hours/Minutes) position.
10. Press the VOL LEFT/RIGHT button to set the time you wish the Receiver to turn OFF.
    Note: Press CH DOWN to change selection from hours to minutes.
11. Press the CH DOWN button to highlight the CH position.
12. Press the VOL LEFT/RIGHT button to select a channel (from Program Channel Memory) that you want to be tuned to when the set turns ON.
13. Press the CH DOWN button to highlight the SET position.
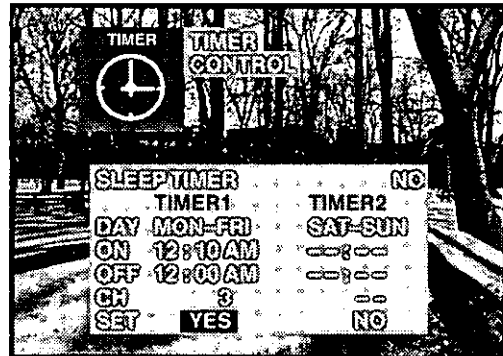
14. Press the VOL RIGHT button to activate or LEFT button to deactivate Timer 1.
    - YES=Feature is activated
    - NO=Feature is not activated
15. Press the CH DOWN button to set Timer 2 (if desired). Follow Steps 6 through 14.
16. Press the ACTION button twice to exit the Timer Control Menu.
    Note: Pressing the ACTION button again will return to Timer Icon.
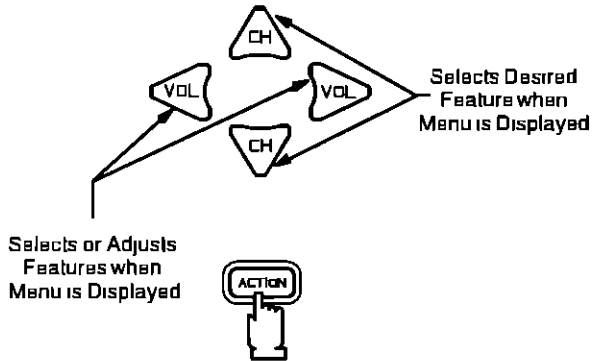
Helpful Hints:

- The Program Timer overrides the Sleep Timer.
- Program Timer can only access channels in Program Channel Memory.
- "Set Time First" will appear on screen when trying to set Timer Day Option without the clock being set.
- If the Program Timer "ON" functions while the set is operating the set will automatically tune to the channel designated in the Program Timer.

Lockout Features

- Game Lockout
- Channel Lockout
- All Channels plus Video Inputs Lockout

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus

## Lockout Mode – This feature allows you to lockout

- Game – (Lockout Channel 3 and 4 plus Video Inputs)
- Channel – (Lockout up to 4 Channels)
- All – (Lockout All Channels plus Video Inputs)

Note: This feature will Lockout your selection for up to 48 hours Be sure to understand this feature before attempting its use **Use a code that you will easily remember.**

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Lock Icon
3 Press the ACTION button to display the Lock Menu

   Note: When the Lockout Menu is displayed, the Lock mode option will be highlighted

4 Press the VOL LEFT/RIGHT button to select GAME, CHANNEL, or ALL

Game Lockout Menu
(Channels 3 & 4 plus Video Inputs)
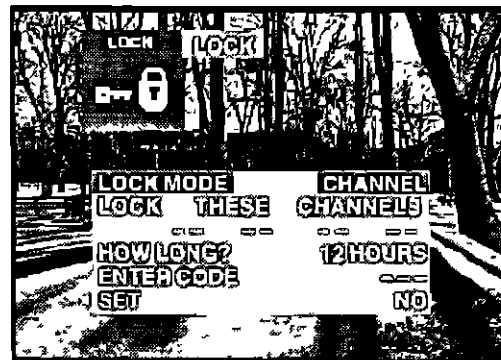
Channels Lockout Menu
(up to 4 Channels)
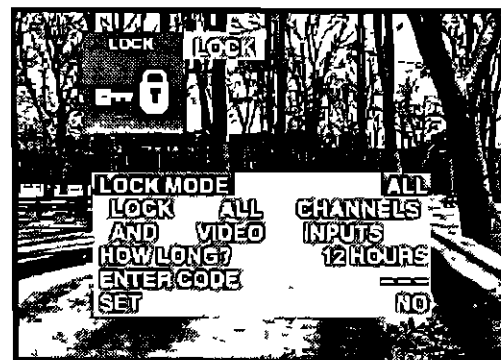
All Lockout Menu
(All Channels plus Video Inputs)

Lockout Features (cont.)

Unlock – Follow Steps 1 through 3 from previous page and enter the same 3 digit code as in Step 7 Channel Unlocked display will appear

Note: When the LOCK MODE CHANNEL is selected, perform procedure Steps A through D.

ENTER SAME 3 DIGIT CODE
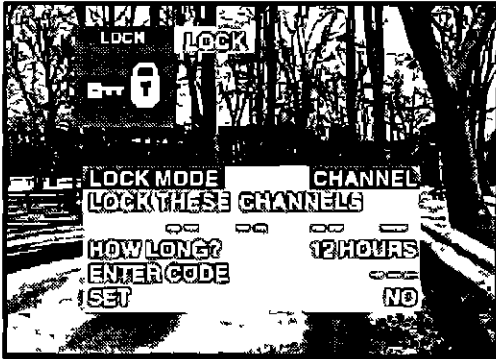
Step A
Press the CH DOWN button to highlight "LOCK THESE CHANNELS"
Step B
Then use the Remote Control Numerical Keypad to select a channel you desire to lockout
Step C
Press the CH DOWN button to select next Channel position
Step D
Then repeat Step B and C until desired Channels are locked out (up to 4 Channels)

CHANNELS UNLOCKED

IF 3 DIGIT CODE IS THE SAME

5 Press the CH DOWN button to highlight "HOW MANY HOURS"
6 Press the VOL LEFT/RIGHT buttons to select 12, 24, or 48 (hours lockout time)
7 Press the CH DOWN button to highlight "ENTER CODE" then enter a 3 digit code by using the Remote Control Keyboard
   IMPORTANT NOTE: Use a code you can easily remember.
8 Press the VOL RIGHT button to select "YES" for Lock feature to be activated, "CHANNELS LOCKED" will display On Screen

