SYSTEM 3

**Direct View Color TV
MTS Stereo
Picture-In-Picture
VCR Plus+C3
Remote Recording System
with Cable Box Channel
Control**

**Operating Guide
& Warranty**

**for Models
SY2738, SY2739, SY2779,
SY3238, SY3239, SY3538**

ZENITH

®

THE QUALITY GOES IN BEFORE THE NAME GOES ON

Return the
*Product
Registration
Card* and your
TV could be
FREE!

¡Aviso para nuestros
clientes de habla hispana:
consulte la información que
aparece al final de este manual!

SAFETY WARNINGS

WARNING

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

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

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

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.

SAFETY TIPS

Refer to the "Important Safety Instructions" section of this operating guide for important safety considerations.

Caution

Do not attempt to modify this product in any way without written authorization from the manufacturer. Unauthorized modification could void the user's authority to operate this product.

POWER-CORD POLARIZATION

This product 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.

NOTE TO CABLE TV SYSTEM INSTALLER

This reminder is provided to call the cable TV 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 the cable entry as practical.

Caution

To prevent electric shock, match wide blade of plug to wide slot, fully insert.

Attention

Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

REGULATORY INFORMATION

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT SAFETY INSTRUCTIONS

Your product has been manufactured and tested with your safety in mind. However, improper use can result in potential electrical shock or fire hazards. To avoid defeating the safeguards that have been built into your new product, please read and observe the following safety points when installing and using your new product, and save them for future reference.

Observing the simple precautions discussed in this section of the operating guide can help you get many years of enjoyment and safe operation that are built into your new product.

1. **Read Instructions**
   All the safety and operating instructions should be read before the product is operated.

2. **Follow Instructions**
   All operating and use instructions should be followed.

3. **Retain Instructions**
   The safety and operating instructions should be retained for future reference.

4. **Heed Warnings**
   All warnings on the product and in the operating instructions should be adhered to.

5. **Cleaning**
   Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

6. **Water and Moisture**
   Do not use this product near water — for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

7. **Accessories**
   Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

8. **Transporting Product**
   A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

PORTABLE CART WARNING

9. **Attachments**
   Do not use attachments not recommended by the product manufacturer as they may cause hazards.

10. **Ventilation**
    Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

11. **Power Sources**
    This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

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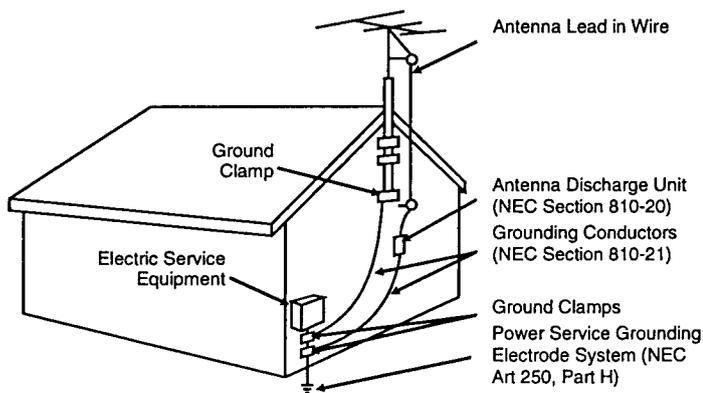
13. **Power-Cord Protection**
    Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

14. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code (U.S.A.), ANSI/ NFPA 70 provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

EXAMPLE OF GROUNDING ACCORDING TO NATIONAL ELECTRICAL CODE INSTRUCTIONS

Antenna Lead in Wire

Ground Clamp

Antenna Discharge Unit (NEC Section 810-20)
Grounding Conductors (NEC Section 810-21)

Electric Service Equipment

Ground Clamps
Power Service Grounding Electrode System (NEC Art 250, Part H)

NEC - NATIONAL ELECTRICAL CODE

15. Lightning

For added protection for this product (receiver) during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

16. Power Lines

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

17. Overloading

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

18. Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

19. Servicing

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

20. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a. If the power-supply cord or plug is damaged.

b. If liquid has been spilled, or objects have fallen into the product.

c. If the product has been exposed to rain or water.

d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.

e. If the product has been dropped or the cabinet has been damaged.

f. If the product exhibits a distinct change in performance.

21. Replacement Parts

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

22. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

23. Wall or Ceiling Mounting

The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

24. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

CONTENTS

FEATURES PROVIDED WITH YOUR TV

This operating guide describes a family of TV models. Not all models have all of the features described in this guide. Different control panels may be used from model to model. Most models include the following features:

• On-Screen Menus Accessed By Remote or TV Controls	• Sleep Timer and On/Off Timer
• Picture-In-Picture	• Automatic Channel Programming
• VCR Plus Recording Multi-Brand Programmable Remote	• English/Spanish/French On-Screen Menus
• Parental Control	• Audio/Video Input Jacks for Stereo VCR
• MTS Stereo	• 181 Channel Tuning, STD/ HRC/ ICC Bands
• Front Channel Surround Sound	• Antenna/Cable Input Jack
• Closed Caption and Text Modes	• Variable Audio Output Jacks
• Channel Labels for Easy Channel Identification	• SoundRite Sound Control

(Design and specifications are subject to change without prior notification.)

WELCOME

Welcome into the family of Zenith Color Television owners. This guide provides instructions on how to operate your new TV. In addition, we strongly advise you to read and observe the precautions listed in the Safety Tips section of this operating guide. Read this publication carefully so that you will receive full enjoyment from your new Zenith TV for many years to come.

Your new TV has been designed and built to give you the very best in quality, features and performance. There are many regional Zenith authorized service centers throughout the U.S., Canada and Mexico who can attend promptly and effectively to ordinary service needs.

If you should have an unusual performance or service problem that cannot be satisfactorily resolved by your Zenith authorized service center, call or write:

Zenith Electronics Corporation
Customer Service Department
1000 Milwaukee Avenue
Glenview, IL 60025-2493
Telephone: (847) 391-8752
Mon-Fri, 8:00 a.m. - 4:30 p.m. Central Time

Send the model number, serial number, and date of purchase or original installation, with a full explanation of the problem and the service history. We will welcome the opportunity to look into your specific question or problem and to be of assistance in resolving it promptly.

The model and serial numbers of your new TV are located on the back of the TV cabinet. For your future convenience and protection, we suggest that you record these numbers here:

Model No. _____

Serial No._____

INSTALLATION CONSIDERATIONS

Before you install your TV...

Ventilation — Proper ventilation keeps your TV running cool. Air circulates through perforations in the back and bottom of the cabinet. Do not block these vents or you will shorten the life of your TV.

Power Source — Your TV is designed to operate on normal household current, 120 volt 60 Hertz AC. Do not attempt to operate it on DC current.

Power Cord — Your power cord has a polarized plug as required by Underwriters' Laboratories. It has one regular blade and one wide blade and fits only one way into a standard electrical outlet. If the blades will not enter either way, your outlet is very old and non-standard. A new outlet should be installed by a qualified electrician.

Safe Operation — Your TV is manufactured and tested with your safety in mind. However, unusual stress caused by dropping or mishandling, exposure to flood, fire, rain or moisture, or accidental spilling of liquids into the TV, can result in potential electrical shock or fire hazards. If this happens, have your TV checked by a service technician before using it again.

Please read and observe each safety point in the "Safety Tips" section when installing and using your TV.

VIDEO GAMES AND OTHER FIXED PATTERN DISPLAY CAUTION — If you use your TV for video games or other fixed displays, avoid setting the BRIGHTNESS control for an excessively bright picture. A fixed display is any image which does not change frequently, such as a channel/network identification or other symbol that remains in the same location for long periods of time. A bright, fixed pattern, if left on for long periods of time, can result in a permanent imprint on the TV picture tube. You can reduce this possibility by alternating the use of the fixed pattern display with normal TV picture viewing, by turning down the CONTRAST control for sustained fixed pattern use, and by turning off the fixed pattern display when not in use.

PLUGGING IN YOUR TV — Be sure to plug your TV into an "unswitched" AC power source. The "switched" AC outlets found on some video equipment will not continue supplying power to the TV once the equipment is turned off. If the power to the TV is interrupted, you will have to reset the clock in the TV to the current time.

STANDARD CONNECTIONS FOR YOUR TV

CONNECTION CENTER

VARIABLE AUDIO OUTPUT
Connect these jacks to the auxiliary input jacks of a stereo amplifier to listen to your TV through your stereo system.

SPEAKER EXT/INT
Select EXT (external) to remove sound from the TV's speakers. (You must now listen to TV sound using your stereo system, via the Variable Audio Output jacks.)

Select INT (internal) to listen to your TV using the TV's (internal) speakers.

(If a stereo amplifier is connected to the Variable Audio Output jacks, you hear the audio from the TV's speakers and your stereo system at the same time.)
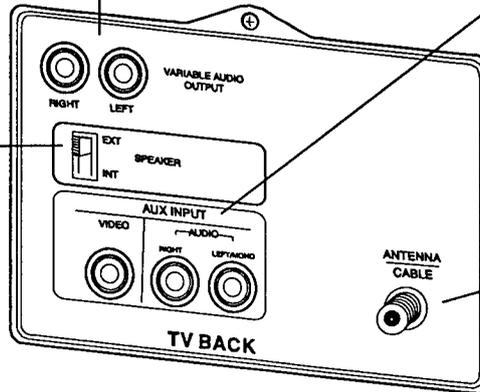
AUX INPUT
Jacks for external audio and video input from a stereo VCR or other A/V appliance. (You must connect to these jacks in order to hear stereo sound when using the A/V appliance.)

If you connect a single audio plug (from a monaural A/V appliance) to the MONO jack, monaural sound is directed to both of the TV's speakers.

ANTENNA/CABLE
75-ohm antenna or cable-TV connection to your TV. Attach your antenna, cable-TV line or VCR to this jack.

CONNECTION OPTIONS

Your TV may be connected in many different ways. The following illustrations show the most common, and recommended connections for your new TV.

SETUP 1:   ANTENNA OR DIRECT CABLE

If you receive your television signal by antenna or direct cable (no cable box), connect your television as follows:

Cable	Leading from..	Connects to..
A	75-ohm (round) cable from Antenna or cable-TV wall jack.	ANTENNA/CABLE connector on TV.
B & C	Not required.	
NOTE:		

❑ If your antenna has a flat (300-ohm) wire leading from it, you will have to attach this wire to a 300–75 ohm adapter before the antenna can be connected to the TV.

SETUP 2:   CABLE BOX

If you receive your television signal from a cable box, connect your television as follows:

Cable	Leading from..	Connects to..
A	Not required.	
B	75-ohm cable from Cable-TV wall jack.	Input connector of cable box.
C	75-ohm cable from output connector of cable box.	ANTENNA/CABLE connector on TV.

⚠ **TURN OFF POWER OR UNPLUG TV BEFORE MAKING ANY CONNECTION!**

SETUP 1 and SETUP 2

SETUP 3: VCR AND ANTENNA OR DIRECT CABLE

If you receive your television signal through your VCR, connect your television as follows:

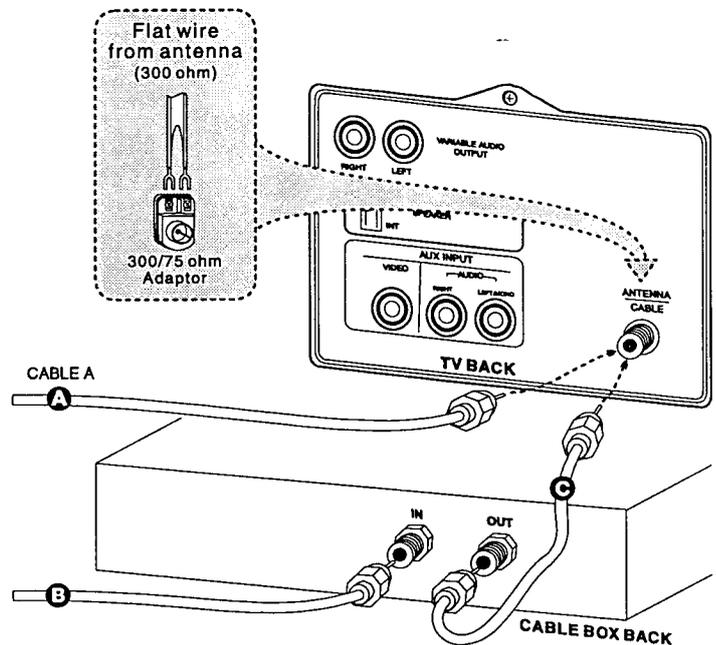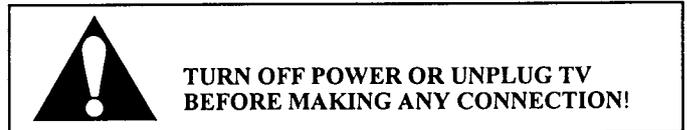| Cable	Leading from..	Connects to..
A	75-ohm cable from Antenna or cable-TV wall jack.	"VHF In" (From Antenna) jack of VCR.
B & C	Not required.	
D	75-ohm cable from VCR's "VHF Out" (To TV) jack.	ANTENNA/CABLE connector on TV.
E	Audio/Video (A/V) cables from "Video Out," "Audio R Out" and "Audio L Out" jacks on the back of VCR.	Corresponding "Video," "Audio R" and "Audio L" input jacks on the back of the TV.

