Color Television
Operating Instructions

Panasonic ®

STAR SIGHT ®

CT-35XF53

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

Safety Instructions

	WARNING	
⚡	**RISK OF ELECTRIC SHOCK** **DO NOT OPEN**	!

WARNING: To reduce the risk of electric shock do not remove cover or back. No user-serviceable parts inside. Refer servicing to qualified service personnel.
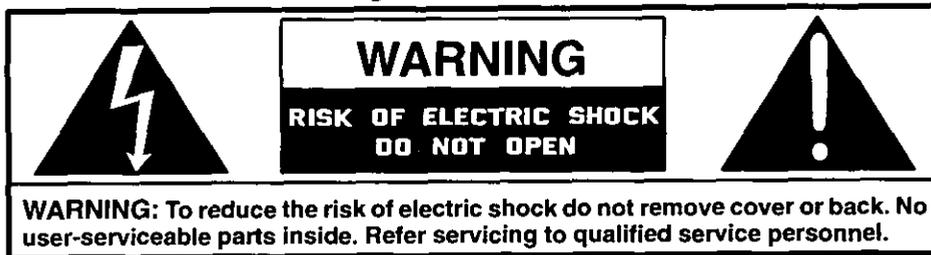
The lightning flash with arrow-head within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.

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

Note To CATV System Installer: This reminder is provided to call the CATV system installer's attention to Article 820–40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Safety Instructions For Television Receivers

1. Read and apply the operating instructions provided with your television receiver.
2. Read all of the instructions given here and retain them for later use.
3. Unplug this television receiver from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use attachments not recommended by the television receiver manufacturer as they may cause hazards.
5. Do not use this television receiver near water. For example: Avoid placing it near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
6. Do not place this television receiver on an unstable cart, stand or table. The television receiver may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the television receiver. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the television receiver and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the television receiver on a bed, sofa, rug or other similar surface. This television receiver should never be placed near or over a radiator or heat register. This television receiver should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
8. Operate only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home consult your television dealer or local power company. For television receivers designed to operate from battery power, refer to the operating instructions.
9. This television receiver is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
10. Do not allow anything to rest on the power cord. Do not locate this television receiver where the cord will be abused by persons walking on it.
11. Follow all warnings and instructions marked on the television receiver.
12. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
13. Never push objects of any kind into this television receiver through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television receiver.

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

ANTENNA LEAD-IN WIRE

GROUND CLAMP

ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)

ELECTRIC SERVICE EQUIPMENT

GROUNDING CONDUCTORS (NEC SECTION 810-21)

GROUND CLAMPS

POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)
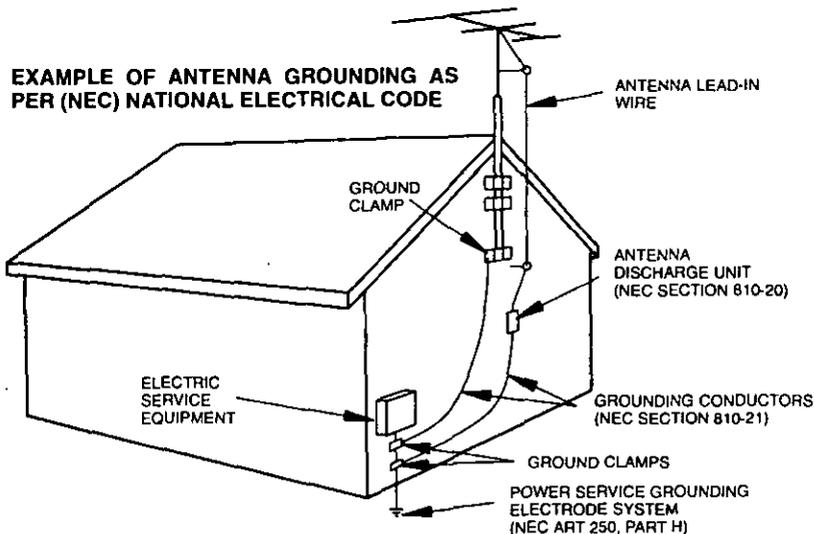
14 If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges In the U S Section 810 of the National Electrical Code and in Canada Part 1 of the Canadian Electrical Code provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead—in wire to an antenna discharge unit, size of grounding conductors, location of antenna—discharge unit, connection to grounding electrodes, and requirements for the grounding electrode See Figure

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

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

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

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

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

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

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

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

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

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

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

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

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

Specifications

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

Channel Capability Chart

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

Specifications are subject to change without notice or obligation

Introduction

Congratulations on Your New Purchase

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

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

Customer's Record

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

Model Number: _____   Serial Number: _____

Table of Contents

Table of Contents (cont.)

◊ STAR
S I G H T

Your new Panasonic Television comes equipped with the StarSight system. A StarSight Subscription is required to activate this system. Please refer to the StarSight Installation Guide in this manual for information about activating and subscribing to StarSight.

To use StarSight, please refer to the StarSight Operating Guide that was packaged along with this Television Set.

Your Panasonic television that is equipped with the StarSight® System is not designed to operate with, or control, a satellite dish. For information on StarSight products specifically designed for satellite systems, see your local satellite dealer.

Installation

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

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

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

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

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

Optional External Equipment Connections

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

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

AC Power Supply Cord

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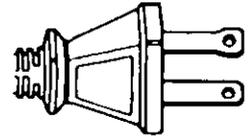
Polarized Plug

Remote Control Battery Installation

Requires two "AA" batteries

1   Turn the Transmitter face down Remove top cover by pressing down on marking and sliding cover off in the direction indicated

2   Install the batteries as shown in the battery compartment (Polarity (+) or (−) must match the markings in the compartment)

3   Replace the cover and slide in reverse until the lock snaps

Helpful Hint:

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

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

Press Down Here And Slide Cover Back

Precaution on Battery Use

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

Observe the Following Precautions:

1   Batteries should always be replaced as a pair Always use new batteries when replacing the old set

2   Do not combine a used battery with a new one

3   Do not mix battery types (Example "Zinc Carbon" with "Alkaline")

4   Do not attempt to charge, short–circuit, disassemble, heat or burn used batteries

5   Battery replacement is necessary when Remote Control acts sporadically or stops operating the Receiver

Helpful Hint:

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

Installation (cont.)

Antenna/Cable Connections

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

Indoor   Outdoor

Typical VHF/UHF Antenna
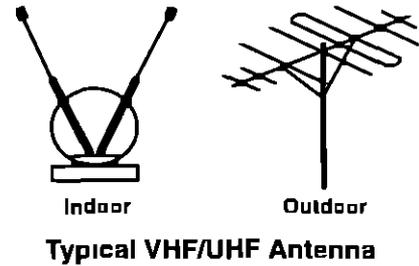
Incoming Cable From Home Antenna (75 Ohm)

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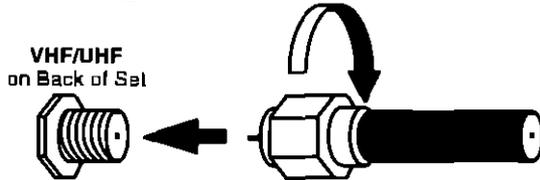
Incoming Cable From Home Antenna (300 Ohm)

VHF/UHF
on Back of Set

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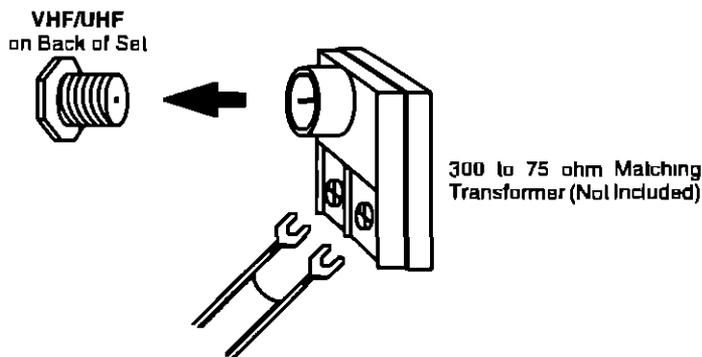
Cable Connection – For reception of cable channels (01–125) connect the cable supplied by your local cable company Antenna Mode must be set to CABLE (Refer to Antenna Mode section)

Incoming 75 Ohm Cable (From Cable Company)

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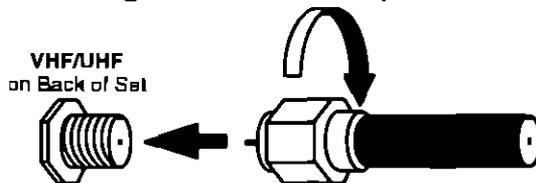
NOTE: Certain cable systems offset some channels to reduce interference or have Premium (scrambled) channels A cable converter box is required for proper reception Check with your local Cable company for its compatibility requirements

Other Video Equipment

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

Installing Your StarSight TV Set

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

2 Connect the TV according to the following illustrations

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

4 Follow the instructions in the *StarSight Installation and Activation Guide* located in the back of this manual to complete StarSight activation

StarSight Antenna and External Video Connection

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

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

StarSight Antenna Connection (No Cable Box or VCR)

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

TERMINALS ON BACK OF RECEIVER

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

◄ To ANT Terminal

Incoming Cable from Antenna or Cable TV System

StarSight Antenna Connection (VCR, no Cable Box)

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

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

TERMINALS ON BACK OF RECEIVER

OR

S-VIDEO

VIDEO

PROG OUT

AUDIO

L

R

TO AUDIO AMP

L

R

CENTER CHANNEL INPUT

1 2

INPUT

STARSIGHT CONTROL PORT

Not used in this configuration

StarSight IR EMITTER CABLE

5 Connect the StarSight IR Emitter cable to the StarSight Control Port on the back of the TV

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

◄ To ANT Terminal

Incoming Cable from Antenna or Cable TV System

FACE Face towards IR Sensor

IR EMITTER To StarSight Control Port

◄ To VCR ANT Input

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

VCR

TERMINALS ON BACK OF VCR

ANT INPUT

ANT OUTPUT

VCR S-Video is optional

S VIDEO OUT

OR

VIDEO OUT

L

AUDIO OUT

R

IR SENSOR

IR EMITTER SHOWN IN POSITION

6 Place the StarSight IR Emitter in front of the VCR's IR sensor with the IR Emitter's face towards the VCR The IR Emitter can be placed as shown or in any position as long as the face is towards the VCR's IR sensor

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

StarSight Antenna Connection (Cable Box, no VCR)

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

TERMINALS ON BACK OF RECEIVER

Not used in this configuration

S-VIDEO

VIDEO

PROG OUT

AUDIO

TO AUDIO AMP

CENTER CHANNEL INPUT

STARSIGHT CONTROL PORT

StarSight IR EMITTER CABLE

1   2

INPUT

[4] Connect the StarSight IR Emitter cable to the StarSight Control Port on the back of the TV

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

Incoming Cable from Antenna or Cable TV System

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

FACE
Face towards IR Sensor

IR EMITTER   To StarSight Control Port

INPUT

OUTPUT

CABLE BOX

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

TERMINALS ON BACK OF CABLE BOX

IR SENSOR

IR EMITTER SHOWN IN POSITION

Helpful Hints:

The StarSight IR Emitter should be placed no less than 2 to 3 inches in front of the equipment's IR sensor for optimum performance

[5] Place the StarSight IR Emitter in front of the Cable Box's IR sensor with the IR Emitter's face towards the Cable Box The IR Emitter can be placed as shown or in any position as long as the face is towards the Cable Box's IR sensor

StarSight Antenna Connection (Cable Box and VCR)

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

TERMINALS ON BACK OF RECEIVER
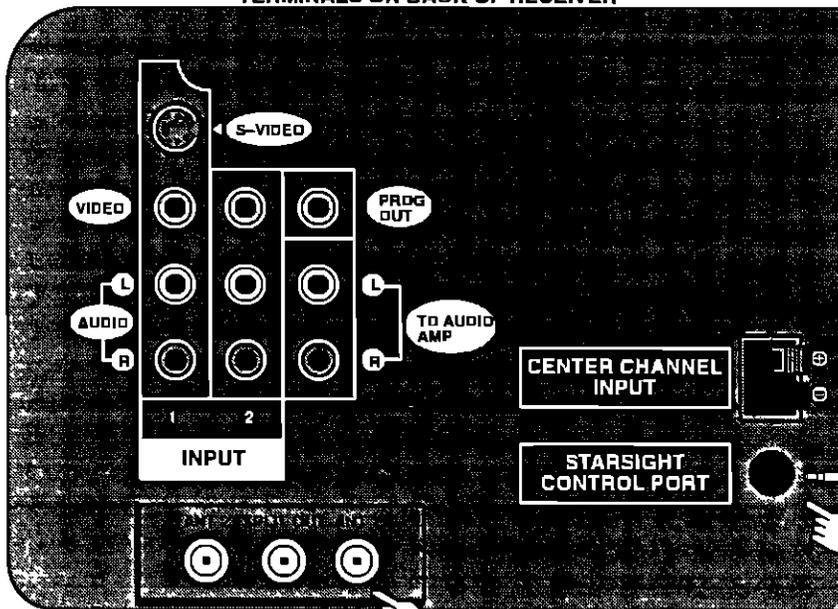
Helpful Hints:

The StarSight IR Blaster should be placed no less than 2 to 3 inches in front of the equipment's IR sensor for optimum performance