INCORRECT UNLOCK CODE ENTERED

IF 3 DIGIT CODE IS NOT THE SAME

CHANNELS LOCKED

Lock Feature Activated

Favorite Channel Feature

- Channel Scan
- Favorite Channel Select

Favorite Channel Select – The Favorite Channel Programming feature allows you to program up to 15 of your favorite channels. You can use the CH buttons on the Remote Control to scan channels without going through channels you don't normally view

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Favorite Channel Icon
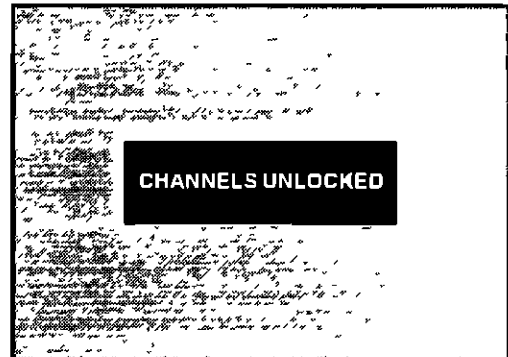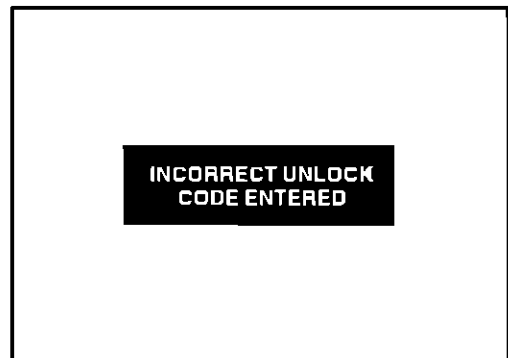3 Press the ACTION button to display the Favorite Channel Menu

Channel Scan – This feature is use to select which Channels will be accessed when using CH UP/DOWN buttons, ALL or FAV (Favorite) Channels

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Favorite Channel Icon
3 Press the ACTION button to display the Favorite Channel Menu

4 Press the CH UP/DOWN button to highlight CHAN SCAN. Then, press the VOL LEFT/RIGHT button to select FAV option for Favorite Channels setting
5 Press the CH UP/DOWN button to highlight "FAV CH SELECT"
6 Press the VOL LEFT/RIGHT button to display the Favorite Channel Select Menu

4 Press the CH UP/DOWN to highlight CHAN SCAN
5 Press the VOL LEFT/RIGHT button to select ALL or FAV (Favorite)
  - **ALL** – The CH UP/DOWN buttons will access all channels in Channel Memory
  - **FAV** – The CH UP/DOWN buttons will only access channels in Favorite Channel Select Memory
6 Press the ACTION button twice to exit the Favorite Channel Menu

> **Note:** Pressing the ACTION button again will return to Favorite Channel Icon

7 Enter the channel number you wish to add or delete from Favorite Channel Memory (using the Remote Keyboard or CH UP/DOWN buttons)
8 Press the VOL RIGHT button to add or press the LEFT button to delete channel(s) from Favorite Channel Memory
9 Repeat Steps 6 and 7 to continue adding or deleting channels (up to 15 channels may be stored in Favorite Channel Memory)

> **Note:** When your desired channels have been programmed, press the ACTION button to exit the menu
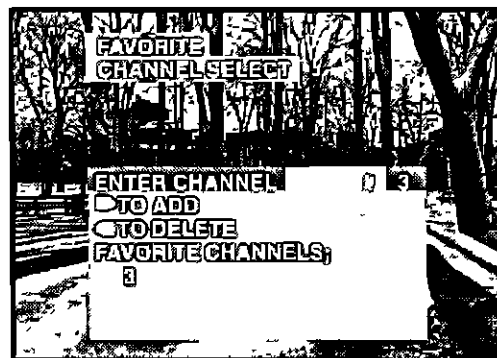

Helpful Hints:

Note: After Auto Channel Program runs, the first 15 channels selected will automatically be added to Favorite Channel memory, if memory has room

10 Press the CH UP/DOWN button to scan through the Favorite Channels programmed

Channel Caption Features

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus

Preset Caption

This feature allows you to select from 56 preset captions, and assign corresponding channel numbers utilized in your area Captions are easily assigned to the channel numbers you select by following the simple steps outlined below The channel number will then display, along with preset captions when changing channels or pressing the RECALL button

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Channel Caption Icon
3 Press the ACTION button to display the Channel Caption Menu

4 Press the CH UP/DOWN button to highlight PRESET CAPTION
5 Press the VOL LEFT/RIGHT button to display the Preset Caption Menu

6 Press the CH UP/DOWN to highlight the desired Preset Channel Caption
7 Use the Remote Control keyboard to assign the channel number to the Channel Caption in your area (Refer to your local TV guide)
 Note: To delete an assigned channel number from, channel caption, press the VOL LEFT button while the assigned channel number is highlighted
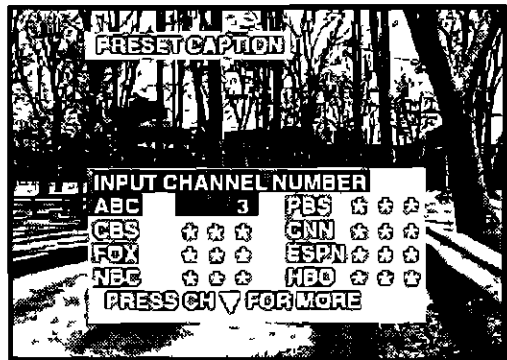
8 Press the CH DOWN button to select a different Preset Channel Caption, then repeat steps 6 and 7 until all desired Preset Channel Captions have an assign channel number
9 Press the ACTION button three times to exit the Preset Caption menu

Channel Caption Features (cont.)