NOTE:

❏ If your antenna has a flat (300-ohm) wire leading from it, you will have to attach this wire to a 300-75 ohm adapter before the antenna can be connected to the VCR.
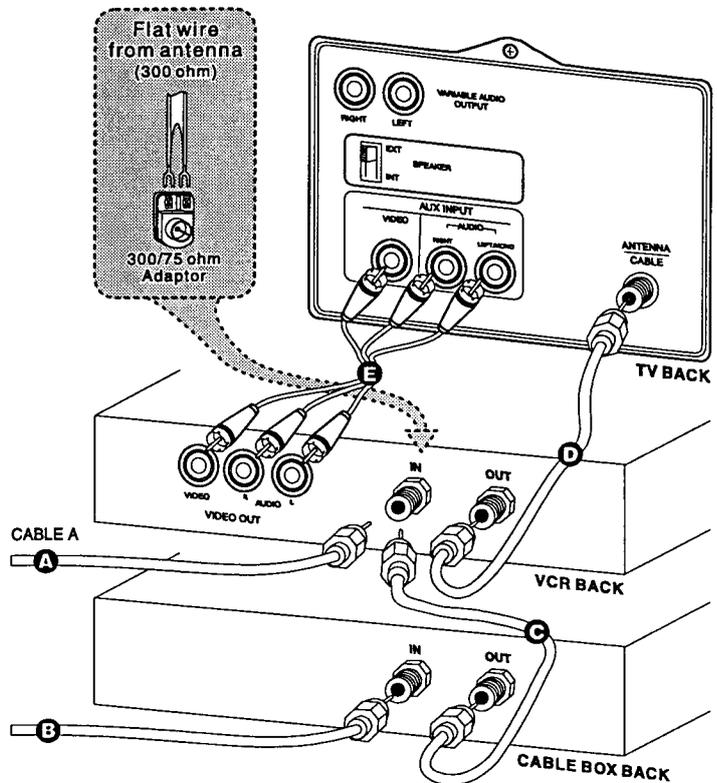
Setup 3 describes the basic connection of your TV if you wish to properly use the PIP feature. With your equipment setup in this manner, your television has the following PIP capabilities:

❏ Watch a video tape (playing in the VCR) in the TV's main picture area and simultaneously watch a TV channel in the PIP window.

❏ Watch one channel (selected by the TV's tuner) in the TV's main picture area and simultaneously watch another channel (selected by the VCR's tuner) in the PIP window.

For further details on PIP, refer to the "PIP Operation" section of this operating guide.

SETUP 4: VCR AND CABLE BOX

If you receive your television signal through your VCR and cable box, connect your television as follows:

Cable	Leading from..	Connects to..
A	Not required.	
B	75-ohm cable from cable-TV wall jack.	Input connector of cable box.
C	75-ohm cable from output connector of cable box.	"VHF In" (From Antenna) jack of VCR.
D	75-ohm cable from VCR's "VHF Out" (To TV) jack.	ANTENNA/CABLE connector on TV.
E	Audio/Video (A/V) cables from "Video Out," "Audio R Out" and "Audio L Out" jacks on the back of VCR.	Corresponding "Video," "Audio R" and "Audio L" input jacks on the back of the TV.

SETUP 3 and SETUP 4

STANDARD CONNECTIONS FOR YOUR TV

SETUP 5: ALTERNATE PIP CONNECTIONS

Cable	Leading from..	Connects to..
A	75-ohm cable from cable-TV wall jack.	RF signal splitter. (Purchased separately.)
B	75-ohm cable from output connector of RF signal splitter.	ANTENNA/CABLE connector on TV.
C	75-ohm cable from output connector of RF signal splitter.	Input connector of cable box.
D	75-ohm cable from output connector of cable box.	"VHF In" (From Antenna) jack of VCR.
E	Audio/Video (A/V) cables from "Video Out," "Audio R Out" and "Audio L Out" jacks on the back of VCR.	Corresponding "Video," "Audio R" and "Audio L" input jacks on the back of the TV.

Setup 5 describes an alternate connection for using the PIP feature. With your equipment setup in this manner, your television has the following PIP capabilities:

❏ Watch a cable channel in the TV's main picture area and simultaneously watch a video tape (playing in the VCR) in the PIP window.

❏ Watch a basic cable channel (selected by the TV's tuner) in the TV's main picture area and simultaneously watch a premium cable channel (selected by the cable box) in the PIP window.

For further details on PIP, refer to the "PIP Operation" section of this operating guide.

AFTER YOU HAVE CONNECTED YOUR TV, PLUG THE POWER CORD INTO AN OUTLET THAT IS NOT CONTROLLED BY A SWITCH.
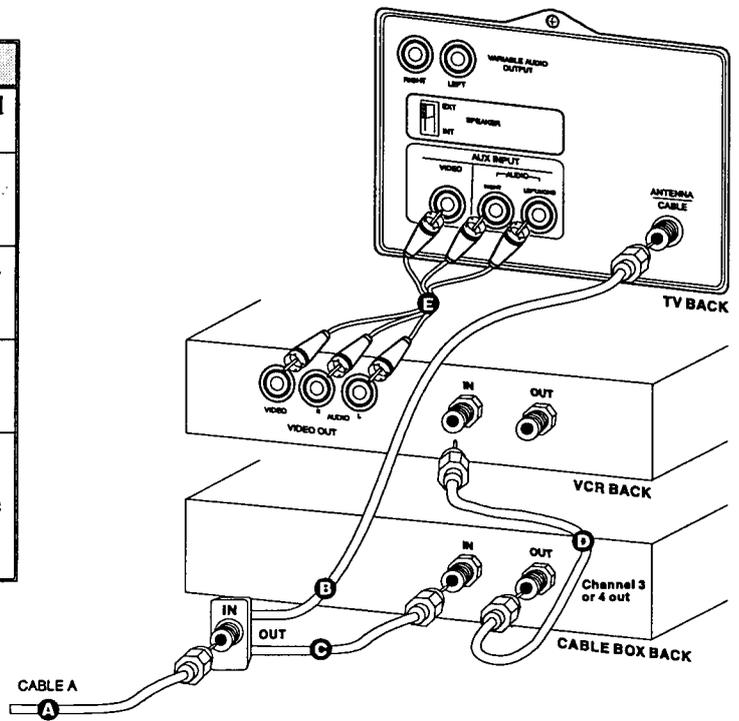
SETUP 5: ALTERNATE PIP CONNECTIONS

GET TO KNOW THE TV'S CONTROL PANEL

CONTROL PANEL FUNCTIONS

The control panel shown here may be slightly different from the one on your TV, but the operation of the controls are the same. The majority of the TV's features may be operated using the control panel on the TV. However, to fully appreciate all of the features built in to the TV, such as last channel FLASHBACK and volume MUTE, use the supplied remote control.

ENTER
Press to see the Channel/ Time display.

MENU
Press once to see a menu. Press repeatedly to sequence through the other available menus.

VOLUME Down/Up
Press to increase or decrease the sound level.

OFF-ON
Press to turn TV power ON or OFF.

ENTER ◄ADJUST► SELECT MENU ▼VOLUME▲ ▼CHANNEL▲ OFF-ON

ADJUST Left/Right
Press during on-screen menu operation to adjust the selected menu option.

SELECT
Press during on-screen menu operations to select a menu option.

CHANNEL Down/Up
Press to select channels higher or lower than the current channel. (To add or delete channels stored in the scanning sequence, see Add/Del/Surf option.)

Remote Window
Point the remote control towards this window to operate the TV.

BASIC MENU OPERATION USING THE CONTROL PANEL

Press SELECT repeatedly to move the selector highlight to the menu option you want to **select**.

Press MENU repeatedly to choose between available menus.

ENTER ◄ADJUST► SELECT MENU
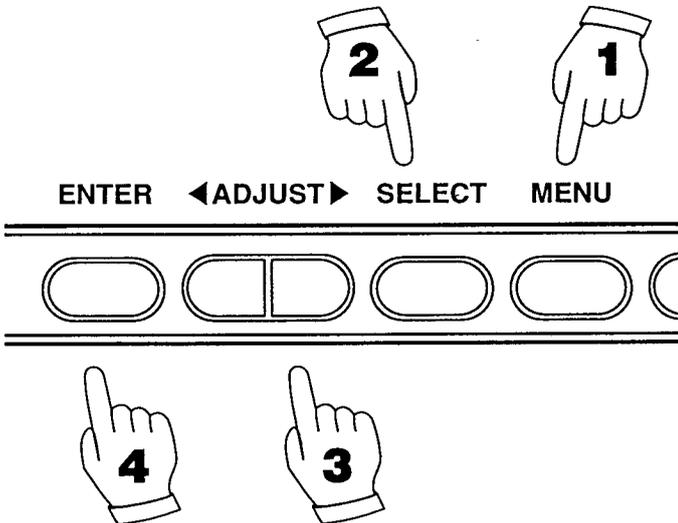
Press ENTER to remove menus from view or wait a few seconds and the menu will disappear by itself.

Press the Left or Right ADJUST key to **adjust** the selected menu option.

Setup Menu

Auto Program
Add/Del/Surf
Ch. Labels
Clock Set
Timer Setup
Parental Ctl
Caption/Text
Language
Auto Demo

Selector Highlight

Status of selected option.

On
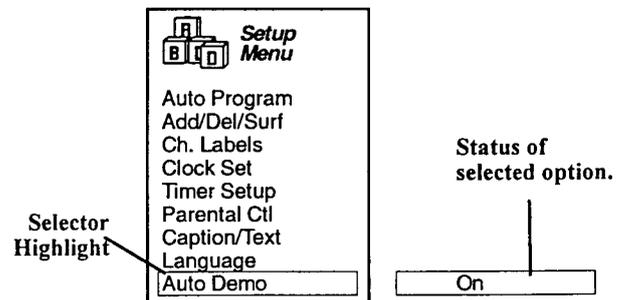
Example of "Selected" Menu option.

WHAT YOU SHOULD DO FIRST

① CONNECT THE POWER

AFTER you have connected the necessary cable(s) to the jacks on the back of the TV, plug your TV's power cord into an AC outlet. Make sure you **do not** plug the TV into a **"switched"** outlet (an outlet that is controlled by a switch).
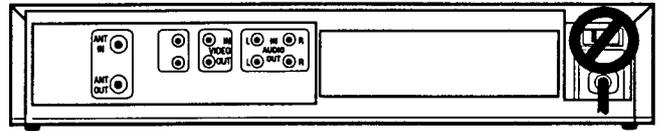
② INSTALL THE BATTERIES INTO THE REMOTE CONTROL

If you have not already installed the batteries in the remote control, now is a good time to do so. Batteries are provided, but they must be installed before it can be used.

Unless your equipment responds to the factory preset codes, you will need to reprogram the remote control with the codes of your particular equipment each time you replace batteries. Refer to Remote Control "Programming Options" for details.

To install the batteries:
1. Open the battery compartment by pressing in on the tab and lifting the cover off.
2. Place the batteries into the compartment matching positive with positive (+ with +), negative with negative (- with -) with the markings shown in the battery compartment.
3. Replace the compartment cover.
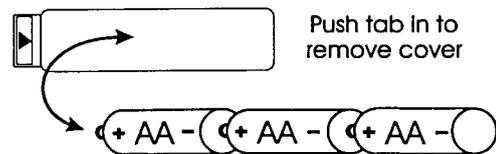
NOTES:

❑ Do not place heavy objects on top of the remote control keys. Prolonged unintentional operation of the remote shortens battery life.

❑ Remove the batteries if the remote control will not be used for a month or more. **THE REMOTE CONTROL MANUFAC- TURER IS NOT RESPONSIBLE FOR DAMAGE CAUSED BY BATTERY LEAKAGE.**

Push tab in to remove cover

Do not plug TV into switched outlet on a VCR or cable-TV decoder

Multi-Brand Remote Control

③ GET TO KNOW REMOTE CONTROL BASIC MENU OPERATION

Note: You can also use the TV Control Panel to select and adjust the on-screen menus. However, not all the TV's features are available when using the TV Controls.

Use the remote control to access menus:
1. Point remote at TV. Press TV. Press MENU repeatedly to view the available menus. Select a menu.
2. Press Up or Down arrow repeatedly to move highlight bar to select a menu option.
3. Use the Left or Right arrow to adjust the selected option.
4. Press QUIT to remove the menu from screen.
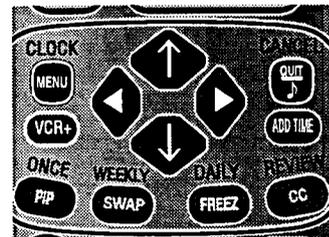
④ SELECT YOUR LANGUAGE

The on-screen menus can appear in one of three languages; English, Spanish or French. Select the language that you would be most comfortable with. Note that the word LANGUAGE always appears in English regardless of which language is chosen.

To select a LANGUAGE:
1. Press MENU repeatedly to view the **Setup Menu**.
2. Select **Language**.
3. Use the Left or Right arrow to choose a language.
4. Press QUIT to remove the menu from view.

Setup Menu
Auto Program
Add/Del/Surf
Ch. Labels
Clock Set
Timer Setup
Parental Ctl
Caption/Text
| Language | | English |
Auto Demo

Setup Menu with Language Highlighted

⑤ USE AUTO PROGRAM

The first time your TV is turned on, **Auto Program** will be selected in the Setup Menu. Auto Program finds all available channels and stores them in the memory of the TV.

To start AUTO PROGRAM:
1. Press MENU repeatedly to view the **Setup Menu**.
2. Select **Auto Program**.
3. Use the Left or Right arrow to advance to the next menu.
4. Select either OFF AIR ANTENNA or CABLE TV.
5. Use the Left or Right arrow to begin the channel search.

Setup Menu
| Auto Program | | ◀▶ To Program |
Add/Del/Surf
Ch. Labels
Clock Set
Timer Setup
Parental Ctl
Caption/Text
Language
Auto Demo
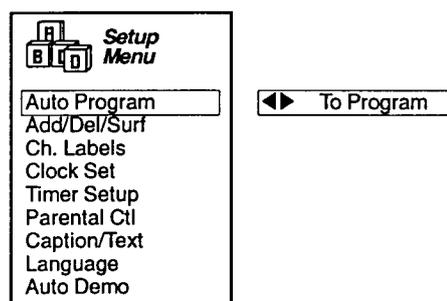
Setup Menu with Auto Program Highlighted

⑥ SET THE CLOCK IN THE TV

To set the TV clock:
1. Press MENU repeatedly to view the **Setup Menu**.
2. Select **Clock Set**.
3. Use the numbered keys on your remote control to key-in the correct time and press the TIMER key to select AM or PM. (You can also use the Left or Right arrow to advance the 24 hour clock to the correct time.)
4. Press QUIT to remove the menu from view.

