

Operating Instructions

Color Video Monitor/Receiver

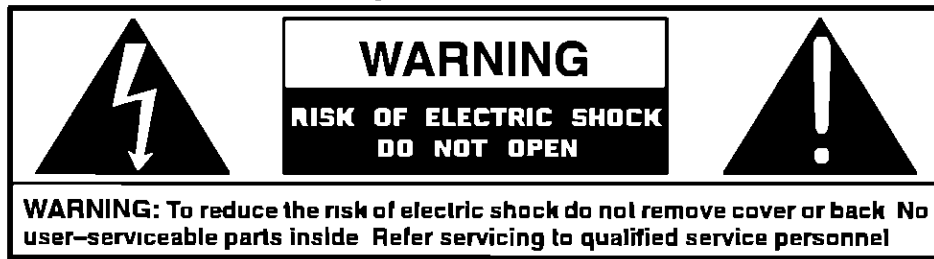
Model No. **CT-2785VY**



Panasonic®

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

Safety Instructions



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.

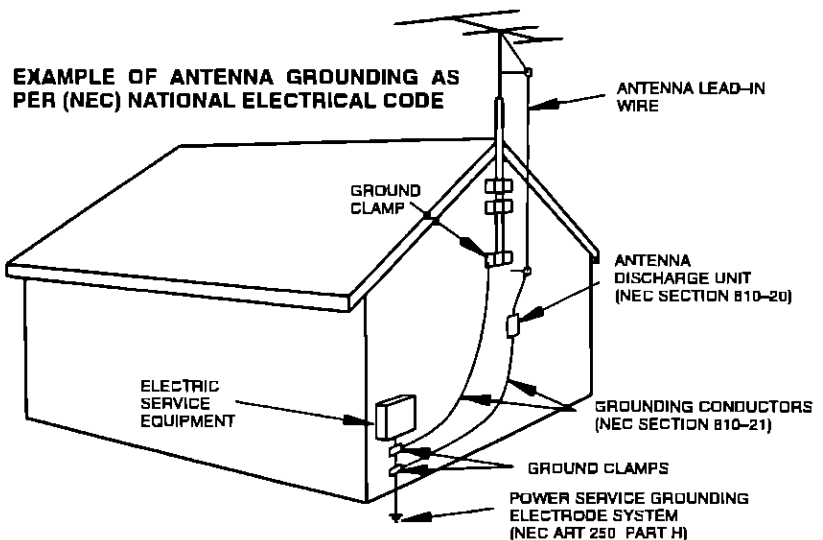


The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

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.



- 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 Jack:	1V p-p, 75 ohm, phono jack type
Audio Input Jacks:	500 mV rms 47K ohm
S-VHS Input Jack:	S-Video (Y-C) Connector
Video Througout Jack:	phono jack type
Audio Througout Jacks:	phono jack type
To Audio AMP Jacks:	0-2.0V rms 4.7K ohm
Stereo 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

Safety Instructions	2	Game Guard (Unlock)	13
Specifications	3	Timer Features ..	14
Introduction	4	Sleep Timer ..	14
Installation	5	Program Timer	15
Monitor/Receiver Location	5	Set-Up Features ..	16
Optional External Equipment Connections	5	Menu	16
AC Power Supply Cord	5	<input type="checkbox"/> On Mute ..	17
Battery Installation and Replacement	5	Set Time ..	18
Antenna/Cable Connections ..	6	Antenna (TV or Cable)	19
Other Video Equipment	6	Auto Program	20
Location of Controls (Receiver/Remote)	7	Manual Program	21
Quick Reference Control Operation	7	<input type="checkbox"/> Mode ..	22
Control Operation	8	Channel Caption (Station Identifier) ..	23
Power Button	8	Audio Adjustments ..	24
Volume (Vol) Buttons	8	Bass, Treble and Balance Adjustments	24
Mute Button	8	Audio Norm	24
Channel Change (UP/DOWN) ..	8	Audio Mode Selection	25
Numeric Keypad (0 through 9 Buttons)	8	[TV] Speaker	26
VCR Function Buttons	8	Video Input	27
TV/Video Button	9	Programming The Universal Remote For VCR ...	28
Recall Button	9	Optional Equipment Connection and Operation ..	29
R-Tune Button	9	Video/Audio Connection ..	29
Multi Button	9	S-Video Connection	29
Main Menu (Icons)	10	To Audio AMP Connection (Stereo)	30
Picture Adjustments	11	Care and Cleaning	30
Color, Tint, Brightness, Picture and Sharpness	11	Instant-On Feature	31
Adjustments ..	11	Control Panel Lock Feature	31
Picture Norm ..	11	Power Loss	31
Game Guard	12	Troubleshooting Chart	32
Game Guard (Lockout) ..	12		

Installation

Location

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.

NOTE: Two RCA to BNC adaptor is supplied with the Monitor/Receiver.



RCA to BNC Adaptor

Power Supply Cord

MAKE SURE PLUG IS INSERTED FULLY INTO RECEPTACLE

This product is equipped with a three-wire grounding type plug – a plug with two blades and a third pin which is round. This plug will only fit into a grounding type outlet.

This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. **DO NOT DEFEAT THE SAFETY PURPOSE OF THE GROUNDING TYPE PLUG.**



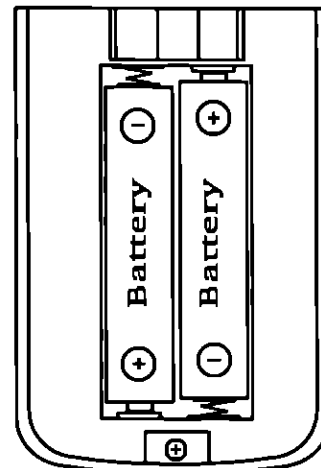
3 Wire Ground Plug

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.

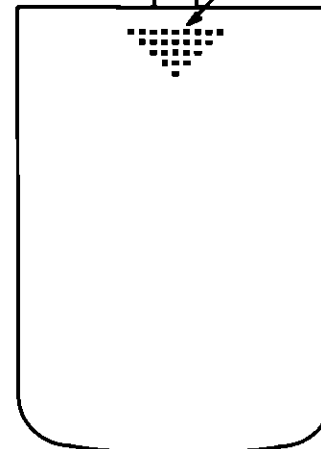
Battery Installation and Replacement

Batteries Use two "AA" batteries.

- 1 Turn the Transmitter face down. To remove top cover, press down on marking and slide cover off in the direction indicated.
- 2 Install the batteries as shown in the battery compartment. (Polarity (+) or (-) must be correct.)
- 3 Replace the cover and slide until the lock snaps.



Press Down Here and Slide Cover Back



Helpful Hints:

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

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

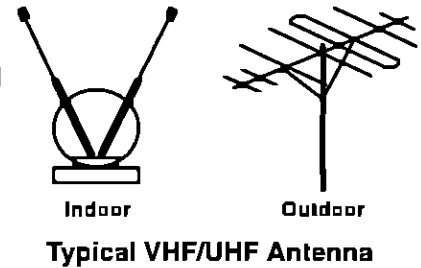
Observe the Following Precautions:

- 1 Batteries must be replaced as a pair.
- 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 reacts sporadically or stops operating the Receiver.

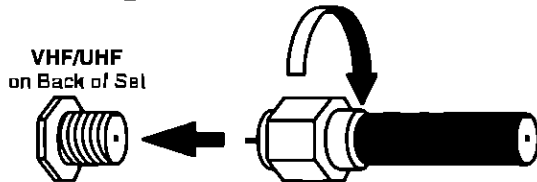
Installation (cont.)

Antenna/Cable Connections

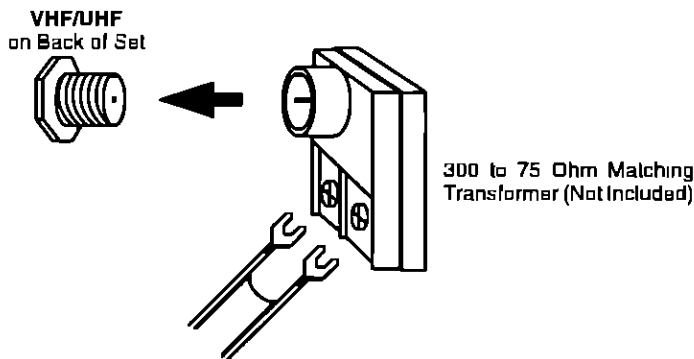
Antenna Connection – For proper reception of VHF/UHF channels an external antenna is required. For best reception an outdoor antenna is recommended. Antenna Mode must be set to TV (Refer to Antenna Mode section.)



Incoming Cable from Home Antenna (75 Ohm)

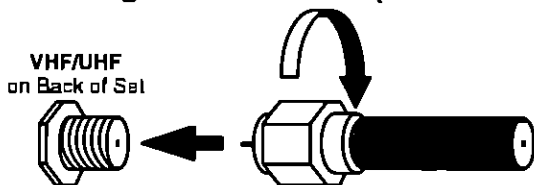


Incoming Cable from Home Antenna (300 Ohm)



Cable Connection – For reception of cable channels, 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)