S-VIDEO

VIDEO

AUDIO

PROG OUT

L

R

TO AUDIO AMP

CENTER CHANNEL INPUT

STARSIGHT CONTROL PORT

INPUT

1   2

StarSight IR EMITTER CABLE

5 Connect the StarSight IR Emitter cable to the StarSight Control Port on the back of the TV

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

Incoming Cable from Antenna or Cable TV System

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

CABLE BOX

INPUT

◄ TO VCR

OUTPUT

IR SENSOR

TERMINALS ON BACK OF CABLE BOX

IR EMITTER SHOWN IN POSITION

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

ANT INPUT

ANT OUTPUT

S-VIDEO OUT

VIDEO OUT

L

AUDIO OUT

R

IR SENSOR

TERMINALS ON BACK OF VCR

6 Place the StarSight IR Emitters in front of the equipment's IR sensor with the IR Emitter's face towards the equipment The IR Emitter can be placed as shown or in any position as long as the face is towards the equipment's IR sensor

VCR

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

IR EMITTER SHOWN IN POSITION

Optional Equipment Connection and Operation

TERMINALS ON BACK OF RECEIVER

Helpful Hints:

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

These terminals are used for the Dolby Center In Feature Please see the *Dolby Center In Connections* Section of this manual for details

To Auxiliary Input ▶

To Audio AMP Connection (Stereo)

- **To Audio AMP**

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

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

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

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

# Optional Equipment Connection and Operation (cont.)

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

TERMINALS ON BACK OF RECEIVER

S-VIDEO

VIDEO

AUDIO L R

PROG OUT

TO AUDIO AMP

CENTER CHANNEL INPUT

STARSIGHT CONTROL PORT

INPUT 1 2

S VIDEO

VIDEO OUT

AUDIO OUT L R

TERMINALS ON BACK OF EQUIPMENT

OPTIONAL EQUIPMENT
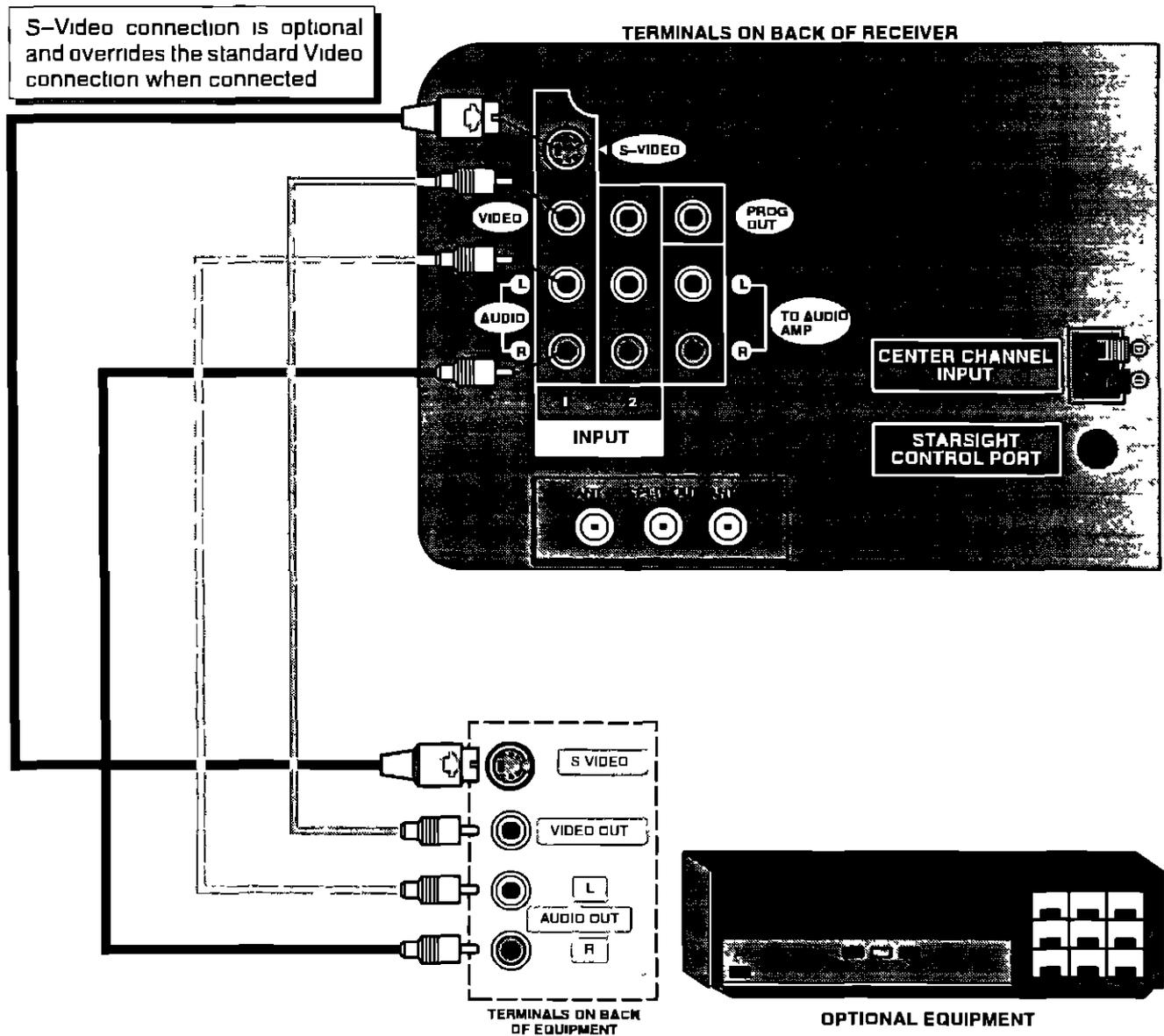
Audio/Video Connection

Operation

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

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

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

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

– 13 –

Location of Controls (Receiver)

Press here to
open door

Front Control Panel
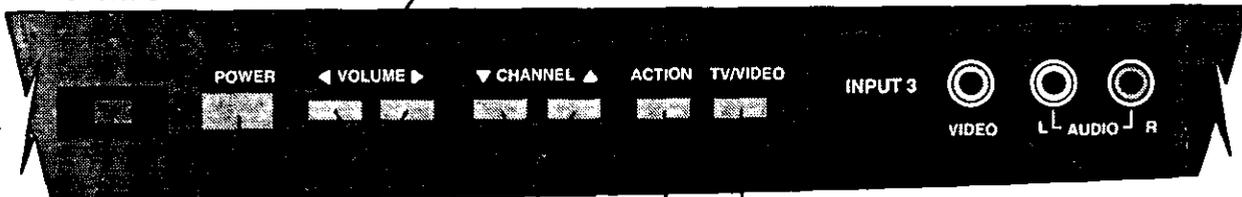
Remote Control
Sensor

Video Input 3 Terminals Located Behind Door

Quick Reference Control Operation

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

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

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

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

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

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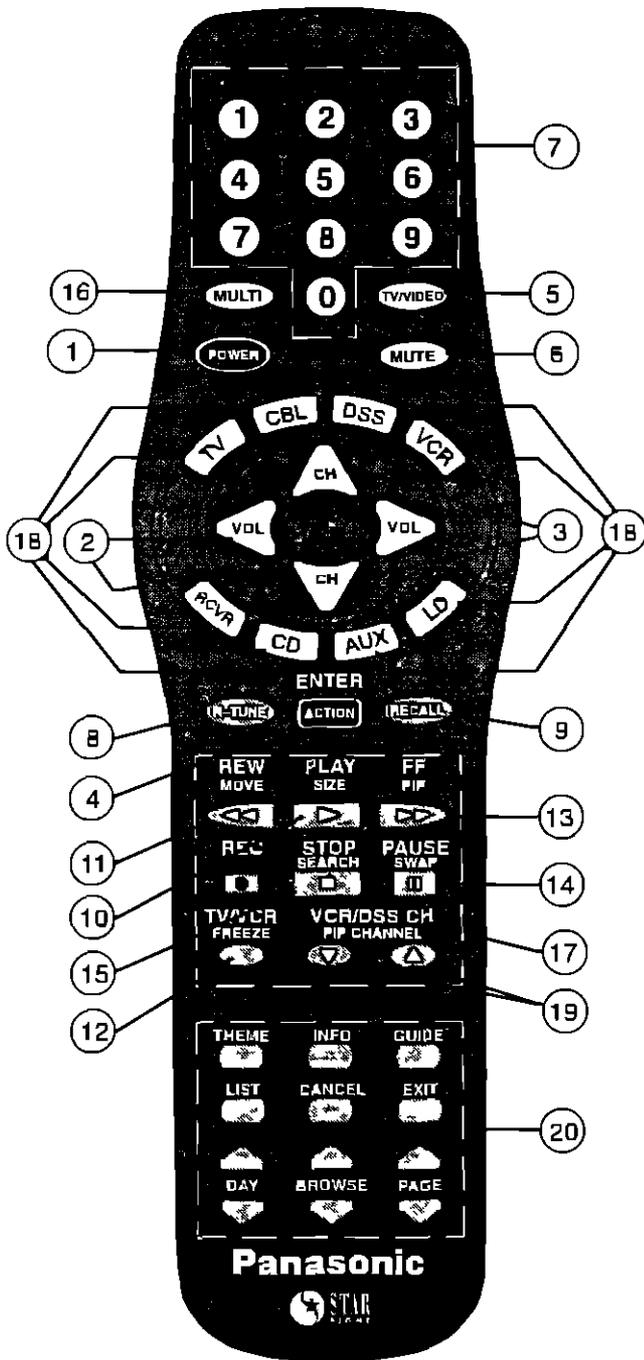
Basic Remote Control Functions for Television Operation

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

⑳ **StarSight Buttons** – These buttons are used to operate the StarSight On-Screen TV Program Guide A subscription is required to activate these functions

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

Panasonic

⊕ STAR LIGHT

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

Helpful Hints:

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

Remote Control
Quick Reference Functional Key Chart

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

Remote Control
Quick Reference Functional Key Chart

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

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Control Operation

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

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

Located On Remote Control

Increases Volume Level

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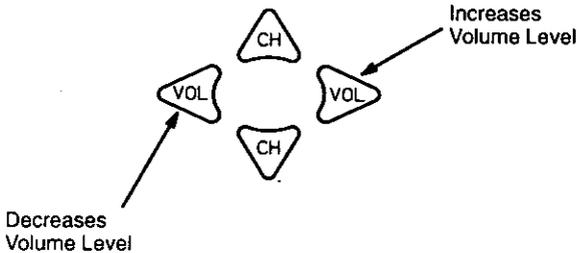
Mute Button – Press the MUTE button to quickly reduce sound level. "MUTE" will appear on screen momentarily. Press again to restore sound.

Channel Buttons (UP/DOWN)

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

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

Located On Remote Control

Selects Next Higher Channel

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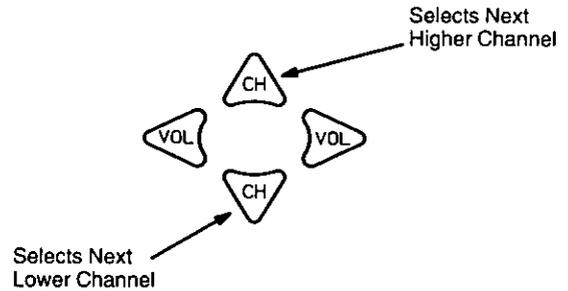
Numeric Keypad (0 through 9 Buttons)

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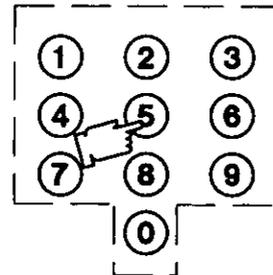
VCR Function Buttons – The VCR function buttons have been designed to operate numerous brands of VCRs. The infrared code must be obtained prior to use. (Please refer to Programming the Universal Remote for programming instructions.)

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

REW MOVE	PLAY SIZE	FF PIP
REC	STOP Search	PAUSE SWAP
TV/VCR FREEZE	VCR/DSS CH PIP CHANNEL	
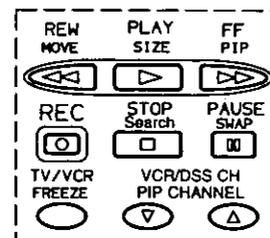
Recall Button – Press the RECALL button to

review

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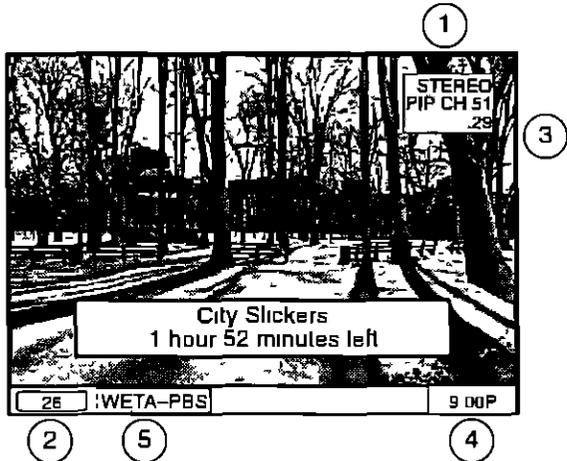
StarSight Activated

StarSight Not Activated

R-Tune Button – Pressing the R-TUNE (RAPID

TUNE) button will switch between the last two channels selected on the numeric keypad

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

CHANNEL NOW BEING VIEWED		CHANNEL PREVIOUSLY VIEWED

Press Button

Press Button Again
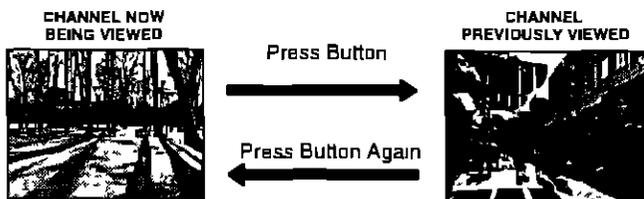
Multi Button

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

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

Procedure

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

PRESS AT THE SAME TIME FOR THREE SECONDS
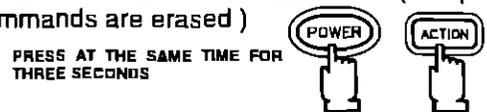
4. After three seconds, all the illuminated buttons will begin to flash Release the POWER and ACTION buttons
5. Press the MULTI button (Waiting more than 30 seconds without pressing another button will exit the programming mode)
6. Press a maximum of six (6) function buttons on the Remote Control

   Each button you press is equal to one function If six (6) Remote button functions are entered, all will register in the MULTI button memory in the sequence entered When finished, press the MULTI button to exit the programming mode

The following is an example flow chart of Remote functions that can be programmed into the MULTI button. (The VCR Mode button should be programmed before starting procedure see pg 42).

