

HITACHI

SOLID STATE COLOR TV

20CX20B501

OPERATING GUIDE

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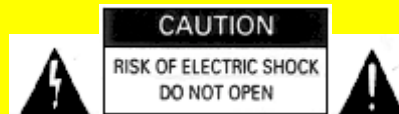
TABLE OF CONTENTS

IMPORTANT SAFEGUARDS.....	3
IMPORTANT SAFEGUARDS.....	4
Introduction.....	8
Congratulations on Your Purchase.....	8
Care and Cleaning	8
Installation.....	8
Television Location.....	8
Optional External Equipment Connections.....	9
AC Power Supply Cord.....	9
Remote Control Battery Installation.....	9
Precaution on Battery Use	9
Antenna/Cable Connections	9
Other Video Equipment	10
Optional Equipment Connection and Operation.....	10
To Audio AMP Connection (Stereo)	10
Audio/Video Connection.....	11
Cable Box Connection	11
Locate of Television Controls	12
Button Location on Remote Control	12
Remote Control.....	13
Quick Reference Functional Key Chart.....	13
Quick Reference Functional Key Chart.....	14
Using the Remote to Control VCR and Cable Box Functions.....	14
Operating the Precoded Function for Your VCR	14
Operating the Precoded function for Your Cable Box	15
VCR and Cable Box Codes Index	15
Codes Index For VCRs.....	15
Code Index For Cable Boxes	16
Special Functions	16
Main Menu	17
Menu Language Selection	17
Video Adjustments	18
Reset	18
Color, Tint, Brightness, Contrast, and Sharpness Adjustments.....	19
Audio Adjustments	19
Mode.....	19
Lock	20
Video Lock.....	20
Video Unlock	21
Channel I.D.....	21
Timer Features.....	22
Sleep Timer	22
Program Timer	23
Set-Up Features	25
Clock Set.....	25

Antenna (Ant)	26
Auto Prog	26
Channel Memory	27
Auto Power On.....	28
CC (Closed Caption) Mode.....	28
USEFUL INFORMATION	29
Troubleshooting Chart	29
Specifications	30
Channel Capability Chart	30
HITACHI SERVICE HOTLINE.....	30
Back Cover	31

IMPORTANT SAFEGUARDS

Follow all warnings and instructions marked on this television receiver.



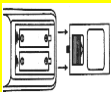
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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





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



CAUTION: Never remove the back cover of the set as this can expose you to very high voltages and other hazards. If the set does not operate properly, unplug the set and call your authorized dealer or service shop.

To prevent fire or shock hazard, do not expose this television system to rain or moisture.

NOTE: This television receiver will display closed captioning ( or ), in accordance with paragraph 15, 119 of the FCC rules. Model and serial numbers are indicated on back side of the set.

POWER SOURCE:

- This solid state color TV is designed to operate on 120 volts 60 Hz, AC household current.
- Insert power cord into a 120 volt 60 Hz outlet.
- To prevent electric shock, do not use the television's plug with an extension cord, receptacle, or other outlet unless the blades and ground terminal can be fully inserted to prevent blade exposure.

- Never connect the TV to 50Hz, direct current, or anything other than the specified voltage.

IMPORTANT SAFEGUARDS

SAFETY POINTS YOU SHOULD KNOW ABOUT YOUR HITACHI TELEVISION RECEIVER

CAUTION:

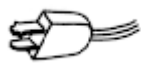
- Read all of these instructions.
- Save these instructions for later use.
- Follow all warnings and instructions marked on the television receiver.

Our reputation has been built on the quality, performance, and ease of service of HITACHI television receivers.

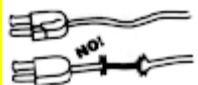
Safety is also foremost in our minds in the design of these units. To help you operate these products properly, this section illustrates safety tips which will be of benefit to you. Please read it carefully and apply the knowledge you obtain from it to the proper operation of your HITACHI television receiver.

Please fill out your warranty card and mail it at once to HITACHI. This will enable HITACHI to notify you promptly in the improbable event that a safety problem should be discovered in your product model.

FOR YOUR PERSONAL SAFETY



1 This television 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.



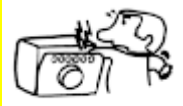
2 When the power cord or plug is damaged or frayed, unplug this television set from the wall outlet and refer servicing to qualified service personnel.



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



4 Do not allow anything to rest on or roll over the power cord, and do not place the television where the power cord is subject to traffic or abuse. This may result in a shock or fire hazard.



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



6 Never push objects of any kind into this television set 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 set.



7 If the television has been dropped or the cabinet has been damaged, unplug this television set from the wall outlet and refer servicing to qualified service personnel.



8 If liquid has been spilled into this television set, unplug it from the wall outlet and refer service to qualified service personnel.



9 Do not subject your television to impact of any kind. Be particularly careful not to damage the picture tube surface.



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



11-1 Do not place the television on an unstable cart, stand, or table. The television may fall, causing serious injury to a child or an adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the television. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.



11-2 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.

PROTECTION AND LOCATION OF YOUR SET

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



- Never expose the television to rain or water. If the set has been exposed to rain or water, unplug the set from the wall outlet and refer servicing personnel.

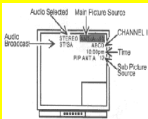


13 Choose a place where light (artificial or sunlight) does not shine directly on the screen.

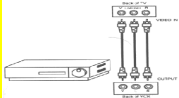


14 Avoid dusty places, since accumulated dust inside the chassis may cause failure of the set when high humidity persists.

15 The television has slots, or openings in the cabinet for ventilation purposes, to provide reliable operation of the receiver, and to protect from overheating. These openings must not be blocked or covered.



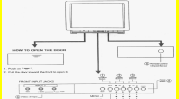
- Never cover the slots or openings with cloth or other material.



- Never block the bottom ventilation slots of the set by placing it on a bed, sofa, rug, etc.



- Never place the set near or over a radiator or heat register.



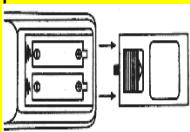
- Never place the set in a "built-in" enclosure, unless proper ventilation provided.