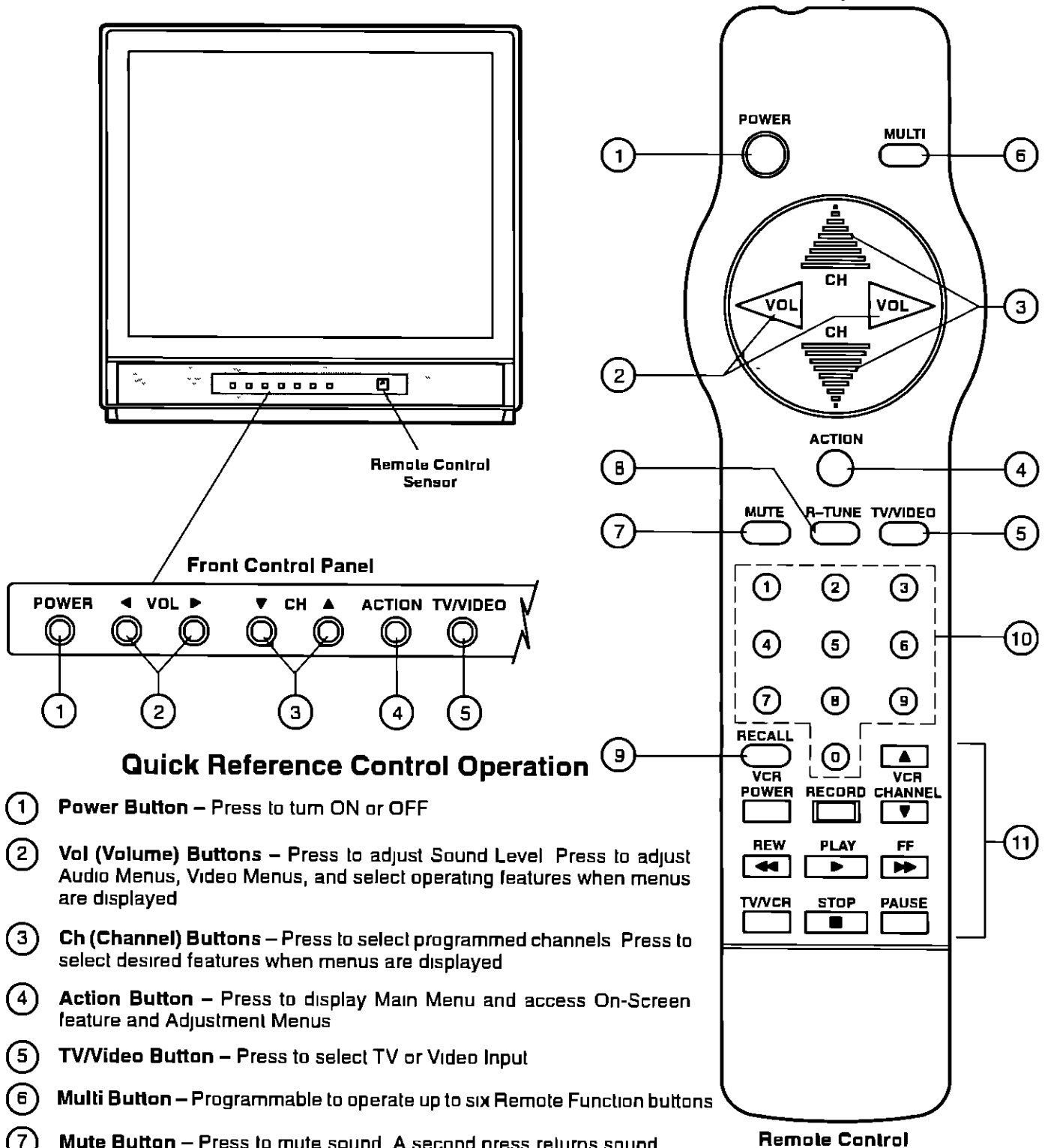


NOTE: Certain cable systems offset some channels to reduce interference or have Premium (scrambled) channels. A cable converter box is required for proper reception. Check with your local Cable company for its compatibility requirements.

Other Video Equipment

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

Location of Controls (Receiver and Remote)



Quick Reference Control Operation

- ① **Power Button** – Press to turn ON or OFF
- ② **Vol (Volume) Buttons** – Press to adjust Sound Level Press to adjust Audio Menus, Video Menus, and select operating features when menus are displayed
- ③ **Ch (Channel) Buttons** – Press to select programmed channels Press to select desired features when menus are displayed
- ④ **Action Button** – Press to display Main Menu and access On-Screen feature and Adjustment Menus
- ⑤ **TV/Video Button** – Press to select TV or Video Input
- ⑥ **Multi Button** – Programmable to operate up to six Remote Function buttons
- ⑦ **Mute Button** – Press to mute sound A second press returns sound
- ⑧ **R-Tune (Rapid Tune) Button** – Press to switch between two channels
- ⑨ **Recall Button** – Press to display Time, status of Sleep Timer, Channel, Video Mode, Audio Mode, and Channel Caption (Station Identifier)
- ⑩ **Keypad (0 through 9 Buttons)** – Press desired channel number to access any channel
- ⑪ **VCR Function Buttons** – Programmable to operate many brands of VCR's

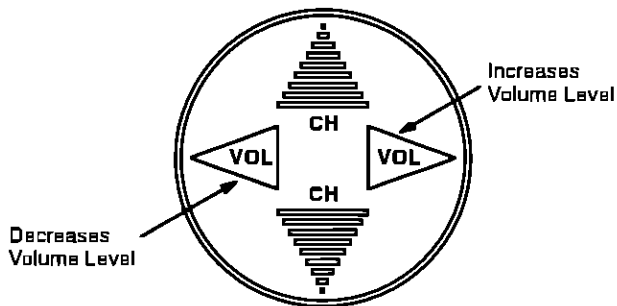
Control Operation

Power Button – Press the POWER button to turn ON Press again to turn OFF



Volume Buttons – Press the VOLUME (VOL) LEFT or RIGHT button for desired listening level (while On Screen Menus are not displayed)

Located On Remote Control



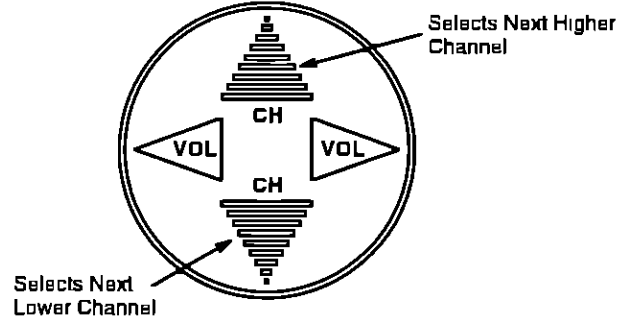
Mute Button – Press the MUTE button to quickly reduce sound level (Mute will appear on screen) Press again to restore sound



Channel Change (UP/DOWN)

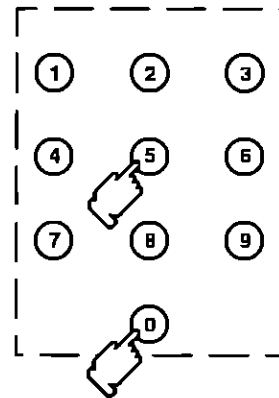
Press the CHANNEL (CH) UP/DOWN button to sequentially scan through programmed channels (while On-Screen Menus are not displayed)

Located On Remote Control



Numeric Keypad (0 through 9 Buttons)

Press two digits on keypad (Example press 0, then 5 for channel 05) For channels over 99, press three digits on keypad

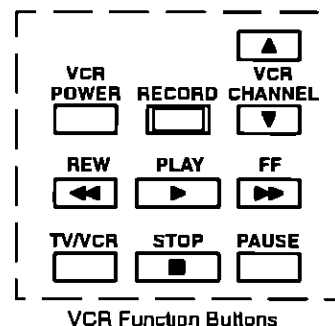


Helpful Hints:

- Helpful information will display On Screen momentarily when Receiver is first turned on and when the channel is changed
- When using keypad entry for channels 10,11, and 12 in the CABLE mode, there is a slight delay before channel change because of the capability of tuning cable channels 100 to 125
- If you do not receive channels above 13, confirm the type of signal at ANT Input (TV or Cable) and set the TV or Cable Tuning Mode accordingly (Refer to Set-Up Feature, Antenna selection)

NOTE: If "SPEAKER OFF" is displayed On Screen after pressing the VOLUME button, refer to Audio Menu to turn Speakers "ON"

VCR Function Buttons – The VCR FUNCTION buttons have been designed to operate numerous brands of VCR's The infrared code must be obtained prior to use. (Please refer to Programming the Universal Remote for programming instructions)

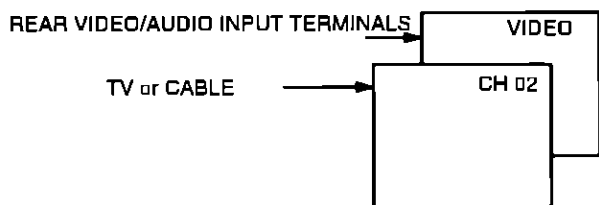


VCR Function Buttons

TV/Video Button — Press the TV/VIDEO button to select desired input

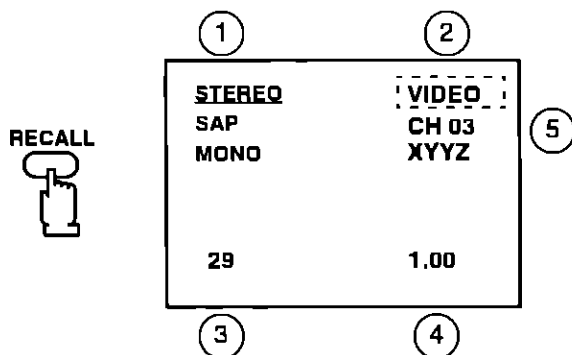


Signal coming from

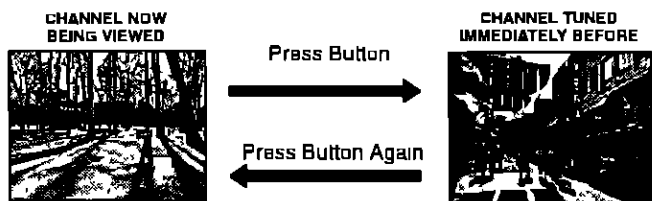


Recall Button — Press the RECALL button to review

- 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

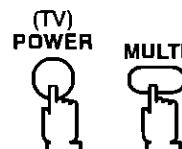


Multi Button

The MULTI button can be programmed to operate up to six (6) Remote function buttons at the same time. For Example, TV Power/On, VCR Power/On (selected brands) can be operated at the same time with one press of the MULTI button

PROCEDURE

- 1 First program the Remote for the selected VCR infrared access code. Confirm that the Remote Control is compatible with the equipment
- 2 Face the Remote Control transmitter away from all equipment remote sensors
- 3 Press and hold Remote TV Power button, then press and hold the MULTI button down simultaneously (All previous commands are erased)

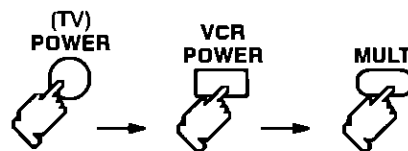


PRESS SIMULTANEOUSLY

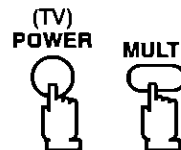
- 4 Press a maximum of six (6) function buttons on the Remote. Each button you press is equal to one function. If six (6) remote button functions are entered, all will register in the MULTI button memory in the sequence entered. When less than six (6) remote button functions are entered, press the MULTI button to end the program mode. (Waiting more than 30 seconds without pressing another button will also end the program mode.)

The following is an example of Remote functions that can be programmed into the MULTI button.

- TV Power — For turning TV ON and OFF
 - VCR Power — For turning VCR ON and OFF (selected brands after programming it's infrared access code, if necessary)
- Both can be turned ON or OFF with one press of the MULTI button



To delete entered functions — Press the Remote TV POWER and MULTI buttons simultaneously. Now you can enter from one to six different Remote functions

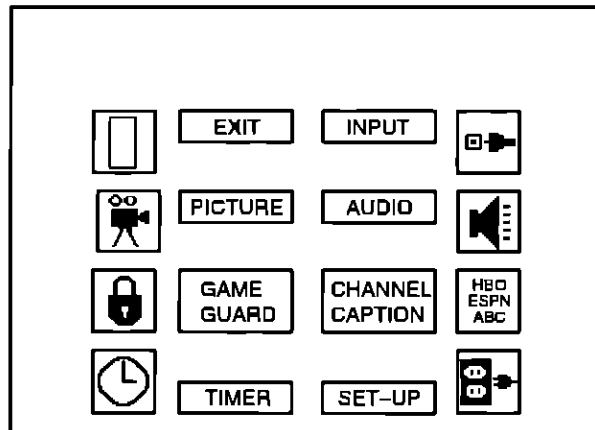


PRESS SIMULTANEOUSLY

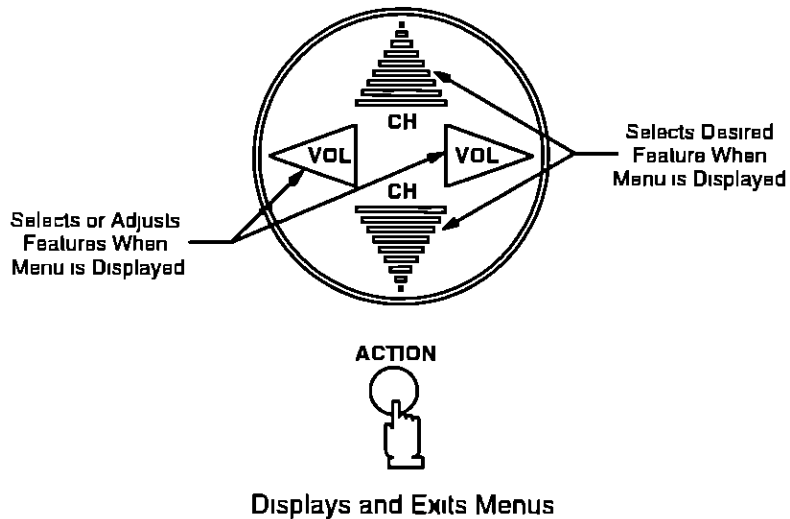
NOTE:

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.