PRESS AT THE SAME TIME FOR THREE SECONDS   PRESS   PRESS

PRESS   PRESS   PRESS TO EXIT PROGRAMMING MODE
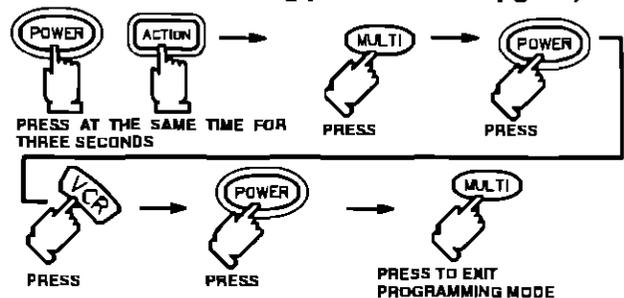
You can now turn the TV and VCR ON/OFF at the same time with one press of the MULTI button

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

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

TV/Video Button — Press the TV/VIDEO button

to select desired input for Main Picture or PIP frame (when the PIP Frame is displayed)

Signal coming from:

FRONT INPUT 3 TERMINAL ———► | VIDEO 3 |

REAR INPUT 2 TERMINAL ———► | VIDEO 2 |

REAR INPUT 1 TERMINAL ———► | VIDEO 1 |

TV or CABLE ———► | CH 02 |

Signal coming from:

FRONT INPUT 3 TERMINAL ———► | PIP VIDEO 3 |

REAR INPUT 2 TERMINAL ———► | PIP VIDEO 2 |

REAR INPUT 1 TERMINAL ———► | PIP VIDEO 1 |

TV or CABLE ———► | PIP CH 02 |

———— PIP Frame
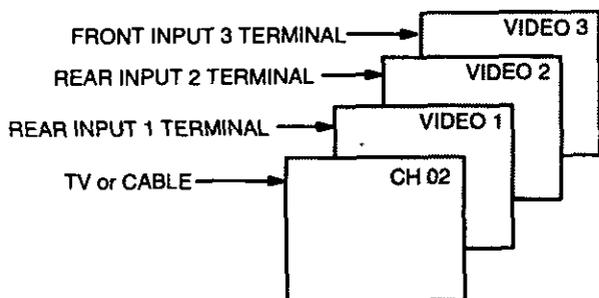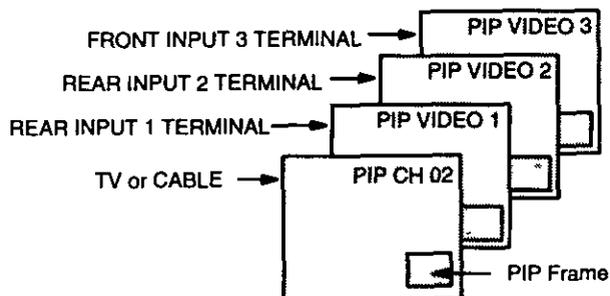
PIP (Picture in Picture) Button — This

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

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

PIP Operation

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

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

Main Picture with Audio ———► | CH 2 | ◄——— Main Picture Channel

PIP CH 5 ◄——— Picture in Picture Channel

◄——— Picture in Picture Frame
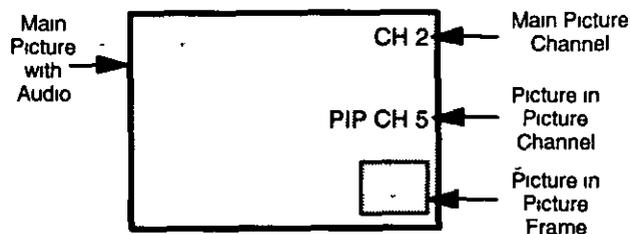
3   Press the PIP button again to cancel PICTURE IN PICTURE feature (if desired)

Note: For PIP Video source connection, refer to the Standard Antenna and External Video Connections section

Swap Button — Press the SWAP button (when the

PIP frame is displayed) to interchange what is being viewed on the Main Picture with that of the PIP frame

| CH 2 | | VIDEO |
| PIP VIDEO 1 | ◄——► | PIP CH 2 |
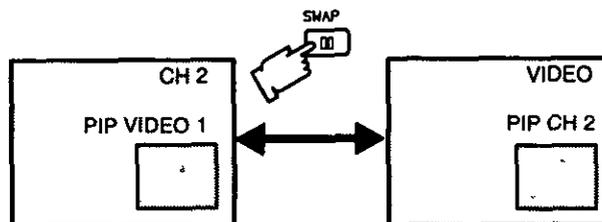
✦ Audio will be that of the Main Picture

– 20 –

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

## Size Button – Press the SIZE button (when the PIP frame is displayed) to choose either the large or small PIP frame.

SIZE
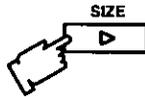
Large PIP Frame   Small PIP Frame

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

FREEZE

Main Picture

Freeze Frame

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

PIP Channel Buttons

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

PIP CHANNEL
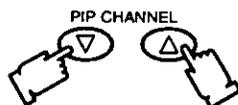
Scan Channel Down
(next lower)

Scan Channel Up
(next higher)

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

PIP CH 2

SEARCH

Press Search
to Scan

Search Operation

1. Press the SEARCH button. A PIP frame will appear on the Main Picture. The PIP frame will continuously scan channels in sequence as programmed into channel memory.
2. Press the PIP button to stop Search feature on desired picture for PIP frame. Press the SWAP button to switch between the Main Picture and the PIP frame. Press the SEARCH button again, the Search frame will disappear.

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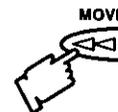
MOVE

Note: Each time MOVE button is pressed (when the PIP frame is displayed), the PIP frame will move counterclockwise as illustrated.
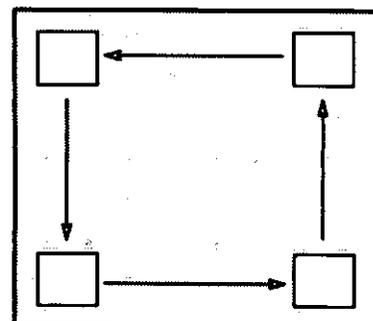
Main Menu (Trilingual Animated Icons)
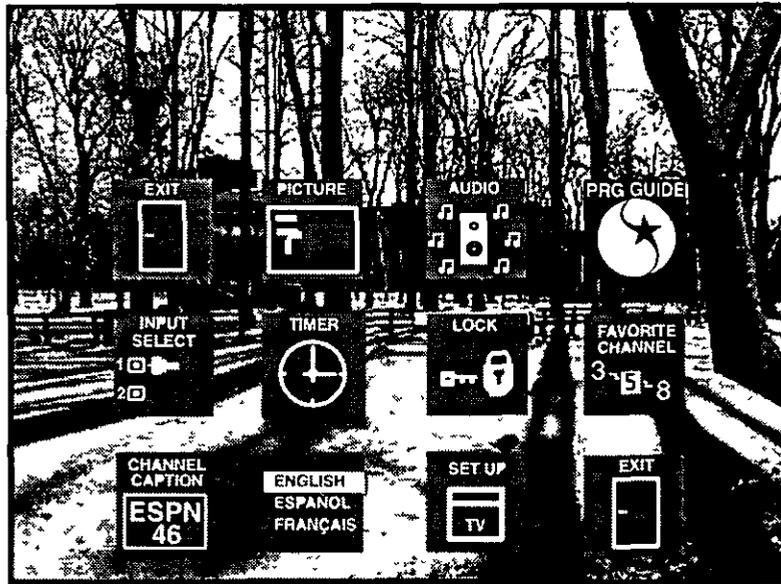
NOTE: Only the selected Icon will be animated

Located On Remote Control

Displays and Exits Menus

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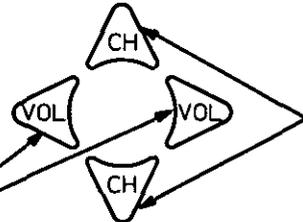
Highlight Desired Feature when Menu is Displayed

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

Language Menu

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

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

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

Picture Adjustments

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

Located On Remote Control

Selects Desired
Feature when
Menu is Displayed

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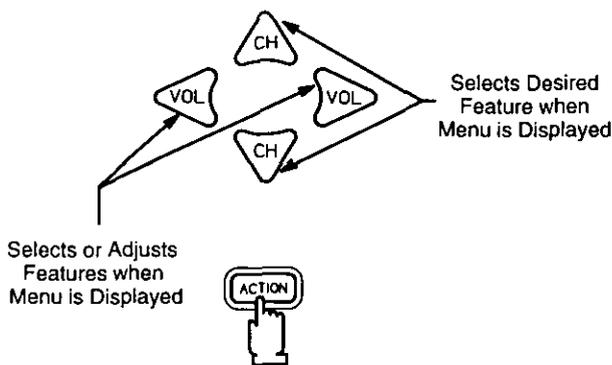
Displays and Exits Menus

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

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

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

Color, Tint, Brightness, Picture, and Sharpness Adjustments

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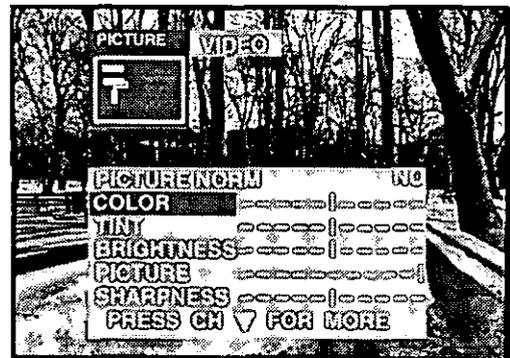
4. Press the CH UP/DOWN button to select the desired Picture Adjustment (Color, Tint, Brightness, Picture, or Sharpness).
5. Press the VOL LEFT/RIGHT button to adjust your selection. (The Selected Picture Adjustment will be displayed.)
6. Repeat steps 4 and 5 for the remaining Picture Adjustments.
7.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

Note: Pressing the ACTION button again will return to Picture Icon.

Picture Adjustment (cont.)

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

1. Press the ACTION button to display the Main Menu
2. Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Picture Icon
3. Press the ACTION button to display the Picture Adjustment Menu
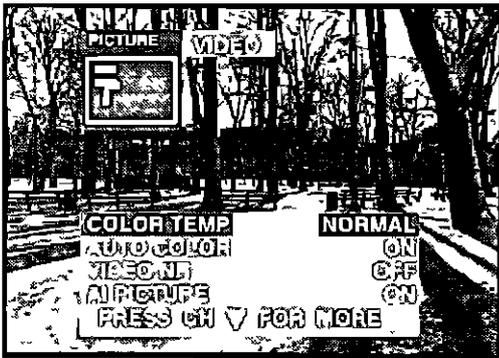
4. Press the CH UP/DOWN button to highlight COLOR TEMP
5. Press the VOL LEFT/RIGHT button to select NORMAL, WARM, or COOL

   - NORMAL (no tint)
   - WARM (reddish tint)
   - COOL (bluish tint)
6. Press the ACTION button twice to exit the Picture Adjustment Menu

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

1. Press the ACTION button to display the Main Menu
2. Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Picture Icon
3. Press the ACTION button to display the Picture Adjustment Menu
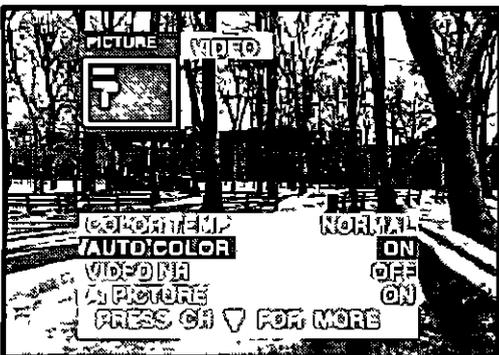
4. Press the CH UP/DOWN button to highlight AUTO COLOR
5. Press the VOL LEFT/RIGHT button to turn Auto Color feature ON or OFF
6. Press the ACTION button twice to exit the Picture Adjustment Menu

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

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

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

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

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

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

Audio Adjustment

- Audio Norm
- Bass
- Treble
- Balance
- Audio Mode
- [TV] Speaker
- Dolby Center In
- Sub Woofer
- Surround
- AI Sound

Located On Remote Control

Selects Desired
Feature when
Menu is Displayed

Selects or Adjusts
Features when
Menu is Displayed

Displays and Exits Menus
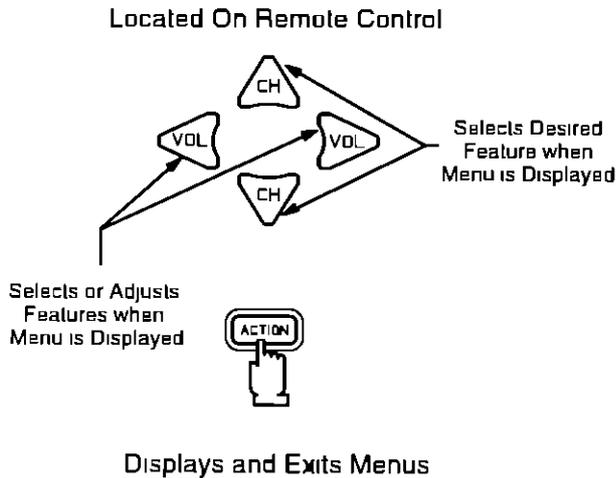
Audio Norm – This feature is used to reset BASS, TREBLE and BALANCE back to a factory preset level

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

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

Bass, Treble and Balance – Before setting Bass or Treble select the desired mode of AI Sound (ON or OFF) Bass and Treble Adjustments may require readjustment when changing between AI Sound ON or OFF

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

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

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

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Helpful Hints:

BASS – To increase or decrease the Bass response

TREBLE – To increase or decrease the Treble response

BALANCE – To emphasize the Right and Left Speaker's volume

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

Audio Adjustments (cont.)