PROTECTION AND LOCATION OF YOUR SET

16-1 If an outside antenna is connected to the television set, be sure the antenna system is protected against voltage surges and built up static charges, Section 810 of the National Electrical Code, NFPA No. 70-1975, 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 electrode, and requirements for the grounding electrode.

Click to see antenna grounding diagram.

16-2 **Note to CATV system installer:** (Only for television with CATV reception) 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.



17 An outside antenna system should not be located in the vicinity of overhead power lines or other electrical lights 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.



18 For added protection for the television 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 due to lightning and power-line surges.

OPERATION OF YOUR SET



19 This television should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply at your home, consult your television dealer or local power company. For television sets designed to operate from battery power, refer to the operating instructions.



20 If the television does not operate normally by following the operating instructions, unplug this set television set from the wall outlet and refer servicing to qualified service personnel. Adjust only those controls that are covered in 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 set to normal operation.



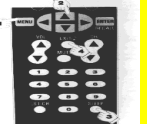
21 If your television is to remain unused for a period of time, (such as when going on a holiday), turn the television OFF and unplug it from the wall outlet.

IF THE TELEVISION DOES NOT OPERATE PROPERLY



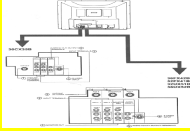
22 If you are unable to restore normal operation by following the detailed procedure in your operating instructions, do not attempt any further adjustment. Unplug the television and call your dealer or service technician.

23 Whenever the television is damaged or fails, or a distinct change in performance indicates a need for service, unplug the set and have it checked by a professional service technician.



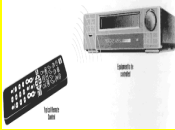
24 It is normal for some televisions to make occasional snapping or popping sounds, particularly when being turned on or off. If the snapping or popping is continuous or frequent, unplug the set and consult your dealer or service technician.

FOR SERVICING AND MODIFICATION



25 Do not use attachments not recommended by the television set manufacturer as they may cause hazards.

26 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.



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

Introduction

Congratulations on Your Purchase

Your new television features all solid state components. It 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 television, please read and follow the installation and operating instructions contained in this manual.

Customer's Record

The model and serial numbers of this product may be found on its back cover. You should note the model and serial numbers 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.

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.

Wooden 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 the cabinet. A chemical reaction could result causing permanent marring of the finish.

Remote Control

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

Installation

Television Location

This television 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

may 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.

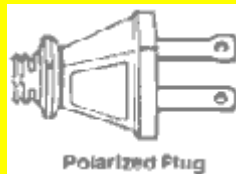
Optional External Equipment Connections

The Audio/Video 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 required. 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 THE AC OUTLET AND FULLY INSERT. DO NOT USE THIS (POLARIZED) PLUG WITH A RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.



Remote Control Battery Installation

Remote and Battery Compartment Illustration

Batteries: Use two "AA" batteries.

1. Remove the battery compartment cover on the back of the remote.
2. Install the batteries in the battery compartment.
(Polarity (+) or (-) must be correct.)
3. Reattach the battery cover.

NOTE:

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

Precaution on Battery Use

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

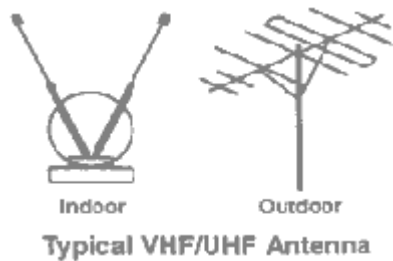
Observe the Following Precautions:

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 television.

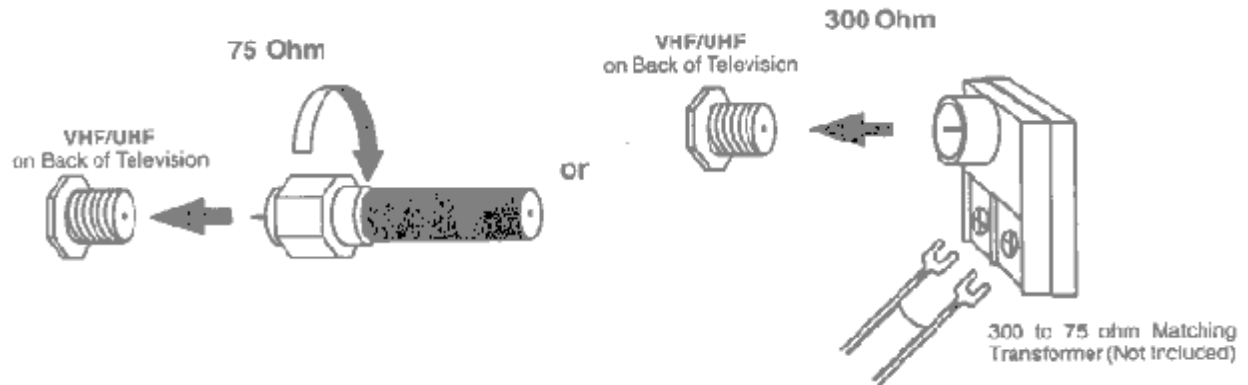
Antenna/Cable Connections

Antenna Connection - For proper reception of VHF/UHF channels, external antenna is required. For best reception an outdoor antenna is recommended.

Antenna Mode must be set to TV. (Refer to the Antenna section located in the Set-Up Menu.)

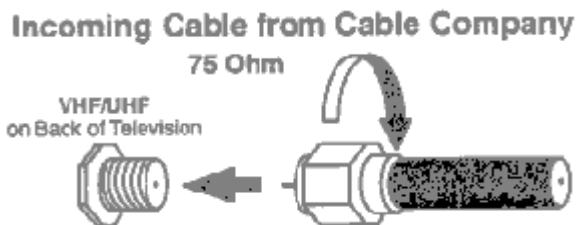


Incoming Cable from Home Antenna



Cable Connection - For reception of the cable channels, connect the cable supplied by your cable company. **Antenna Mode must be set to CABLE.** (Refer to the Antenna section located in the Set-Up Menu.)