Main Menu (Icons)



Located On Remote Control

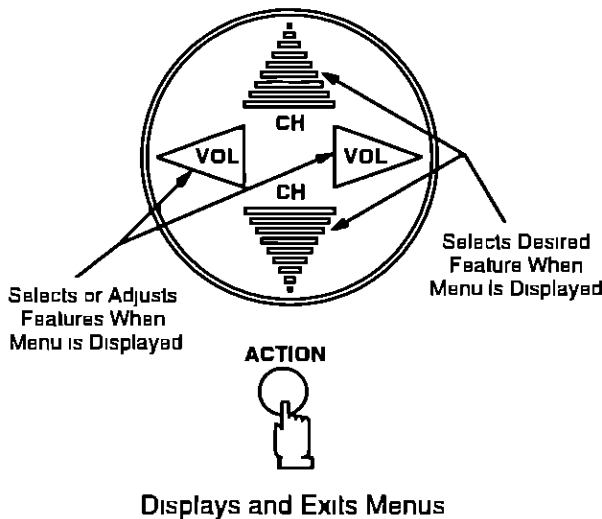


- 1 Press the **ACTION** button to display the Main Menu with Icons
- 2 Press the **CH UP/DOWN** and the **VOL LEFT/RIGHT** buttons to select the desired Icon when the Main Menu is displayed (selected Icon will be indicated in Red)
- 3 Press the **VOL** buttons for left and right movement and the **CH**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

Picture Adjustments

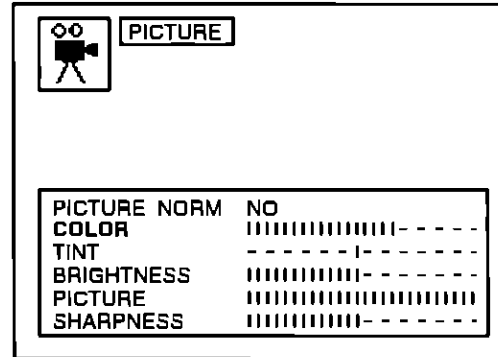
- Color
- Tint
- Brightness
- Picture
- Sharpness
- Picture Norm

Located On Remote Control



Color, Tint, Brightness, Picture and Sharpness Adjustments

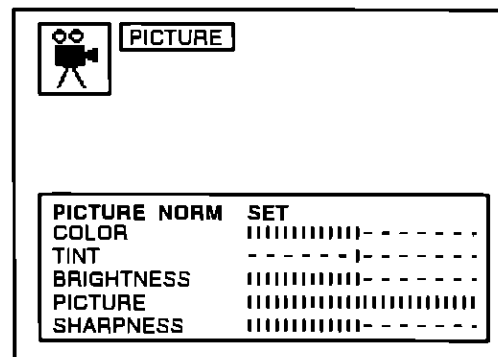
- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN button to select the Picture Icon
- 3 Press the ACTION button to display the Picture Adjustment Menu



- 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
- 6 Repeat steps 4 and 5 for the remaining Picture Adjustments
- 7 Press ACTION button twice to exit menus

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

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN button to select the Picture Icon
- 3 Press the ACTION button to display the Picture Adjustment Menu

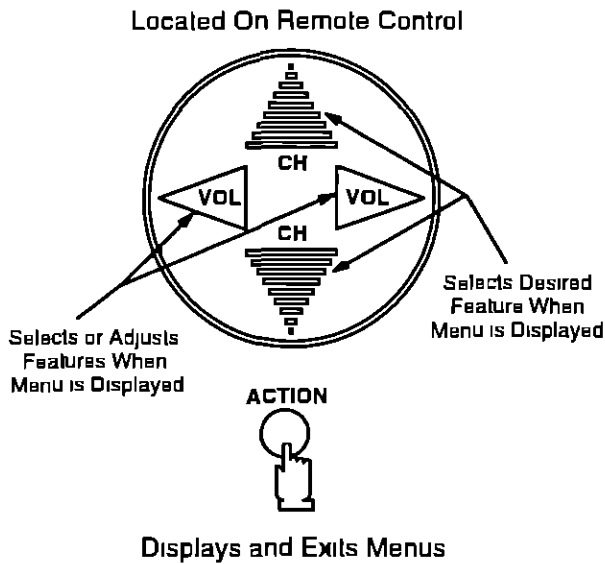


- 4 Press the VOL LEFT/RIGHT button to select "SET" to Normalize Color, Tint, Brightness, Picture and Sharpness
- 5 Press ACTION button twice to exit menus

Helpful Hints:

- COLOR** – adjust for desired color intensity
- TINT** – adjust for natural flesh tones
- BRIGHTNESS** – adjust so dark areas of picture slightly become black for a crisp detail
- PICTURE** – adjust the white areas of the picture as desired
- SHARPNESS** – adjust for best clarity of outline detail

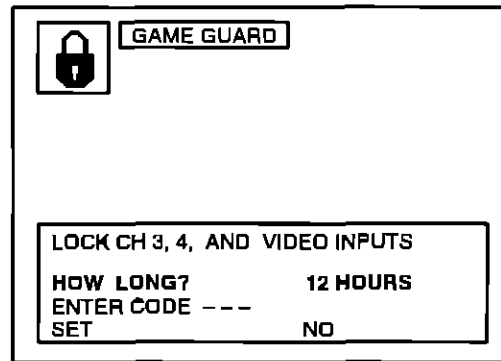
Game Guard



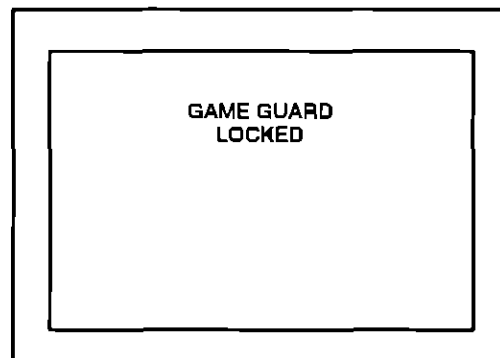
Game Guard (Lockout) – Prevents video games and other video sources from being viewed. Channel 3, 4, and all video inputs are locked out for 12, 24, or 48 hours.

NOTE: 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 DOWN button to select the Game Guard Icon
- 3 Press the ACTION button to display the Game Guard Menu



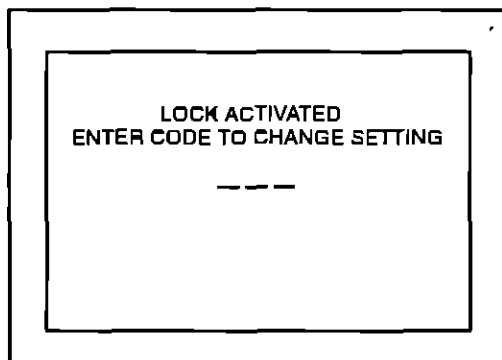
- 4 Press the VOL RIGHT button to select the desired hours (12, 24, or 48) for Game Guard (Lockout) to be activated
 - 5 Press the CH DOWN button to select "ENTER CODE" Then enter a 3-digit code with the Remote Control Keypad
- IMPORTANT NOTE:** Use a code you can easily remember.
- 6 Press the VOL LEFT/RIGHT button after entering 3-digit code "Game Guard Locked" will display On Screen



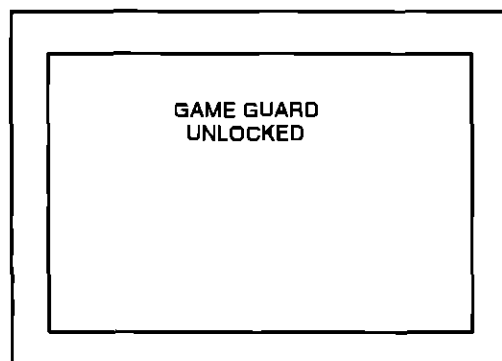
Game Guard Activated

Game Guard (Unlock)

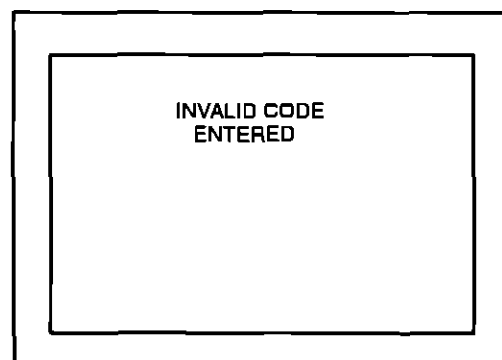
To unlock the Game Guard feature, repeat steps 1 through 3. Enter the same 3-digit code previously used in step 5 with Remote Control Keypad



Enter Same 3-Digit Code Previously Used

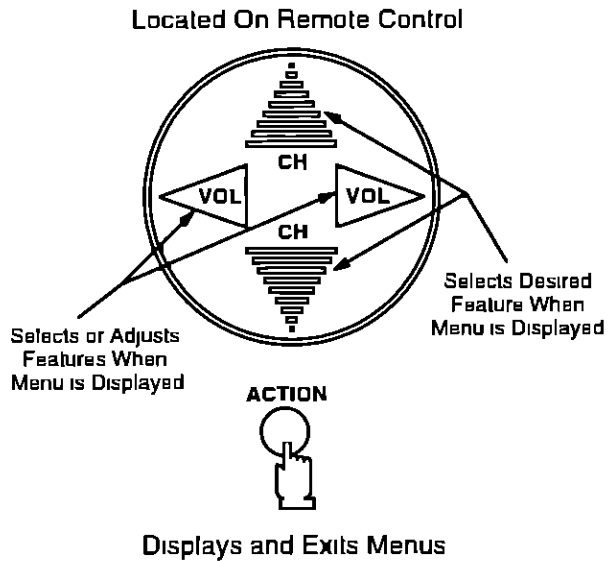


If 3-Digit Code is the Same



If 3-Digit Code is not the Same

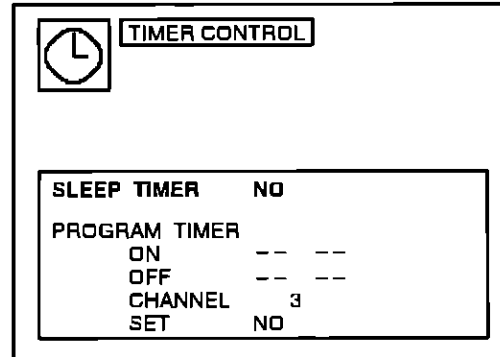
Timer Features



Sleep Timer – This feature is used for automatic turn off in 30, 60, or 90 minutes

NOTE: Display will flash 3, 2, and 1 to indicate the last three remaining minutes prior to turn off. The Recall display will also appear

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN button to select 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
- 5 Press ACTION button twice to exit menus

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

Timer Features (cont.)