Located On Remote Control

Selects Desired
Feature when
Menu is Displayed

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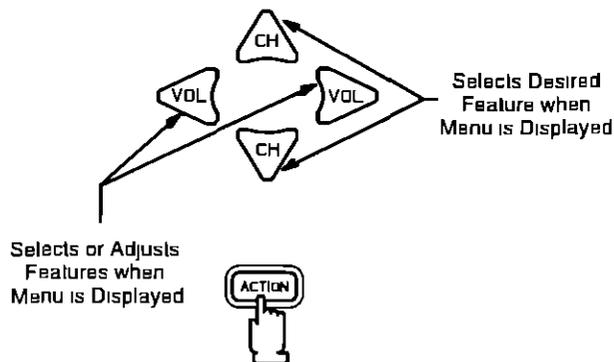
Displays and Exits Menus

Mode – Stereo/SAP/Mono

When Audio is broadcast in Stereo or SAP an ON Screen display will appear on initial "Turn On" and "Channel Change" The available choices will be indicated in red

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

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

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

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

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

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

Audio Adjustments (cont.)

Dolby Center In

Dolby Center In – Use the Dolby Center In feature to use the TV's speakers as the center channel output when using a Dolby Surround Sound Amplifier The amplifier's center channel output must be connected to the TV's center channel input terminal See figure on next page for possible connections or refer to the equipment's manual for connection details

1 Press the ACTION button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Audio Icon
3 Press the ACTION button to display the Audio Adjustment Menu
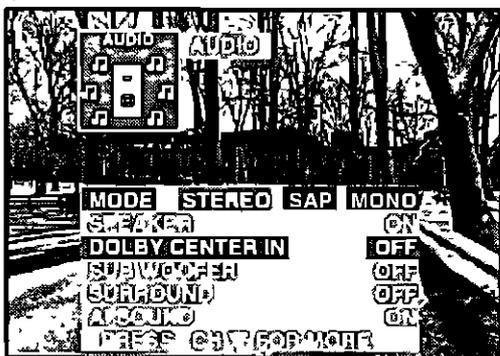
4 Press the CH UP/DOWN button to highlight DOLBY CENTER IN
5 Press the VOL LEFT/RIGHT button to select DOLBY CENTER IN ON or OFF When selected, the speaker mode will automatically change to ON & FAO Volume control will only be available through the Dolby Amplifier
6 Press the ACTION button twice to exit the Audio Adjustment Menu

Sub Woofer

Sub Woofer – This feature turns the built-in Sub Woofer ON or OFF

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

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

Surround

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

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

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

AI Sound

AI Sound – This feature is used to regulate the volume between program and commercial audio to maintain a constant sound output level

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

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

Dolby Center Channel In Connection

S-VIDEO

VIDEO

PROG OUT

L

AUDIO

R

TO AUDIO AMP

1   2

INPUT

CENTER CHANNEL INPUT

STARSIGHT CONTROL PORT

(2)   (1)

(1) PUSH AND HOLD DOWN BUTTON
(2) INSERT BARE WIRE INTO HOLE
     AND RELEASE BUTTON

From Center Channel Output of
Surround Sound Amplifier

Bare Wire   Insulation
3/8"
(10mm)
WIRE END DETAIL

Surround Sound Amplifier

To Right Rear Channel Output

To Left Rear Channel Output

To Left Channel Output   To Right Channel Output

To Center Channel Output

Left Front
Speaker

TV Speakers
(Center)

Right Front
Speaker

Left Rear
Surround Speaker

Right Rear
Surround Speaker

Input Select

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

Located On Remote Control

Selects Desired Feature when Menu is Displayed

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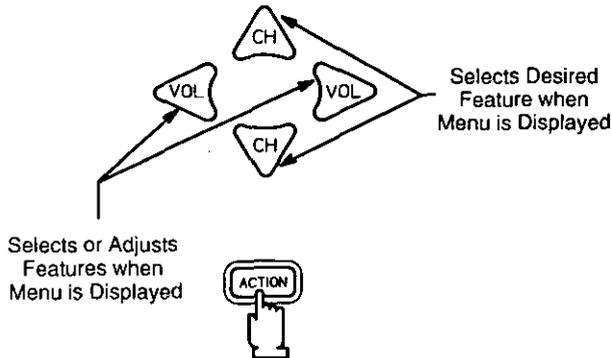
Displays and Exits Menus

Antenna Input Selection

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

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

StarSight Notes:

- Changing the Antenna mode once StarSight is activated will result in a loss of StarSight functions. Returning to the correct Antenna mode will return StarSight functions.
- This TV will function without StarSight as outlined in this manual. The correct Antenna mode must be selected for StarSight to function.

Main (Picture) Input Selection

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

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

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

PIP Input Selection

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

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

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

StarSight Program Guide

- Select Guide Channels
- Change Channel Order
- Change Cable Box/Service
- Replace/Remove VCR
- Re–Activate/Change Address
- StarSight Demonstration


```
STARSIGHT SETUP
Use ARROWS and ENTER to choose.

  Select Guide Channels
  Change Channel Order
  Change Cable Box/Service
  Replace/Remove VCR
  Re–activate/Change Address
  StarSight Demonstration


CNN   CNN                    5 02P
```
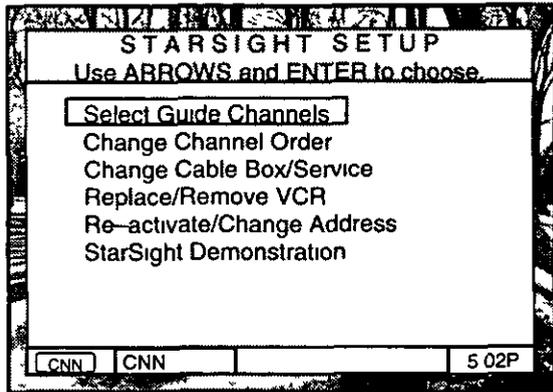
Program Guide – This menu is used to access
and change StarSight settings

1 Press the ACTION/ENTER button to display the Main Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the PRG GUIDE Icon
3 Press the ACTION/ENTER button to display the StarSight Setup Menu
4 Press the CH UP/DOWN buttons to highlight the desired function
5 Press the ACTION/ENTER button to display the desired Setup Menu
6 Follow the on–screen instructions
7 Press EXIT to return to normal viewing

> **Note:** For more information, please refer to sections 12 through 16 of the *Using StarSight* guide.

Timer Feature

- Sleep Timer
- (Dual Program) Timer

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

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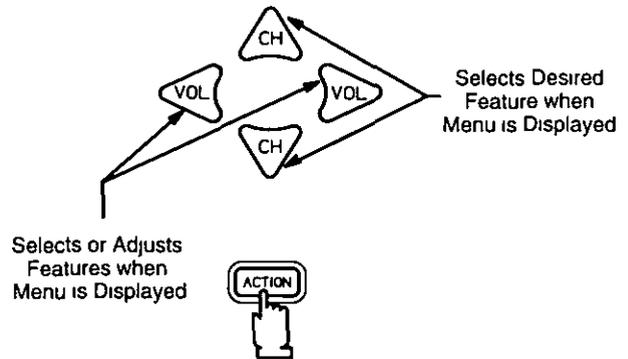
Sleep Timer – This feature is used for automatic
OFF in 30, 60, or 90 minutes as desired

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

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


```
       TIMER    TIMER
              CONTROL

  SLEEP TIMER              NO
       TIMER1      TIMER2
DAY   MON–FRI    SAT–SUN
ON
OFF
CH
SET     NO        NO
```
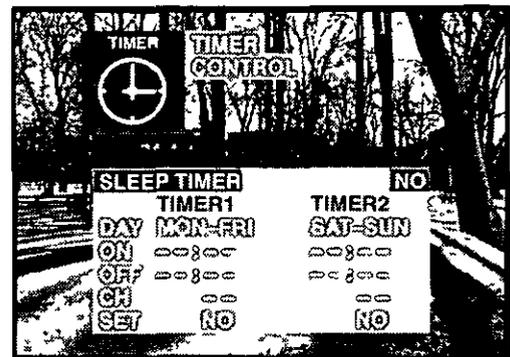
4 Press the VOL RIGHT button to select NO, 30, 60, or 90 (minutes) for Sleep Timer to be activated
5 Press the ACTION button twice to exit the Timer Control Menu

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

Timer Feature (cont.)

Special Feature:
Automatic "OFF" after 90 minutes.

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

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

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

1 Press the ACTION button to display the Main
Menu
2 Press the CH UP/DOWN and VOL LEFT/RIGHT
buttons to highlight the Timer Icon
3 Press the ACTION button to display the Timer
Control Menu
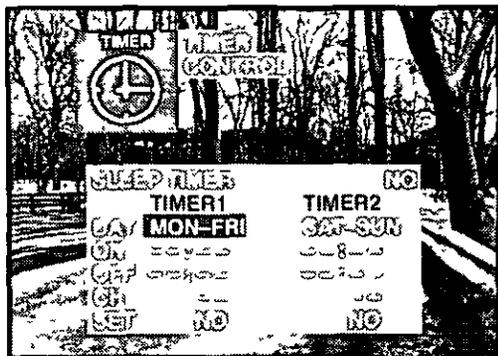
4 Press the CH UP/DOWN button to highlight the
TIMER 1 or TIMER 2 setting
   • Day or days you wish the Timer to activate
   • ON (time) – hours and minutes
   • OFF (time) – hours and minutes
   • CH – channel you want tuned when the ON
     Timer activates
   • SET – NO (Timer feature will not activate)
          – YES (Timer feature will activate)

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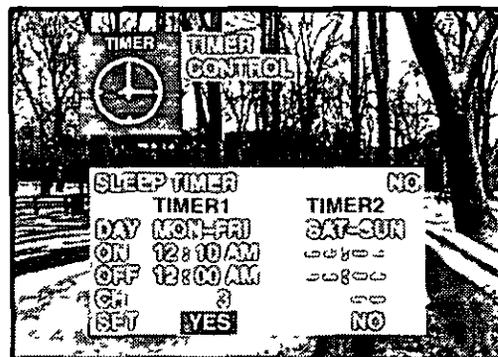
14 Press the VOL RIGHT button to activate or LEFT
button to deactivate Timer 1
   • YES=Feature is activated
   • NO=Feature is not activated
15 Press the CH DOWN button to set Timer 2 (if
desired) Follow Steps 6 through 14
16 Press the ACTION button twice to exit the Timer
Control Menu
Note: Pressing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

Helpful Hints:

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

Lockout Features

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

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus

StarSight Notes:

- This feature is not fully functional when StarSight is activated with a Cable Box Channels selected for lock will not be viewable, but will still display StarSight pop-up information when tuned
- StarSight overrides this feature because channel 3 (or 4, whatever channel is required by the Cable Box) is needed for gathering and viewing StarSight information

Helpful Hints:

Note If you see a red "PG"(StarSight not active) or "PG" in a blue box (StarSight active) in the upper right hand corner the channel or Video mode you have selected has been locked out

Lockout Mode — This feature allows you to lockout

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

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

1   Press the ACTION button to display the Main Menu
2   Press the CH UP/DOWN and VOL LEFT/RIGHT buttons to highlight the Lock Icon
3   Press the ACTION button to display the Lock Menu
   Note: When the Lockout Menu is displayed, the Game Lock option will be highlighted
4   Press the VOL LEFT/RIGHT button to select GAME, CH (CHANNEL), or ALL
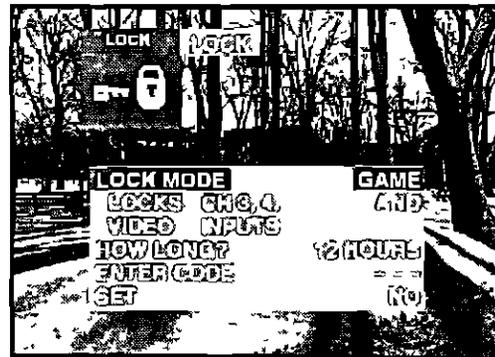
Game Lockout Menu
(Channels 3 & 4 plus Video Inputs)
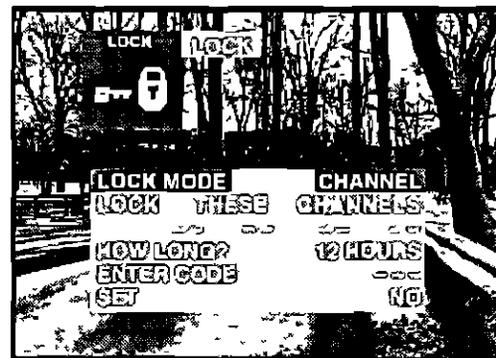
Channels Lockout Menu
(up to 4 Channels)
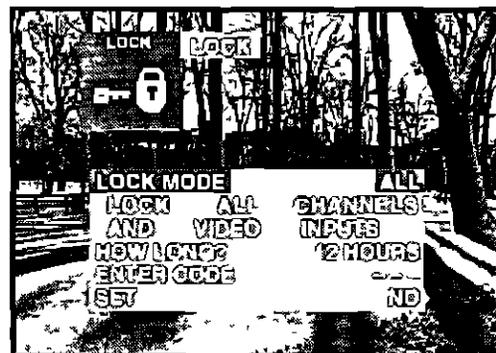
All Lockout Menu
(All Channels plus Video Inputs)

Lockout Features (cont.)