Incoming Cable from Cable Company



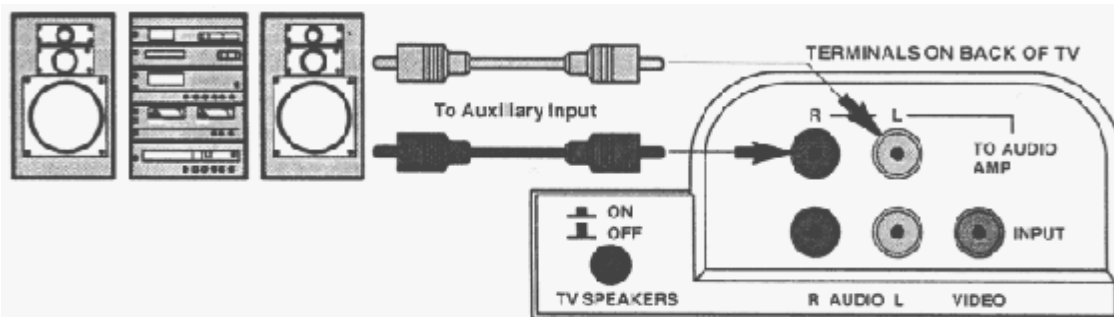
NOTE: Certain cable systems offset some channels to reduce interference or have Premium (scrambled) channels. A cable converter box is required for proper reception. Check with your local Cable company for compatibility requirements.

Other Video Equipment

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

Optional Equipment Connection and Operation

To Audio AMP Connection (Stereo)



• To Audio AMP

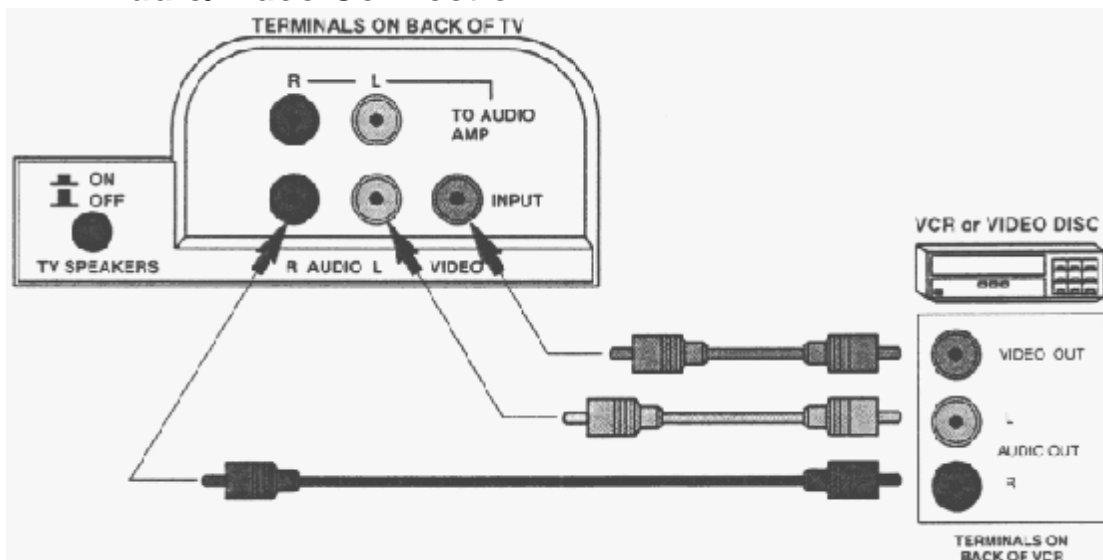
Connect to an external audio amp auxiliary input for monitoring sound through a stereo system.

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

Operation - When an audio amp is connected to "TO AUDIO AMP" terminals as shown:

1. Press the TV SPEAKERS button (located on the back of TV) to turn INT. SPEAKERS "ON" ().
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. Press the TV SPEAKERS button (located on back of TV) to turn INT. SPEAKERS "OFF" ().
6. Volume and mute can now be controlled by the TV Remote Control.

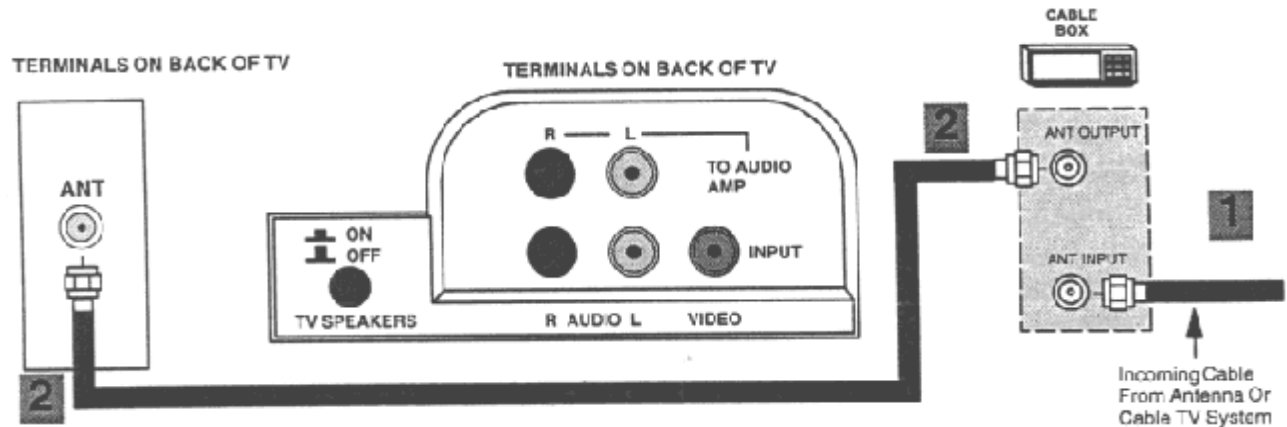
Audio/Video Connection



Operation

1. Connect optional equipment as shown to INPUT.
2. Select the Video mode by pressing the INPUT button.
3. Operate optional equipment (VCR-VDP) as instructed in Optional Equipment manual.