Setup Menu
Auto Program
Add/Del/Surf
Ch. Labels
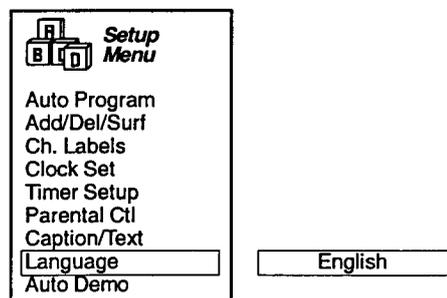| Clock Set | | 10:30 AM◀TIMER |
Timer Setup
Parental Ctl
Caption/Text
Language
Auto Demo
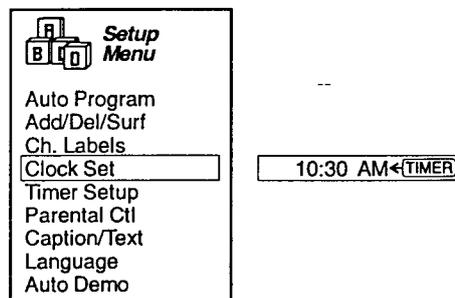
Setup Menu with Clock Set Highlighted

⑦ USE OTHER MENU OPTIONS

You may want to use the following options:

❏ Create your own personal list of favorite channels for use with the channel Up/Down buttons. Refer to the **Add/Del/Surf** option for details.

❏ Label channels with network or station names: Refer to the **Ch. Labels** option for details.

❏ Use the Parental Control feature to block the viewing of undesirable channels: Refer to the **Parental Ctl** option for details.

❏ Adjust options in the Audio and Video Menus to your personal preferences.

OPTIONAL AUTO DEMO FEATURE

Your new TV is a sophisticated entertainment appliance. For this reason, it is equipped with an automatic demonstration of the on-screen menus that control the setup and operational features of the TV. By turning the Auto Demo feature On, the on-screen menus will appear on the TV one-by-one., in a continuous cycle

Be sure to turn Auto Demo Off when finished using the feature. From the Setup Menu, use the methods described above to access Auto Demo.
Note: Auto Demo will continue to operate until it has been turned OFF in the Setup Menu.

GEM4000 VCR PLUS+C³® REMOTE CONTROL

TV MODE FUNCTIONS

To select TV mode , press the TV key on the remote control.

Point Remote at TV.

Mode/Time Display

Displays remote control mode and time, if set. Press TV key twice to see Time display.

FLASHBK (Flashback)

Returns to the last TV channel you were watching.

CHANNEL (Up)

Selects the next channel in the TV's memory. Press and hold to repeat.

SURF

Turns Surf Channel On/Off.

VOLUME (Left)

Decreases sound level.

NUMBER PAD

Selects channels directly.

MENU

Displays menus for TV and other options.

LEFT and RIGHT ARROWS

Chooses and shows the desired menu option.

PIP, SWAP, FREEZ

Picture-in-Picture functions.

TIMER

Displays the SLEEP TIMER menu. Press repeatedly to set desired TV shut-off time.

POWER

Turns TV On or Off.

TV

Selects TV mode.

MUTE

Turns sound off and on.

VOLUME (Right)

Increases sound level.

CHANNEL (Down)

Selects the previous channel in the TV's memory. Press and hold to repeat.

ENTER

Shows Channel/Time, enters channels and removes any on-screen menus.

QUIT/♪ (Three Function Key)

Exits from on-screen display, turns the sound enhancement feature on or off and switches audio between Main source and PIP source.

UP and DOWN ARROWS

Moves the highlight bar within the menu to select an option.

CC

Turns Closed Captions On or Off.

TV/VCR SOURCE

Steps through source options.

Note:

VCR function keys can operate your VCR while the remote is in TV mode.

TV Operations

GEM4000 VCR PLUS+C³® REMOTE CONTROL

INSTALL THE BATTERIES

Install 3 AA batteries, matching + with + (positive with positive), and - with - (negative with negative), as shown in the battery compartment.

Push tab in to remove cover
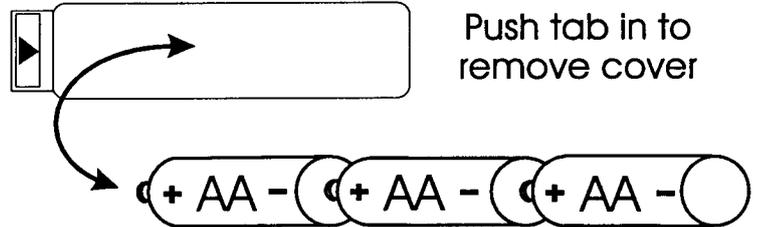
PROGRAMMING CABLE, VCR, AND AUX MODES

Follow these steps for each piece of equipment:

1. Locate the 3-digit code for your brand (such as Zenith) and type of equipment (such as VCR) in the "Equipment Codes" list on the following pages.

2. Press **PRG**; remote displays PROGRAM.

3. Press **VCR, CABLE,** or **AUX** to select the piece of equipment you want your remote to control. (Use **CABLE** or **AUX** to program your remote for a second VCR or Cable Box. Use **AUX**, to program your remote for a video disc player or audio equipment.)

4. Enter the three-digit code for your equipment, then press **ENTER**.
   If valid, Remote displays "OK."
   If invalid, Remote displays "ERR: ENTRY."

5. Press **POWER** repeatedly to verify that your equipment turns On and Off. If none of the brand codes works, try the Auto Find Option.

Notes:

- If you do not press any key on your remote within 30 seconds, the programming process stops and you will have to start again.

- You may cancel programming mode at any time by pressing **CANCEL**, or by waiting 30 seconds.

- The TV mode is not programmable.

- Code 911 will erase all clock settings and delete all brand and special features.

- If no code is programmed into the VCR, CABLE, or AUX modes and that mode key is pressed, you will see the "Err: Setup" message. Program a code(s) to use the VCR, CABLE, or AUX modes.

AUTO FIND OPTION

If none of the codes listed in the table operates your equipment, you can use Auto Find to search for the code you need.

Follow these steps for each piece of equipment you are using:

1. Turn the equipment On and point the remote toward it.

2. Press **PRG** with a small blunt object, like a pen.

3. Press the key on the remote for the piece of equipment you want to control: **VCR, CABLE,** or **AUX**.

4. Enter **0-0-0**, then press **ENTER** within 2 seconds. Auto Find is active when AUTO appears in display.

5. Press and hold **POWER**, then release it, repeating this action about once a second until the product turns OFF.

6. Press **ENTER** immediately to save the code. If your remote fails to operate the functions you use most often, re-enter Auto Find and search for a better code.

Notes:

- Press **CANCEL** at any time during the use of Auto Find to cancel Auto Find.

- If the display reads END when you press **POWER**, Auto Find has tried all available codes. If you finish Auto Find and the equipment does not turn off, your remote will not work with that piece of equipment.

CABLE BOX VOLUME MUTING

Cable/Volume Muting (Code 399)

Your remote can control cable box volume and muting if available on your equipment. First, program your remote using the **CABLE** key. Then repeat the programming steps, again using the **CABLE** key, but enter 399.

To restore TV volume/mute to the **CABLE** mode, simply re-enter your cable brand code into that mode.

GEM4000 VCR PLUS+C³® REMOTE CONTROL

SET THE CLOCK IN THE REMOTE

Use the numbers on the remote and other keys as listed below.

Steps	Remote Display	Next Prompt
1. Press PRG (Program)	PROGRAM	
2. Press CLOCK (MENU)	Hr - _ _	Hr - _ _
3. Enter the hour (1-12), press ENTER	Hr - x x	Min - _ _
4. Enter the minutes (0-59), press ENTER	Min - x x	1 AM 2 PM
5. Enter 1 for AM or 2 for PM	1 AM 2 PM	MO - _ _
6. Enter the month (1-12), press ENTER	MO - x x	DA - _ _
7. Enter the date (1-31), press ENTER	DA - x x	YR - _ _
8. Enter the year (00-99), press ENTER	YR - x x	O K

SPECIAL FEATURES CODES

If you have problems recording when using the VCR Plus+C³ recording system with your VCR and/or cable box, see if these can be resolved by programming in one of the special features codes. These codes may enable the remote to control your brand of equipment.

Notes:

- To erase these special features, simply reprogram each brand code you are using into the CABLE, VCR, and AUX modes.

- These special features codes are only transmitted during VCR Plus+C³ recording, not regular TV operations.

- For future reference, write the codes you are using here:

Cable Code _____

VCR Code _____

Aux Code _____

Code 599, Add ENTER

Some cable boxes and VCRs require an ENTER code to select a channel. When you program 599 into either the CABLE or VCR mode, the remote transmits the ENTER code for either the cable box or the VCR during a VCR Plus+C³ recording.

This feature cannot be active at the same time as the 699 CH100 feature described below.

Code 699, Send CH100

Some cable boxes and VCRs require a CH100 code to tune a 3-digit channel. When you program 699 into either the CABLE or VCR mode, the remote transmits a CH100 code, if required, during a VCR Plus+C³ recording.

This feature cannot be active at the same time as the 599 Add ENTER feature, described above.

Code 799, Increase Digit Separation

This feature, when programmed into either the CABLE or VCR mode, increases the time between digit transmissions to 1 second during VCR Plus+ recording. Use this feature if the default time between digit transmissions is too short for the VCR or cable box.

Code 899, Digit Override

If a VCR brand code has been programmed into the VCR mode but the CABLE mode has no brand code programmed into it, the remote will transmit VCR digits during a VCR Plus+C³ recording. If a cable brand code has been programmed into the CABLE mode, the remote will transmit cable digits (it selects channels on the cable box) during a VCR Plus+C³ recording. Programming 899 into the CABLE or VCR mode forces the remote to transmit VCR channel numbers during a VCR Plus+C³ recording even if a cable box code has been programmed into the CABLE mode .

Code 999, Decrease Digit Separation

This feature, when programmed into either the CABLE or VCR modes, decreases the time between digit transmissions to 0.2 seconds during a VCR Plus+C³ recording. Use this feature if the default time between digits transmission is too long for the VCR or cable box.

GEM4000 VCR PLUS+C³® REMOTE CONTROL

KEY FUNCTIONS FOR ZENITH MODES

These are the operations provided when using Zenith codes.

Name of Key	TV Mode Zenith Code 101	VCR Mode Zenith Code 201	Cable Mode Zenith Code 353	AUX Mode Zenith Code 401
POWER	TV Power On/Off	VCR Power On/Off	Cable Power On/Off	AUX TV/Disc
CABLE	Selects Cable Mode	Selects Cable Mode	Selects Cable Mode	Selects Cable Mode
VCR	Selects VCR Mode	Selects VCR Mode	Selects VCR Mode	Selects VCR Mode
AUX	Selects AUX Mode	Selects AUX Mode	Selects AUX Mode	Selects AUX Mode
TV	Selects TV Mode	Selects TV Mode	Selects TV Mode	Selects TV Mode
SURF	Surf ON/OFF	VCR AM/PM	CABLE FC/Fav Ch	AUX Audio
FLASHBK	TV Flashback	VCR Flashback	CABLE Flashback	AUX Frame/Time
MUTE	TV Mute	TV Mute	TV Mute *	TV Mute
CHANNEL UP	TV Channel Up	VCR Channel Up	CABLE Channel Up	AUX Skip >>
CHANNEL DN	TV Channel Down	VCR Channel Down	CABLE Channel Dn	AUX Skip <<
VOLUME (Right)	TV Volume Up	TV Volume Up	TV Volume Up *	TV Volume Up
VOLUME (Left)	TV Volume Down	TV Volume Down	TV Volume Dn *	TV Volume Down
1	TV Digit 1	VCR Digit 1	CABLE Digit 1	AUX Digit 1
2	TV Digit 2	VCR Digit 2	CABLE Digit 2	AUX Digit 2
3	TV Digit 3	VCR Digit 3	CABLE Digit 3	AUX Digit 3
4	TV Digit 4	VCR Digit 4	CABLE Digit 4	AUX Digit 4
5	TV Digit 5	VCR Digit 5	CABLE Digit 5	AUX Digit 5
6	TV Digit 6	VCR Digit 6	CABLE Digit 6	AUX Digit 6
7	TV Digit 7	VCR Digit 7	CABLE Digit 7	AUX Digit 7
8	TV Digit 8	VCR Digit 8	CABLE Digit 8	AUX Digit 8
9	TV Digit 9	VCR Digit 9	CABLE Digit 9	AUX Digit 9
0	TV Digit 0	VCR Digit 0	CABLE Digit 0	AUX Digit 0
ENTER	TV Enter	VCR Enter	CABLE Enter	AUX Display
MENU	TV Menu	VCR Menu	CABLE Menu	AUX Program
UP ARROW	TV Select Up	VCR Select Up	CABLE Up Arrow	AUX Part
DOWN ARROW	TV Select Down	VCR Select Down	CABLE Down Arrow	AUX Random
LEFT ARROW	TV Adjust Left	VCR Adjust Left	CABLE Left Arrow	AUX x3 FAST <
RIGHT ARROW	TV Adjust Right	VCR Adjust Right	CABLE Right Arrow	AUX x3 FAST >
QUIT/♪	TV Quit/Sound Enhance	VCR Quit	CABLE Quit	AUX Clear
PIP	TV PIP	VCR VCR+	CABLE Day Up	AUX Repeat-Side
SWAP	TV PIP Swap	VCR Channel Map	CABLE Day Down	AUX Repeat-A-B
FREEZ	TV PIP Freeze	VCR Search	CABLE Pg Up	AUX Repeat-Chap
CC	TV Closed Captions	VCR Memory	CABLE Pg down	AUX Memory
TIMER	TV Timer	VCR Timer	CABLE Timer	AUX Still > <
TV/VCR/SOURCE	TV Source	VCR TV/VCR Tuner	CABLE Info	AUX TV/Disc
RECORD	VCR Record	VCR Record	CABLE Buy	AUX Edit
PAUSE	VCR Pause	VCR Pause	CABLE Guide	AUX Pause
REWIND	VCR Rewind	VCR Rewind	VCR Rewind	AUX Scan <<
PLAY	VCR Play	VCR Play	VCR Play	AUX Play
STOP	VCR Stop	VCR Stop	VCR Stop	AUX Stop/Eject
FFWD	VCR Fast Forward	VCR Fast Forward	VCR Fast Forward	AUX Scan >>
VCR+	Enters VCR Plus+ Mode	Enters VCR Plus+ Mode	Enters VCR Plus+ Mode	Enters VCR Plus+ Mode
ADD TIME	Only functions in VCR Plus+ Mode. Adds additional time when programming for recording.			