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

ENTER SAME 3 DIGIT CODE

'**Note:** When the LOCK MODE CHANNEL is selected, perform procedure Steps A through D
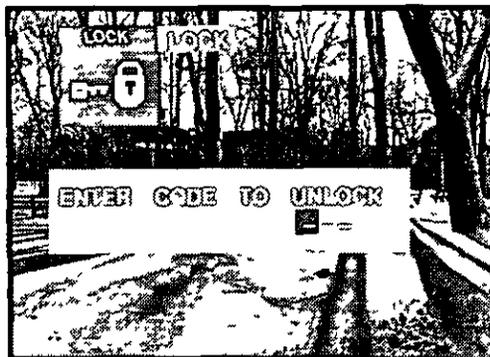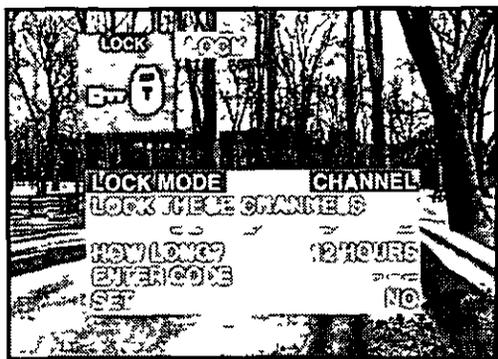
Step A
Press the CH DOWN button to highlight "LOCK THESE CHANNELS"
Step B
Then use the Remote Control Numerical Keypad to select a channel you desire to lockout
Step C
Press the CH DOWN button to select next Channel position
Step D
Then repeat Step B and C until desired Channels are locked out (up to 4 Channels)

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

Lock Feature Activated
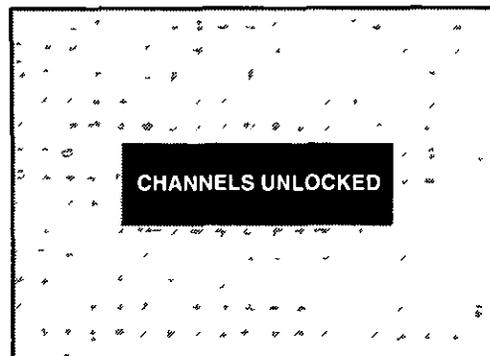
IF 3 DIGIT CODE IS THE SAME
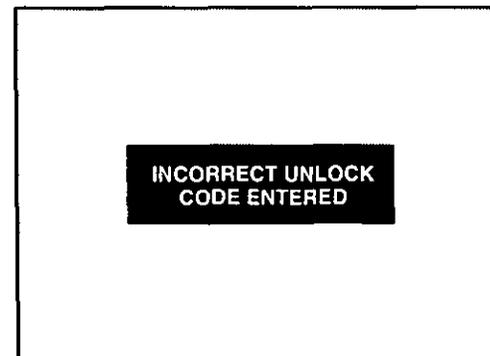
IF 3 DIGIT CODE IS NOT THE SAME
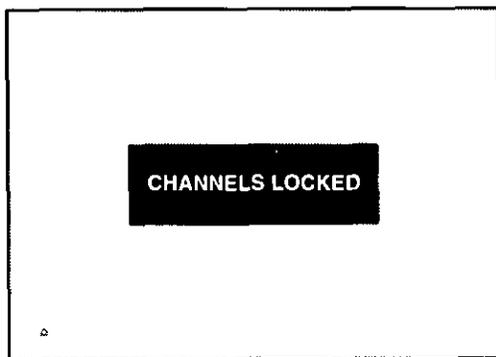
Favorite Channel Feature

- Channel Scan
- Favorite Channel Select

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

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

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

---

StarSight Notes:

- This feature is not functional when StarSight is activated
- All functions are selectable and channels can be added or deleted, but StarSight overrides this feature and replaces it with its own customizable channel list

---

Helpful Hints:

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

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

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

4   Press the CH UP/DOWN button to highlight "FAV CH SELECT"
5   Press the VOL LEFT/RIGHT button to display the Favorite Channel Select Menu
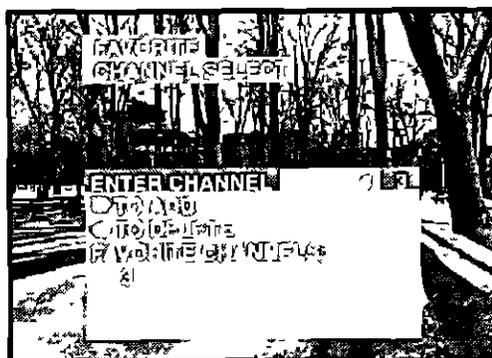
6   Enter the channel number you wish to add or delete from Favorite Channel Memory (using the Remote Keyboard or CH UP/DOWN buttons)
7   Press the VOL RIGHT button to add or press the LEFT button to delete channel(s) from Favorite Channel Memory
8   Repeat Steps 6 and 7 to continue adding or deleting channels (up to 15 channels may be stored in Favorite Channel Memory)
    Note: When your desired channels have been programmed, press the ACTION button to exit the menu
9   Press the CH UP/DOWN button to scan through the Favorite Channels programmed

Channel Caption Features

Preset Caption

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

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

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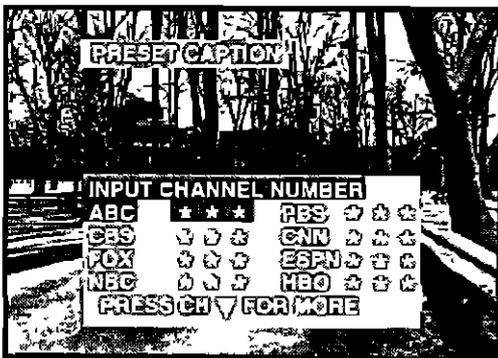
6 Press the CH UP/DOWN to highlight the desired Preset Channel Caption
7 Use the Remote Control keyboard to assign the channel number to the Channel Caption in your area (Refer to your local TV guide)
   Note: To delete an assigned channel number from channel caption, press the VOL LEFT button while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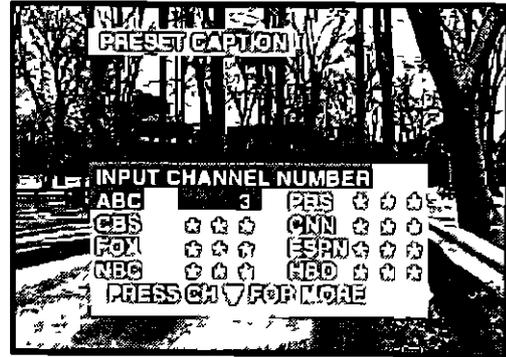
8 Press the CH DOWN button to select a different Preset Channel Caption, then repeat steps 6 and 7 until all desired Preset Channel Captions have an assign channel number
9 Press the ACTION button three times to exit the Preset Caption menu

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StarSight Notes:

- StarSight automatically includes station identifiers and channel captions when StarSight is activated

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Channel Caption Features
(cont.)

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus
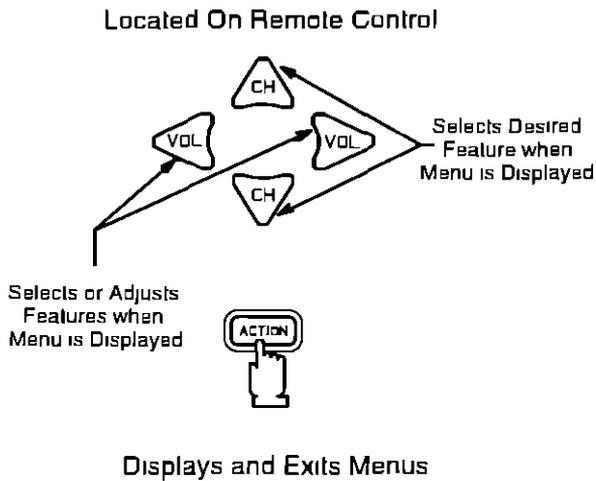
Manual Caption – The Channel Caption
(Station Identifier) allows you to input the call names of up to 30 stations into memory (using up to 4 characters) The call name will then display, along with the channel number when changing channels or pressing RECALL
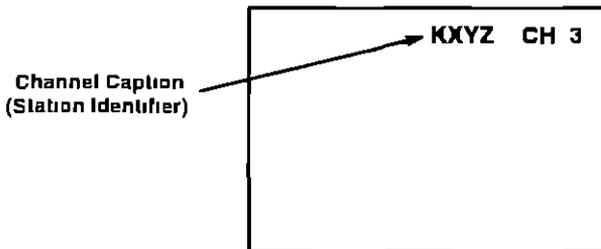
KXYZ CH 3

Channel Caption
(Station Identifier)

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

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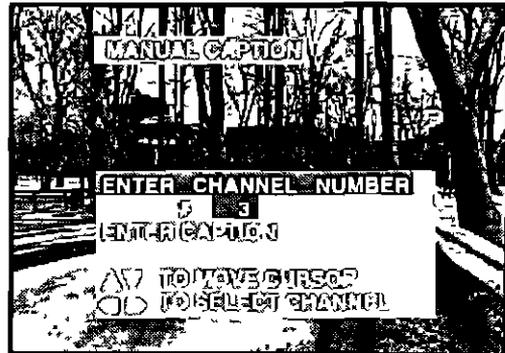
6 Use the Remote Control Keyboard or VOL LEFT/RIGHT buttons to enter channel number your wish to assign a channel caption (station identifier)
7 Press the CH DOWN button to highlight ENTER CAPTION
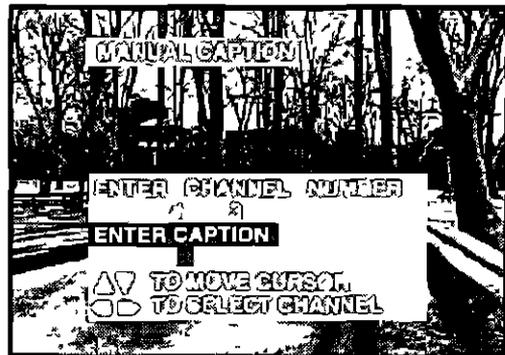
8 Press the VOL LEFT/RIGHT button to select first character in channel caption (station identifier)
9 Press the CH DOWN button to move to second character position, and repeat steps 8 and 9 until the complete caption is entered (up to 4 characters)
10 Press the CH UP/DOWN button repeatedly to highlight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

StarSight Notes:

- StarSight automatically includes station identifiers and channel captions when StarSight is activated

Trilingual Menu Selection

Located On Remote Control

Selects Desired
Feature when
Menu is Displayed

Selects or Adjusts
Features when
Menu is Displayed

Displays and Exits Menus
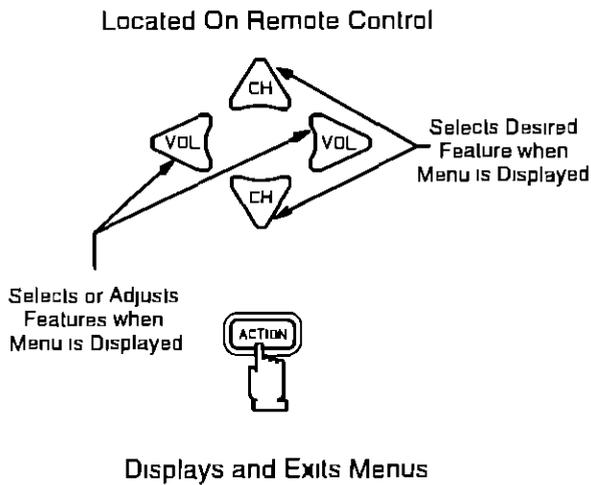
Language Selection
(English/Spanish/French)

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

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

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

Set Up Features

- Set Time
- Set Day
- Mode (TV or Cable)
- Auto Program
- Manual Program
- CC On Mute
- CC Mode

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus

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

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

StarSight Notes:

- The Set Time and Set Day Features are not functional when StarSight is activated
- Time and Day are automatically set when StarSight is active

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

5. Press the VOL LEFT/RIGHT button to Set Hours (set AM/PM accordingly)
6. Press the CH DOWN button to highlight minutes position
7. Press the VOL LEFT/RIGHT button to set minutes
8. Press the ACTION button twice to exit the Set Up Menu

   Note Pressing the ACTION button again will return to Set Up Icon

Set Day — The day of the week must be set in order to operate the Dual Timer feature

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

4. Press the CH UP/DOWN button to highlight SET DAY
5. Press the VOL LEFT/RIGHT button to select proper day of the week
6. Press the ACTION button twice to exit the Set Up Menu

Set Up Features (cont.)