Special Feature:

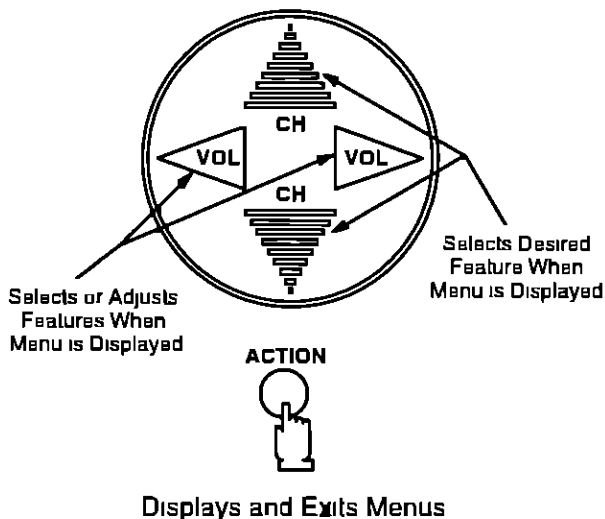
Automatic turn "OFF" after 90 minutes.

The TV has a special feature that will shut itself **OFF** after 90 minutes when turned **ON** by the program timer

This feature is useful so that the TV will not remain **ON** accidentally

Pressing **any** key during the 90 minutes will cancel the automatic **OFF** feature

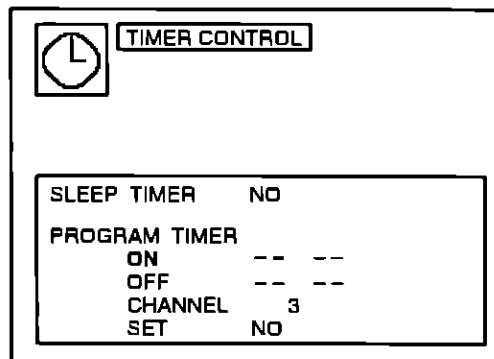
Located On Remote Control



Program Timer — This feature is capable of turning the TV on, tuned to a desired channel and off at a predetermined time (one day or everyday)

NOTE: The clock must be set for this feature to operate (Refer to the Set-Up Menu to set time)

- 1 Press the **ACTION** button to display the Main Menu
- 2 Press the **CH DOWN** button to select the Timer Icon
- 3 Press the **ACTION** button to display the Timer Control Menu



- 4 Press the **CH DOWN** button to select "ON" (time)
 - 5 Press the **VOL LEFT/RIGHT** button repeatedly to set hours (set AM/PM accordingly)
 - 6 Press the **CH DOWN** button to select the minutes position
 - 7 Press the **VOL LEFT/RIGHT** button repeatedly to set minutes
 - 8 Press the **CH DOWN** button to select "OFF" (time)
 - 9 Repeat steps 5 through 7 for setting "OFF" (time)
 - 10 Press the **CH DOWN** button to select "CHANNEL"
 - 11 Press the **VOL LEFT/RIGHT** button or use the Remote Control Keypad to enter the channel number desired when the set turns "ON"
 - 12 Press the **CH DOWN** button to select "SET"
 - 13 Press the **VOL RIGHT** button to select
 - NO – not activated
 - ONE DAY – activated
 - EVERY DAY – activated
- NOTE:** To deactivate Program Timer select "NO" in step 13
- 14 Press **ACTION** button twice to exit menus

Helpful Hints:

- If you see "GAME GUARD" in the upper right hand corner, the channel or Video Input you have selected has been locked out
- If the Program Timer "ON" functions while the set is operating, the set will automatically tune to the channel designated in the Timer Program

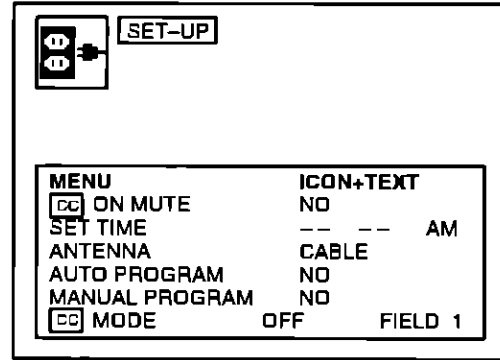
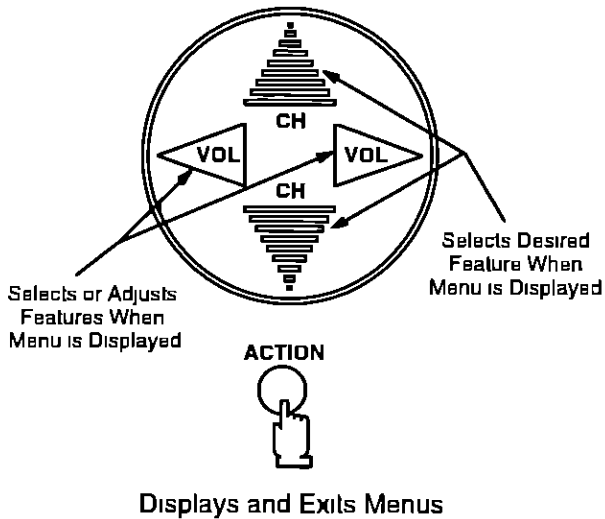
Set-Up Features

- Menu
- CC (Closed Caption) on Mute
- Set Time
- Antenna (TV or Cable)
- Auto Program
- Manual Program
- CC (Closed Caption) Mode

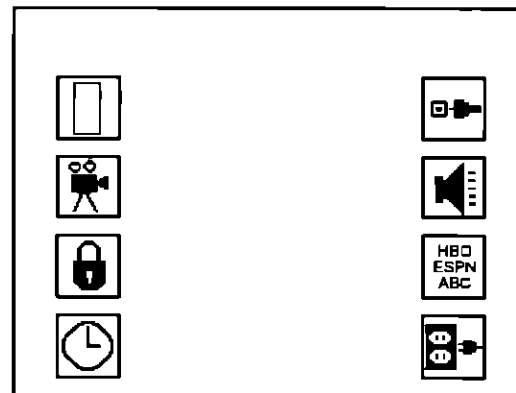
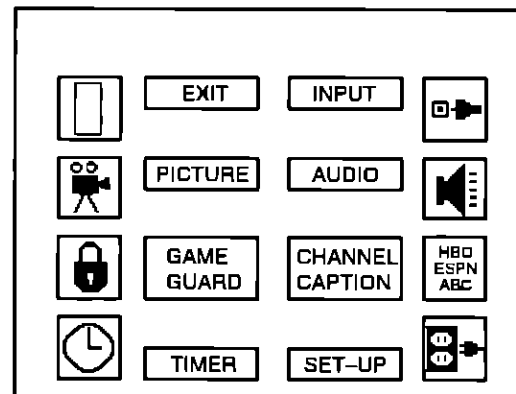
Menu – The Main Menu can be displayed in two formats Icon with Text or Icon without Text for those familiar with the Icon system

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu

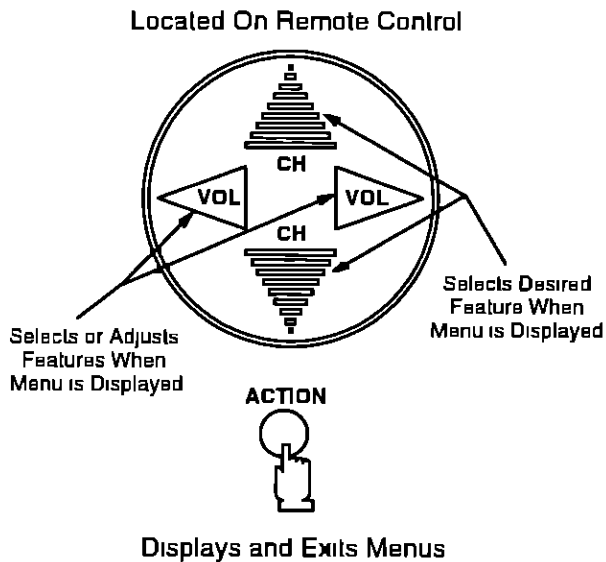
Located On Remote Control



- 4 Press the VOL LEFT/RIGHT button to select ICON with TEXT or ICON only
- 5 Press ACTION button twice to exit menus



Set-Up Features (cont.)

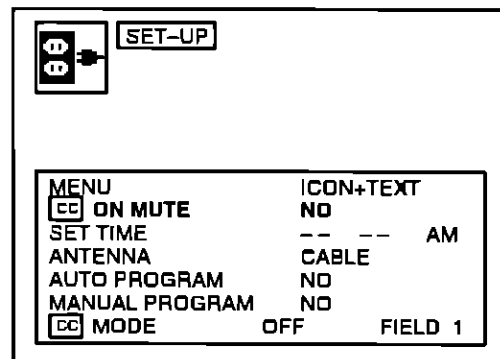


CC On Mute

Activates the On-Screen Closed Captioning when the MUTE button on the Remote Control is pressed. To deactivate, press the MUTE button again.

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

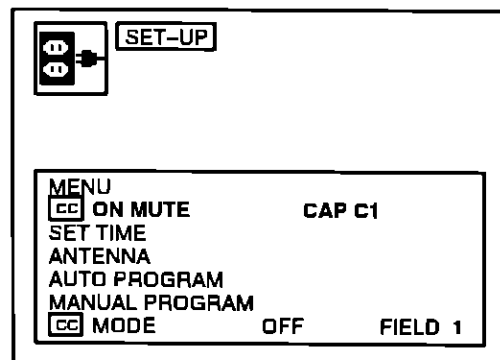
- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the CH DOWN button to select "CC ON MUTE"
- 5 Press the VOL RIGHT button to select NO (OFF), CAP C1, or CAP C2

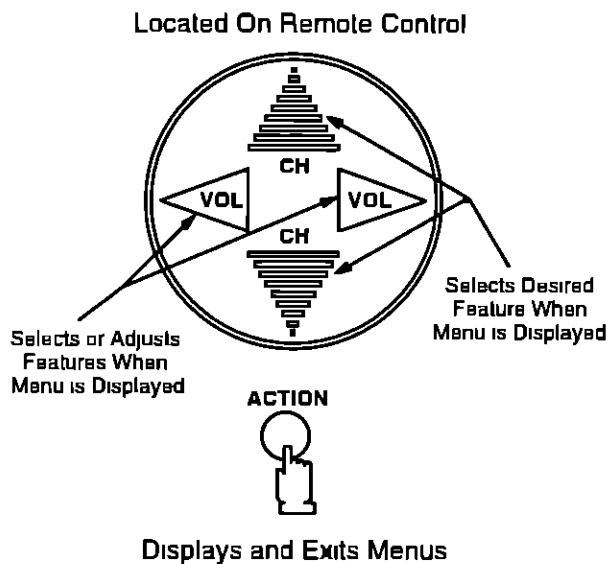
Recommended Set-Up

- 1 Place CC ON MUTE into the CAP C1 Mode
- 2 Press the CH DOWN button to select "CC MODE"
- 3 Press the VOL RIGHT button to select "OFF"
- 4 Press the CH DOWN button to select the Field position
- 5 Press the VOL LEFT/RIGHT button to select "FIELD 1"



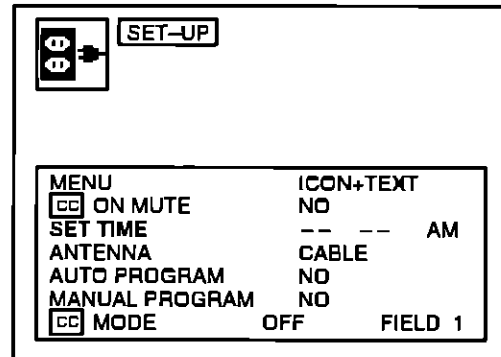
- 6 Press ACTION button twice to exit menus
- 7 Press the MUTE button when the program being viewed is broadcast with Closed Caption to activate. Press again to deactivate.