*You can override this with Cable Volume/Muting by entering 399.

Reference: 124-215 and
µP 221-952-02A

GEM4000 VCR PLUS+C³® REMOTE CONTROL

Equipment Codes

TVS

Zenith	101

VCRS

Admiral	208, 261
Adventura	231
Aiwa	231
Akai	223, 238, 241
Audio Dynamics	202, 218
Bell & Howell	206, 247
Broksonic	221, 226, 250, 255
Canon	214
Citizen	209
Craig	212
Curtis Mathes	214, 259
Daewoo	244, 246, 248, 254
Daytron	236, 246
DBX	202, 218
Emerson	203, 209, 221, 223, 226, 233, 235, 243, 250
Fisher	211, 212, 213, 247
Funai	231
General Electric	214, 216, 220
Goldstar	209
Go Video	256, 262, 263
Hitachi	215, 257
Instant Replay	214, 227
J.C. Penney	214, 215, 218, 227
JVC	202, 224, 225, 258
Kenwood	202
Logik	239
LXI	209, 231
Magnavox	207, 214, 231
Marantz	207, 218
Marta	209
Memorex	206, 212, 214, 231
Mitsubishi	204, 222, 252, 264
Montgomery Ward	208, 214, 216, 219, 231, 249
Multi Tech	239
NEC	202, 218
Orion	250
Panasonic	214, 251, 259
Pentax	215
Philco	207, 214
Philips	207, 214, 227
Pioneer	210, 215
Portland	246
Pro Scan	216, 260
Quasar	214, 259
RCA	215, 216, 220, 227, 240, 242, 260
Realistic	206, 208, 212, 214, 231
Samsung	220, 230, 238
Sansui	239
Sanyo	206, 212, 247
Scott	204, 205, 233, 243
Sears	206, 209, 211, 212, 215
Sharp	208, 261
Shintom	239
Signature 2000	208, 214, 216, 219, 231, 249
Sony	217, 232, 237
Sylvania	207, 214, 227
Symphonic	231
Tashiko	209
Tatung	202
Teac	202, 231
Teknika	209, 234
Toshiba	205, 215
XR1000	239
Vector Research	204, 218
Yamaha	202, 218
Zenith	201, 224, 225, 229, 237

CABLE/SATELLITE

Allegro	358, 362
Allegro A/B Switch	361
Gemini	305, 331, 338
General Electric	367
General Instrument	304, 305, 306, 307, 308, 309, 310, 318
Hamlin	302, 303, 345, 365, 366
Jerrold	304, 307, 308, 309, 310, 318, 360, 363
Kale Vision	335
Macom	314, 321
Magnavox	334
NSC	335, 339, 368, 369, 370
Oak	311, 332, 342
Panasonic	313, 320
Paragon	333
Philips	347, 350, 352, 354, 355
Pioneer	315, 343
RCA DSS	373
Regency	329
Samsung	335
Scientific Atlanta	316, 323, 336, 364
Sprucer	313
Standard Comp	335
Texscan	339, 356, 371
Tocom	317, 318, 346
Unika	348, 362
United Satellite	344
Universal	358, 362
Vid Tech	340
Video Way	349
Viewstar	354, 355, 372
Zenith	301, 353, 374
Zenith Satellite	312, 328, 330, 351, 378

VIDEO DISK PLAYERS

Pioneer	402, 403
Sanyo	401
Sony	404
Zenith	401

AUDIO CD PLAYERS

Akai	409, 424
Crown	410
Denon	411
Fisher	412, 438
Goldstar	460
Harman/Kardon	413
JVC	415
Kenwood	412, 416, 417, 441
Magnavox	421, 422, 433, 434
Mitsubishi	423, 424
NAD	425, 426, 447
Nakamichi	427, 428
NEC	429
Onkyo	430
Panasonic	431, 432
Philips	421, 433, 434
Pioneer	431, 435
Quasar	432
Radio Shack	431, 436, 439, 440, 441
RCA	437
Sanyo	438, 439
Scott	440
Sharp	441, 442
Sony	443, 444, 445
Soundesign	461, 498, 501, 502
Sylvania	433
Teac	446
Technics	432, 459
Toshiba	447
Yamaha	448

AUDIO TAPE DECKS

Denon	455
Harman/Kardon	456
JVC	457
Kenwood	450
Onkyo	458
Philips DCC	454
Pioneer	451, 478
Sony	452
Technics	454, 497
Yamaha	453

AUDIO TUNERS AND AMPLIFIERS

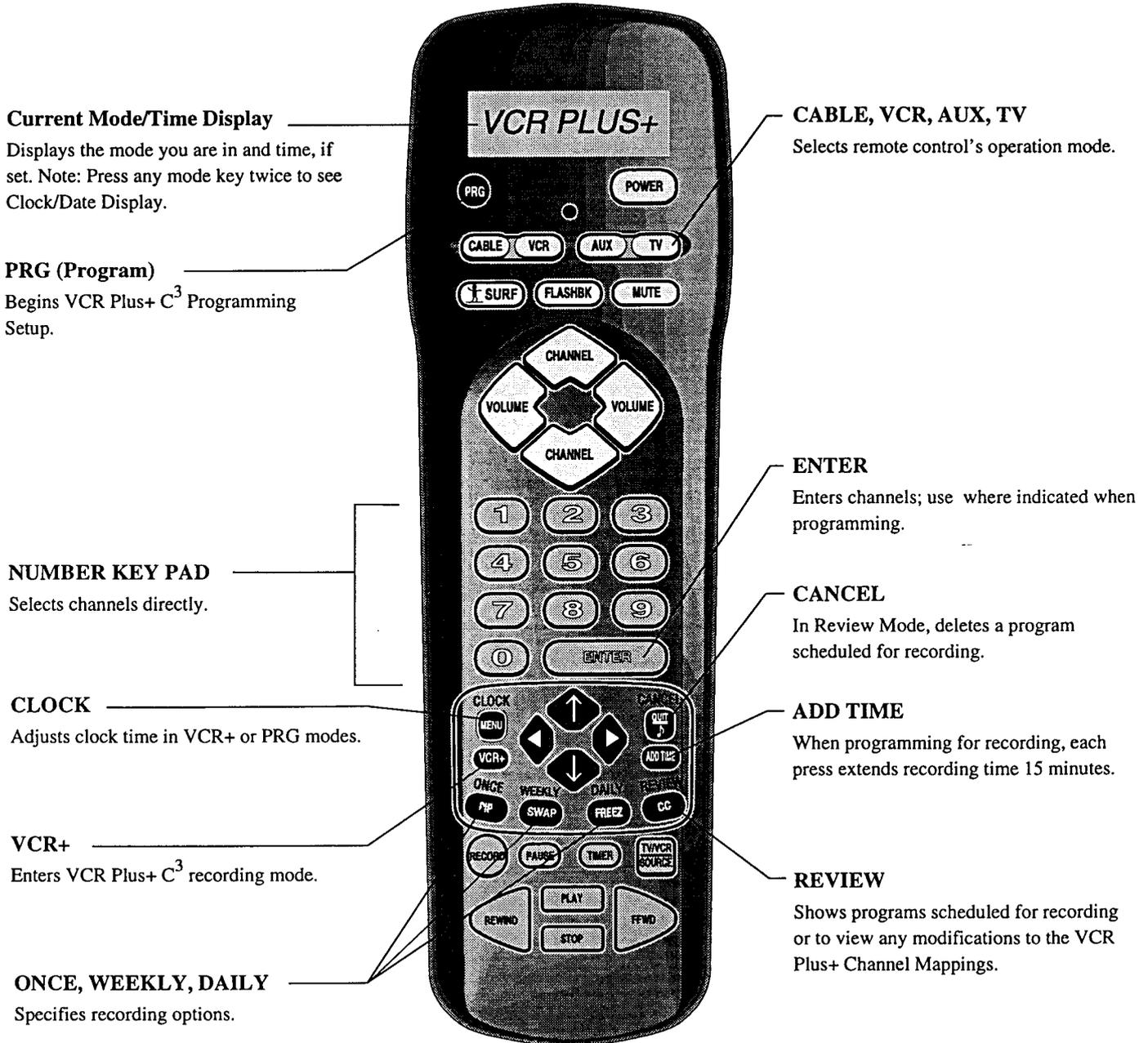|	
Denon	462, 463
Fisher	464
Goldstar	460
Harman/Kardon	465
JVC	466
Kenwood	468, 469
Marantz	472, 503
Onkyo	473
Philips	475, 476
Pioneer	477, 478, 479
Radio Shack	487, 488
Realistic	480
Sanyo	481
Scott	482
Sharp	483
Sherwood	487, 488
Sony	489, 490, 491, 492
Soundesign	461, 498, 501, 502
Teac	494, 495
Technics	497
Yamaha	496
Zenith	460, 461, 498, 501, 502

Ref: 124-215 and
μP 221-952-02A

GEM4000 VCR PLUS+C³® REMOTE CONTROL

VCR PLUS+C³® MODE KEY FUNCTIONS

These descriptions apply to functions and operations of your remote control in VCR Plus+C³ Mode. To select VCR Plus+ C³ Mode, press the VCR+ key on the remote.

↑

**After you have programmed your VCR Plus+C³remote,
set it down so it points in a clear path toward your
VCR and cable box.**

Current Mode/Time Display

Displays the mode you are in and time, if set. Note: Press any mode key twice to see Clock/Date Display.

PRG (Program)

Begins VCR Plus+ C³ Programming Setup.

NUMBER KEY PAD

Selects channels directly.

CLOCK

Adjusts clock time in VCR+ or PRG modes.

VCR+

Enters VCR Plus+ C³ recording mode.

ONCE, WEEKLY, DAILY

Specifies recording options.

CABLE, VCR, AUX, TV

Selects remote control's operation mode.

ENTER

Enters channels; use where indicated when programming.

CANCEL

In Review Mode, deletes a program scheduled for recording.

ADD TIME

When programming for recording, each press extends recording time 15 minutes.

REVIEW

Shows programs scheduled for recording or to view any modifications to the VCR Plus+ Channel Mappings.

VCR Plus+ C³ Operations

VCR Plus+ is a registered trademark of Gemstar Corp.
VCR Plus+ C³® system is manufactured under license from Gemstar Development Corp.

GEM4000 VCR PLUS+C³® REMOTE CONTROL

VCR PLUS+ CHANNEL MAPPING

Channel Mapping Overview

The VCR Plus Guide channel numbers listed in Column 2 on the worksheet below are used on a nationwide basis, for the most part. In contrast, your local TV stations and cable networks usually assign different numbers to the TV channels you receive. In order for the remote to accurately tune your cable box (or VCR), your local channel numbers must be "Mapped" to the VCR Plus+ GUIDE CH Numbers.

Complete the Channel Mapping Worksheet

Refer to your local TV guide. Using a pencil, mark your local TV channel numbers in Column 3 on the worksheet.

To do this, look up your channel numbers in the worksheet below. If the channel number in Column 2 (GUIDE CH) is the same as the number you view that channel on, do nothing. If the number is different, write it in Column 3 (TV CH). Do this for all the channels you receive, including the Broadcast Channels (ABC, NBC, etc.)

For example, if you receive Gala Vision at home on TV Channel 20, write 20 in Column 3 on the GALA line. If you receive HBO at home on TV Channel 4, write 04 in Column 3 in the HBO line as shown at the right.

Example: Writing in TV CH Numbers for Gala and HBO

Column 1 Cable Channels	Column 2 GUIDE CH	Column 3 TV CH
GALA	13	20
HBO	33	4

Notes:

- Be sure to "Channel Map" the Guide Ch or PlusCode numbers to your local area's TV channel numbers, or your VCR will record a different channel than the one you intended.

- Once you complete the Worksheet below, you must change the default channels on the remote see next page.

- The broadcast channels (ABC, CBS etc.), vary in different areas. Write in the VCR Plus Guide channel numbers in the spaces provided on the Worksheet below for any channels not listed but available to you in your local area. The channels (defaults) on your remote are "mapped" to the channel numbers shown on the worksheet. In other words, Channel 2 is mapped as Channel 2, Channel 3 is mapped as Channel 3, etc.

VCR PLUS+ CHANNEL MAPPING WORKSHEET

Column 1	Column 2 GUIDE CH	Column 3 TV CH
Cable Channels	VCR Plus+ PlusCode Channels	Write in your local area Channel Number
A&E	39	
AMC	35	
BET	57	
BRAV	54	
Cinemax	45	
Cinemax 2	98	
CNN	42	
COM/	21	
DSC	37	
DIS	53	
E!	63	
ESPN	34	
ESPN2	85	
FAM	47	
FOOD	78	
GALA	13	
HBO	33	
Home Box Office 2	58	
Home Box Office 3	95	
HIST	96	

LIFE	46	
MTV	48	
NICK	38	
Nostalgia	64	
QVC	99	
SHO	41	
Showtime 2	97	
SC	59	
SCFI	88	
TLC	51	
TMC	58	
TNN/	49	
TBS	43	
TNT	52	
TOON	87	
TRAV	10	
USA	44	
VH-1	62	
Viewer's Choice 1	93	
Viewer's Choice 2	94	
WGN	55	
WWOR	60	
(Others)		

Column 1	Column 2 GUIDE CH	Column 3 TV CH
Broadcast Channels	Write in VCR Plus+ Channels	Write in your local area Channel Number
ABC		
CBS		
NBC		
PBS		
PBS		
(Others)		

Note: As stated above, channels that are the same number in both Columns 2 and 3 do not need to be "Mapped" on the remote.

Once worksheet is complete, proceed to next page.

VCR PLUS+ CHANNEL MAPPING (Continued)

Changing Default Channel Numbers on Remote

Refer to your completed worksheet on the previous page. You will key-in the GUIDE CH numbers that need to be mapped to the TV CH numbers listed in Column 3 on the worksheet. Follow the instructions below for each channel number that needs to be mapped.