Located On Remote Control

Selects Desired Feature when Menu is Displayed

Selects or Adjusts Features when Menu is Displayed

Displays and Exits Menus
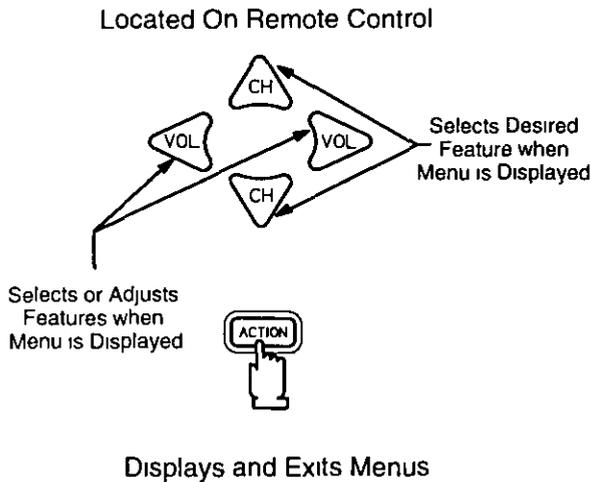
Mode (TV or Cable)

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

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

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

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

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

StarSight Notes:

- MODE is automatically set and locked to whatever setting StarSight is using when StarSight is active

Set Up Features (cont.)

Auto Program

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

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

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

4. Press the CH UP/DOWN button to highlight AUTO PROGRAM.
5. Press the VOL LEFT/RIGHT button to start Auto Programming Scan. Channels will automatically advance until all channels have been scanned.
   - Channel numbers with video signal present will turn blue which indicates stored in Channel Scan Memory.
6. Press the ACTION button twice to exit the Set Up Menu.
   Note: Some channels with very weak signals may be locked into memory. If desired, these channels can be deleted manually using the Manual Program feature.

Helpful Hints:

After Auto Programming:

Blue channel number indicates channel is in Channel Scan Memory.

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

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

Manual Program

Manual Program – This feature allows you to select which channels are placed into Channel Scan Memory, so when you press the CHANNEL UP/DOWN button, only those channels you desire will be accessed.

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

4. Press the CH UP/DOWN button to highlight MANUAL PROGRAM.
5. Press the VOL LEFT/RIGHT button to display Manual Program Menu.

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

Set Up Features (cont.)

CC Closed Caption — This Receiver has a

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

CC On Mute

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

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

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

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

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

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

CC Mode — Activates the On-Screen Closed

Caption feature When activated this feature will remain on until OFF is selected in this menu

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

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

Programming The Illuminated Remote Control Using Access Codes

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

Code From Index Sheet

1	5	9
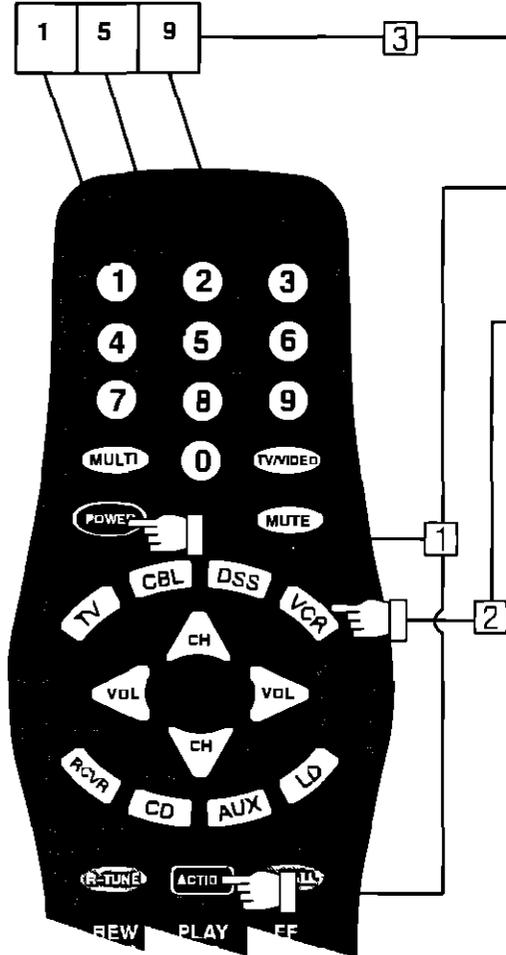
Procedure – Code Known

Procedure for setting up the remote using the numerical buttons

☐ Determine brand of device

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

☐ Confirm the device is plugged in and operating properly

⊡1 **Press and hold the ⬤ button, then the ⬤ button so that both are pressed at the same time for at least 5 seconds. All of the Mode buttons will flash**

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

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

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

Now your remote is set for this code.

⊡4 Press ⬤ to test your device.

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

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

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

Infrared Remote Codes for Specific Components

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

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

– 42 –

VCR Infrared Codes Index

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

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

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

VCR

* (icon)
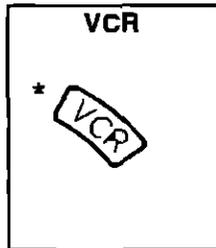
Code Index For VCRs

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

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CABLE CONVERTER BOX AND CD PLAYERS
Infrared Codes Index

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

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

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

Cable

☆ CBL
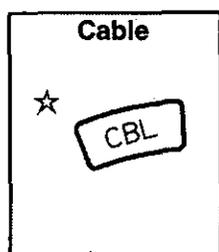
Codes For Cable Converter Box

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

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

CD Player

☆☆ CD
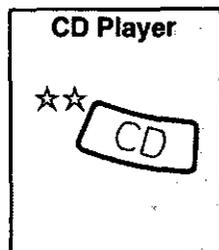
Codes For CD Players

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

CASSETTE PLAYERS, RECEIVERS, and AMPLIFIERS
Infrared Codes Index

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

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

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

Cassette Players

✳ AUX
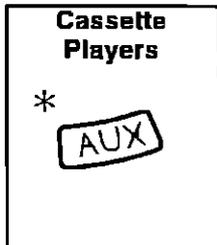
Code Index For Cassette Players

Brand of Cassette Players	Code(s)	Brand of Cassette Players	Code(s)
Aiwa	029	Panasonic	272
Carver	029	Philips	029
Denon	076	Pioneer	027, 220
Kenwood	070	Sansui	029
Magnavox	029	Sherwood	337, 338
Marantz	029	Sony	170, 243
Nakamichi	147	Technics	229
Optimus	027, 220, 337, 338	Wards	027
		Yamaha	094, 097

NOTE: After entering the proper infrared code, press the Remote **RCVR** Selection Mode button (✳✳) To operate the Remote Receiver or Amplifier function buttons, refer to pages 16 and 17 for Remote Control Key Functions

Receivers Amplifiers

✳✳ RCVR
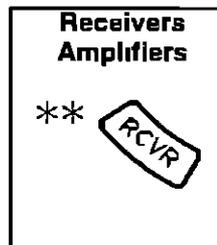
Code Index For Receivers And Amplifiers

Brand of Receiver / Amplifier	Code(s)	Brand of Receiver / Amplifier	Code(s)
ADC	531	Panasonic	039
Aiwa	121, 158, 189	Panney	195
Carver	008, 042, 189, 269	Philips	189, 269
Casio	195	Pioneer	013, 014, 080, 300, 531
Clannette	195		
Denon	004	Quasar	039
Fisher	042, 219	RCA	531
JVC	074	Realistic	195
Kenwood	027, 186	Sansui	189, 321
Lloyd's	195	Sanyo	219
Magnavox	189, 195, 269, 531	Sharp	186
Marantz	039, 189, 269, 321	Sherwood	502
MCS	039	Sony	158
Modulaire	195	Technics	039, 208, 308, 309, 518
NAD	320		
Nakamichi	321, 347	Victor	074
Onkyo	135	Wards	013, 014, 042, 080, 158, 189
Optimus	013, 080, 186, 219, 300, 531		
		Yamaha	176, 186, 354
		York	195

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

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

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

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

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

NOTE: After entering the proper infrared code, press the Remote **DSS** Selection Mode button (○○) To operate the Remote Satellite function buttons, refer to pages 16 and 17 for Remote Control Key Functions
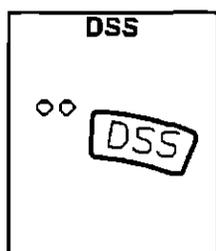
DSS	Codes For DSS (Digital Satellite System)	
○○ DSS	Brand of Satellite	Code(s)
	Panasonic	701
	RCA	566
	Sony	639

NOTE. After entering the proper infrared code, press the Remote **AUX** Selection Mode button (★) To operate the Remote DVD (Digital Videodisc) function buttons, refer to pages 16 and 17 for Remote Control Key Functions
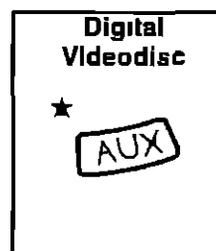
Digital Videodisc	Codes For DVD (Digital Videodisc)	
★ AUX	Brand of DVD	Code(s)
	Panasonic	490

Care and Cleaning

Picture Tube (Turn set off)

Use a mild soap solution or window cleaner and a clean cloth DO NOT USE ABRASIVE CLEANERS Avoid excessive moisture and wipe dry

Plastic Cabinets

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

Wood Cabinets

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

Remote Control Transmitter

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

Power Loss

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

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

Troubleshooting Chart

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

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

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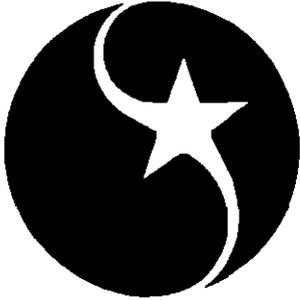
STAR SIGHT®

Installation and Activation Guide

StarSight

Getting Started with StarSight®

StarSight is a new way to receive and display TV program information and manage the many channels you receive With StarSight, you can

- Record a program with the touch of a button
- See an instant description of what's on any channel
- Select a program from a list that displays your favorite types of shows by theme (movies, sports, comedies, etc)
- Get information about plots, actors, movie ratings, show times
- Tune from an on–screen guide right to the program you selected
- Rearrange the order of channels to put your favorite ones first

Installing StarSight

To bring StarSight information into your home you must complete these simple steps in the following order

- Make sure your equipment is hooked up according to the instructions in the *Installing Your TV Set* section of this operating guide
- Fill out the StarSight Checklist on the next page
- Activate StarSight by following the directions on your TV screen The entire process takes only a few minutes
- Test your StarSight setup If you have a Cable Box or VCR, you will be guided through an on–screen process that will determine the codes that operate your equipment

> ## Please follow the directions on the following pages, then call:
> # 1–800–643–STAR

Your Panasonic TV that is equipped with the StarSight system is not designed to operate with, or control, a satellite dish For information on StarSight products specifically designed for satellite systems, see your local satellite dealer

© 1996 StarSight Telecast, Inc StarSight and the StarSight logo are registered trademarks of StarSight Telecast, Inc StarSight is a subscription service VCR required for recording

StarSight

STAR SIGHT (logo)

StarSight Checklist

Please fill in the blanks below. Keep this Checklist close at hand when you activate StarSight. You will find the information you need to complete this Checklist in the *PBS Stations*, *Cable Box Codes* and *VCR Codes* sections of this guide

☐ A. PBS Stations:

From the *PBS Stations* section, find the PBS station closest to your city. (If you have a choice of two or more PBS stations, select the one with the clearest picture.) Write the PBS station letters and channel number below

PBS Station Letters:_____

PBS Station Channel Number:_____

For Cable Users Only:

Check your cable company's channel line–up or your local newspaper's TV listing to see if the PBS station in your area has a different channel number than the one you wrote down above. If so, enter your PBS station's cable channel number here _____
(You will tune to this channel number during the activation process.)

For Canadian Customers Only:

From the *PBS Stations for Canadian Customers* section on page 58, find the PBS station that you receive. (If you have a choice of two or more PBS stations, select the one with the clearest picture.) Write the PBS station letters and channel number in the spaces provided above

☐ B. Code Numbers:

From the *Cable Box Codes* section, find the code numbers that apply to your brand of Cable Box and enter them below

Code 1:_____ Code 2:_____ Code 3:_____ Code 4:_____ Code 5:_____

From the *VCR Codes* section, find the code numbers that apply to your brand of VCR and enter them below

Code 1:_____ Code 2:_____ Code 3:_____ Code 4:_____ Code 5:_____

☐ C. Activating StarSight:

Now go to the *Activating StarSight* section on the next page. During activation, StarSight will display your STAR number and ID number on your TV screen. When these numbers appear, write them below

STAR #: _____

ID #: _____

StarSight (vertical text, right margin)

Activating StarSight

For your TV to receive StarSight information, you need to activate StarSight. You complete the process directly through your TV, in simple steps that take only minutes:

1. Follow the step-by-step instructions for connecting your VCR and setting up your Cable Box in the beginning of this operating guide. Be sure to position your Remote Emitter in front of your Cable Box or VCR.

2. Complete parts A and B of the StarSight Checklist.

3. Have your Panasonic TV remote control handy.

4. Have a telephone nearby to call StarSight's toll-free activation number: **1-800-643-STAR.**

5. Follow the *To Activate StarSight* instructions below.

To Activate StarSight:

If you have a Cable Box, make sure your TV is tuned to the Cable Box output channel (usually channel 3 or 4).

1. Press ⟨⟩ on your Panasonic TV remote control to use StarSight.

2. If you have a Cable Box, tune it to the PBS channel on your StarSight Checklist. Do this manually or with your Cable Box remote control.

   If you do not have a Cable Box, use the number pad on your Panasonic TV remote control to tune your TV to the correct PBS channel. StarSight will search for schedule information on this channel.

3. Press (ACTION) *ENTER* to display the Panasonic TV menu.

   Use ⟨CH⟩, ⟨CH⟩, ⟨VOL⟩ or ⟨VOL⟩ to highlight PRG GUIDE then press (ACTION) *ENTER* .