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus

Manual Caption
– The Channel Caption (Station Identifier) allows you to input the call names of up to 30 stations into memory (using up to 4 characters) The call name will then display, along with the channel number when changing channels or pressing RECALL

KXYZ   CH 3

Channel Caption (Station Identifier)
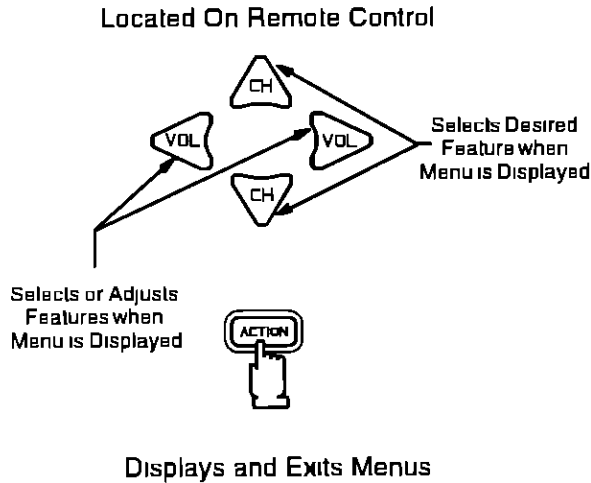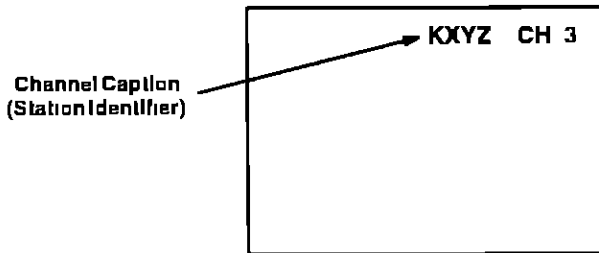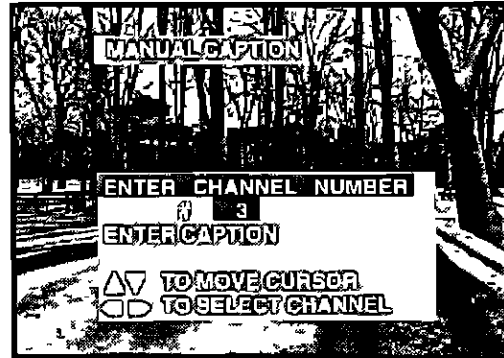
1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Channel Caption Icon
3   Press the ACTION button to display the Channel Caption Menu

4   Press the CH UP/DOWN button to highlight MANUAL CAPTION
5   Press the VOL LEFT/RIGHT button to display the MANUAL CAPTION menu

6   Use the Remote Control Keyboard or VOL LEFT/RIGHT buttons to enter channel number your wish to assign a channel caption (station identifier)
7   Press the CH DOWN button to highlight ENTER CAPTION
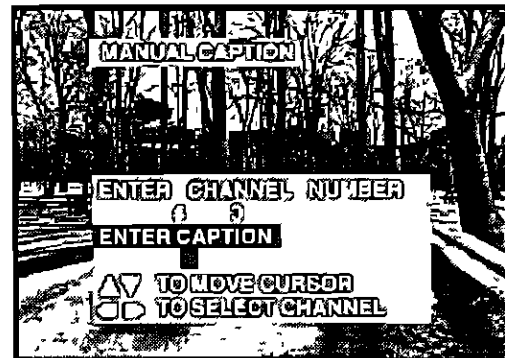
8   Press the VOL LEFT/RIGHT button to select first character in channel caption (station identifier)
9   Press the CH DOWN button to move to second character position, and repeat steps 8 and 9 until the complete caption is entered (up to 4 characters)
10 Press the CH UP/DOWN button repeatedly to highlight ENTER CHANNEL NUMBER Then repeat steps 6 through 10 to continue adding channel caption (station identifiers)
11 Press the ACTION button three times to exit the Manual Caption menu

> **Note:** Press the ACTION button again to return to Channel Caption Icon

Trilingual Menu Feature

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus
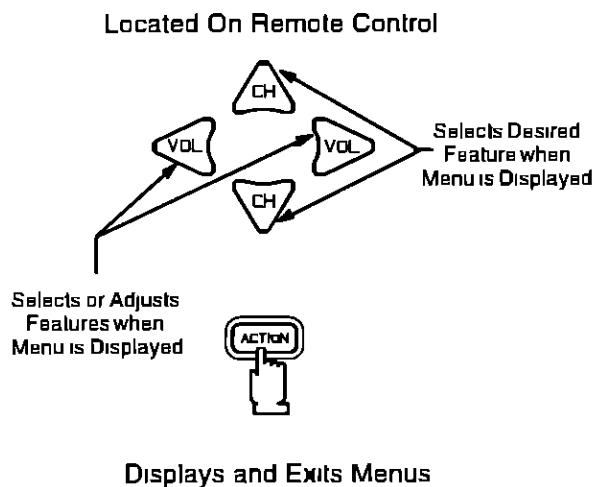
Trilingual Menu
(English/Spanish/French)

Follow these instructions to change the Language Menu to Spanish, French, and English.
Note: The Language Menu is factory set to ENGLISH

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Language ENGLISH / ESPAÑOL (Spanish) / FRANÇAIS (French) Icon
3 Press the ACTION button to display the LANGUAGE select Menu

4 Press the CH UP/DOWN button to select ENGLISH, SPANISH or FRENCH for the Language Menu
5 Press the ACTION button twice to exit the Language Menu
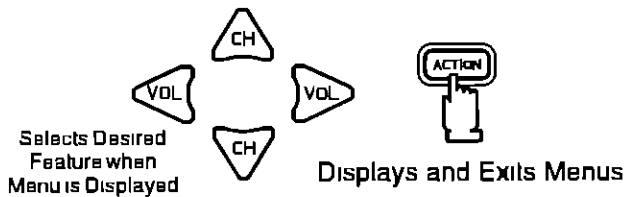   Note: Press the ACTION button again to return to Language Icon

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Set-Up Features

- Clock (Auto)
- Clock (Manual)
- Mode (TV or Cable)
- Auto Program
- Manual Program
- CC On Mute
- CC Mode

Located On Remote Control

Selects Desired
Feature when
Menu is Displayed

Displays and Exits Menus

Clock (Auto) — This feature automatically adjusts the TV clock to the correct time whenever the TV is tuned to a PBS (Public Broadcasting Service) station for 10 minutes, or until the correct time and day are displayed (Refer to your local TV guide for PBS channel number)

Follow these procedures to automatically set the TV clock

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Set Up Icon
3 Press the ACTION button to display the Set Up Menu

4 Press the CH UP/DOWN button to highlight CLOCK
5 Press the VOL LEFT/RIGHT button to select AUTO (if necessary)
6 Press the CH DOWN button to highlight AUTO TIME SET

7 Press the VOL LEFT/RIGHT button to display the AUTO TIME SET Menu

8 Press the CH UP button to highlight PBS CHANNEL

9 Tune TV or Cable Box to PBS channel, using the Remote Control Keyboard or VOL LEFT/RIGHT buttons to enter PBS channel number
10 Press the CH DOWN button to highlight TIME ZONE ADJUST

Note: There is a plus or minus one-hour offset that can be programmed to adjust the clock, should there be a time zone difference between the PBS TV station and the viewer.