Cable Box Connection



Operation

1. Connect incoming Cable to Cable Box ANT INPUT.
2. Connect a Cable from Cable Box ANT OUTPUT to TV ANT INPUT.

Locate of Television Controls

Front Panel Illustration

1. **Power Button** - Press to turn ON or OFF.
2. **Vol (Volume) Buttons** - Press to adjust Sound Level.
3. **Ch (Channel) Buttons** - Press to select programmed channels.
4. **Menu Button** - Press to display Main Menu and access On Screen features and Adjustment Menus.
5. **Input Button** - Press to select TV or Video Input.

Button Location on Remote Control

Remote Control Illustration

Power Button

Press to turn ON or OFF.

Mute Button

Press to mute sound. A second press resumes sound. Press also to access and delete Closed Caption.

Input Button

Press to select TV or Video Input.

Menu Button

Press to display Main Menu and access or exit On Screen features and Adjustment Menus.

Recall Button

Press to display Time, status of Sleep Timer, Channel, Video Mode, Channel I.D. and Audio Mode.

Precoded VCR Buttons

These buttons transmit the chosen precoded VCR codes

Mode Button

These buttons allow the remote to control your TV, VCR or Cable Box depending on which mode button is selected.

Channel Buttons

Press to select channels

Keypad Buttons

Press desired channel number to randomly access any channel.

Volume Buttons

Press to adjust TV sound level.

LST-CH (Last Channel) Button

Press to switch to the previous channel.




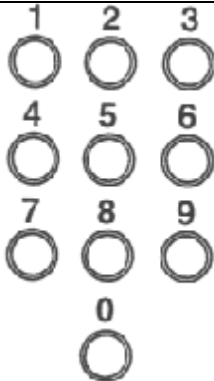

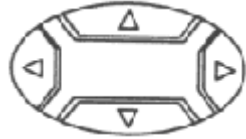


Sleep Button

Press to turn TV off in 30, 60, or 90 minutes.














Cursor Button

Press to adjust Audio menus, Video menus, and select operating features when menus are displayed.

Remote Control**Quick Reference Functional Key Chart**

KEY	OPERATES	FUNCTION
	TV CABLE VCR	Turns TV On and Off Turns Cable Box On and Off Turns VCR On and Off
	TV	Selects the TV Input Mode
	TV	Activates and Exits TV Menus
	TV VCR CABLE	Selects Channel Selects code in Video Lock Menu Selects Channel in Channel I.D. Menu Selects Channel in Timer Mode Selects Precoded VCR codes when programming remote Selects Precoded CABLE codes when programming remote
	TV	Displays Channel, Time, Channel I.D., and Audio Mode
	TV	Menu Navigation
	TV CABLE	Channel Up/Down Channel Up/Down
	TV	Volume Up/Down

Quick Reference Functional Key Chart

KEY	OPERATES	
<div>SLEEP</div> 	TV	Selects 30, 60, or 90 for Automatic Turn Off also use to turn Sleep Timer off by selecting NO
<div>MUTE</div> 	TV	Mutes TV Audio Access and exit Closed Caption
<div>LST-CH</div> 	TV	Selects previously tuned channel
Mode Selection Buttons <div>TV</div>  <div>CABLE</div>  <div>VCR</div> 	TV CABLE VCR	Selects TV Mode for the remote control Selects Cable Mode for the remote control Selects VCR Mode for the remote control
Standard VCR Control Buttons <div>REC</div>     <div>STOP</div>  <div>PAUSE</div>  <div>TV/VCR</div> 	VCR VCR VCR VCR VCR VCR CABLE	Record Rewind Fast Forward Play Stop Pause Selects TV or VCR Mode Selects A/B Mode

Using the Remote to Control VCR and Cable Box Functions

Remote Control Illustration

Operating the Precoded Function for Your VCR

This remote is designed to operate different types of VCRs. You must first program the remote to match the remote system in your VCR. (Refer to the VCR Code Index section.)

1. Turn on your VCR.
2. Aim the remote control at the front of your VCR.
3. Press the VCR button to switch to the VCR precoded mode.
4. While holding down the VCR button, enter the 2 digit preset code that matches your VCR.*
The remote will turn on your VCR when the correct 2-digit preset code is entered. When this occurs, the remote control is programmed for your VCR. If the VCR does not turn off after 5

seconds, try a different 2-digit preset code.

5. The remote will now control your VCR.



NOTES:

- If your VCR cannot be operated after performing the above procedures, this means that your VCR codes have not been precoded into the remote.
- In the unlikely event that your VCR cannot be operated after performing the above procedures, consult your VCR operating guide.
- The remote control will remember the codes you have programmed in the unit the batteries are removed from the remote control. After replacing the batteries repeat the entire programming procedure stated above.
- If your VCR does not have a power function, the remote will issue the CHANNEL UP function.

Operating the Precoded function for Your Cable Box

1. Turn on your cable box.
2. Aim the remote control at the front of your cable box.
3. Press the cable box button to switch to the cable box precoded mode.
4. While holding down the CABLE button, enter the 2-digit preset code that matches your cable box.* The remote will turn on your cable box when the correct 2-digit code is entered. When this occurs, the remote control is programmed for your cable box. If the Cable Box does not turn off after 5 seconds, try a different 2-digit preset code.
5. The remote will now control your Cable Box.

NOTES:

- If your cable box cannot be operated after performing the above procedures, this means that your cable box codes have not been precoded into the remote.
- In the unlikely event that your cable box cannot be operated after performing the above procedures, consult your cable box operating guide.
- The remote control will remember the codes you have programmed in the unit the batteries are removed from the remote control. After replacing the batteries repeat the entire programming procedure stated above.
- If your VCR does not have a power function, the remote will issue the CHANNEL UP function.
- For some models, the remote control's channel  and  will control the cable box channel. The number buttons will control your television channel although you are in cable mode.

*(Codes are listed on page 14.)

VCR and Cable Box Codes Index

The Remote Control is capable of operating many brands of VCRs or Cable Boxes. You must first program the Remote Control to match the remote system in your VCR or Cable Box.