4. You'll see the "Welcome to StarSight" menu.

   Highlight "Activate StarSight," then press (ACTION) *ENTER*

   Follow the on-screen instructions.

Welcome to StarSight

Your TV is equipped with StarSight, the seven-day, on-screen television guide with one-button VCR recording.

Activate StarSight
Quick StarSight Demo
Continuous Retail Demo

Use ARROWS then ENTER to choose
To return to TV, press EXIT
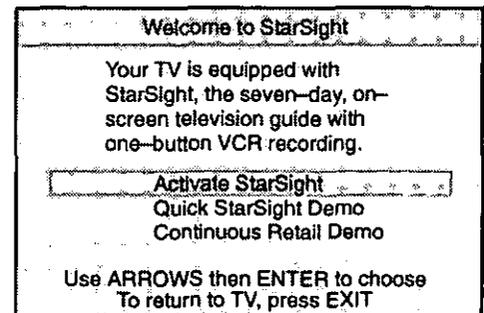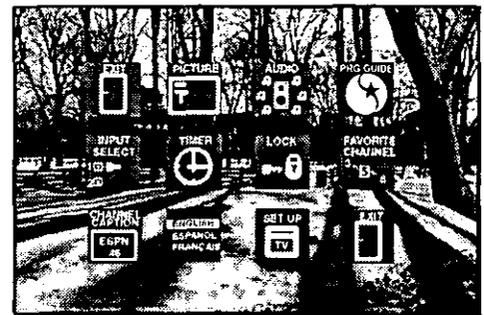
![STAR SIGHT logo]

Activating StarSight (cont.)

5. StarSight asks you to enter a selection for your equipment

> Which of the following do you have?
>
> 1 Antenna (no cable)
> 2 Cable without a box
> 3 Cable with a box
>
> Enter your selection here [   ]
>
> To continue, press ENTER
> To return to TV, press EXIT
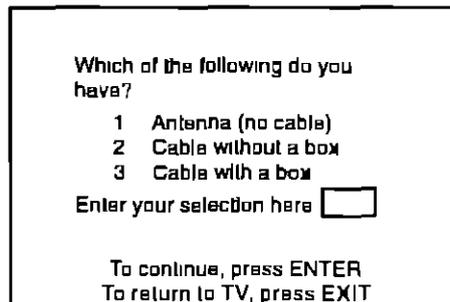
6. StarSight then asks you to tune to your PBS station
(If you have a Cable Box, you will tune it to your PBS station)
(If you don't have a Cable Box, you will tune your TV to your PBS station)
Make sure you have tuned to your PBS station, and continue following the on-screen instructions

> So far, so good
> Before we search for schedule information, please make sure your TV is tuned to the PBS (Public Broadcasting Service) station on your StarSight Checklist
>
> To continue, press ENTER
> To return to TV, press EXIT
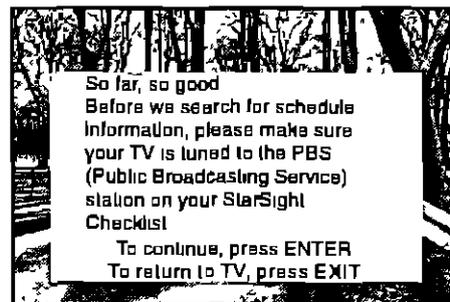
7 Next, StarSight displays your STAR # and ID #
(Please write these numbers in section C of your StarSight Checklist)

Call StarSight toll free at **1-800-643-STAR.**

> We found schedule information
> Please leave your TV on
>
> To complete your registration, jot down these numbers
>
> STAR# 1000-0000-0078
> ID# 00000-00000
>
> and call 1-800-643-STAR
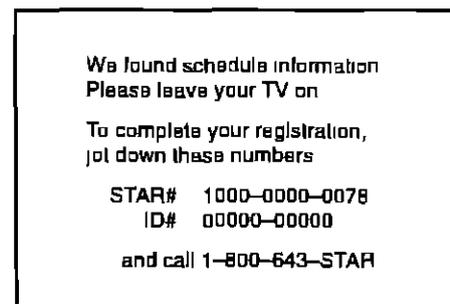
8. When you call StarSight, you will be asked for your STAR # and ID # StarSight will then be activated in your TV

9. When StarSight has been activated, you will see a "Congratulations!" message

> Congratulations! You are now a StarSight subscriber
>
> Now we need some information about the equipment you will use with StarSight
>
> Then we'll test the equipment to make sure it responds properly
>
> To continue, press ENTER
> To return to TV, press EXIT
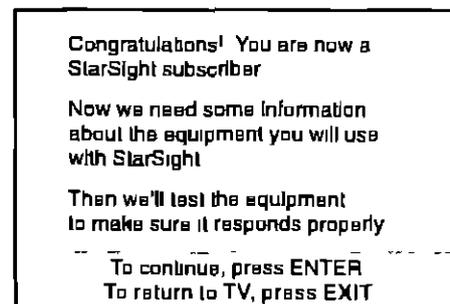
10. Press **[ENTER ACTION]** to continue

YOU SHOULD ALSO KNOW...

- StarSight works with almost all Cable Boxes that can be operated by a wireless remote control
- If no schedule data is found, you may be tuned to the wrong PBS station Check the PBS station written on your StarSight Checklist and try again Or, try tuning to a different PBS station that is listed for your area in the *PBS Stations* section (If no station is listed for your area, call **1-800-628-STAR** for further information)

StarSight

Testing 1, 2, 3

Checking Your StarSight Setup

Now that you've subscribed, the final step is to test your equipment setup   Here's how

1. Press (**ENTER** **ACTION**) on your remote control when you see the "Congratulations!" message

StarSight will now guide you through a series of on–screen displays   Please follow the instructions carefully   All you have to do is respond to the on–screen prompts

2. Find the Cable Box and VCR codes on your StarSight Checklist

If you've listed more than one code for a given brand of Cable Box and VCR, don't worry   StarSight lets you test each code until the correct one has been entered

Be sure the Remote Emitters you placed previously are positioned according to the instructions

3. With your equipment set up and StarSight activation complete, you'll begin to collect StarSight program information   Your system will be automatically updated with the latest program information whenever your TV is turned off or anytime your TV is tuned to your PBS station (the channel you used for activating StarSight) Initially, it will take between 4 and 12 hours to collect program information   Don't be alarmed if your StarSight guide is not full right away, it has seven days of program information to collect   In a day or so, your data will be complete and will continue to be updated daily

That's it! Your Panasonic TV is now all set up and ready to collect program information. To learn how to use StarSight, please see the separate *Using StarSight* guide

YOU SHOULD ALSO KNOW...

- To maintain StarSight program information, always leave your TV power cord plugged in and your Cable Box on (if you have one)
- It usually takes 3 to 5 seconds to change channels with your Cable Box   This is the time it takes for the Cable Box Controller to communicate with your Cable Box
- It is important that you leave your VCR off when it's not being used   If you forget to turn off your VCR, a scheduled recording cannot occur

PBS Stations

Choose the station closest to your city (It may be in a bordering state)

City	Station	Channel
ALABAMA		
Anniston	WCIQ	7
Birmingham	WBIQ	10
Decatur	WHIQ	25
Dothan	WGIQ	43
Huntsville	WHIQ	25
Mobile	WEIQ	42
	WSRE	23
Montgomery	WAIQ	26
ALASKA		
Anchorage	KAKM	7
Fairbanks	KUAC	9
ARIZONA		
Phoenix	KAET	8
Tucson	KUAT	6
ARKANSAS		
Little Rock	KETS	2
Pine Bluff	KETS	2
CALIFORNIA		
Eureka	KEET	13
Fresno	KVPT	18
Los Angeles	KCET	28
Monterey	KTEH	54
Redding	KIXE	9
Sacramento	KVIE	6
Salinas	KTEH	54
San Diego	KPBS	15
San Francisco	KQED	9
San Jose	KQED	9
Santa Barbara	KCET	28
Stockton	KVIE	6
Visalia	KVPT	18
COLORADO		
Colorado Springs	KTSC	8
Denver	KRMA	6
Pueblo	KTSC	8
Connecticut		
Bridgeport	WEDW	49
Hartford	WEDH	24
New Haven	WEDY	65
	WEDH	24
Norwich	WEDN	53
DELAWARE		
Seaford	WDPB	64
Wilmington	WHYY	12
DIST OF COLUMBIA		
Washington, D C	WETA	26
FLORIDA		
Daytona Beach	WMFE	24
Ft Lauderdale	WPBT	2
Ft Myers	WSFP	30

City	Station	Channel
Gainesville	WUFT	5
Jacksonville	WJCT	7
Miami	WPBT	2
Naples	WSFP	30
Orlando	WMFE	24
Panama City	WFSG	56
Pensacola	WSRE	23
St Petersburg	WEDU	3
Tallahassee	WFSU	11
Tampa	WEDU	3
Thomasville	WFSU	11
West Palm Beach	WXEL	42
GEORGIA		
Albany	WABW	14
Atlanta	WGTV	8
Augusta	WCES	20
Chatsworth	WCLP	18
Columbus	WJSP	28
Dawson	WACS	25
Macon	WDCO	15
Savannah	WVAN	9
Waycross	WXGA	8
HAWAII		
Honolulu	KHET	11
Waikiki	KMEB	10
IDAHO		
Boise	KAID	4
Idaho Falls	KISU	10
Twin Falls	KITT	13
ILLINOIS		
Carbondale	WSIU	8
Champaign	WILL	12
Chicago	WTTW	11
Moline	WQPT	24
Peoria	WTVP	47
Quincy	WQEC	27
Rock Island	WQPT	24
Springfield	WILL	12
INDIANA		
Elkhart	WNIT	34
Evansville	WNIN	9
Fort Wayne	WFWA	39
Indianapolis	WFYI	20
Lafayette	WFYI	20
South Bend	WNIT	34
Vincennes	WVUT	22
IOWA		
Ames	KDIN	11
Cedar Rapids	KIIN	12
Council Bluffs	KBIN	32
Davenport	KQCT	36
Des Moines	KDIN	11

City	Station	Channel
Fort Dodge	KTIN	24
Iowa City	KIIN	12
Mason City	KYIN	24
Red Oak	KHIN	36
Sioux City	KSIN	27
Waterloo	KRIN	32
KANSAS		
Lakin	KSWK	3
Pittsburg	KOZJ	26
Topeka	KTWU	11
KENTUCKY		
Bowling Green	WKYU	24
Cape Girardeau	WSIU	8
Lexington	WKLE	46
Louisville	WKPC	15
Paducah	WSIU	8
Tri–Cities	WSBN	47
LOUISIANA		
Alexandria	KLPA	25
Baton Rouge	WLPB	27
El Dorado	KLTM	13
Lafayette	KLPB	24
Lake Charles	KLTL	18
Monroe	KLTM	13
New Orleans	WYES	12
Shreveport	KLTS	24
MAINE		
Bangor	WMEB	12
Calais	WMED	13
Lewiston	WCBB	10
Presque Isle	WMEM	10
MARYLAND		
Annapolis	WMPT	22
Baltimore	WMPB	67
Frederick	WFPT	62
Hagerstown	WWPB	31
Oakland	WGPT	36
Salisbury	WCPB	28
MASSACHUSETTS		
Boston	WGBH	2
Holyoke	WGBY	57
Springfield	WGBY	57
MICHIGAN		
Alpena	WCML	6
Bad Axe	WUCX	35
Bay City	WUCM	19
Detroit	WTVS	56
Flint	WFUM	28
Grand Rapids	WGVU	35
Kalamazoo	WGVK	52
	WGVU	35
Lansing	WKAR	23

StarSight

PBS Stations (cont.)

Choose the station closest to your city. (It may be in a bordering state.)