11 Press the VOL LEFT button for minus one-hour offset or the VOL RIGHT button for plus one-hour offset (if necessary)
12 Press the CH DOWN button to highlight ACTIVATE

13 Press the VOL LEFT/RIGHT button to display the AUTO TIME SET submenu

Set-Up Features (cont.)

WAITING FOR CORRECT TIME AND DAY

INCOMPLETE READ MENU
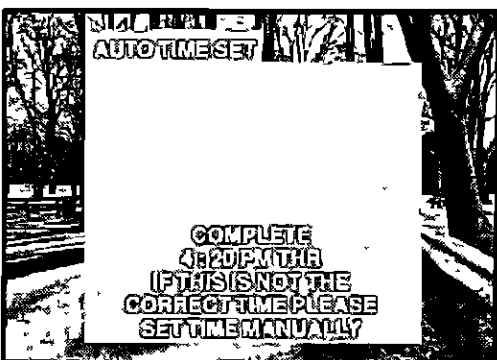
COMPLETED READ MENU

14 Press the ACTION button four times to exit menus

Clock (Manual)

Set Time/Day — Clock (when set) will display On
Screen at initial turn on, after a channel change and when pressing Recall button Time and Day must be set before operating the dual Timer feature

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Set Up Icon
3 Press the ACTION button to display the Set Up Menu

4 Press the CH UP/DOWN to highlight clock
5 Press the VOL LEFT/RIGHT to select MANUAL

6 Press the CH UP/DOWN button to highlight SET TIME hours

7 Press the VOL LEFT/RIGHT button to Set Hours (set AM/PM accordingly)
8 Press the CH DOWN button to highlight minutes position
9 Press the VOL LEFT/RIGHT button to set minutes
10 Press the CH UP/DOWN button to highlight SET DAY

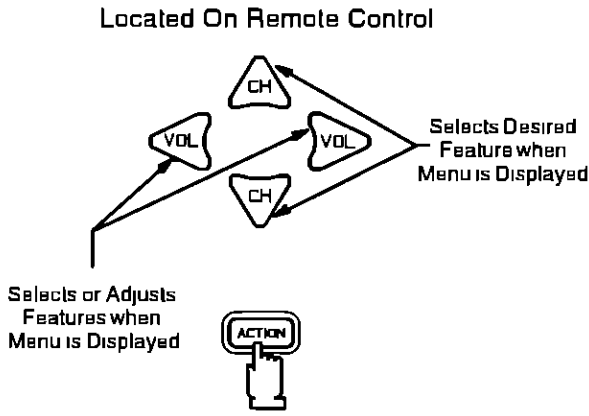11 Press the VOL LEFT/RIGHT button to select proper day of the week
12 Press the ACTION button twice to exit the Set Up Menu

Set Up Features (cont.)

Located On Remote Control

Selects Desired
Feature when
Menu is Displayed

Selects or Adjusts
Features when
Menu is Displayed

Displays and Exits Menus

Mode (TV or Cable)

IMPORTANT NOTE: The proper input mode must be
selected for the type of signal at the antenna input.

- TV is used when the Receiver is not connected to a Cable TV System, for example, when using a VHF/UHF antenna (Channels 02-69)
- CABLE is used when the Receiver is connected to a Cable TV System

Note: Some Cable TV Systems encode (scramble) program material on specific channels A cable company supplied decoder is required to reproduce an acceptable picture Certain Cable TV Systems offset some channels to reduce interference It will be necessary to use the cable company supplied converter to receive these specific channels

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Set Up Icon
3 Press the ACTION button to display the Set Up Menu

4 Press the CH UP/DOWN button to highlight MODE
5 Press the VOL LEFT/RIGHT button to select TV or CABLE
6 Press the ACTION button twice to exit the Set Up Menu

Set Up Features (cont.)

Auto Program – The Auto Programming feature

allows you to place all channels with a video signal into Channel Scan Memory When you press the CHANNEL UP or DOWN button, only those channels with a video signal will be accessed

> Note: TV or Cable Tuning mode must be set properly for your system

1. Press the ACTION button to display the Main Menu
2. Press the CH UP/DOWN and VOL LEFT/RIGHT button to highlight the Set Up Icon
3. Press the ACTION button to display the Set Up Menu

4. Press the CH UP/DOWN button to highlight AUTO PROGRAM
5. Press the VOL LEFT/RIGHT button to start Auto Programming Scan Channels will automatically advance until all channels have been scanned
   - Channel numbers with video signal present will turn blue which indicates stored in Channel Scan Memory
6. Press the ACTION button twice to exit the Set Up Menu

   > Note: Some channels with very weak signals may be locked into memory If desired, these channels can be deleted manually using the Manual Program feature

---

## Helpful Hints:

After Auto Programming:

Blue channel number indicates channel is in Channel Scan Memory

All channels are available by direct access using the numeric keypad (0 through 9 buttons)

Up to 15 channels will be programmed into the FAVORITE Channel Scan after Auto Programming Scan has been completed Any original channels that were programmed into FAV CHANNEL will remain (Refer to Favorite Channel Scan for deleting unwanted channels)

Manual Program – This feature allows you to

select which channels are placed into Channel Scan Memory, so when you press the CHANNEL UP/DOWN button, only those channels you desire will be accessed