Steps	Remote Display
1. Press PRG.	PROGRAM
2. Press VCR+.	GUIDE CH - TV CH — — — — — —
3. Key-in the GUIDE CH number from Column 2 you need to channel map.	GUIDE CH - TV CH X X X — — —
4. Press ENTER.	GUIDE CH - TV CH X X X — — —
5. Key-in TV CH number from Column 3.	GUIDE CH - TV CH X X X Y Y Y
6. Press ENTER.	GUIDE CH - TV CH — — — — — —
7. Repeat Steps 3 - 6 for other channel number mapping.	
8. Press ENTER when finished.	
XXX,YYY=Your entered information	

Channel Mapping Review

When finished Channel Mapping the Guide Channel Numbers to your TV Channel Numbers, follow the instructions below to review your changes.

Channel Mapping Review

Steps	Remote Display
1. Press PRG.	PROGRAM
2. Press VCR+.	GUIDE CH - TV CH — — — — — —
3. Press REVIEW repeatedly to view the VCR Plus+ GUIDE CH numbers you have mapped.	GUIDE CH - TV CH X X X Y Y Y
4. Press ENTER when finished.	
XXX,YYY=Your entered information	

When you are finished reviewing your channel mapping changes, your remote will be ready to use for recording programs that have VCR PlusCode numbers. See VCR Plus Recording on the next page.
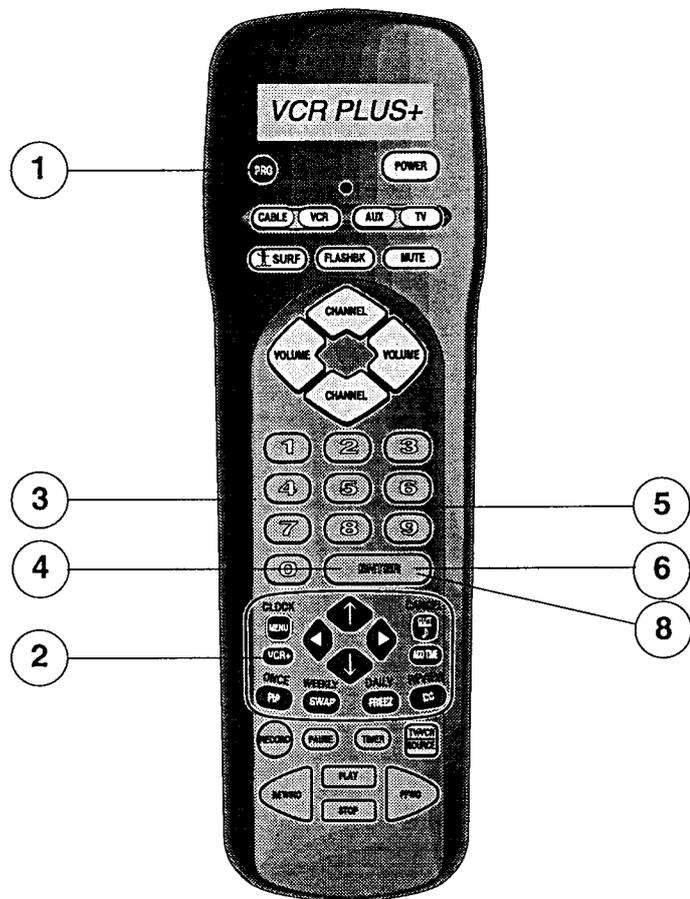
VCR PLUS+C³ RECORDING

Note: The channel mapping must be completed before you can record using VCR Plus+. See previous page for details.

This remote control can: turn your VCR on and off; tune your cable box or VCR to the channel you wish to record, and begin recording.

Note: VCR PlusCode Numbers for programs in your area are usually included in your local TV guide.

Recording Options

Once: Records program once.

Weekly: Records program one time each week at the same time, for up to 30 days.

Daily: Records program Monday - Friday at the same time each day.

Steps	Remote Display
1. Press VCR+	VCR Plus+
2. Key-in the program PlusCode® number of the broadcast you wish to record.	Numbers
3. Press: ONCE, WEEKLY or DAILY.	(Record) Interval/Channel/Time then displays VCR Plus+. If "CLASH" appears, another program has been scheduled for the same time period.
4. If desired, press ADD TIME while program data is displayed to add 15 minutes to the recording time. Pressing ADD TIME more than once extends your already extended recording time.	
5. Repeat Steps 2 - 4 to program a total of 8 programs up to 30 days in advance.	
6. Press TV to exit VCR Plus+ mode or press CANCEL to return to the previous mode.	
7. Turn VCR Off.	
8. Leave Cable Box On, if used.	
9. Place remote in a position where it will have an unobstructed path to your VCR and cable box.	Note: You can program additional recordings while recording. However, the PRG key will be inactive; you will not be able to enter any brand codes or change the VCR+ setup. Wait until recording is complete before making any changes.

Reviewing Your Recording Schedule

1. Press VCR+.

2. Press REVIEW repeatedly to view your recording schedule.

3. Press CANCEL to delete a program from recording schedule or during an in-progress recording.

4. Press ENTER when finished.

Note: To find out where to find the VCR Plus+ GUIDE CH channel numbers and VCR PlusCode program numbers, please call 1-800-2584-827.

PlusCode® is a registered trademark of Gemstar Development Corp.
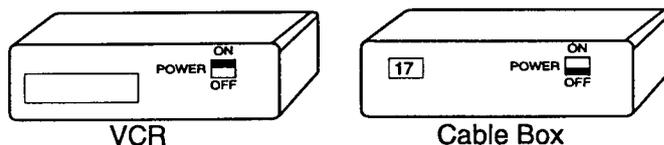
VCR   Cable Box

After programming and prior to recording, place remote so it points in direction of VCR and cable box.

Remote Display
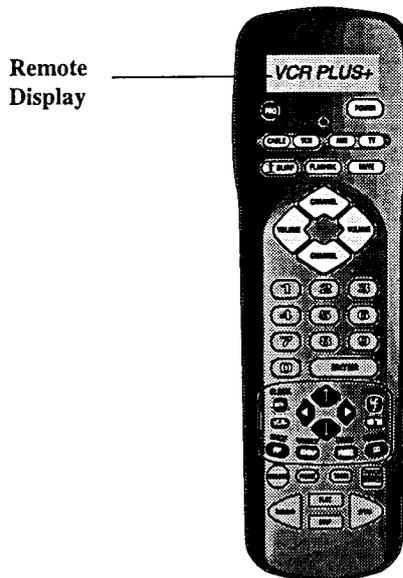
GEM4000 VCR PLUS+C³® REMOTE CONTROL

TROUBLESHOOTING

Before calling for service, try these simple solutions to resolve difficulties with VCR Plus+ Operations.

Problem	Possible Solution
Operating Problems	
Remote does not respond to key presses, display does not change.	Are batteries installed? Remove batteries for a minimum of 30 seconds to clear remote's memory. Reinstall batteries and reprogram your equipment's brand codes, if necessary.
Remote displays "ERR SETUP."	Enter brand codes first before using VCR, CABLE, or AUX modes.
Recording Problems	
VCR records a channel other than the one specified.	Channel Mapping was not performed or is incorrect.
VCR recording stops before end of sporting event.	Specify additional time using ADD TIME when programming to record sporting events to adequately extend recording time.
Remote does not operate equipment.	Be sure proper brand code was used. Try a different code. Check **Special Features** section to see if a special code will solve problem.
Cable Box does not turn On when recording begins.	Do not turn cable box off. Cable box must be left on prior to VCR Plus+ recording.
VCR shuts Off when recording is scheduled to begin.	VCR must be turned off prior to VCR Plus+ recording.
Channel Mapping Problems	
Cannot display default channel mapping numbers.	Remote will only display changes made to default GUIDE CH numbers.
Programming Problems	
Cannot enter Brand Codes while remote is in Record mode.	It is not possible to use the PRG key while remote is in Record mode. Wait until current recording is complete before programming any new brand codes.
Remote displays "CLASH."	Another program is already scheduled for that time slot or portion thereof.
Cannot find VCR Plus+ GUIDE CH numbers in local TV guide.	Call 1-800-2584-827.

QUICK REFERENCE TO ON-SCREEN MENUS

AVAILABLE MENUS

Your TV is **menu** operated. In other words, adjustments to the TV are made via a list of choices which appear on your TV screen. To view these menus, press the MENU key on the remote control. Press MENU repeatedly to toggle through the available menus.

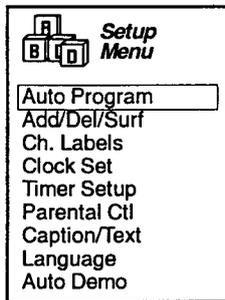| Setup Menu	Audio Menu	Video Menu	PIP Menu	Source Menu
Auto Program	Bass	Contrast	Color	Main Source
Add/Del/Surf	Treble	Brightness	Tint	PIP Source
Ch. Labels	Balance	Color	Size	
Clock Set	Audio Mode	Tint		
Timer Setup	Surround ♪	Sharpness		
Parental Ctl	SoundRite	Picture Pref		
Caption/Text				
Language				
Auto Demo				
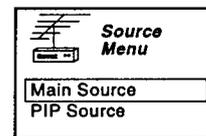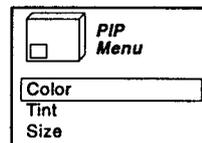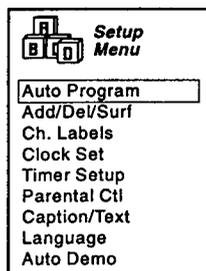
Press MENU   Press MENU   Press MENU   Press MENU

BASIC MENU OPERATION

The remote control keys which are most frequently used for menu operations are shown here. In addition to these keys, the number keys may also be used where a number value is necessary, such as setting the time in the TV.

1 — Press MENU repeatedly to choose between available menus.

2 — Press the Up or Down arrow key repeatedly until the desired option is highlighted.

3 — Use the Left or Right arrow key to adjust the selected menu option.

4 — Press QUIT to remove menus from view or wait a few seconds and the menu will disappear by itself.
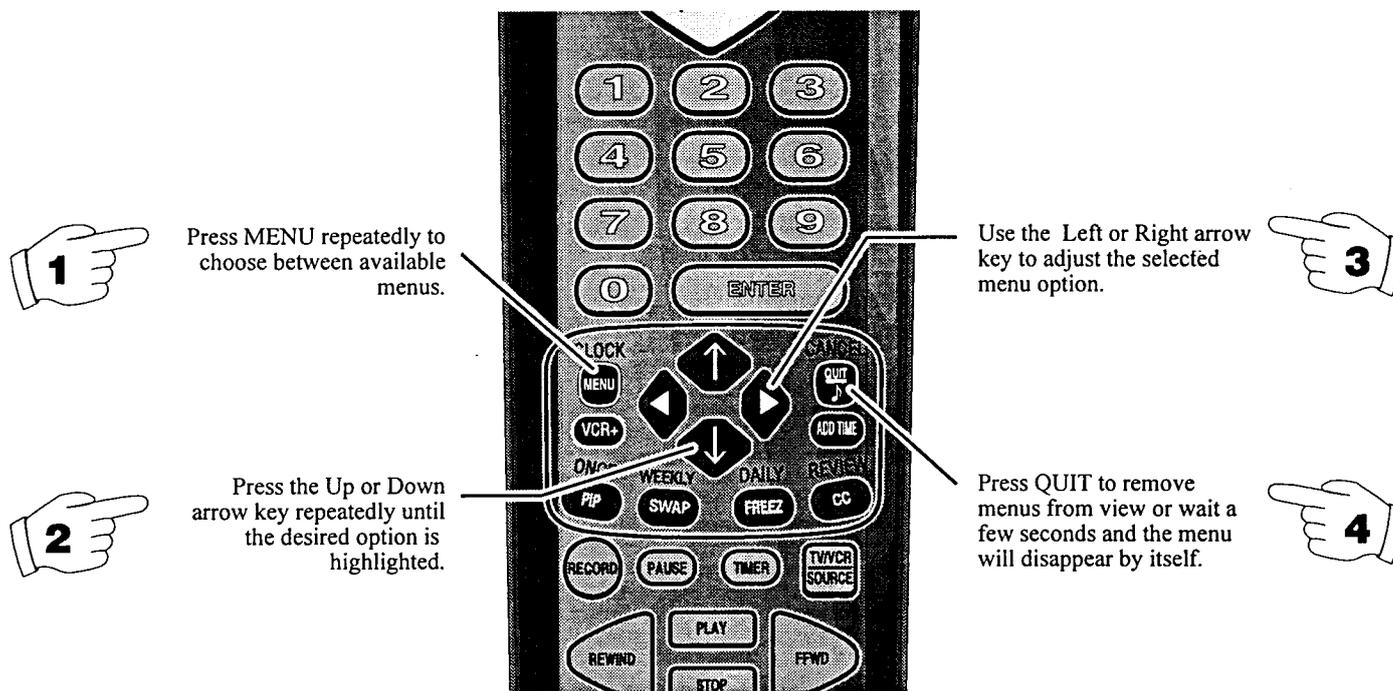
Typical Remote Control Shown

```
 ▣▢   Setup
 ▣▢▢  Menu
┌─────────────────┐
│ Auto Program    │
│ Add/Del/Surf    │
│ Ch. Labels      │
│ Clock Set       │
│ Timer Setup     │
│ Parental Ctl    │
│ Caption/Text    │
│ Language        │
│ Auto Demo       │
└─────────────────┘
```

◄► To Program

```
 ▣▢   Setup
 ▣▢▢  Menu
┌─────────────────┐
│ Clock Set       │
│ Timer Setup     │
│ Parental Ctl    │
│ Caption/Text    │
│ Language        │
│ Auto Demo       │
└─────────────────┘
```
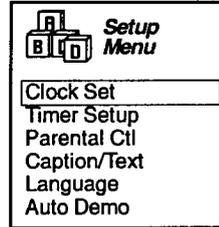
10:30 AM◄TIMER

While the VIDEO Source is Chosen

MENU OPERATION

Press MENU repeatedly until the *Setup Menu* is shown.

Press the Up or Down arrow repeatedly until the desired option is selected.

(ADJUST)

(SELECT)

Use the Left or Right arrow to adjust the selected option.