City	Station	Channel
Marquette	WNMU	13
Mount Pleasant	WCMU	14
Saginaw	WFUM	28
Traverse City	WCMW	21
MINNESOTA		
Austin	KYIN	24
Duluth	WDSE	8
La Crescent	WHLA	31
Mason City	KYIN	24
Minneapolis-		
St. Paul	KTCI	17
Superior	WDSE	8
MISSISSIPPI		
Biloxi	WMAH	19
Bude	WMAU	17
Columbus	WMAB	2
Greenville	WMAO	23
Greenwood	WMAO	23
Gulfport	WMAH	19
Jackson	WMPN	29
Meridian	WMAW	14
Oxford	WMAV	18
MISSOURI		
Hannibal	WQEC	27
Joplin	KOZJ	26
Kansas City	KCPT	19
Pittsburg	KOZJ	26
Springfield	KOZK	21
St. Louis	KETC	9
MONTANA		
Bozeman	KUSM	9
Butte	KUSM	9
NEBRASKA		
Basset	KMNE	7
Hastings	KHNE	29
	KUON	12
Lexington	KLNE	3
Lincoln	KUON	12
Merriman	KRNE	12
Norfolk	KXNE	19
North Platte	KPNE	9
Omaha	KYNE	26
Scottsbluff	KTNE	13
NEVADA		
Las Vegas	KLVX	10
Reno	KNPB	5
NEW HAMPSHIRE		
Durham	WENH	11
Keene	WEKW	52
Littleton	WLED	49

City	Station	Channel
NEW JERSEY		
N. New Jersey	WNET	13
S. New Jersey	WHYY	12
NEW MEXICO		
Albuquerque	KNME	5
Santa Fe	KNME	5
NEW YORK		
Albany	WMHT	17
Binghamton	WSKG	46
Buffalo	WNED	17
New York	WNET	13.
Norwood	WNPI	18
Plattsburgh	WCFE	57
Rochester	WXXI	21
Schenectady	WMHT	17
Syracuse	WCNY	24
Watertown	WNPE	16
NORTH CAROLINA		
Asheville	WUNF	33
Charlotte	WUNG	58
Columbia	WUND	2
Greensboro	WUNL	26
Greenville	WUNK	25
Jacksonville	WUNM	19
Linville	WUNE	17
Raleigh–Durham	WUNC	4
Roanoke Rapids	WUNP	36
Wilmington	WUNJ	39
NORTH DAKOTA		
Bismarck	KBME	3
Drakinson	KDSE	9
Ellendale	KJRE	19
Fargo	KFME	13
Grand Forks	KGFE	2
Minot	KBME	3
Williston	KWSE	4
OHIO		
Akron	WEAO	49
	WVIZ	25
Athens	WOUB	20
Cleveland	WVIZ	25
Cincinnati	WCET	48
Columbus	WOSU	34
Dayton	WPTD	16
Lima	WBGU	27
Portsmouth	WPBO	42
Steubenville	WOUC	44
Toledo	WGTE	30
Youngstown	WNEO	45
OKLAHOMA		
Cheyenne	KWET	12
Eufaula	KOET	3

City	Station	Channel
Oklahoma City	KETA	13
Tulsa	KOED	11
OREGON		
Bend	KOAB	3
Corvallis	KOAC	7
Eugene	KEPB	28
Klamath Falls	KFTS	22
Medford	KSYS	8
Portland	KOPB	10
PENNSYLVANIA		
Altoona	WPSX	3
Erie	WQLN	54
Harrisburg	WITF	33
Johnstown	WPSX	3
Lancaster	WITF	33
Philadelphia	WHYY	12
Pittsburgh	WQED	13
Scranton	WVIA	44
Wilkes-Barre	WVIA	44
RHODE ISLAND		
New Bedford	WSBE	36
Providence	WSBE	36
SOUTH CAROLINA		
Allendale	WEBA	14
Beaufort	WJWJ	16
Charleston	WITV	7
Columbia	WRLK	35
Conway	WHMC	23
Florence	WJPM	33
Greenville	WNTV	29
Greenwood	WNEH	38
Huntington	WPBY	33
Rock Hill	WNSC	30
Spartanburg	WRET	49
Sumter	WRJA	2
SOUTH DAKOTA		
Aberdeen	KDSD	16
Brookings	KESD	8
Eagle Butte	KPSD	13
Lowry	KQSD	11
Martin	KZSD	8
Pierre	KTSD	10
Rapid City	KBHE	9
Vermillion	KUSD	2
TENNESSEE		
Chattanooga	WTCI	45
Jackson	WLJT	11
Johnson City	WSJK	2
Knoxville	WKOP	15
Memphis	WKNO	10
Nashville	WDCN	8
Sneedville	WSJK	2

StarSight

PBS Stations (cont.)

Choose the station closest to your city (It may be in a bordering state)

City	Station	Channel	City	Station	Channel	City	Station	Channel
TEXAS			VIRGINIA			Charleston	WPBY	33
Amarillo	KACV	2	Arlington	WETA	26	Clarksburg	WNPB	24
Austin	KLRU	18	Charlottesville	WHTJ	41	Huntington	WPBY	33
Corpus Christi	KEDT	16	Harrisonburg	WVPT	51	Parkersburg	WOUB	20
Dallas	KERA	13	Lynchburg	WBRA	15	Weston	WNPB	24
El Paso	KCOS	13	Norfolk	WHRO	15	Wheeling	WOUC	44
Ft Worth	KERA	13	Norton	WSBN	47			
Harlingen	KMBH	60	Petersburg	WCVE	23	WISCONSIN		
Houston	KUHT	8	Portsmouth	WHRO	15	Appleton	WPNE	38
Lubbock	KTXT	5	Richmond	WCVE	15	Eau Claire	WHLA	31
Odessa Midland	KOCV	36	Roanoke	WBRA	15	Green Bay	WPNE	38
San Antonio	KLRN	9				La Crosse	WHLA	31
Temple	KNCT	46				Madison	WHA	21
Waco	KNCT	46	WASHINGTON			Menomonie	WHWC	28
			Seattle	KCTS	9	Milwaukee	WMVS	10
			Spokane	KSPS	7	Park Falls	WLEF	36
UTAH			Tacoma	KCTS	9	Rhinelander	WHRM	20
Salt Lake City	KUED	7	Yakima	KYVE	47	Wausau	WHRM	20
			WEST VIRGINIA			WYOMING		
VERMONT			Beckley	WSWP	9	Cheyenne	KTNE	13
Burlington	WCFE	57	Bluefield	WSWP	9	Evanston	KUED	7

StarSight

PBS Stations (cont.)

Choose the station closest to your city (It may be in a bordering state)

City	Station	City	Station	City	Station
PBS Stations for Canadiain Customers					
MAINE		NORTH DAKOTA		OHIO	
Bangor	WMEB, WMED	Fargo	KFME, KGFE	Cleveland	WVIZ
				Toledo	WGTE
		NEW YORK			
MICHIGAN		Buffalo	WNED	PENNSYLVANIA	
Detroit	WTVS	Plattsburgh	WCFE	Erie	WQLN
Marquette	WNMU	Rochester	WXXI	WASHINGTON	
		Watertown	WNPE	Seattle	KCTS
MINNESOTA				Spokane	KSPS
Duluth	WDSE				

StarSight

Cable Box Codes

ABC	001, 011, 003, 017, 007, 013, 014, 047, 206	Pulsar	000
Antronix	207	PVP Stereo Visual Matrix	003
Archer	022, 039, 153, 207	RCA	021
BBT	267	Realistic	207
Cable Star	056	Regal	279, 259, 020, 273
Cabletenna	022	Regency	002, 003
Century	153	Rembrandt	070
Citizen	153	RK	304, 306
Colour Voice	025, 031	Runco	000
Comband	232, 233	Samsung	040, 144
Comtronics	060, 040	Scientific Atlanta	008, 017, 006, 277, 294
Diamond	035	Signal	015, 040
Eagle Comtronics	040	Signature	011
Eastern	002, 274	SL Marx	040
Electricord	078	Spectrovision	058
Garrard	153	Sprucer	021, 307
GC Electronics	016, 056	Standard Components	096, 155
Gemini	057, 070, 015, 242	Starcom	015, 003, 047, 098, 222
General Electric	232, 233	Stargate	040, 015
General Instrument	011, 003	STS	156
Hamlin	259, 273, 020, 009, 034	Sylvania	001
Hitachi	011, 154	Tandy	258
Jasco	153	Tatung	097
Jerrold	014, 011, 012, 003, 015, 024, 026, 047, 098, 222, 276, 215	Teknika	146
		Telecaption	221
Macom	033	Texscan	001, 096
Magnavox	027, 032, 069	TFC	310
Memorex	000	Tocom	013, 012, 059
Movie Time	078, 156, 203	Toshiba	000
Northcoast	314	TV86	063
Nova Vision	008, 277	Uniden	225
NSC	063, 203, 070, 156	Unika	207, 153, 022
Oak	007, 019, 248	United Artists	007
Panasonic	021, 107	United Cable	003
Paragon	000	Universal	077, 078, 191, 022, 039, 056, 153, 207
Philips	060, 030, 025, 027, 028, 029, 031, 290	Video Way	250
Philips ECG	242	Viewstar	027, 060, 063, 111, 211, 258, 289
Pioneer	144, 023, 260	Zenith	000, 054
Popular Mechanics	400		

StarSight

VCR Codes

Action	317
Admiral	121, 184, 039, 048, 060
Aiko	278
Aiwa	000
Akai	041, 106, 053, 049, 061, 156, 242
Akiba	072
Akura	271
Alba	020, 209, 278
Amstrad	000
Anitech	072
ASA	037, 081
Astra	249
Asuka	037
Audiovox	037
Baird	104, 107
Basic Line	020, 072, 278
Bell+Howell	104
Blaupunkt	162, 226, 227
Brandt	187
Broksonic	184, 211, 121
Bush	072, 209, 278
Canon	035, 167, 102
Capehart	020
Carver	081
Catron	020
CCE	072, 278
CGE	000
Cimline	072
Clatronic	020
Condor	020
Craig	240, 047, 271, 060, 236, 072, 037, 081
Crown	072, 278
Curtis Mathis	035, 758
Daewoo	278, 020, 045, 017, 087
Dansai	072
Daytron	020
De Graff	042, 166
Decca	000, 081
Dual	041
Dumont	000, 081, 104, 105
Dynatech	000
Elcatech	072
Elin	051
Emerson	184, 121, 212, 000, 002, 036, 037, 061, 068, 088, 208, 209, 211, 294, 295, 361
ESC	278
Ferguson	041, 107
Fidelity	000
Finlandia	081, 104, 110
Finlux	000, 042, 081, 104, 105
Firstline	037, 043, 045, 072, 209
Fisher	046, 047, 054, 066, 104
Frontech	020
Funai	000
General Electric	035, 060, 065
GEC	081
General	052

VCR Codes (cont.)

Go Video	232, 279
Goldstar	037, 018, 038
Goodmans	000, 020, 037, 062, 072, 278
Gradients	000
Graetz	041, 104
Granada	046, 081, 104
Grandin	000, 037, 072
Grundig	081, 226
Harmon/Kardon	038, 075
HCM	072
Hinari	072, 208
Hitachi	042, 235, 105, 000, 041, 065, 145, 166, 292, 032, 033, 034, 040, 067, 022
Hypson	072
Imperial	000
Interfunk	081
ITT	041, 046, 104, 106
ITT Nokia	268
ITV	278
JCL	035
Jensen	041
JVC	041, 067, 008, 206, 207, 384
Kaisui	072
Kendo	106
Kenwood	038, 046, 041, 067, 384
Korpel	072
Leyco	072
Lloyd	000
Loewe	037
Loewe Opta	081
Logik	072, 240
Luxor	043, 046, 106
LXI	037, 105
M–Electronic	000
Magnavox	035, 039, 081, 149, 103, 110
Manesth	045, 072
Marantz	035, 038, 081, 062, 146, 161
Marta	037
Matsui	036, 208, 209
MEI	035
Memorex	035, 037, 048, 000, 039, 046, 047, 104, 268, 299
Memphis	072
MGA	043, 061
MGN Technology	240
Minolta	105, 042
Mitsubishi	043, 061, 242, 067, 075, 081,173, 214, 181
MTC	000, 240
Multi Tech	000, 072
Murphy	000
NAD	058
NEC	038, 040, 041, 050, 067, 082, 088, 208, 209
Neckermann	081
Nikko	037
Noblex	240
Nokia	041, 046, 104, 106, 240
Nordmende	041
Oceanic	000

StarSight

VCR Codes (cont.)

Optonica	048, 062
Orion	036, 088, 121, 208, 209, 184
Osaki	037, 000, 072
Otto Versand	081
Palladium	037
Pallidium	072
Panasonic	035, 077, 102, 162, 225, 226, 227, 254, 24
Pathe Cinema	036
JC Penney	042, 035, 037, 240, 038, 040
Pentax	105, 042, 065
Perdio	000
Philco	035, 081
Philips	035, 081, 062, 110, 146
Phonola	081
Pilot	037
Pioneer	058, 067, 081, 168
Portland	020
Pioneer	058, 067, 081, 168
Portland	020
Proline	000
Proscan	060
Pulsar	039
Pulser	051
Pye	081
Quartz	046, 155
Quasar	035, 077, 096, 162, 226
Quelle	081
Radiola	081
RCA	060, 065, 035, 042, 077, 105, 149, 202, 277
Realistic	037, 240, 048, 000, 035, 046, 047, 062, 066, 104
Rex	041
Ricoh	034, 253
Roadstar	037, 072, 240, 278
Runco	039
Saba	041, 206, 207
Saisho	036, 088, 145, 208, 209
Salora	043, 046, 106
Samsung	240, 045, 053, 051
Sansui	067, 041, 271, 082, 209
Sanyo	046, 047, 104, 240, 268
SBR	081, 146
Schaub Lorenz	000, 041
Schneider	000, 072, 081, 110
Scott	045, 121, 184, 210, 212
Sears	047, 046, 054, 035, 037, 042, 057, 066, 104, 105
SEC	240
SEI	081
Seleco	041
Sentra	020
Sharp	048, 062, 021
Shintom	072, 067
Siemens	037, 104
Silva	037
Sinudyne	081
Solovox	020
Sontec	037

StarSight

VCR Codes (cont.)

Sony	033, 034, 032, 011, 035, 253, 275
STS	042
Sunpack	253
Sunstar	000
Sylvania	000, 035, 043, 081, 103, 110
Symphonic	000
Tandy	000, 104
Tashiko	000
Tatung	000, 041, 081
Teac	000, 041
Technics	035, 162, 246
Teknika	037, 035, 000, 052
Telefunken	041, 187
Tenosal	072
Tensai	000
Thomson	041
Thorn	041
TMK	036
Toshiba	045, 043, 066, 041, 056, 057, 210, 212, 033
Totevision	240, 037
Triumph	208
Unitech	240
Universum	000, 037, 049, 081, 106
Vector Research	038, 040
Victor	008, 067
Video Concepts	040, 061, 221
Videosonic	240
Wards	048, 035, 072, 042, 062, 212, 149, 047, 000, 240
XR 1000	072
Yamaha	038, 041
Yamishi	072
Yokan	072
Yoko	020, 240
Zenith	039, 034, 033, 000

StarSight

⑤ STAR
S I G H T

Your Panasonic television that is equipped with the StarSight® System is not designed to operate with, or control, a satellite dish. For information on StarSight products specifically designed for satellite systems, see your local satellite dealer.