1. Press the ACTION button to display the Main Menu
2. Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Set Up Icon
3. Press the ACTION button to display the Set Up Menu
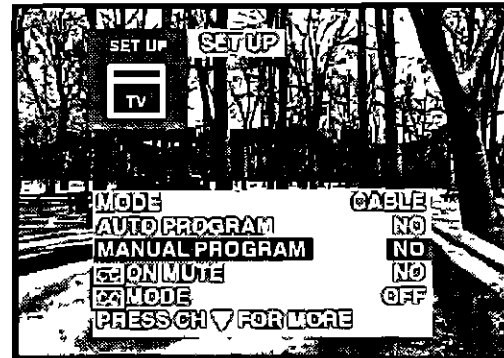
4. Press the CH UP/DOWN button to highlight MANUAL PROGRAM
5. Press the VOL LEFT/RIGHT button to display the Manual Program Menu

6. Use the Remote Control Numeric Keypad (0 through 9 buttons) or CH UP/DOWN buttons to select channels
7. Press the VOL RIGHT button to add channel(s) to memory (blue) Press the VOL LEFT button to delete channel(s) from memory (yellow)
8. Repeat Steps 6 and 7 to continue adding or deleting channels
9. Press the ACTION button twice to exit the Set Up Menu

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Set Up Features (cont.)

[CC] Closed Caption – This Receiver has a
built in decoder that provides a visual depiction of the
audio portion of a television program in the form of
written words across the screen (white or colored letters
on a black background) It allows the viewer to read the
dialogue of a television program or other information

[CC] On Mute
Activates the On-Screen Closed Caption feature, when
the MUTE button on the Remote Control is pressed To
deactivate press the MUTE button again

> Note: This feature functions when the Closed Caption
> Mode is in the "OFF" position. The program
> being viewed must be broadcast with Closed
> Caption. (Refer to your local TV guide)

1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT
    buttons to highlight the Set Up Icon
3   Press the ACTION button to display the Set Up
    Menu

4   Press the CH UP/DOWN button to highlight CC ON
    MUTE
5   Press the VOL LEFT/RIGHT button to select NO
    (OFF), C1, C2, C3, or C4

> Note- Recommended menu Set Up for Closed
> Caption when using Mute Button
>   • CC ON MUTE C1
>   • CC MODE OFF

6   Press the ACTION button twice to exit the Set Up
    Menu
7   Press the MUTE button when the program being
    viewed is broadcast with Closed Caption to activate
> Note: Press the MUTE button again to deactivate

[CC] Mode – Activates the On-Screen Closed
Caption feature When activated this feature will remain
on until OFF is selected in this menu

1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT
    buttons to highlight the Set Up Icon
3   Press the ACTION button to display the Set Up
    Menu

4   Press the CH UP/DOWN button to highlight CC
    MODE
5   Press the VOL LEFT/RIGHT button to select OFF,
    C1, C2, T1, T2, C3, C4, T3, or T4
    •   CAPTION OFF – Recommended mode when
        Closed Caption is not being used
    •   CAPTION C1 – For video related information
        that can be displayed (up to 4 lines of script
        strategically placed on the television screen so
        that it does not obstruct relevant parts of the
        picture) Script can be in any language
    •   CAPTION C2 – Another mode used for video
        related information
    •   TEXT T1 – Blanks out a large portion of the
        picture on the television screen, and displays
        program guide or any other information
        currently being transmitted
    •   TEXT T2 – Another mode which displays
        information and blanks out a large portion of the
        picture on the television screen
    •   CAPTION C3 – Another mode used for video
        related information
    •   CAPTION C4 – Another mode used for video
        related information
    •   TEXT T3 – Another mode which displays
        information and blanks out a large portion of the
        picture on the television screen
    •   TEXT T4 – Another mode which displays
        information and blanks out a large portion of the
        picture on the television screen
6   Press the ACTION button twice to exit the Set Up
    Menu

# Programming The Illuminated Remote Control Using Access Codes

The remote control can be preset for other manufacturers, by utilizing the **MODE SELECTION BUTTONS** for **CABLE**, **DSS**, **VCR**, **RCVR** (a **Receiver** or **Amplifier**), **CD**, **LD**, and **AUX** (for **Cassette Players** or a **DVD**.)

Code From Index Sheet

1	5	9

Procedure – Code Known

Procedure for setting up the remote using the numerical buttons.

☐ Determine brand of device.

☐ Identify code(s) associated with the brand in the infrared code index (located in this manual on pages 43 thru 46). Record all possible codes.

☐ Confirm the device is plugged in and operating properly.
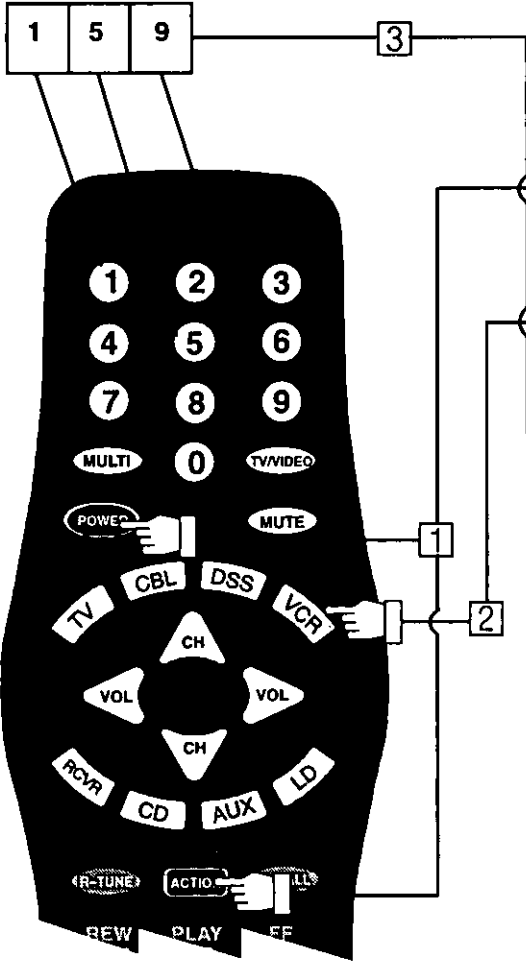
[1] **Press and hold the ⟨ACTION⟩ button, then the ⟨POWER⟩ button so that both are pressed at the same time for at least 5 seconds. All of the Mode buttons will flash.**

[2] **Press the desired Mode button. That Mode button will illuminate steadily. All other buttons will go out.**

[3] **Enter the three digit code, by using the Remote Control Keyboard "0 through 9" buttons.**

☐ If you entered a valid code, the mode key will blink twice then go out.