Set-Up Features (cont.)



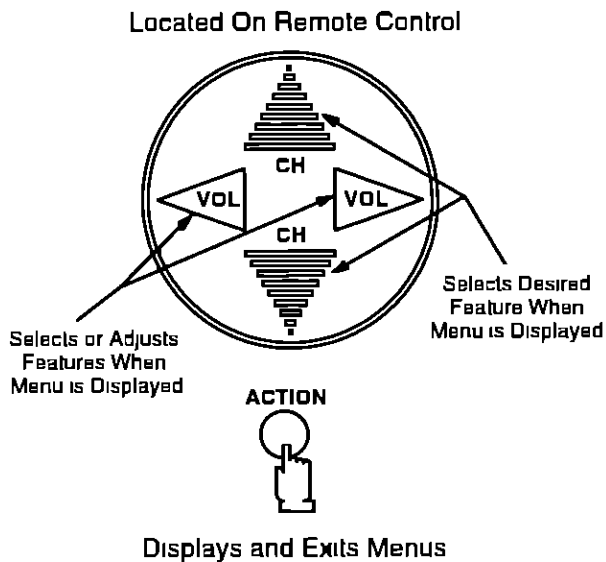
Set Time – Clock (when set) will display on screen at initial “Turn On”, after a channel change and when pressing the **RECALL** button. The time must be set first in order to operate the Program ON/OFF Timer.

- 1 Press the **ACTION** button to display the Main Menu
- 2 Press the **CH DOWN** and **VOL RIGHT** buttons to select the Set-Up Icon
- 3 Press the **ACTION** button to display the Set-Up Menu



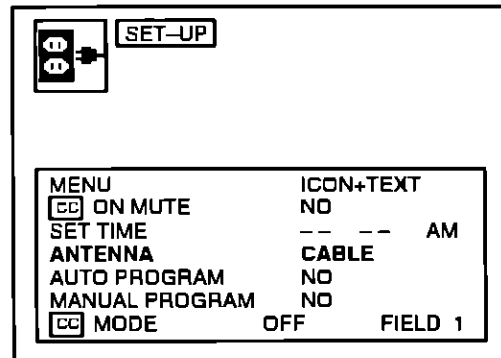
- 4 Press the **CH DOWN** button to select “SET TIME”
- 5 Press the **VOL LEFT/RIGHT** button to set hours (set AM/PM accordingly)
- 6 Press the **CH DOWN** button to select minutes position
- 7 Press the **VOL LEFT/RIGHT** button repeatedly to set minutes
- 8 Press **ACTION** button twice to exit menus

Set-Up Features (cont.)



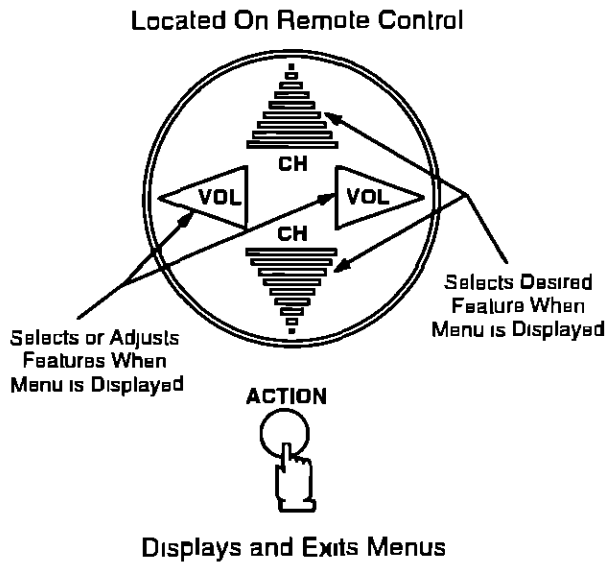
Antenna (TV or Cable) – The proper Input mode must be selected for the type of signal at the antenna input

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



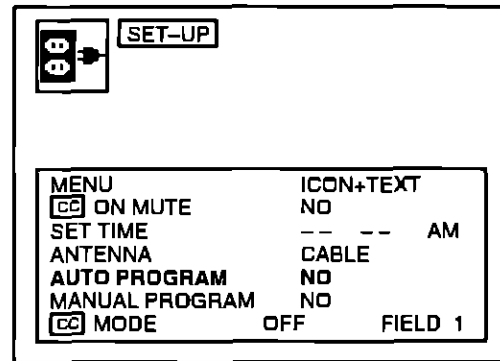
- 4 Press the CH DOWN button to select "ANTENNA"
- 5 Press the VOL LEFT/RIGHT button to select TV or CABLE
 - TV mode is used when the Receiver is not connected to a cable TV system, for example when using a VHF/UHF antenna (channels 02 – 69)
 - Cable mode is used when the Receiver is connected to a Cable TV system and you are not using a cable company converter box (channels 01 – 125)
- 6 Press ACTION button twice to exit menus

Set-Up Features (cont.)



Auto Program – This feature allows you to place all channels with a video signal into Channel Scan Memory. Press the CHANNEL (CH) UP/DOWN button and only those channels with a signal will be accessed.

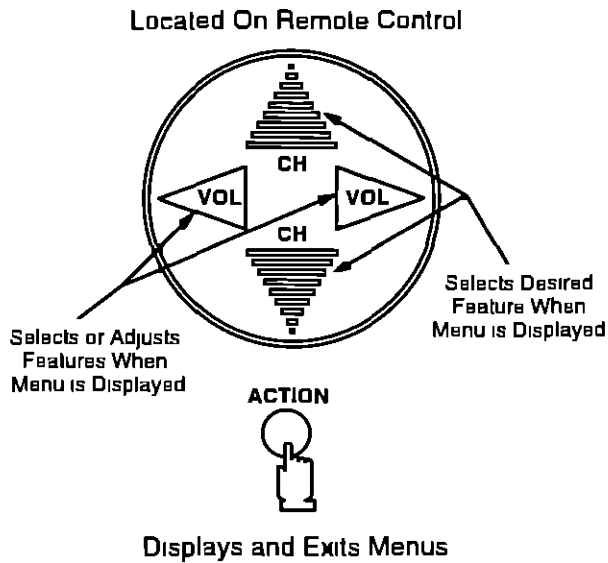
- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the CH DOWN button to select "AUTO PROGRAM"
- 5 Press the VOL LEFT/RIGHT button to start Auto Programming. Channels will automatically advance until all channels have been scanned.
- 6 Press the ACTION button twice after completion of Auto Programming to exit Set-Up Menu.

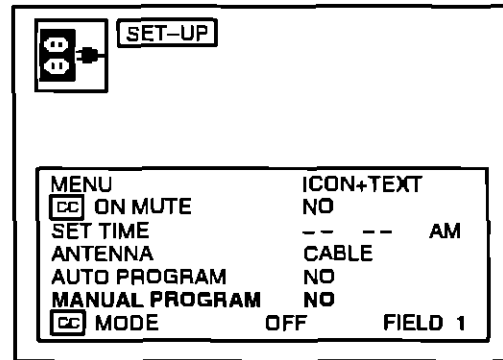
NOTE: Channel numbers with signal present will turn blue which indicates stored in Channel Scan Memory.

Set-Up Features (cont.)

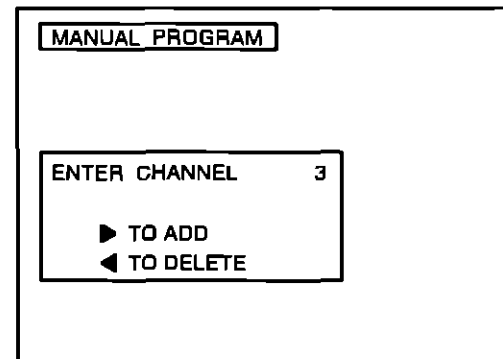


Manual Program — This feature allows you to select which channels are placed into Channel Scan Memory. Press the CHANNEL (CH) UP/DOWN button and only those channels will be accessed.

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up icon
- 3 Press the ACTION button to display the Set-Up Menu

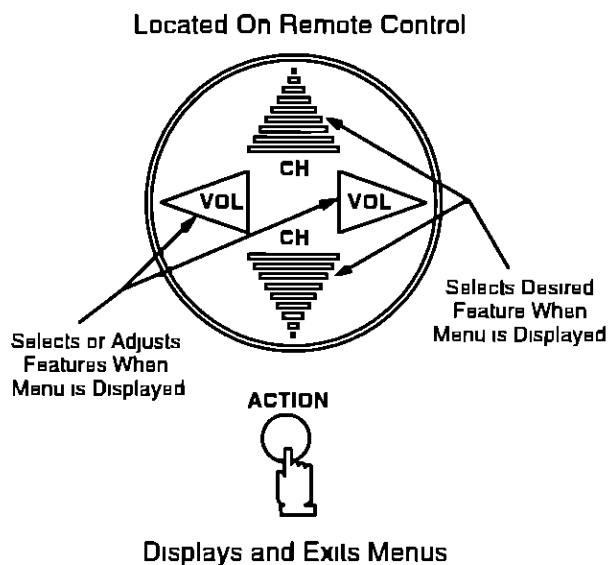


- 4 Press the CH DOWN button to select "MANUAL PROGRAM"
- 5 Press the VOL LEFT/RIGHT button to display the Manual Programming Menu



- 6 Use the CH UP/DOWN button or the Remote Keypad (0 through 9 buttons) to select channels
- 7 Press the VOL RIGHT button to add channel(s) to memory (Blue). Press the VOL LEFT button to delete channels from memory (Yellow).
- 8 Repeat steps 6 and 7 to continue adding or deleting channels.
- 9 Press ACTION button twice to exit menus

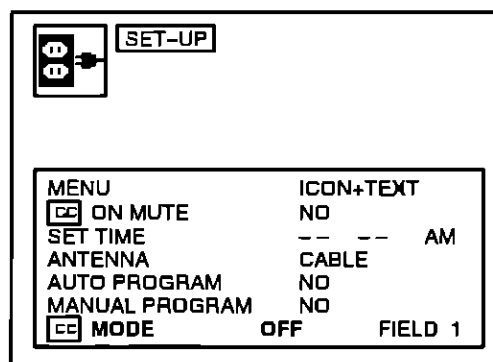
Set-Up Features (cont.)