Press QUIT or wait a few seconds for the TV to return to normal operation.

| Menu Option	Function Of Menu Option
Auto Program	Finds all active channels and stores them in the TV's memory for use by the CHANNEL Up/Down keys.
Add/Del/Surf	Edits the channel numbers found by the Auto Program feature to create your own list of favorite channels when using the CHANNEL Up/Down keys. See the information following this chart for details.
Channel Labels	Assigns a network/station label, name or call letters to specified channels. For example, if you choose the label **ABC** for channel 7, then **ABC** will appear in the Channel/Time display whenever channel 7 is selected. See the information following this chart for details.
Clock Set	Used for setting the TV's internal clock to the correct time. See "What You Should Do First" section of the operating guide.
Timer Setup	Sets the TV's Sleep Timer and On/Off Timer features. See the information following this chart for details.
Parental Ctl	Use this feature to block viewing of any undesirable channels, including the VIDEO input source. See the information following this chart for details.
Caption/Text	Displays closed captioning or informational text when available on the selected channel. Options are: **Off, Caption 1, Caption 2, Caption 3, Caption 4, Text 1, Text 2, Text 3,** and **Text 4.** (At present, few TV programs or video tapes offer text captioning for any option other than **CAPTION 1.** Therefore, **CAPTION 1** is the only recommended choice, unless you know that a specific program is providing captioning using one of the other selections.)
Language	Selects the language used for on-screen menus. Languages available include: **English, Spanish** or **French.**
Auto Demo	Activates automatic demonstration of on-screen menus. See "What You Should Do First" section of the operating guide.

USING ADD/DEL/SURF

To Add Channels:	To Delete Channels:	To Setup Surf Channels:
Added Channels: Channels set to "Added" are tuned when using the CHANNEL Up and Down arrow keys. All channels which were found by the Auto Program function are initially set as "Added" channels.	**Deleted Channels:** These channels are blocked from tuning when using the CHANNEL Up and Down keys. However, they may be tuned directly by using the number keys on the remote control.	**Surf Channels:** "SURF" channels act as a list of favorite channels, intended for your most frequently watched channels. When the "SURF" mode is activated, these are the only channels that will be tuned while using the CHANNEL Up and Down keys.
1. Use the Up or Down arrow key to choose **Add/Del/Surf**. 2. Select a channel using the number keys on the remote. 3. Use the Left or Right arrow to show **Added**. 4. Press QUIT to remove the menu from view.	1. Use the Up or Down arrow key to choose **Add/Del/Surf**. 2. Select a channel using the number keys on the remote. 3. Use the Left or Right arrow to show **Deleted**. 4. Press QUIT to remove the menu from view.	1. Use the Up or Down arrow key to choose **Add/Del/Surf**. 2. Select a channel using the number keys. 3. Use the Left or Right arrow to show Surf. 4. Repeat steps 2 and 3 to make your most frequently watched channels "Surf" channels. 5. Press QUIT to remove the menu from view.
		To activate "SURF" mode, press the SURF key on the remote control. **Surf's Up!** ⛷ appears on the screen.
		To deactivate "SURF," press SURF again. **No Surfing** ⊘ appears on the screen.

USING CHANNEL LABELS

To assign CHANNEL LABELS:
1. Select **Channel Labels**. 2. Select a channel by using the number keys on the remote. 3. Use the Left or Right arrow to sequence through the choices until the desired label appears. (Selecting the dashes specifies no channel label.)
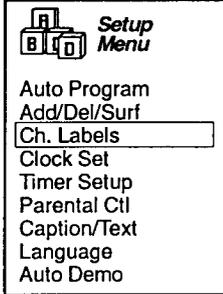
```
      Setup
      Menu

Auto Program
Add/Del/Surf
[ Ch. Labels        ]        [ Ch  2   CBS ]
Clock Set
Timer Setup
Parental Ctl
Caption/Text
Language
Auto Demo
```

TIMER SETUP: Sleep Timer

The Sleep Timer programs the TV to automatically turn itself Off after a period from 15 minutes up to 4 hours.

| From Setup Menu	Direct From Timer Key
1. Make sure the TV's clock is set. 2. Select Timer Setup and press the Left or Right arrow to view the *Timer Menu*. 3. Select Sleep Timer. 4. Press the Left or Right arrow repeatedly to set the period of time the TV will remain on.	1. Press TIMER on the remote control. 2. Press TIMER repeatedly to set the period of time the TV will remain on.
One minute before the TV turns off, the GOOD NIGHT display appears on the screen. At this time you have a choice of the following two actions: 1. Do nothing. The TV will turn itself off in one minute. 2. Delay the turn-off by pressing TIMER.	

```
      Timer
      Menu

[ Sleep Timer      ]        [        :30        ]
On Time
Off Time
On/Off Timer
```

Sleep Timer set to turn TV Off in 30 minutes.
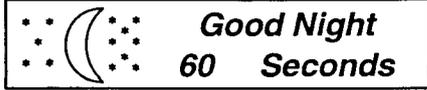
```
    (     Good Night
    (     60    Seconds
```

"Good Night" display appears 60 seconds before shut-off.

NOTES:

❑ Before the *Timer Menu* can be viewed, you must set the time on the TV. See "WHAT YOU SHOULD DO FIRST" in the operating guide.

❑ To cancel the SLEEP TIMER, turn off the TV or press the TIMER key repeatedly until OFF is showing.

SETUP MENU

TIMER SETUP:On/Off Timer

The ON/OFF TIMER is a feature which programs the TV to turn itself On at a specific time then turn itself Off at another time.

Set On/Off Timer
1. Make sure the TV's clock is set.
2. Select **Timer Setup** and press the Left or Right arrow to view the *Timer Menu*.
3. Select **On Time** and use the numbered keys on your remote to key-in a time for the TV to turn itself ON. Press TIMER on the remote to select AM or PM.
4. Select **Off Time** and use the numbered keys on your remote to key-in a time for the TV to turn itself OFF. Press TIMER on the remote to select AM or PM.
5. Select **On/Off** Timer and use the Left or Right arrow to show ON.
6. Press QUIT on your remote control to remove the menu from view.

```
┌──────────────────────┐
│ [X]    Timer          │
│        Menu           │
│                       │
│ Sleep Timer           │
│ ┌───────────────────┐ │   ┌──────────────────┐
│ │ On Time           │ │   │ 11:00  AM ◄TIMER │
│ ├───────────────────┤ │   ├──────────────────┤
│ │ Off Time          │ │   │  1:00  PM ◄TIMER │
│ ├───────────────────┤ │   ├──────────────────┤
│ │ On/Off Timer      │ │   │        On        │
│ └───────────────────┘ │   └──────────────────┘
└──────────────────────┘
```

On/Off Timer set to turn TV ON at 11:00 am and OFF at 1:00 pm.

NOTES:

❑ An "Off Time" must be set before the On/Off Timer can be turned ON.

❑ Before the *Timer Menu* can be viewed, you must set the time on the TV. See "WHAT YOU SHOULD DO FIRST" for details.

USING PARENTAL CONTROL

To "Block" channels or the Video Input Source:
1. Select **Parental Ctl** and press the Left or Right arrow to view the *Parental Control* menu.
2. Select **Block Ch.** (channel).
3. Use the number keys on the remote to key-in a channel number and press the Left or Right arrow to show "Blocked".
4. Repeat steps 3 and 4 for each channel you want blocked.
5. If you wish to block the Video source input, select **Block Video** and press the Left or Right arrow to show "Source Blocked".
6. After all desired channels and/or the Video source are "Blocked," select **Set Hours** and use the Left or Right arrow to choose the period of time you want Parental Control to be active: From 1 hour to 99 hours.
7. Select **Set Password**.
8. Press the Left or Right arrow and key-in any 4-number "Password" when prompted to do so. (You will be prompted to verify the code by keying it in a second time.)
9. Select Lock On/Off and press the Left or Right arrow to show "On."
10. Press QUIT to remove the menu from view.

```
┌──────────────────────┐
│ [🔒]   Parental       │
│ (=🔑)  Control        │
│                       │
│ ┌───────────────────┐ │   ┌──────────────────┐
│ │ Block Ch.         │ │   │ Ch  9    Blocked │
│ └───────────────────┘ │   ├──────────────────┤
│   Block Video         │   │ Source   Blocked │
│   Set Hours           │   ├──────────────────┤
│   Set Password        │   │ ◄►   01    Hours │
│   Lock On/Off         │   ├──────────────────┤
│                       │   │ Enter Code: x x x x │
│                       │   ├──────────────────┤
│                       │   │        On        │
│                       │   └──────────────────┘
└──────────────────────┘
```
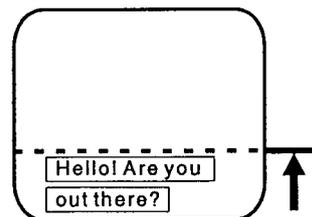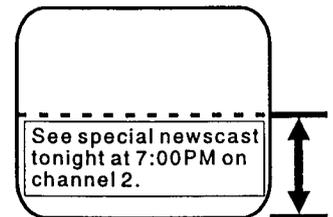
Parental Control Menu

Notes:

❑ **REMEMBER THE ACCESS CODE! TO RE-ENTER PARENTAL CONTROL WHILE IT IS ACTIVATED, YOU MUST ENTER THIS NUMBER.** Otherwise, simply allow the specified period of time to elapse.

❑ **Do not unplug the TV in an attempt to deactivate the Parental Control. This only resets Parental Control.**

❑ Parental Control cannot be turned ON (Lock On/Off) until the Hours and Password have been set.

USING CAPTION/TEXT

Activating Captions (With CC Key)	Activating Captions/Text (From Setup Menu)
1. Press the CC key on your remote.	1. Use the Left or Right arrow key to select CAPTION/TEXT.
2. Press CC repeatedly to cycle through the five choices: Off, CAPTION 1 through CAPTION 4.	2. Press the Left or Right arrow key repeatedly to cycle through your nine choices: Off, CAPTION 1 through CAPTION 4 and TEXT 1 through Text 4.

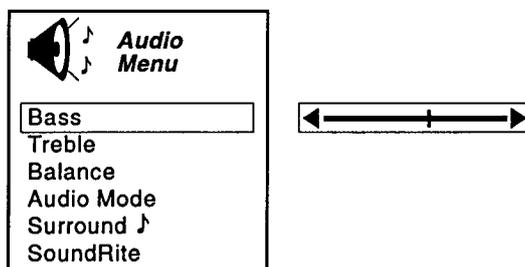```
┌─────────────────┐
│   │
│ ─ ─ ─ ─ ─ ─ ─ │↑
│ ┌─────────────┐ │
│ │ Hello! Are you│
│ ├─────────────┤ │
│ │ out there? │ │
│ └─────────────┘ │
└─────────────────┘
```

**Typical Captions Display**

Captions may be shown anywhere on the screen.

```
┌─────────────────┐
│   │
│ ─ ─ ─ ─ ─ ─ ─ │ ↑
│ ┌─────────────┐ │
│ │See special newscast│
│ │tonight at 7:00PM on│ ↕
│ │channel 2.   │ │
│ └─────────────┘ │ ↓
└─────────────────┘
```
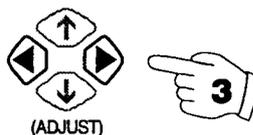
**Typical Text Display**

Fixed size text window fills lower half of screen.

# AUDIO MENU

```
◀❪♪ Audio
   ♪ Menu

 Bass
 Treble
 Balance
 Audio Mode
 Surround ♪
 SoundRite
```
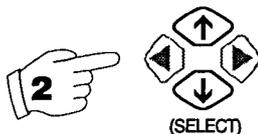
◀━━━━━┿━━━━━▶

## MENU OPERATION

Press MENU repeatedly until the *Audio Menu* is shown.

Press the Up or Down arrow repeatedly until the desired option is selected.
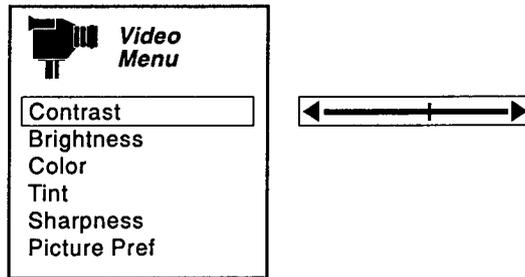
(ADJUST)

(SELECT)

Use the Left or Right arrow to adjust the selected option.

Press QUIT or wait a few seconds for the TV to return to normal operation.

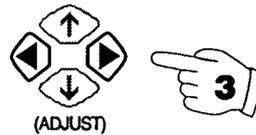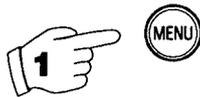| Menu Option | Function Of Menu Option |
|---|---|
| Bass | Adjusts the BASS (low-frequency) level. |
| Treble | Adjusts the TREBLE (high-frequency) level. |
| Balance | Adjusts the balance of sound between the two speakers. |
| Audio Mode | Allows you to select Stereo, Mono or 2nd Audio/SAP speaker operation. See information below this chart for more details.<br><br>**Stereo:** Directs the sound to the Left and Right speakers as supplied by the program source (broadcast TV, VCR, etc.)<br><br>**Mono:** Directs the same sound to both Left and Right speakers, even if the program being received is in stereo.<br><br>**2nd Audio/ SAP:** Directs the sound for the Second Audio Program (second language) to both the Left and Right speakers. SAP sound is always monaural. (SAP is not available while Video is chosen as the viewing source: The audio signal being received from the auxiliary video source is assumed to be either stereo or mono. ) |
| Surround ♪ | Used to activate the "front" channel surround sound decoder of the TV. You can then listen to front channel surround sound audio from the TV's speakers. (Surround sound audio will only be heard if the program being watched is in stereo and is encoded with surround sound.) |
| SoundRite | Turn this feature ON to maintain the television's volume at a constant level. In other words, commercials will no longer appear to sound louder than the volume level you have set. |

## NOTES:

❑ Adjustments to the *Audio Menu* are optional. You do not have to adjust these features in order to use your TV.

❑ With "Stereo" as the selected Audio Mode, the TV switches automatically between Stereo and Mono sound depending on the actual signal being received.

❑ With "SAP" as the selected Audio Mode, you hear the SAP (usually a second language) on those stations which broadcast two audio signals. When the SAP broadcast ends, the TV switches automatically between Stereo and Mono modes. The TV switches back to 2nd Audio/SAP when the SAP broadcast resumes.
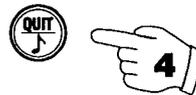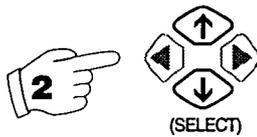
# VIDEO MENU