> Now your remote is set for this code.

[4] **Press ⟨POWER⟩ to test your device.**

NOTE: Some brands have multiple codes. Repeat the procedure using each listed code until the device responds correctly.

☐ If you enter an unlisted code, or if you do not complete your entry within 30 seconds, the mode key illumination will go out and the settings will not change.

> Note: In order to maximize the life of the batteries, the lights can be turned OFF and ON by pressing R-TUNE and RECALL at the same time.

Infrared Remote Codes for Specific Components

Helpful Hint: Write down the code numbers for your components in the space provided below. This will serve as a handy reference whenever you need to reprogram your remote control.

CABLE Cable TV Converter Box				**VCR** Video Cassette Recorder				**CD** Compact Disc Player		
DSS Digital Satellite System				**RCVR** Receiver or Amplifier				**LD** Laser Disc Player		
Other Component				Other Component				Other Component		
Other Component				Other Component				Other Component		

VCR Infrared Codes Index

The Universal Infrared Remote Control is capable of operating many brands of VCRs Refer to page 42 for programming procedures

NOTE: The Universal Remote Control memory is limited Some models of VCRs may not operate The Universal Remote Control is not designed to control all features that are available in all models

NOTE. After entering the proper infrared code, press the Remote VCR Selection Mode button (*) To operate the Remote VCR function buttons, refer to pages 16 and 17 for Remote Control Key Functions

VCR

*
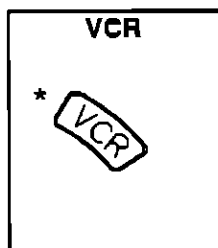
Code Index For VCRs

| VCR Brand	Code(s)	VCR Brand	Code(s)
Adventura	000	MTC	000, 240
Aiko	278	Multitech	000, 072
Aiwa	000	NEC	038, 041, 067
Akai	041, 061	Nikko	037
American High	035	Noblex	240
Asha	240	Olympus	035
Audiovox	037	Optimus	037, 048, 104
Beaumark	240	Panasonic	035, 162, 225, 454
Bell & Howell	104	Penney	035, 037, 038, 042
Broksonic	121, 184		240
Calix	037	Pentax	042
Canon	035	Philco	035
Carver	081	Philips	035, 081
CCE	072, 278	Pilot	037
Citizen	037, 278	Pioneer	067
Colt	072	Protec	072
Craig	037, 047, 072, 240	Pulsar	039
Curtis Mathes	035, 041, 060	Quarter	046
Cybernex	240	Quartz	046
Daewoo	045, 278	Quasar	035
Dynatech	000	Radio Shack	000, 037
Electrohome	037	Radix	037
Electrophonic	037	Randex	037
Emerex	032	RCA	042, 060
Emerson	000, 002, 037, 043,	Realistic	000, 035, 037, 046
	061, 121, 184, 278		047, 048, 104, 240
Fisher	047, 104	Ricoh	034
Fuji	033, 035	Runco	039
Funai	000	Samsung	045, 240
Garrard	000	Sanky	039, 048
GE	035, 060	Sansui	041, 067
Goldstar	037, 038	Sanyo	046, 047, 104, 240
Gradiente	000	Scott	043, 045, 121, 184
Harley Davidson	000	Sears	035, 037, 042, 046,
Harman/kardon	038		047, 104
Harwood	072	Sharp	048
Headquarter	046	Shintom	072
HI-Q	047	Shogun	240
Hitachi	041, 042	Singer	072
Jensen	041	Sony	032, 033, 034, 035
JVC	041, 067	STS	042
Kenwood	038, 041, 067	Sylvania	000, 035, 043, 081
KLH	072	Symphonic	000
Kodak	035, 037	Talung	041
Lloyd	000	Teac	000, 041
Logik	072	Technics	035, 162
LXI	037	Teknika	000, 035, 037
Magnavox	035, 039, 081	TMK	240
Magnin	240	Toshiba	043, 045
Marantz	035, 081	Totevision	037, 240
Marta	037	Unitech	240
Matsushita	035	Vector	045
MEI	035	Vector Research	038
Memorex	000, 035, 037, 039,	Video Concepts	045, 061
	046, 047, 048, 104	Videosonic	240
	240	Wards	000, 035, 042, 047,
MGA	043, 061		048, 072, 240
MGN Technology	240	XR-1000	000, 035, 072
Minolta	042	Yamaha	038
Mitsubishi	043, 061, 067	Zenith	033, 034, 039
Motorola	035, 048		

CABLE CONVERTER BOX AND CD PLAYERS
Infrared Codes Index

The Universal Infrared Remote Control is capable of operating many brands of Cable Converter Boxes, and CD Players Refer to page 42 for programming procedures

NOTE: The Universal Remote Control memory is limited Some models of Cable Converter Boxes and CD Players may not operate The Universal Remote Control is not designed to control all features that are available in all models

NOTE: After entering the proper infrared code, press the Remote **CBL** Selection Mode button (☆) To operate the Remote Cable function buttons, refer to pages 16 and 17 for Remote Control Key Functions
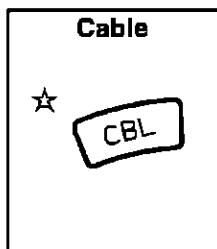
Codes For Cable Converter Box