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

Codes Index For VCRs

VCR Brand	Code(s)
Emerson	00, 01, 10, 16, 23, 33, 37, 40, 43
Funai	00
GE	09, 22
Hitachi	00, 14, 15

JVC	14, 26
Magnavox	09, 12, 28,
Mitsubishi	16, 23, 26, 45
Panasonic	09, 35, 46
RCA	15, 22
Sony	06, 07, 08, 09
Toshiba	16, 17, 42
Zenith	07, 08, 12,

Code Index For Cable Boxes

Cable Box Brand	Code(s)
G.I.	09
Jerrold	03, 09, 10, 12, 13, 51
Magnavox	40
Philips	40
Pioneer	39
Samsung	39
Scientific Atlantic	04, 06, 14, 52, 56
Zenith	00

Special Functions

LST-CH



LST-CH - Press will switch between the last two channels selected on the numeric keypad.

NOTE: When scanning channels with the CHANNEL ▲ OR ▼ button, pressing the LST-CH button will switch between the last two channels scanned.

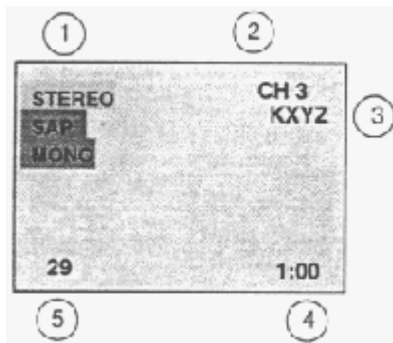


RECALL

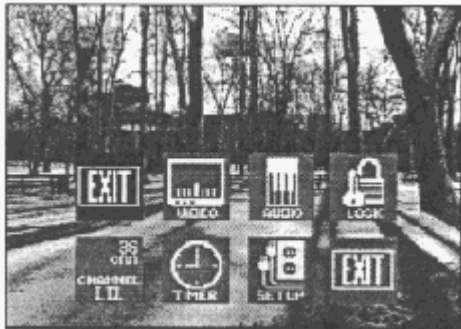


Recall - Press to review:

1. Audio Mode Status
2. CH Number or Video Input Selected
3. Channel I.D. (Station Identifier)
4. Clock Time
5. Sleep Timer Status



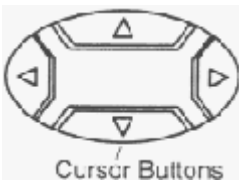
Main Menu



NOTE: When Auto Power On feature is activated, Timer Icon changes to an Exit Icon.



Display and Exit Menus



Displayed

Cursor Button ▲ or ▼ Highlight Desired Feature when Menu is

Cursor Button ◀ or ▶ Selects or Adjusts Feature when Menu is

Displayed

Located On Remote Control



1. Press

2. Press CURSOR ▲ or ▼ and ◀ or ▶ to select the desired Icon.



3. Press after selecting the desired Icon to access sub menus.









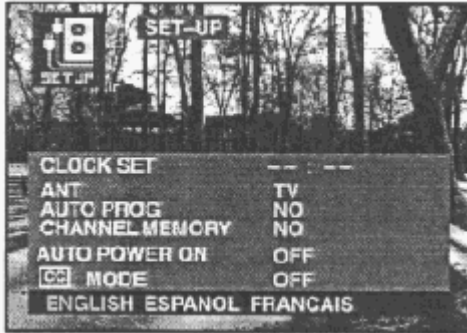
4. Press twice to exit sub menus.






Menu Language Selection

The MENU LANGUAGE is factory set to ENGLISH. Follow the instructions to change the

Menu Language to SPANISH, FRENCH, and back to ENGLISH.

1. Press .
2. Press CURSOR  or  and  or  to highlight the Set-Up Icon.
3. Press  to display the Set-Up Menu.









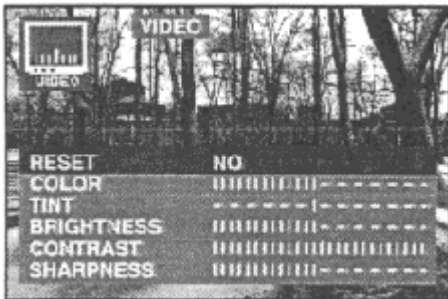
4. Press CURSOR  or  to highlight ENGLISH, ESPAÑOL, FRANÇAIS.
5. Press CURSOR  or  to select ENGLISH, ESPAÑOL, or FRANÇAIS.
6. Press  twice to exit menus.






Video Adjustments

Reset






Use to reset Color, Tint, Brightness, Contrast, and Sharpness adjustments back to factory preset level.


1. Press .
2. Press CURSOR  or  and  or  to highlight the Video Icon.
3. Press  to display the Video Adjustment Menu.

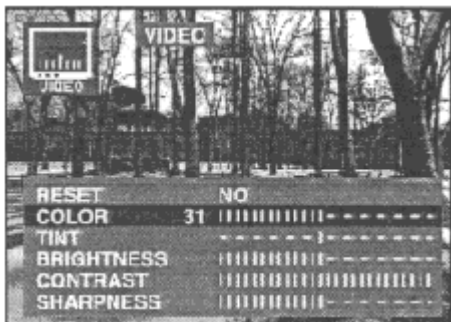






4. Press CURSOR  or  to highlight RESET.
5. Press CURSOR  or  to select "SET" to normalize Color, Tint, Brightness, Contrast, and Sharpness.
6. Press  twice to exit menus.


Color, Tint, Brightness, Contrast, and Sharpness Adjustments

1. Press .
2. Press CURSOR  or  and  or  to highlight the Video Icon.

3. Press  to display the Video Adjustment Menu.



4. Press CURSOR  or  to select desired Video Adjustments (Color, Tint, Brightness, Contrast, or Sharpness).
5. Press CURSOR  or  to adjust your selection. (The Selected Video Adjustment will be displayed.)
- 6 Repeat steps 4 and 5 for the remaining Picture Adjustments.

7. Press  twice to exit menus.

Note:

Color - Adjust for desired color intensity.

Tint - Adjust for natural flesh tones.

Brightness - Adjust so dark areas of the picture slightly become black for crisp detail.







Contrast - Adjust the white areas of the picture as desired.

Sharpness - Adjust for best clarity of outline detail.