```
┌─────────────────────┐
│  ▐■▌  Video          │
│  ┬┬   Menu           │
│                      │
│ ┌─────────────────┐  │        ┌──────────────────────┐
│ │Contrast         │  │        │◄─────────┼─────────►│
│ └─────────────────┘  │        └──────────────────────┘
│  Brightness          │
│  Color               │
│  Tint                │
│  Sharpness           │
│  Picture Pref        │
└─────────────────────┘
```

MENU OPERATION

Press MENU repeatedly until the *Video Menu* is shown.

Press the Up or Down arrow repeatedly until the desired option is selected.

(ADJUST)

(SELECT)

Use the Left or Right arrow to adjust the selected option.

Press QUIT or wait a few seconds for the TV to return to normal operation.

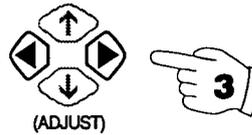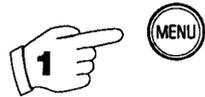| Menu Option	Function of Menu Option
Contrast	Adjusts the overall contrast and color level of the picture.
Brightness	Adjusts the brightness level of black areas in the picture.
Color	Adjusts the intensity of the colors in the picture.
Tint	Adjusts the color of the flesh tones to more Red or more Green.
Sharpness	Adjusts the definition of the object edges for best picture quality.
Picture Pref. (Preference)	Selects the video adjustments to be used: (CUSTOM = your personal adjustment preferences; PRESET = factory set adjustments.)

NOTES:

❑ All adjustments on the *Video Menu* are optional. It is not necessary to use these features in order to operate the TV.

❑ Any adjustments made to the *Video Menu* settings while Picture Pref. is in "Preset" mode will automatically store the current settings as the "Custom" setting.
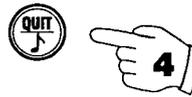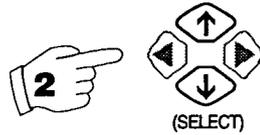
PIP MENU
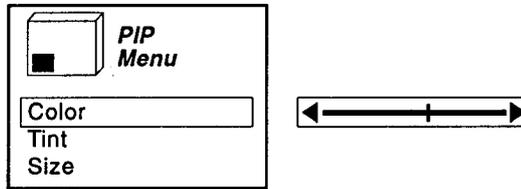
MENU OPERATION

Press MENU repeatedly until the *PIP Menu* is shown.

(MENU)

(ADJUST)

Use the Left or Right arrow to adjust the selected option.

Press the Up or Down arrow repeatedly until the desired option is selected.

(SELECT)

(QUIT)

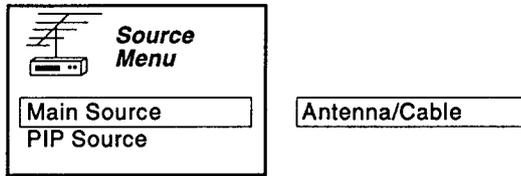Press QUIT (or wait a few seconds) to remove the menu from view.

NOTE:

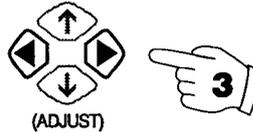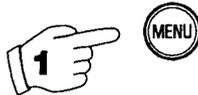| Menu Option	Purpose of Menu Option
Color	Adjusts the intensity of the colors in the PIP inset.
Tint	Adjusts the color of the flesh tones in the PIP window to more Green or more Red.
Size	Selects either a small or large PIP window.

NOTE:

❑ All adjustments on the *PIP Menu* are optional. You do not have to use these features in order to use your TV.
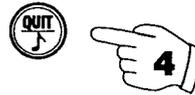
SOURCE MENU