CC Mode

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

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the CH DOWN button to select "CC MODE"
- 5 Press the VOL RIGHT button to select OFF, CAP C1, TEXT C1, CAP C2, or TEXT C2
 - **CAPTION OFF** – Recommended mode when you do not wish to view Closed Caption
 - **CAPTION C1** – For video related information that can be displayed (up to four (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
 - **TEXT C1** – Blanks out a large portion of the picture on the television screen, and displays program guide or any other information currently being transmitted
 - **CAPTION C2** – Another mode used for video related information that can be displayed (up to four (4) lines of script strategically placed on the television screen so that it does not obstruct relevant parts of the picture)
 - **TEXT C2** – Another mode which displays information and blanks out a large portion of the picture on the television screen
- 6 Press the CH DOWN button to select the Field position
- 7 Press the VOL LEFT/RIGHT button to select "FIELD 1" or "FIELD 2"
- 8 Press ACTION button twice to exit menus

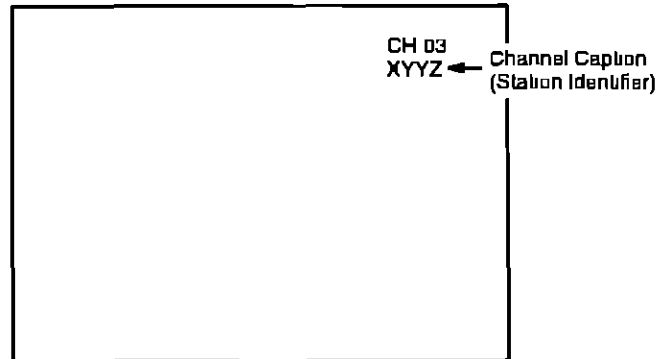
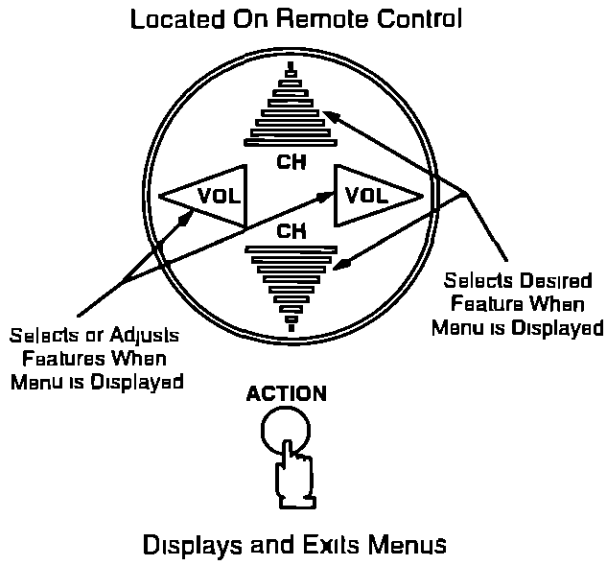
Helpful Hints:

- Closed Caption information may be transmitted on either or both Caption Fields
- Most Closed Caption information is transmitted on Field 1 in Cap C1 Mode
- De-select Text mode if large portion of the picture is blanked out

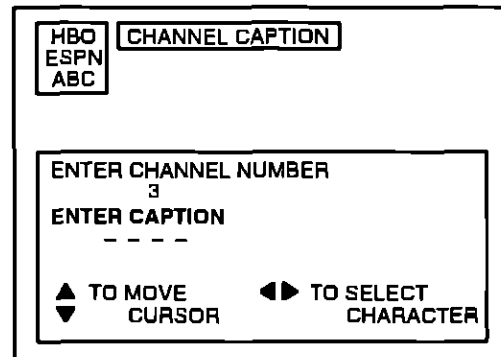
Channel Caption

Channel Caption (Station Identifier)

This feature allows you to enter the call names of up to 30 stations into memory (using up to four (4) characters for each station) The call name will then display along with the channel number when changing channels or pressing RECALL



- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Channel Caption Icon
- 3 Press the ACTION button to display the Channel Caption Menu



- 4 Press the VOL LEFT/RIGHT button, or use the Remote Control Keypad, to enter channel number you wish to assign a Station Identifier
- 5 Press the CH DOWN button to select "ENTER CAPTION"
- 6 Press the VOL LEFT/RIGHT button to select first character in Station Identifier Then press the CH DOWN button to move cursor to the second position and repeat until the complete Station Identifier is entered (up to four (4) characters)
- 7 Press the CH UP/DOWN button to select "ENTER CHANNEL NUMBER" Then repeat steps 4 through 6 to continue adding Channel Station Identifier(s)
- 8 Press ACTION button twice to exit menus

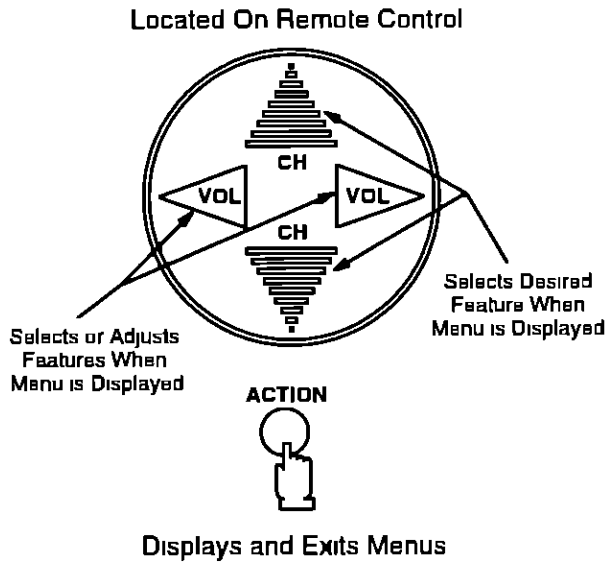
NOTE: To delete a Channel Caption (Station Identifier) from memory all four character positions must display dash mark (-)

Helpful Hints:

When the maximum amount of station identifiers are entered, "FULL" will be displayed in the characters position

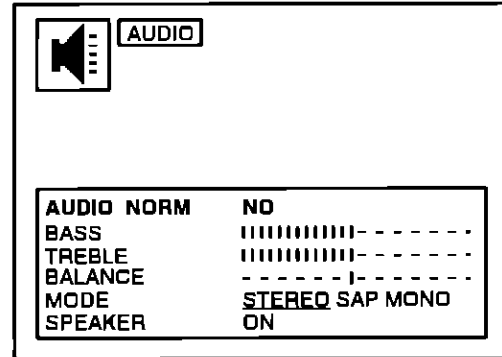
Audio Adjustments

- Audio Norm
- Bass
- Treble
- Balance
- (Audio) Mode
- [TV] Speaker



Bass, Treble, and Balance Adjustment

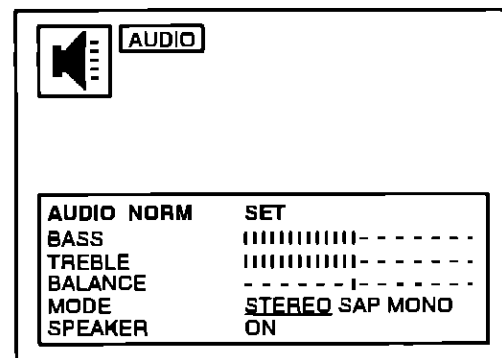
- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Audio Icon
- 3 Press the ACTION button to display the Audio Adjustment Menu



- 4 Press the CH UP/DOWN button to select 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 ACTION button twice to exit 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 DOWN and VOL RIGHT buttons to select the Audio Icon
- 3 Press the ACTION button to display the Audio Adjustment Menu



- 4 Press the VOL LEFT/RIGHT button to select "SET" to Normalize Bass, Treble, and Balance
- 5 Press ACTION button twice to exit menus

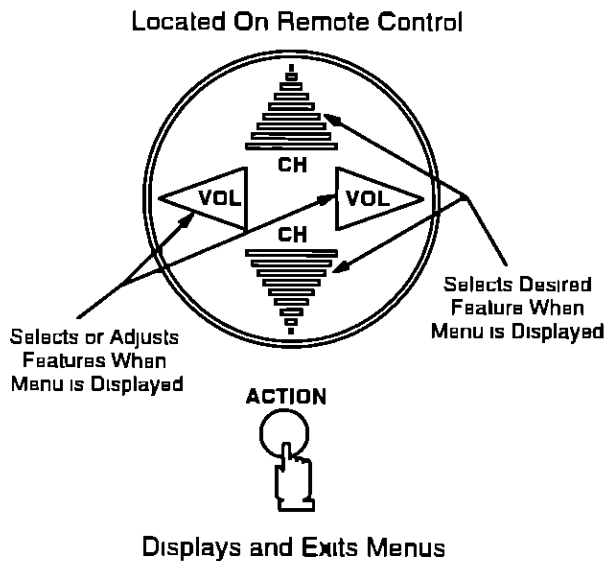
Helpful Hints:

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

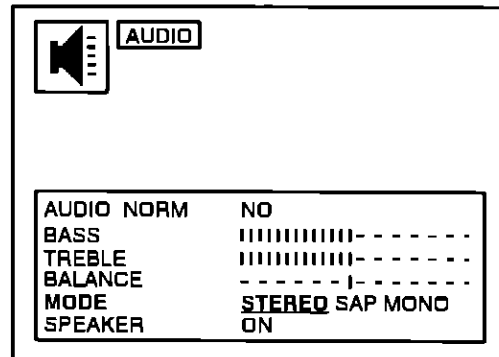
Audio Adjustments (cont.)



Audio Mode Selection (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 DOWN and VOL 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 select "MODE"
- 5 Press the VOL LEFT/RIGHT button to select Stereo, SAP (Second Audio Programming) or Mono The selected mode will be underlined
- 6 Press ACTION button twice to exit menus

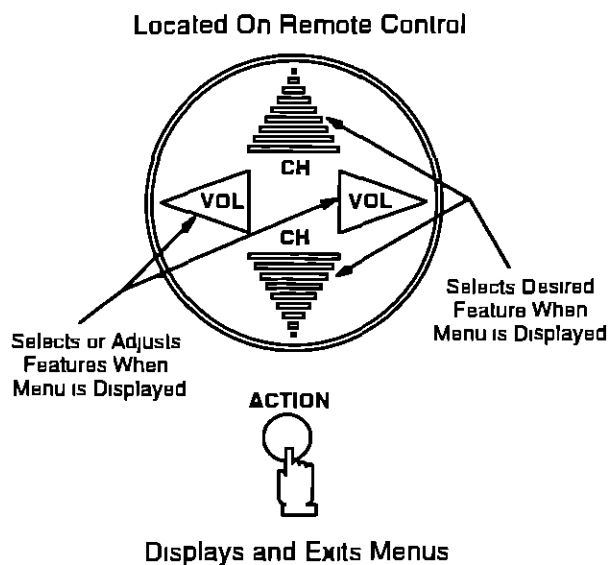
Helpful Hints:

STEREO – Two channel Audio reception

SAP – Second Audio Programming (Typically used for bilingual audio)

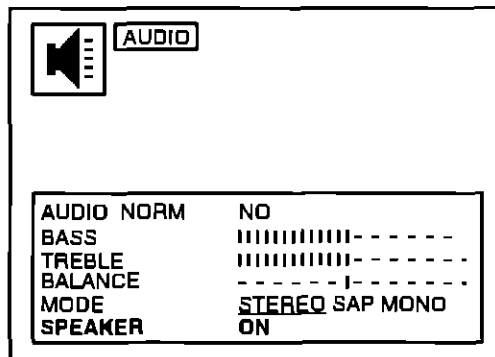
MONO – Use when stereo signal is weak.

Audio Adjustments (cont.)