Audio Adjustments

Mode

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 highlighted.

1. Press .
2. Press CURSOR  or  and  or  to highlight the Audio Icon.
3. Press  to display the Audio Adjustment Menu.



4. Press CURSOR ◀ or ▶ to Stereo, SAP (Second Audio Programming), or MONO. The selected mode will be highlighted.

5. Press  twice to exit menus.

NOTE:

STEREO - Two channel Audio reception.

SAP - Second Audio Programming (such as bilingual audio, weather reports, etc.).



MONO - Use when stereo signal is weak.

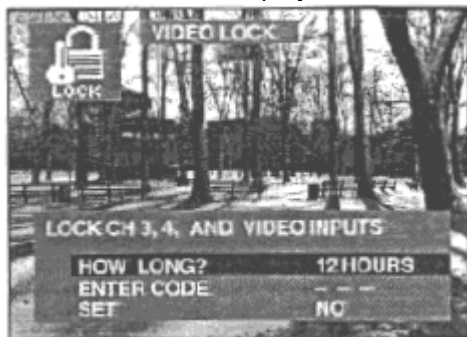
Lock

Video Lock

Prevent video games and other video sources from being viewed. Channel 3, 4 and 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 or write code on a piece of paper.**

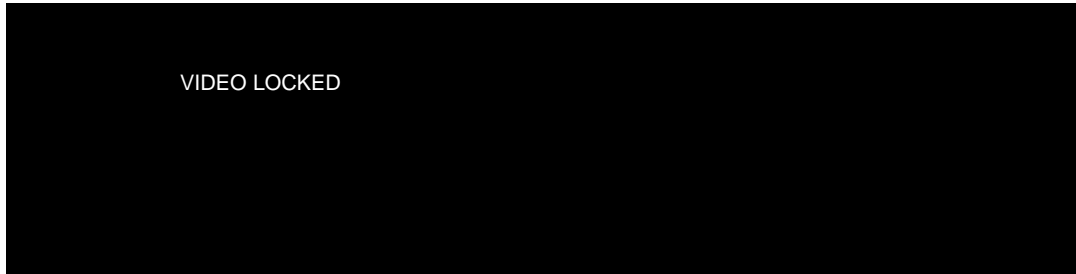
1. Press .
2. Press CURSOR ▲ or ▼ and ◀ or ▶ to highlight the Lock Icon.
3. Press  to display the Video Lock Menu.



4. "HOW LONG" should already be highlighted. Press CURSOR ▶ to select the desired amount of time (12, 24, or 48 hours) for Video Lock to be activated.
5. Press CURSOR ▼ to highlight ENTER CODE. Then enter a 3-digit code with Remote Control Keypad. "SET" should be highlighted after entering the last digit.

NOTE: Use a code that you will easily remember or write code on a piece of paper.

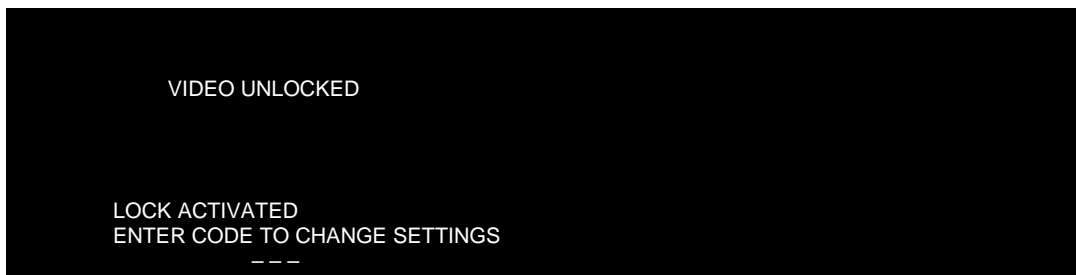
6. Press CURSOR ► after entering 3-digit code. "Video Locked" will display On Screen.



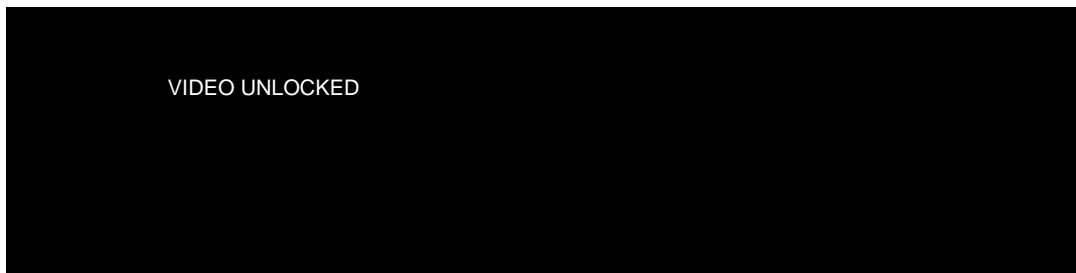
Video Lock Activated

Video Unlock

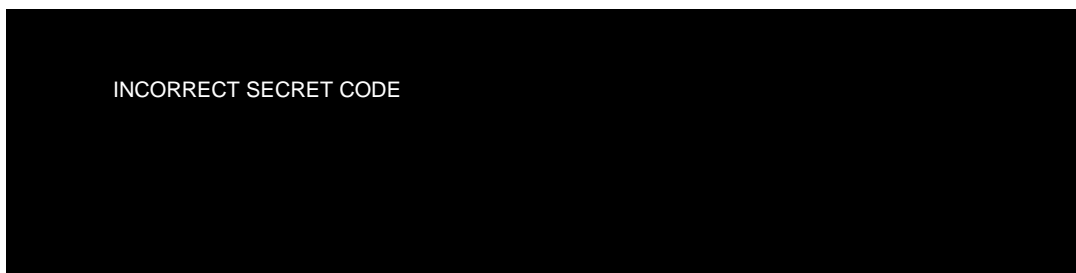
To unlock the Video Lock feature, repeat steps 1 through 3. Enter the same 3-digit code previously used in step 5 with Remote Control Keypad.