```
┌─────────────────────────┐
│  ⚏   Source             │
│  ▭   Menu               │
│                         │
│ ┌─────────────────┐  ┌───────────────────┐
│ │ Main Source     │  │ Antenna/Cable     │
│ └─────────────────┘  └───────────────────┘
│   PIP Source            │
└─────────────────────────┘
```
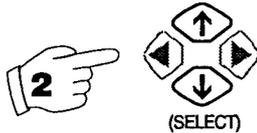
MENU OPERATION

Press MENU repeatedly until the *Source Menu* is shown.

Use the Left or Right arrow to adjust the selected option.

(ADJUST)

Press the Up or Down arrow repeatedly until the desired option is selected.

(SELECT)

Press QUIT or wait a few seconds for the TV to return to normal operation.

Menu Option	Purpose of Menu Option
Main Source	Selects the television's input signal source for basic television viewing. In other words, will your primary television viewing be from the antenna or cable box that is connected to the Antenna/Cable jack on the back of the TV. Or, will you mostly watch TV via a VCR (or other audio/video device) connected to the A/V jacks on the back of the TV. Select either Antenna/Cable or **Video**.
PIP Source	Selects the television's input signal source that is providing the video for the PIP window. Select either **Antenna/Cable** or **Video**.

NOTE:

❑ The sources may also be changed directly by pressing the SOURCE key on the remote control. When no PIP window is on, the SOURCE key selects the source for the main picture. If the PIP window is on, SOURCE selects the source for the PIP window.

PIP Window
Use the arrow keys to place the window anywhere on the TV screen.

Main Picture Area
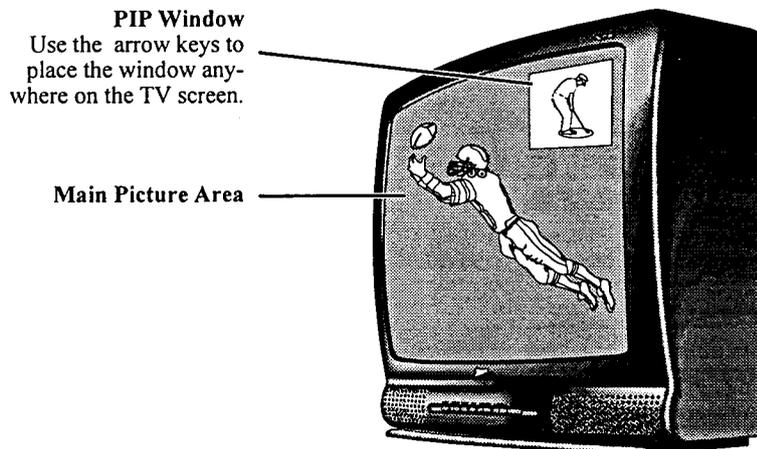
In order to show two underline channels on the TV at the same time, one signal source (antenna, cable box, etc..) must be connected to the Antenna/Cable jack and a different signal source (VCR, Laser Disk, etc..) must be connected to the A/V jacks.

PIP CONNECTIONS AND OPERATION

INTRODUCTION

Your TV must be connected to two separate sources in order to view a different picture in the PIP inset from that which is showing in the main picture area of the TV. One source (such as an antenna) must be connected to the ANTENNA/CABLE jack. The other source (such as a VCR) must be connected to the AUX INPUT jacks. If you have not already selected the input sources for your main TV picture and the PIP window, refer to the instructions below.
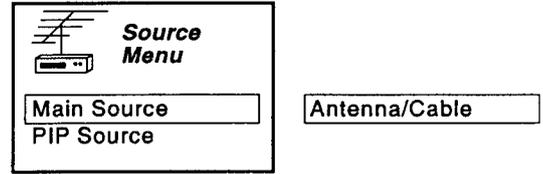
Main picture source	PIP picture source *
1. Show *Source Menu* on the TV.	1. Show *Source Menu* on the TV.
2. Select Main Source.	2. Select PIP Source.
3. Press the Left or Right arrow repeatedly to show Antenna/ Cable.	3. Press the Left or Right arrow repeatedly to show **Video**.
* A PIP window appears during Source Menu operations to show the effect of choosing a PIP source.	

Source of main picture shows here.

Source of PIP picture shows here.

Main Picture Area
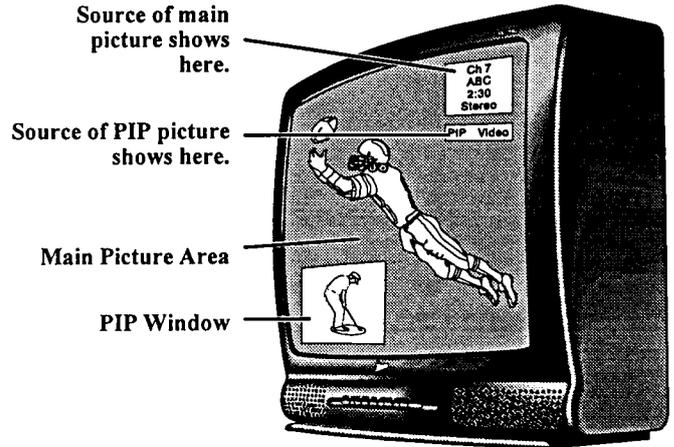
PIP Window

PIP FUNCTIONS

The remote control keys which are most frequently used for PIP operations are shown here. In addition to these, other keys on the remote such as the CHANNEL Up/Down keys may affect the PIP window, depending on your source selection.

PIP Functions

☐ **Arrow Keys:** Use the Left/Right and Up/Down arrow keys to move the PIP window to the desired location of the TV screen.

☐ **SWAP:** Press the SWAP key to swap the main picture with the PIP window. Press SWAP again to return to the original display.

☐ **PIP On/Off:** Press the PIP key to display the PIP window. Press it again to remove the PIP window.

☐ **FREEZE:** Press FREEZ to freeze motion of the picture shown in the PIP window. Press FREEZ again to return to a live PIP window.

☐ **SOURCE:** When the PIP window is on, SOURCE selects the source for the PIP window.

☐ **PIP Size:** Select **Size** in the **PIP Menu** to choose between seeing a small or large PIP window.

Arrow Keys

SWAP

PIP (On/Off)

FREEZ
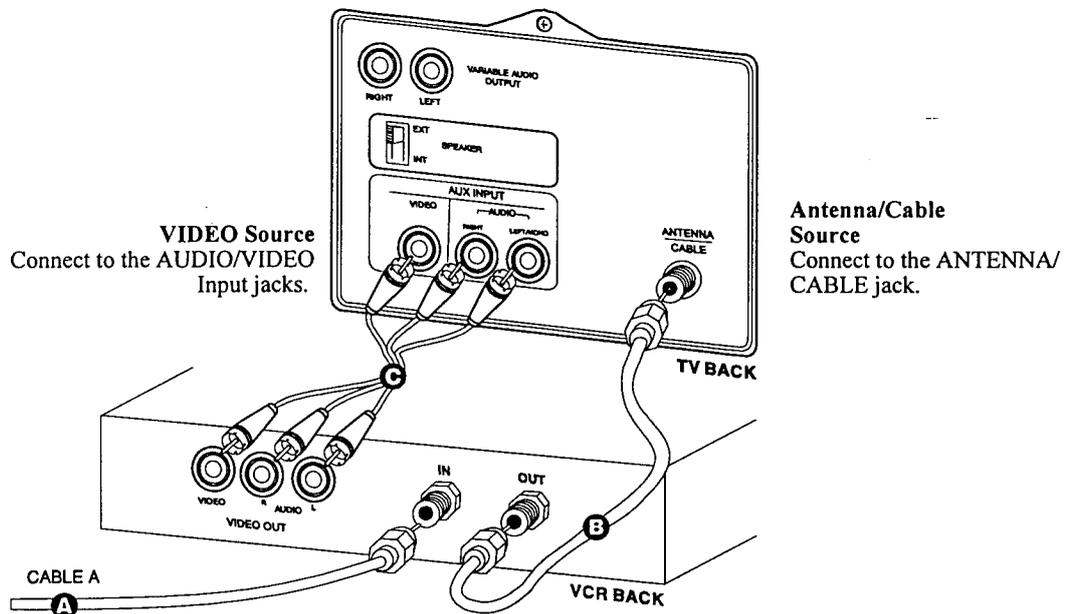
SOURCE
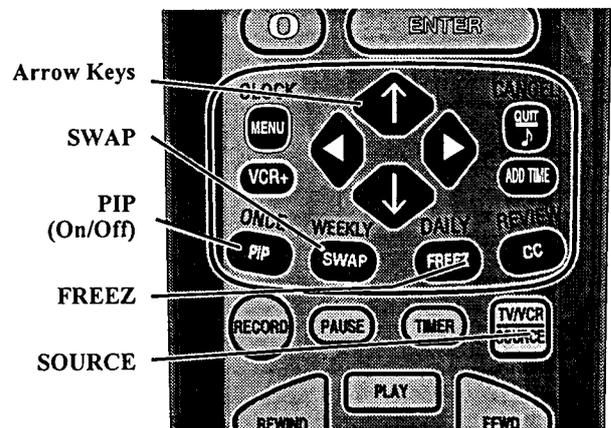
PIP CONNECTIONS AND OPERATION

BASIC PICTURE-IN-PICTURE OPERATION

This illustration shows the basic connection of your TV to a stereo VCR. With your equipment setup in this manner, your television has the following PIP capabilities:

☐ Simultaneously view a video tape playing in the VCR and a channel selected by the TV's tuner.

☐ Simultaneously view two different channels; one selected by the TV's tuner and another using the VCR's tuner.

☐ Swap the main picture and the PIP inset.

PIP VIEWING OPTIONS	
Viewing Two Different Channels	**Viewing a Video Tape and a TV Channel**
1. Set VCR's TV/VCR* switch to TV.	1. Set VCR's TV/VCR* switch to TV.
2. Select **Main Source** in the Source Menu.	2. Select **Main Source** in the Source Menu.
3. Press a Left/Right arrow to select **Antenna/Cable**.	3. Press a Left/Right arrow to select **Antenna/Cable**.
4. Select **PIP Source** in the Source Menu.	4. Select **PIP Source** in the Source Menu.
5. Press a Left/Right arrow to select **Video**.	5. Press a Left/Right arrow to select **Video**.
6. Press QUIT to remove the menu from view.	6. Press QUIT to remove the menu from view.
7. Press PIP key to activate PIP.	7. Press PIP key to activate PIP.
8. Select a TV channel using the TV's channel selector.	8. Select a TV channel using the TV's channel selector.
9. Select a PIP channel using the VCR's channel selector.	9. Play a video tape in the VCR and view it in the PIP window.
* May be labeled TV/Video.	

VIDEO Source
Connect to the AUDIO/VIDEO
Input jacks.

Antenna/Cable
Source
Connect to the ANTENNA/
CABLE jack.

TV BACK

CABLE A

VCR BACK

Option 1: Antenna or Direct Cable Connection to VCR.
(Cables are not supplied with television.)
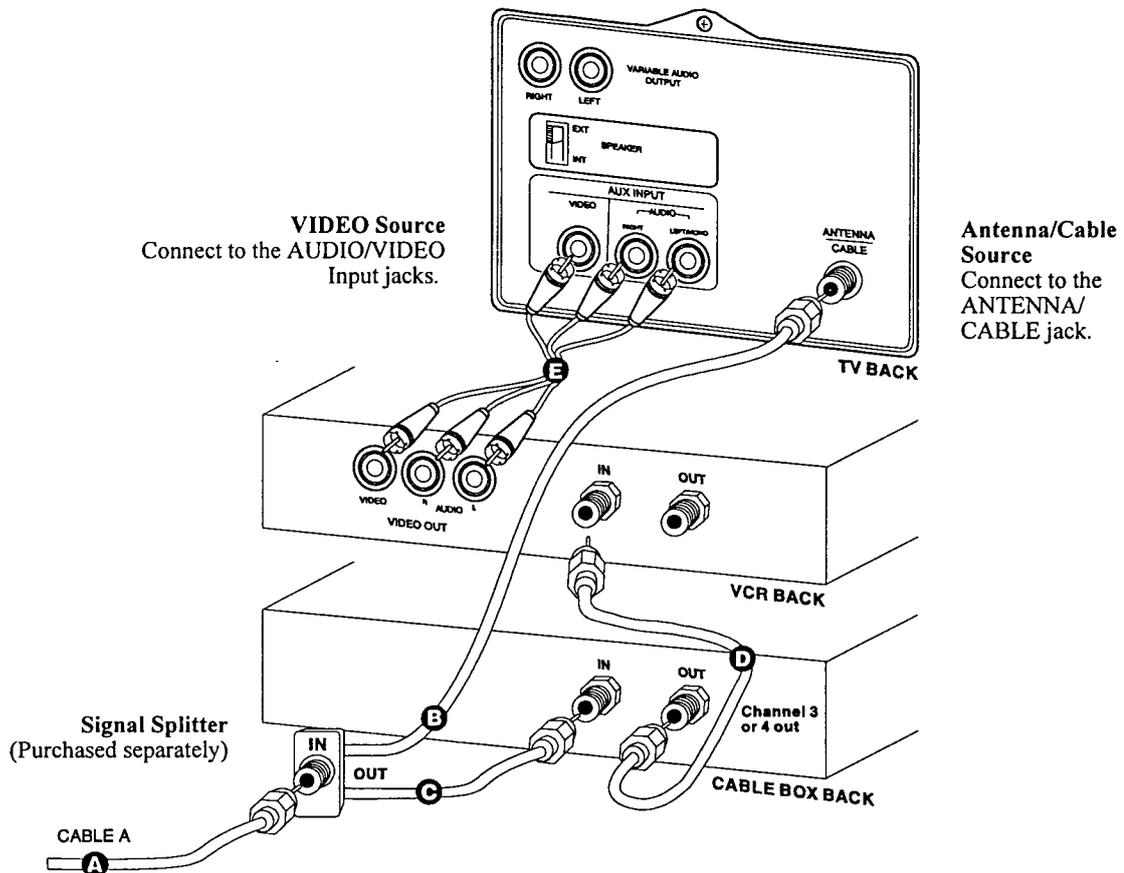
OPTIONAL PICTURE-IN-PICTURE OPERATION

With your equipment setup in this manner, your television has the following PIP capabilities:

❑ Simultaneously view a video tape playing in the VCR and a basic cable channel selected by the TV's tuner.

❑ Simultaneously view two different channels; one basic cable channel selected by the TV's tuner and a scrambled (premium) cable channel selected by the decoder's tuner.

❑ Swap the main picture and the PIP inset.

NOTE:

❑ The cable channels you can view depends on the service you have purchased from your cable company.

PIP VIEWING OPTIONS	
Viewing Two Different Channels	**Viewing a Video Tape and a TV Channel**
1. Select **Main Source** in the Source Menu.	1. Select **Main Source** in the Source Menu.
2. Press a Left/Right arrow to select **Antenna/Cable**.	2. Press a Left/Right arrow to select **Antenna/Cable**.
3. Select **PIP Source** in the Source Menu.	3. Select **PIP Source** in the Source Menu.
4. Press a Left/Right arrow to select **Video**.	4. Press a Left/Right arrow to select **Video**.
5. Press QUIT to remove the menu from view.	5. Press QUIT to remove the menu from view.
6. Press PIP key to activate PIP.	6. Press PIP key to activate PIP.
7. Select a TV channel using the TV's channel selector.	7. Select a TV channel using the TV's channel selector.
8. Select a PIP channel using the cable box.	8. Play a video tape in the VCR and view it in the PIP window.

VIDEO Source
Connect to the AUDIO/VIDEO Input jacks.

Antenna/Cable Source
Connect to the ANTENNA/ CABLE jack.

Signal Splitter
(Purchased separately)

Option 2:   Cable-TV Connection Direct to TV & Cable Box to VCR.
(Cables are not supplied with television.)

MAINTENANCE AND TROUBLESHOOTING

CARING FOR YOUR TV

Your TV will look better, have a longer life and perform better if you care for it properly.

First check to see that the TV is off. For added safety, unplug the TV from the power outlet.

NOTE: If you unplug your TV, you will have to reset the clock to the current time.

Cabinet Care

Non-Wood Cabinet or Cabinet Components Moisten a soft cloth with a mild soap solution or Ivory dishwashing detergent. Wipe the surface with a damp cloth. Then rinse the cloth in clean water and wipe the surface again. Allow the TV to air-dry before turning it on.

Wood Cabinets or Cabinet Components Use any good furniture cleaner and polish. Regular care will help preserve the finish.

Picture Glass Cleaning

The picture tube face attracts dust particles and should be cleaned regularly. To clean the face, spray a small amount of glass cleaner on a cleaning cloth and wipe the picture tube glass face until clean. Repeat if necessary.

To delay new dust accumulation, wet a soft cloth in lukewarm water in which a little fabric softener or Ivory dishwashing detergent has been mixed. Wring the cloth almost dry. Wipe the glass face. Make sure no drops of moisture are squeezed onto the glass. Do not wipe the glass dry. Allow the glass to air-dry before you turn the TV on again.

EXTENDED ABSENCE

Before an extended absence (such as a vacation) you may want to unplug the power cord from the electrical wall outlet. This will protect the TV from possible damage from lightning or power line surges. If you have an outdoor antenna, you may also want to disconnect the antenna lead-in wires on the back of the TV.

NOTE: If you unplug your TV, you will have to reset the clock to the current time.

TV PICTURE INTERFERENCE

Your TV picture may be affected by interference caused by one or a number of factors. These include:

Speckled or Streaked Picture Can be caused by nearby automobile ignition, electrical appliances, etc. This is most noticeable in weak signal areas.

Snow in Picture Caused by insufficient signal. Usually caused by the TV being located too far from the TV station or by an improper antenna installation.

Ghosts or Reflections Caused by signals being reflected from surrounding buildings, water tanks, or other high structures.

Radio Signal Police, amateur or CB radio transmitters may cause interference.

These interference problems can often be corrected through the use of a better antenna, signal amplifiers, or various filter devices. See your TV dealer for additional information, and available TV accessories.

MAINTENANCE AND TROUBLESHOOTING

BEFORE CALLING FOR SERVICE

Check these items and see if you can correct the trouble by changing the adjustment of a control or the setting of a switch.

By making these simple checks before calling for service, you may save time and money.

PROBLEM	TRY THIS
Picture OK. Poor sound.	Re-orient antenna. Try another channel — possible station trouble. Adjust *Audio Menu* options. Check for local interference. Is antenna/cable connection loose?
Sound OK. Poor picture.	Re-orient antenna. Try another channel — possible station trouble. Adjust *Video Menu* options. Trouble with cable-TV system? Is antenna/cable connection loose?
No picture or sound.	Is TV on? Is there power in wall outlet? Is TV plugged in? Is antenna hooked up? Is cable hooked up? Is the channel blocked by the Parental Control? Trouble with cable-TV system? Check auxiliary audio/video equipment. Check channel selection.
Picture blurred or distorted. Ghost in picture.	Check antenna or cable hook up for broken wires. Try another channel — possible station trouble. Check for local interference.
No color, or poor color.	Is it a color program? Check antenna or cable hook up for broken wires. Adjust *Video Menu* options.
No sound.	Volume setting may be too low. Check MUTE key operation on remote control. Check Audio Mode in *Audio Menu*: Audio Mode may be set to SAP, but no SAP signal is detected on the channel.
Cannot select certain channels.	Channels may be skipped in Add/Del/Surf option of *Setup Menu*.
No closed captions	Are captions available? Is Caption 1, 2, 3 or 4 selected using the Caption/Text option on the *Setup Menu*?
Black box covers half of screen.	Is text information available? Is Text 1, 2, 3 or 4 selected in the Caption/Text option of the *Setup Menu*.
No picture or sound when Video source is selected.	Is audio/video source hooked up properly? Are all wires connected to VIDEO IN jacks on connection center?
No stereo sound or weak stereo sound when using a stereo VCR.	Check Audio mode. Was stereo sound present before selecting VIDEO source?
PIP window is black or lacks contrast when selecting Video for PIP inset.	Adjust PIP Color and Tint settings in *PIP Menu*. Are all wires connected to VIDEO IN jacks on connection center?
PIP window is "snowy" when using Antenna/Cable for PIP and Video for main picture.	Is TV/VCR switch on the VCR in the TV position?
Complete picture loss when using Video for PIP window source and Antenna/Cable for main picture.	Is TV/VCR switch on the VCR in the TV position?
TV appears to remain on the same channel when using the Channel Up and Down keys.	Check Add/Del/Surf option in *Setup Menu*: Is only one channel labeled as "Added?" If operating TV in Surf mode, is only one channel labeled as "Surf?"
Remote control does not work.	Are batteries okay? Is TV turned ON? Is TV plugged in?

NOTES:

❑ If your TV fails to respond to the PICTURE PREF. selection, or to any other menu selection, you must reset the TV. Simply disconnect the AC power cord from the power outlet. Wait a few minutes, then plug the TV back into the power outlet. You will have to reset the clock to the current time.

❑ Unplugging the TV does not deactivate the Parental Control.

Always request that your technician use only genuine Zenith exact replacement parts for continued Quality and Safety performance. Keep your Zenith **ALL** Zenith.

YOUR ZENITH TV WARRANTY

DIRECT-VIEW COLOR TV

Welcome into the Zenith family! We believe that you will be pleased with your new Zenith Color TV. Please read this warranty carefully. It is a "LIMITED WARRANTY" as defined under Federal Law. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state within the U.S.A.

Zenith's Responsibility

Service Labor — During a period of 90 days from effective warranty date, Zenith will pay for service labor by a Zenith authorized service center when needed as a result of manufacturing defects.

Parts — New or remanufactured replacements for factory-defective parts will be supplied by a Zenith authorized service center for one year from effective warranty date (color picture tube — two years). Such replacement parts are warranted for the remaining portion of the original warranty period.

Home Service — Warranty service for 21" diagonal (U.S.A.) or larger screen size models is provided in the home in most cases. (Some repairs may require the unit to be taken by the servicer to the repair facility and returned, at no additional charge.)

Not Covered — This warranty covers manufacturing defects and does not cover installation, adjustment of customer controls in the home, installation or repair of home antenna systems, cable converters or cable company-supplied equipment; it also does not cover damage due to misuse, abuse, negligence, acts of God or other causes beyond the control of Zenith. Any alteration of the product after manufacture voids this warranty in its entirety.

Owner's Responsibility

Effective Warranty Date — Warranty begins on the date of original consumer installation. For your convenience, keep the dealers dated bill of sale or delivery ticket as evidence of the purchase date.

Operating Guide — Read your Operating Guide carefully so that you will understand the operation of your set and how to adjust the customer controls.

Carry-In Service — Models under 21" diagonal (U.S.A.) screen size must be taken to a Zenith authorized service center for warranty service and must be picked up by the owner.

Antenna — Reception problems caused by inadequate home antennas or faulty antenna connections are the owner's responsibility.

Important: Product Registration — Please fill out and mail your Product Registration Card. It is imperative that Zenith know how to reach you promptly if we should discover a safety problem that could affect you.

Warranty Service — For warranty service information, contact any Zenith authorized service center. Parts and service labor that are Zenith's responsibility (see above) will be provided without charge. Other service is at the owner's expense. If you have any problem in obtaining satisfactory warranty service, call or write:

Before you ask for Warranty service, check the operating guide section entitled, "**Maintenance And Troubleshooting.**" It may be possible to avoid a service call.

Zenith Electronics Corporation
Customer Service Department
1000 Milwaukee Avenue
Glenview, IL 60025-2493
Telephone: (847) 391-8752
Mon-Fri, 8:00 a.m. - 4:30 p.m. Central Time

ADDITIONAL ZENITH PROTECTION PLAN AVAILABLE

Zenith offers you the opportunity to obtain additional long-term protection against failure of the picture tube in your new television. Our Picture Tube Protection Plan enables you to avoid any unexpected picture tube repair expenses and keep your television in top condition. It guarantees you a genuine Zenith replacement picture tube and service from a Zenith authorized service center.

Be sure to send in the **Product Registration Card.** We will send you an application for the Protection Plan near the expiration of the two year manufacturer's warranty on the picture tube. For additional information, call **(847) 391-8757.**