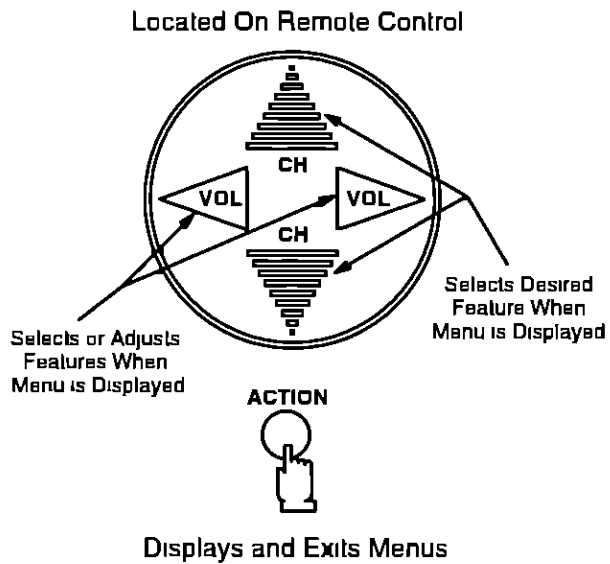
[TV] Speaker – This feature is used to turn the internal speakers “ON” or “OFF”, when the Receiver is connected to an External Audio Amplifier

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



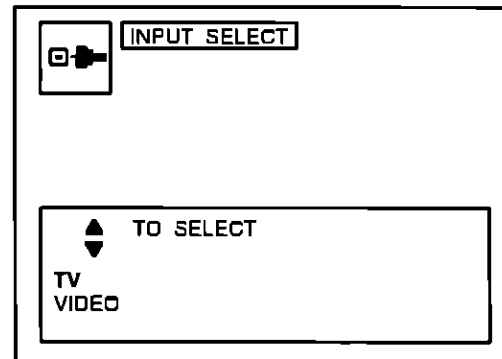
- 4 Press the **CH UP/DOWN** button to select “**SPEAKER**”
- 5 Press the **VOL LEFT/RIGHT** button to select Speaker “**ON**” or “**OFF**”
- 6 Press **ACTION** button twice to exit menus

Video Input



Video Input – This feature is used to select TV or Video Input

- 1 Press the **ACTION** button to display the Main Menu
- 2 Press the **VOL RIGHT** button to select the Input Icon
- 3 Press the **ACTION** button to display the Input Select Menu



- 4 Press the **CH UP/DOWN** button to select "TV" or "VIDEO"

NOTE: The Game Guard feature must be deactivated before selecting the Video Input

Programming The Universal Remote Control (VCR)

Preferred Procedure – Code Known

Programming Universal Remote Using Infra-Red Access Codes for VCRs

- Determine brand of VCR
- Identify code(s) associated with the brand in the infra-red code index for VCRs (located in this manual)

Procedure

- 1 Press and hold VCR POWER button down on Universal Remote
- 2 Enter two digit code using keyboard “0 through 9” buttons The Universal Remote is now programmed

NOTE: Some brands have multiple codes Release VCR POWER button, then repeat procedure using each code listed until VCR responds correctly

Alternate Procedure – Code Unknown

Programming Universal Remote Using the “Sequence Method” for VCRs

- Confirm VCR is plugged in and operating properly, then turn OFF

Procedure

- 1 Press and hold the VCR POWER button down on Universal Remote
- 2 Press VOL RIGHT button repeatedly Check for the VCR to turn ON after each press Stop pressing the button when the VCR turns ON The proper infra-red code has now been accessed

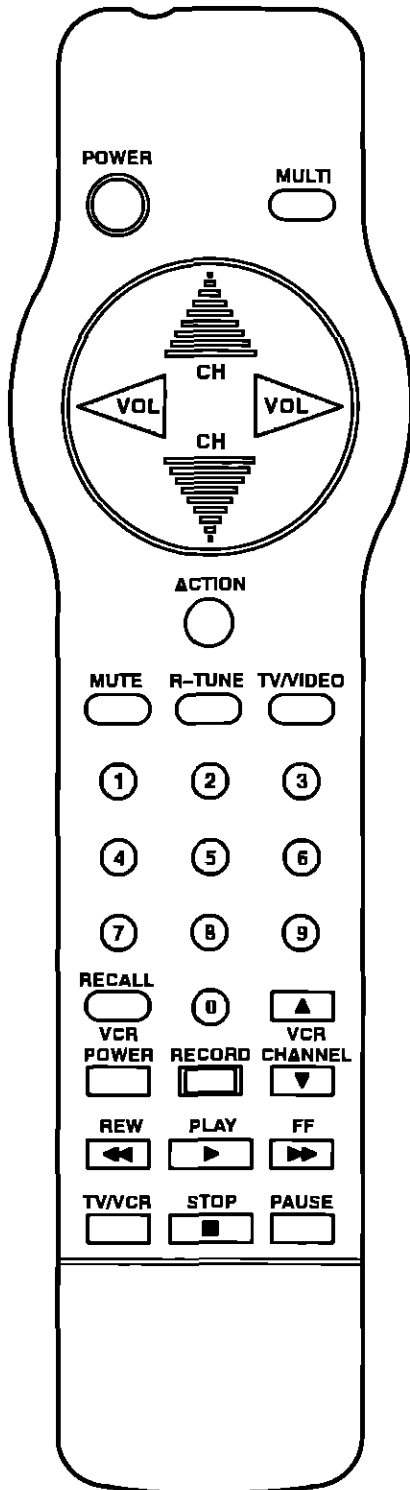
NOTE.

- 1 It may take several attempts before the correct code is found
- 2 The VOL LEFT button can be used to return to a code that was accidentally passed by
- 3 Some Remote Controls may have unique operating functions for some buttons For Example The POWER button may only turn the VCR OFF as opposed to both ON and OFF It will then be necessary to modify the procedure Turn the VCR ON and repeatedly press the VOL RIGHT button until the VCR turns OFF

Infra-Red Code Index For VCRs

VCR Brand	Code(s)	VCR Brand	Code(s)
Audio Dynamics	14, 16	NEC	02, 14, 16, 30
Broksonic	10	Panasonic	00, 01
Canon	00, 01	Pentax	05
Citizen	09	Philco	00, 29
Craig	12	Philips	00, 29
Curtis Mathes	00, 08, 15	Pioneer	05
DBX	14, 16	Quasar	00, 01
Emerson	10, 20, 34, 35, 36, 37	RCA	05, 07, 08, 28, 35
Fisher	12, 18, 19	Realistic	00, 02, 06, 12, 15
Funai	15	Samsung	07, 32
GE	00, 07, 08, 32	Sanyo	02, 12
Goldstar	09	Scott	04, 13, 33, 36
Hitachi	05, 35, 36	Sears	02, 05, 18, 19
Instant Replay	00	Sharp	06, 24
JCPenney	00, 02, 05, 14, 16, 30	Sony	17, 26, 33, 34
JVC	02, 14, 16, 30	Sylvania	00, 29
Kenwood	02, 14, 16, 30	Symphonic	15
Magnavox	00, 29	Tashiko	09
Marantz	02, 14, 16, 29, 30	Tatung	30
Marta	09	Teac	15, 30
Memorex	00, 12	Teknika	21
MGA	04, 27	Toshiba	05, 13
Minolta	05	Vector Research	14, 16
Mitsubishi	04, 27	Video Concepts	14, 16
Montgomery Ward	06	Wards	06
Multitech	07, 15, 32	Yamaha	02, 14, 16, 30
		Zenith	11, 17

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



Remote Control

Optional Equipment Connection and Operation

Video/Audio Through Out Connections

The input and output terminals located on the back of the Monitor/Receiver directly pass the input signals through the output terminals, so you may monitor or record the external Video/Audio information

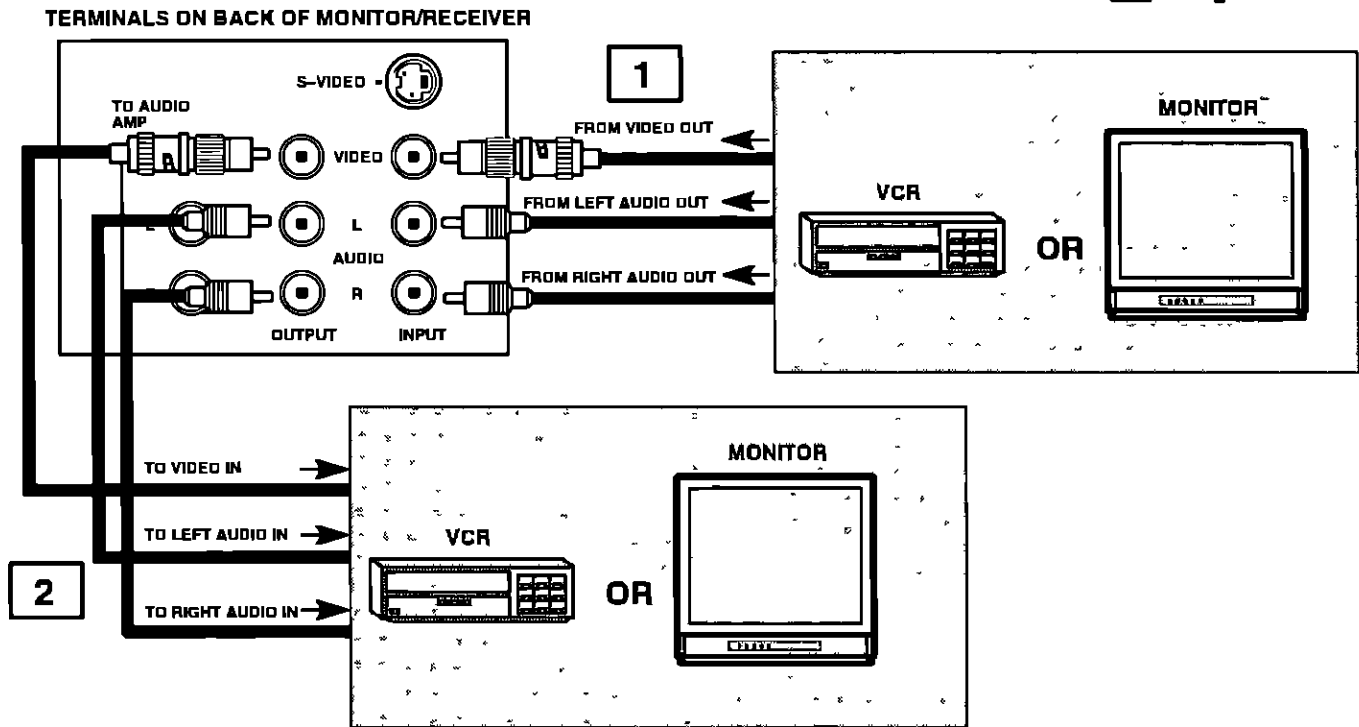
NOTE: INPUT and OUTPUT terminals will operate whether the Monitor/Receiver is ON or OFF

Operation:

- 1 Connect an external Video/Audio source to the video/audio input terminals on back of Monitor/Receiver
- 2 Connect a VCR or another Monitor/Receiver to the Video/Audio output terminals on back of the Monitor/Receiver
- 3 Operate optional equipment (VCR-VDP) as instructed in Optional Equipment manual