Enter Same 3-Digit Code Previously Used



If 3-Digit Code is the Same

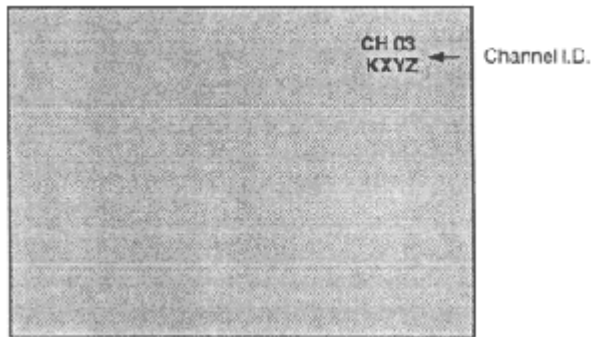







If 3-Digit Code is not the Same

Channel I.D.

This feature allows you to enter the call names of up to 30 stations into memory (using up to 4 characters for each station). The I.D. name will then display along with the channel









number when changing channels or pressing RECALL.



1. Press .
2. Press CURSOR  or  and  or  to highlight the Channel I.D. Icon.

3. Press  to display the Channel I.D. Menu.



4. Press CURSOR  or , or use the Remote Control Keypad to enter the channel number you wish to assign a Channel Identifier.
5. Press CURSOR  to highlight ENTER I.D.
6. Press CURSOR  or  to select first character in Channel Identifier. Then press cursor  to move cursor to the second position and repeat until the complete Channel Identifier is entered (up to 4 characters).
7. Press CURSOR  or  to highlight ENTER CHANNEL NUMBER. Then repeat steps 4 through 6 to continue adding Channel Identifier(s).

8. Press  twice to exit menus.

NOTE: To delete a Channel I.D. (Station Identifier) from memory all four characters positions in the "ENTER I.D." area must display a dash mark (-).






NOTE:
When the Maximum amount of channel identifiers are entered, "FULL" will be display in the caption position.


Timer Features

Sleep Timer


This feature is used for automatic turn off in 30, 60, 90 minutes. Display will flash 3, 2, and 1 to indicate the last three remaining minutes prior to turn off. The recall display will also appear.

NOTE: This feature will be disabled when Auto Power On is activated.

1. Press .
2. Press CURSOR  or  and  or  to highlight the Timer Icon.

3. Press  to display the Timer Control Menu.



4. Press CURSOR  to select NO, 30, 60, or 90 minutes (Sleep Timer will be activated).

5. Press  twice to exit menus.

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

NOTE:

Press the RECALL button to display the remaining minutes for Sleep Timer, the status will display in the bottom left corner.

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 unless a function key is pressed during the 90 minutes. This feature is useful so that the TV will not remain ON unattended for extended period of time.

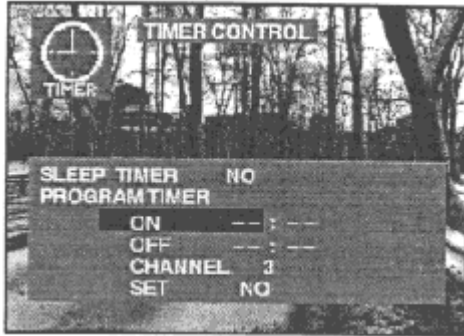
Programming the OFF timer will cancel the automatic OFF Special Feature.

Program Timer

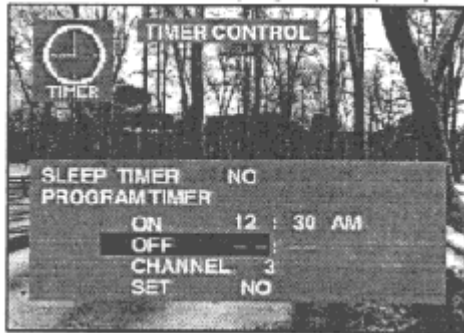
This feature is capable of turning the TV on, tuned to a desired channel and off at a predetermined time (one day or daily). The clock must be set for this feature to operate. (Refer to the Set-Up Menu to set time.)

NOTE: This feature will be disabled when Auto Power On is activated.

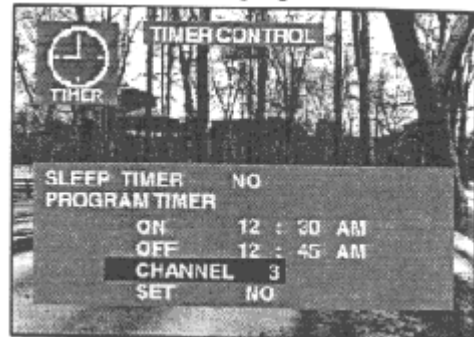
1. Press .
2. Press CURSOR  or  and  or  to highlight the Timer Icon.
3. Press  to display the Timer Control Menu.



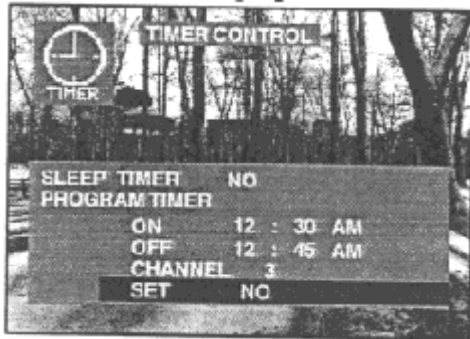
4. Press CURSOR ▼ to highlight ON (time).
5. Press CURSOR ◀ or ▼ repeatedly to set hours (set AM or PM accordingly).
6. Press CURSOR ▼ to highlight the minutes position.
7. Press CURSOR ◀ or ▶ repeatedly to set minutes.
8. Press CURSOR ▼ to highlight OFF (time).




9. Repeat steps 5 through 7 for setting OFF (time).
10. Press CURSOR ▼ to highlight CHANNEL.



11. Press CURSOR ◀ or ▶ or use the Remote Control Keypad to enter the channel number desired when the set turns "ON".
12. Press CURSOR ▼ to highlight SET.



13. Press CURSOR  to select:
- NO - not activated
 - ONE DAY - activated
 - DAILY - activated

14. Press  twice to exit menus.

NOTE: To deactivate Program Timer select NO in step 13.

NOTE:







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






Clock Set

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.