Brand of Cable–TV Box	Code(s)	Brand of Cable–TV Box	Code(s)
ABC	003, 007, 008, 011, 013, 014, 017	Pioneer	144, 533
		Pulsar	000
Archer	153	RCA	021
Century	153	Regal	020, 259
Citizen	153	Rembrandt	011
Contec	019	Runco	000
Dae Ryung	008	Samsung	144
Garrard	153	Scientific Atlanta	008, 017, 477
Gemini	015	Signal	015
General Instrument	011, 476	Signature	011
Goldstar	144	Sprucer	021
Hamlin	009, 020, 259	Starcom	003, 015
Hitachi	011	Stargate	015
Hytex	007	Starquest	015
Jasco	153	Tocom	012, 013
Jerrold	003, 011, 012, 014, 015, 476	Toshiba	000
		Tusa	015
Memorex	000	Unika	153
Oak	007, 019	United Artists	007
Panasonic	000, 021, 107	United Cable	003
Paragon	000	Universal	153
Philips	153	Zenith	000, 525

Cable

☆ CBL

NOTE: After entering the proper infrared code press the Remote **CD** Selection Mode button (☆☆) To operate the Remote CD Player function buttons, refer to pages 16 and 17 for Remote Control Key Functions
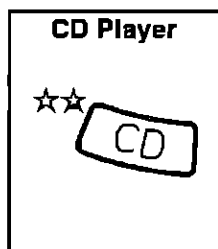
Codes For CD Players

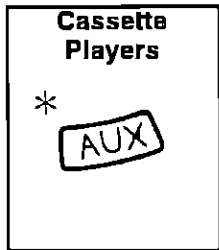| Brand of CD Players	Code(s)	Brand of CD Players	Code(s)
Aiwa	124, 157	Onkyo	101
CA Audio Lab	029	Optimus	000, 032, 037, 305, 426, 468
Carver	157		
Denon	003	Panasonic	029, 367
DKK	000	Philips	157
Emerson	305	Pioneer	032, 468
Fisher	048	Proton	157
Genexxa	032, 305	QED	157
Harman–Kardon	426	Quasar	029
Hitachi	032	RCA	305
JVC	072	Rotel	157
Kenwood	028, 037, 048, 190	SAE	157
Krell	157	Sansui	157, 305
LXI	305	Scott	305
Magnavox	157	Sears	305
Marantz	029, 157	Sharp	037
MCS	029	Sherwood	426
Mission	157	Sony	000
Nakamichi	147	Technics	029, 303
NSM	157	Victor	072

CD Player

☆☆ CD

CASSETTE PLAYERS, RECEIVERS, and AMPLIFIERS
Infrared Codes Index

The Universal Infrared Remote Control is capable of operating many brands of Cassette Players, Receivers, or Amplifiers Refer to page 42 for programming procedures

NOTE: The Universal Remote Control memory is limited Some models of Cassette Players, Receivers, and Amplifiers may not operate The Universal Remote Control is not designed to control all features that are available in all models

NOTE. After entering the proper infrared code, press the Remote **AUX** Selection Mode button (✳) To operate the Remote Cassette Player function buttons, refer to pages 16 and 17 for Remote Control Key Functions

<table>
<tr><th colspan="4">Code Index For Cassette Players</th></tr>
<tr><th>Brand of
Cassette Players</th><th>Code(s)</th><th>Brand of
Cassette Players</th><th>Code(s)</th></tr>
<tr><td>Aiwa</td><td>029</td><td>Panasonic</td><td>272</td></tr>
<tr><td>Carver</td><td>029</td><td>Philips</td><td>029</td></tr>
<tr><td>Denon</td><td>076</td><td>Pioneer</td><td>027, 220</td></tr>
<tr><td>Kenwood</td><td>070</td><td>Sansui</td><td>029</td></tr>
<tr><td>Magnavox</td><td>029</td><td>Sherwood</td><td>337, 338</td></tr>
<tr><td>Marantz</td><td>029</td><td>Sony</td><td>170, 243</td></tr>
<tr><td>Nakamichi</td><td>147</td><td>Technics</td><td>229</td></tr>
<tr><td>Optimus</td><td>027, 220, 337, 338</td><td>Wards</td><td>027</td></tr>
<tr><td></td><td></td><td>Yamaha</td><td>094, 097</td></tr>
</table>

Cassette Players
✳ AUX

NOTE: After entering the proper infrared code, press the Remote **RCVR** Selection Mode button (✳✳) To operate the Remote Receiver or Amplifier function buttons, refer to pages 16 and 17 for Remote Control Key Functions
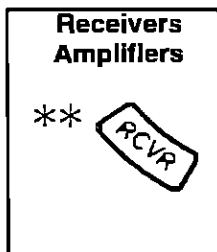
<table>
<tr><th colspan="4">Code Index For Receivers And Amplifiers</th></tr>
<tr><th>Brand of Receiver /
Amplifier</th><th>Code(s)</th><th>Brand of Receiver /
Amplifier</th><th>Code(s)</th></tr>
<tr><td>ADC</td><td>531</td><td>Panasonic</td><td>039</td></tr>
<tr><td>Aiwa</td><td>121, 158, 189</td><td>Penney</td><td>195</td></tr>
<tr><td>Carver</td><td>008, 042, 189, 269</td><td>Philips</td><td>189, 269</td></tr>
<tr><td>Casio</td><td>195</td><td>Pioneer</td><td>013, 014, 080, 300,
531</td></tr>
<tr><td>Clannette</td><td>195</td><td></td><td></td></tr>
<tr><td>Denon</td><td>004</td><td>Quasar</td><td>039</td></tr>
<tr><td>Fisher</td><td>042, 219</td><td>RCA</td><td>531</td></tr>
<tr><td>JVC</td><td>074</td><td>Realistic</td><td>195</td></tr>
<tr><td>Kenwood</td><td>027, 186</td><td>Sansui</td><td>189, 321</td></tr>
<tr><td>Lloyd's</td><td>195</td><td>Sanyo</td><td>219</td></tr>
<tr><td>Magnavox</td><td>189, 195, 269, 531</td><td>Sharp</td><td>186</td></tr>
<tr><td>Marantz</td><td>039, 189, 269, 321</td><td>Sherwood</td><td>502</td></tr>
<tr><td>MCS</td><td>039</td><td>Sony</td><td>158</td></tr>
<tr><td>Modulaire</td><td>195</td><td>Technics</td><td>039, 208, 308, 309,
518</td></tr>
<tr><td>NAD</td><td>320</td><td></td><td></td></tr>
<tr><td>Nakamichi</td><td>321, 347</td><td>Victor</td><td>074</td></tr>
<tr><td>Onkyo</td><td>135</td><td>Wards</td><td>013, 014, 042, 080,
158, 189</td></tr>
<tr><td>Optimus</td><td>013, 080, 186, 219,
300, 531</td><td>Yamaha</td><td>176, 186, 354</td></tr>
<tr><td></td><td></td><td>Yorx</td><td>195</td></tr>
</table>