NOTE: Two RCA to BNC adaptors are supplied with the Monitor/Receiver if needed

RCA to BNC Adaptor

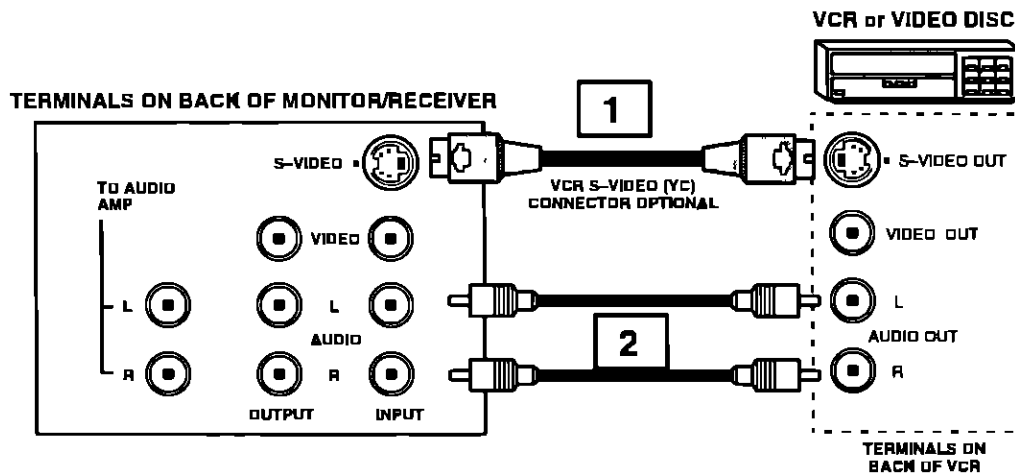


S-Video Connection

Operation:

- 1 Connect S-Video (YC) connector to S-Video Terminals
- 2 Make connections to L and R Input Audio jacks
- 3 Operate optional equipment (VCR-VDP) as instructed in Optional Equipment manual

NOTE: Connection of optional S-VIDEO jack automatically disconnects the Normal Video Input jack



Optional Equipment Connection and Operation (cont.)

To Audio AMP Connection (Stereo)

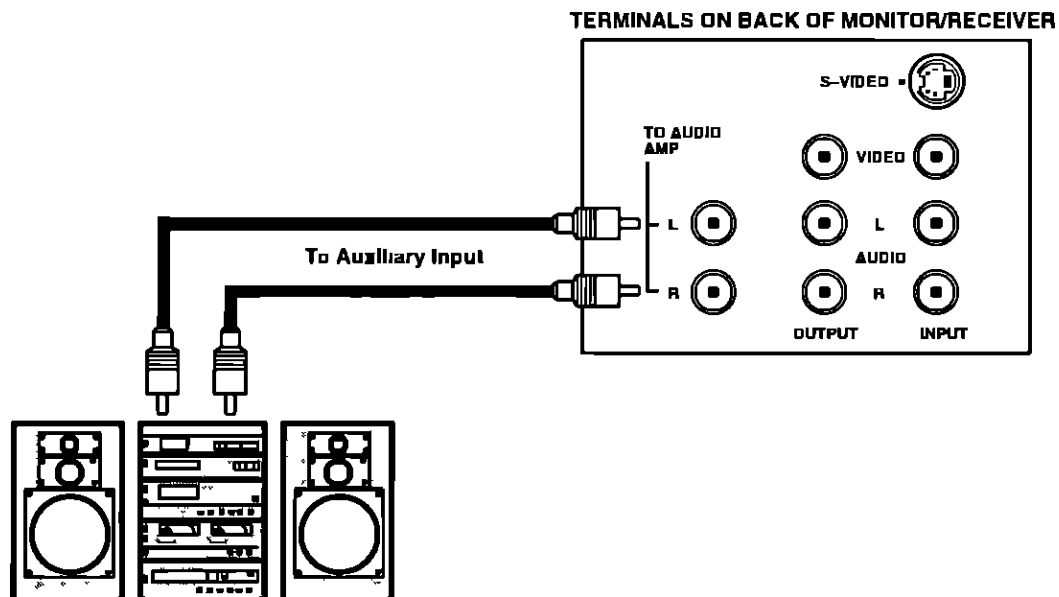
- To Audio AMP

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

NOTE: "TO AUDIO AMP" terminals cannot be used for external speakers

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

- 1 Select INT SPEAKERS "ON" Mode (Refer to the Audio Menu [TV] Speakers 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 level of TV
- 5 Select INT SPEAKERS "OFF" Mode (Refer to the Audio Menu [TV] Speakers section)
- 6 Audio bass, treble, balance, volume and mute can now be controlled by the TV Remote Control



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

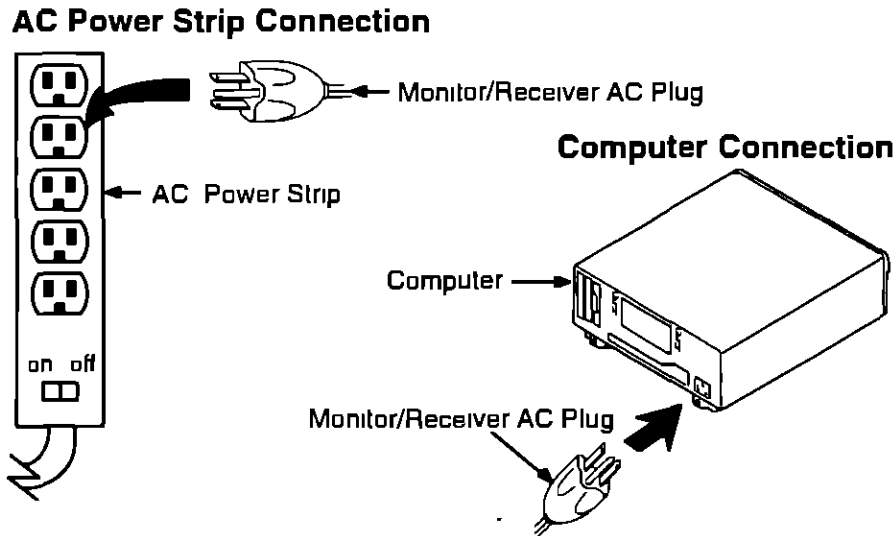
When dusting or polishing the cabinet, use a clean soft cloth and stroke straight with the grain. An occasional coat of furniture polish will help preserve the finish. Do not use benzene, thinners or other petroleum based cleaners. Do not place objects made of plastic or rubber directly on top of the 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.

Instant-On Feature

This Monitor/Receiver has an Instant-On feature which automatically turns the unit ON when AC power is supplied. This feature initiates the Monitor/Receiver to turn ON automatically when using it with other equipment connected to a main power supply switch (Such as AC power strip or when plugged directly into the back of a computer). Once initial power has been supplied and the Monitor/Receiver turns ON, the POWER switch located on the front of the Monitor/Receiver may be used to turn the Monitor/Receiver OFF and ON as desired.



Procedure for Instant-On feature

With the Monitor/Receiver turned ON, press the ACTION and VOLUME LEFT buttons simultaneously, then press the ACTION and CH DOWN buttons simultaneously. This will activate the Instant-On feature, to deactivate repeat procedure.

NOTE: There will be no On-Screen display.

To confirm if the Instant-On feature is activated, turn the Monitor/Receiver OFF, then unplug it and plug it back in. The Monitor/Receiver should turn on automatically.

Control Panel Lock Feature

Procedure for Control Panel Lock feature

With the Monitor/Receiver turned ON, press the ACTION and VOLUME RIGHT buttons simultaneously, then press the ACTION and CH UP buttons simultaneously. This will activate the Keyboard Lock feature, to deactivate repeat procedure.

NOTE: There will be no On Screen display.

To confirm if the Control Panel Lock feature is activated, press any button other than the POWER button (the Power button is never disabled).















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	CLOCK	NOT SET
VOLUME	APPROX -1/3	SLEEP TIMER	NO/OFF
CHANNEL	CH 03	TIMER	NO/OFF
PROGRAM MEMORY	UNPROGRAMMED	ANTENNA (TV or CABLE)	CABLE
VIDEO MENUS	NORMALIZED	TV/VIDEO	TV
STEREO/SAP/MONO	STEREO		

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	<ul style="list-style-type: none"> - INPUT CONNECTORS SEATED PROPERLY - EQUIPMENT CONNECTED TO INPUT CONNECTIONS - ANTENNA LOCATION AND/OR CONNECTION
 INTERFERENCE	 NOISY SOUND	<ul style="list-style-type: none"> - ELECTRICAL APPLIANCES, LIGHTS, CARS AND TRUCKS - DIATHERMY AND OTHER MEDICAL EQUIPMENT - VIDEO INPUT CONNECTOR SEATED PROPERLY
 NORMAL PICTURE	 NO SOUND	<ul style="list-style-type: none"> - VOLUME CONTROL SETTING - TV SPEAKERS (IF APPLICABLE) IN THE OFF MODE - AUDIO INPUT CONNECTOR SEATED PROPERLY - TRY ANOTHER CHANNEL
 NO PICTURE	 NO SOUND	<ul style="list-style-type: none"> - THAT AC POWER LINE IS PLUGGED INTO AC OUTLET - BRIGHTNESS AND AUDIO CONTROLS SET PROPERLY - VIDEO AND AUDIO INPUT CONNECTORS SEATED PROPERLY - TRY ANOTHER CHANNEL
 NO COLOR	 NORMAL SOUND	<ul style="list-style-type: none"> - COLOR CONTROL SETTINGS - TRY ANOTHER CHANNEL
 BLUE PICTURE	 NO SOUND	<ul style="list-style-type: none"> - MONITOR/RECEIVER IN VIDEO MODE WITH NO SIGNAL
 BLACK BOX IN PICTURE	 SOUND	<ul style="list-style-type: none"> - CC (CLOSED CAPTION) IN TEXT MODE - SELECT CLOSED 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

Panasonic®

BROADCAST AND TELEVISION SYSTEMS

PANASONIC BROADCAST AND TELEVISION SYSTEMS COMPANY

Division of Matsushita Electric Corporation of America

Executive Office

One Panasonic Way, Secaucus, New Jersey, 07094 (201) 348-7000

BTS Division Executive Office, One Panasonic Way, Secaucus, New Jersey 07094 (201) 348-7000

GSA Order Department, One Panasonic Way, Secaucus, New Jersey 07094 (201) 348-7860

Eastern Regional Sales Office, Panasonic BTS, 43 Hartz Way, Secaucus, New Jersey 07094 (201) 348-7620

Midwest Regional Sales Office, Panasonic BTS, 1707 North Randall Road, Elgin, Illinois 60123 (847) 468-5200

Southeast Regional Sales Office, Panasonic BTS, 1854 Shackleford Court, Suite 115, Norcross, Georgia 30093 (404) 717-6841

Southwest Regional Sales Office, Panasonic BTS, 4500 Amon Carter Boulevard, Fort Worth, Texas 76155 (817) 685-1117

Western Regional Sales Office, Panasonic BTS, 6550 Katella Avenue, Cypress, California 90630 (714) 373-7275

Northwest Regional Sales Office, Panasonic BTS, The AGC Building, 1200 Westlake Avenue North, Suite 508, Seattle, WA 98109 (206) 285-8883

MATSUSHITA ELECTRIC OF CANADA LIMITED

5770 Ambler Drive, Mississauga, Ontario, L4W 2T3

PANASONIC SALES COMPANY

San Gabriel Industrial Park, 65th Infantry Ave., KM 9 5, Carolina, Puerto Rico 00630