NOTE: This feature will be disabled when Auto Power On is activated.

1. Press .
2. Press CURSOR  or  and  or  to highlight the Set-Up Icon.
3. Press  to display the Set-Up Menu.






4. Press CURSOR  or  repeatedly to set hours (set AM or PM accordingly).
5. Press CURSOR  to highlight the minutes position.
6. Press CURSOR  or  repeatedly to set minutes.

7. Press  twice to exit menus.

Antenna (Ant)

The proper Input mode must be selected for the type of signal at the antenna input.

- TV mode is used when the television is not connected to a cable TV system, for example when using a VHF/UHF antenna (channels 01-125).
- Cable mode is used when the television is connected to a Cable TV system and you are not using a cable company converter box (channels 01-125).

1. Press .
2. Press CURSOR  or ▼ and ◀ or ▶ to highlight the Set-Up Icon.
3. Press  to display the Set-Up Menu.






4. Press CURSOR ▼ to highlight ANT.
5. Press CURSOR ◀ or ▶ to select TV or CABLE.

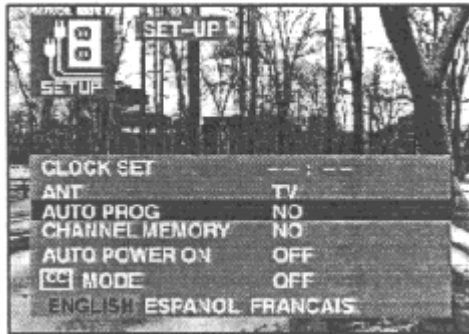
NOTE: This feature will be disabled when Video Lock is activated.

6. Press  twice to exit menus.

Auto Prog

This feature allows you to place all channels with a video signal into Channel Scan Memory.

1. Press .
2. Press CURSOR  or ▼ and ◀ or ▶ to highlight the Set-Up Icon.
3. Press  to display the Set-Up Menu.



4. Press CURSOR ▼ to highlight AUTO PROG.
5. Press CURSOR ◀ or ▶ to start Auto Programming. Channels will automatically advance until all channels have been scanned.

NOTE: This feature will be disabled when Video Lock is activated.



6. Press MENU twice after completion of Auto Programming to exit menus.

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

Channel Memory

This feature allows you to select which channels are placed into Channel Scan Memory.




1. Press MENU.
2. Press CURSOR ◀ or ▼ and ▶ or ► to highlight the Set-Up Icon.
3. Press MENU to display the Set-Up Menu.



4. Press CURSOR ▼ to highlight CHANNEL MEMORY.
5. Press CURSOR ◀ or ▶ to display the Channel Memory Menu.

NOTE: This feature will be disabled when Video Lock is activated.






6. Press CURSOR ◀ or ▶ or the Remote Keypad "0 through 9" buttons to select channels.
7. Press CURSOR ▶ to **add** channel(s) to memory (Blue). Press CURSOR ◀ to **delete** channel(s) to memory (Yellow).
8. Repeat steps 6 and 7 to continue adding or deleting channels.
9. Press  twice to exit menus.


Auto Power On

This feature allows the user to power up the TV at the same time as the cable box (or other components). Of course, the TV must be plugged into the cable box.

NOTE: This feature will be activated (on), Timer features will be disabled.

1. Press .
2. Press CURSOR  or ▼ and ◀ or ▶ to highlight the Set-Up Icon.
3. Press  to display the Set-Up Menu.









4. Press CURSOR ▼ to highlight AUTO POWER ON.
5. Press CURSOR ◀ or ▶ to select SET or OFF.
6. Press  twice to exit menus.

CC (Closed Caption) Mode




This television has a built in decoder that provides a visual depiction of the audio portion of the 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.

When the Closed Caption is in the OFF Mode:

The viewer may display closed caption by pressing  on the remote control. Press again to delete.

1. Press .
2. Press CURSOR  or  and  or  to highlight the Set-Up Icon.
3. Press  to display the Set-Up Menu.











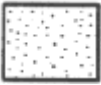







4. Press CURSOR  to highlight AUTO POWER ON.
5. Press CURSOR  to select OFF, C1, or C2.
6. Press  twice to exit menus.

USEFUL INFORMATION

Troubleshooting Chart

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

Symptoms		Check
Picture	Sound	
 SNOW PICTURE	 NOISY SOUND	- ANTENNA LOCATION AND/OR CONNECTION
 MULTIPLE IMAGE	 NOISY 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) - TRY ANOTHER CHANNEL - TV SPEAKERS SWITCH (IF APPLICABLE)

		- TV SPEAKERS SWITCH (IF APPLICABLE) IN THE OFF POSITION
 NO VIDEO	 NOISY SOUND	- TV OR CABLE TUNING MODE SET TO PROPER SETTING - ANTENNA INPUT CORRECT (IF APPLICABLE)
 NO PICTURE	 NO SOUND	CHECK THAT AC POWER CORD IS PLUGGED INTO AC OUTLET - BRIGHTNESS & AUDIO COTROLS SET PROPERLY - TRY ANOTHER CHANNEL
 NO COLOR	 NOISY SOUND	COLOR CONTROL SETTINGS TRY ANOTHER CHANNEL
 BLACK PICTURE	 NO SOUND	- RECEIVER IN VIDEO MODE WITH NO SIGNAL

Specifications

Power Source: 120V AC, 60Hz,
Channel Capability: 181 channels (See chart)
 VHF 2 ~ 13, UHF 14 ~ 69, Cable 125 channels
Video Input Jacks: 1V p-p, 75 ohm, phono jack type
Audio Input Jacks: 500mV rms 47K ohm
To Audio AMP Jacks: 0 ~ 2.0V rms 4.7K ohm
Stereo Sound
Closed Caption Display

Specifications are subject to change without notice or obligation.

Channel Capability Chart

BAND	CHANNELS
VHF	12
UHF	56
CABLE (Mid-Band)	15
CABLE (Super Band)	14
CABLE (Hyper Band)	28
CABLE (Ultra Band)	56
TOTAL CHANNELS	181

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800 HITACHI
(1-800-448-2244)

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