Receivers
Amplifiers
✳✳ RCVR

LASER DISC, DSS (Digital Satellite System), and DVD (Digital Videodisc) Infrared Codes Index

The Universal Infrared Remote Control is capable of operating selected brands of Laser Disc, DSS Digital Satellite System, and DVD (Digital Videodisc) Refer to page 42 for programming procedures

NOTE The Universal Remote Control memory is limited Some models of Laser Disc, DSS Digital Satellite System, and DVD (Digital Videodisc) may not operate The Universal Remote Control is not designed to control all features that are available in all models

NOTE: After entering the proper infrared code, press the Remote **LD** Selection Mode button (O) To operate the Remote Laser Disc function buttons, refer to pages 16 and 17 for Remote Control Key Functions

Laser Disc Player

O LD

Codes For Laser Disc	
Brand of Laser Disc	**Code(s)**
Mitsubishi	059
NAD	059
Panasonic	204
Pioneer	059
Quasar	204
Sony	201

NOTE: After entering the proper infrared code, press the Remote **DSS** Selection Mode button (O O) To operate the Remote Satellite function buttons, refer to pages 16 and 17 for Remote Control Key Functions

DSS

O O DSS
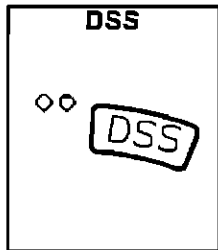
Codes For DSS (Digital Satellite System)	
Brand of Satellite	**Code(s)**
Panasonic	701
RCA	566
Sony	639

NOTE: After entering the proper infrared code, press the Remote **AUX** Selection Mode button (★) To operate the Remote DVD (Digital Videodisc) function buttons, refer to pages 16 and 17 for Remote Control Key Functions

Digital Videodisc

★ AUX
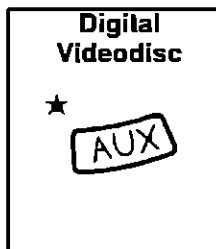
Codes For DVD (Digital Videodisc)	
Brand of DVD	**Code(s)**
Panasonic	490

Care and Cleaning

Picture Tube (Turn set off)
Use a mild soap solution or window cleaner and a clean cloth DO NOT USE ABRASIVE CLEANERS Avoid excessive moisture and wipe dry

Plastic Cabinets
Wipe the cabinet with a soft cloth dampened with water or a mild detergent solution and wipe dry with a soft clean cloth Avoid excessive moisture Do not use benzene, thinners or other petroleum based cleaners

Wood Cabinets
When dusting or polishing the cabinet, use a clean soft cloth and stroke straight with the grain An occasional coat of furniture polish will help preserve the finish Do not use benzene, thinners or other petroleum based cleaners Do not place objects made of plastic or rubber directly on top of the cabinet A chemical reaction could result causing permanent marring of the finish

Remote Control Transmitter
Do not use benzene, thinners or other petroleum based cleaners to clean the Remote Control Transmitter To clean, wipe with a soft cloth slightly moistened with a mild detergent and then wipe dry with a soft clean cloth

Power Loss

Prolonged power interruption causes the following features to reset to their factory preset state.

FEATURE	FACTORY PRESET STATE	FEATURE	FACTORY PRESET STATE
POWER	OFF	SLEEP TIMER	NO/OFF
VOLUME	APPROX −1/3	TIMER	NO/OFF
CHANNEL	CH 03	ANTENNA MODE	CABLE
PROGRAM MEMORY	UNPROGRAMMED	TV/VIDEO	TV
VIDEO MENUS	NORMALIZED	NOISE REDUCTION	OFF
AUDIO MENUS	NORMALIZED	PIP FEATURES	OFF
STEREO/SAP/MONO	STEREO	AUTO COLOR	ON
CLOCK	NOT SET	MENU LANGUAGE	ENGLISH

Troubleshooting Chart

Before you call for service, determine the symptoms and make a few simple checks shown below.

Symptoms		Check
Picture	**Sound**	
SNOWY PICTURE	NOISY SOUND	– ANTENNA LOCATION AND/OR CONNECTION
MULTIPLE IMAGE	NORMAL SOUND	– ANTENNA DIRECTION AND/OR LOCATION – ANTENNA LEAD–IN WIRE
INTERFERENCE	NOISY SOUND	– ELECTRICAL APPLIANCES, LIGHTS, CARS AND TRUCKS – DIATHERMY AND OTHER MEDICAL EQUIPMENT
NORMAL PICTURE	NO SOUND	– VOLUME CONTROL SETTING – MUTE CONTROL (IF APPLICABLE) – TV SPEAKER SWITCH (IF APPLICABLE) IN OFF OR EXT POSITION – TRY ANOTHER CHANNEL
NO VIDEO	NOISY SOUND	– TV/ANT–CABLE TUNING SYSTEM SET TO PROPER SETTING – ANTENNA INPUT MODE INCORRECT
NO PICTURE	NO SOUND	– CHECK THAT AC POWER LINE IS PLUGGED INTO AC OUTLET AND POWER BUTTON IS ON – BRIGHTNESS AND AUDIO CONTROLS SET PROPERLY – TRY ANOTHER CHANNEL
NO COLOR	NORMAL SOUND	– COLOR CONTROL SETTINGS – TRY ANOTHER CHANNEL
BLUE PICTURE	NO SOUND	– RECEIVER IN VIDEO MODE WITH NO SIGNAL
NO VIDEO	NOISY SOUND	– CHANNEL LOCKOUT FEATURE ACTIVATED
BLACK BOX IN PICTURE	SOUND	– CC (CLOSED CAPTION) IN TEXT MODE – PUT IN CAPTION OFF MODE TO ELIMINATE BLACK BOX

Should this unit turn ON momentarily and then turn OFF, or fail to operate, unplug the AC cord, and contact your Authorized Servicer for repairs.