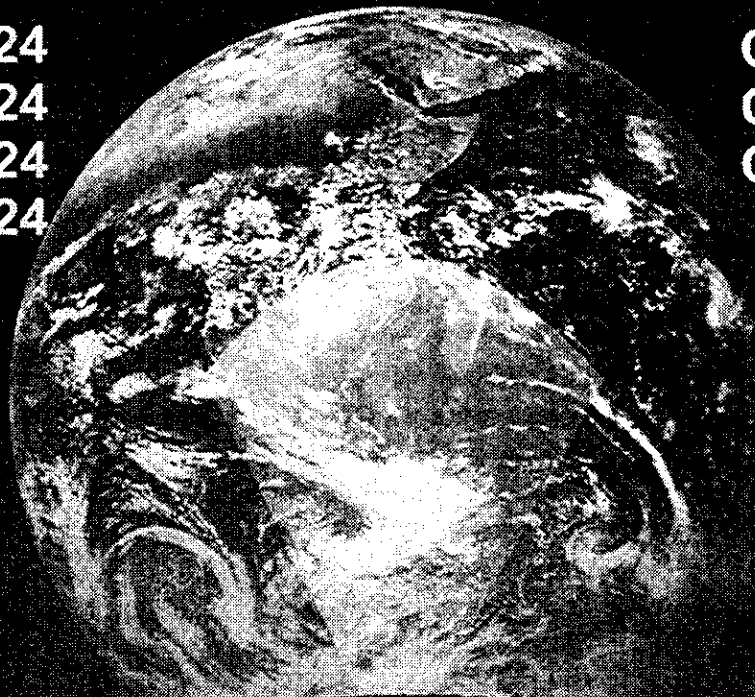


Panasonic®

Color Television Operating Instructions

CT-27G24
CT-32G24
CT-35G24
CT-36G24

CT-G2177
CT-G2177X
CT-G2187L





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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.

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

**Read these instructions completely before operating TV.
Contents are subject to change without notice or obligation.**

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CONGRATULATIONS

Congratulations

Your new TV features a solid state chassis that is designed to give you many years of enjoyment. It was thoroughly tested and tuned at the factory for best performance.

Customer Record

The model and serial number of this product are located on the back of the TV. You should note the model and serial number in the space provided and retain as a permanent record of your purchase. This will aid in identification in the event of theft or loss. Product registration is available for U.S. customers at www.prodreg.com/panasonic.

Model
Number

Serial
Number

Care and Cleaning

Screen (Turn TV Off)

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

Cabinet and Remote Control

- Use a soft cloth dampened with water or a mild detergent solution. Do not use benzene, thinner, or other petroleum based cleaners.
- Avoid excessive moisture and wipe dry.

Specifications

Power Source CT-27G24 CT-32G24 CT-35G24 CT-36G24	120V AC, 60Hz
Channel Capability - 181	VHF-12; UHF-56; Cable-113
Video Input Jacks	1V _{p-p} , 75 Ohm, Phono Jack Type
Audio Input Jacks	500mV RMS 47K Ohm
To Audio AMP Jack	0-2.0V RMS 4.7K Ohm
S-VHS Input Jack (some models)	S-Video (Y-C) Connector

Specifications are subject to change without notice or obligation.

INSTALLATION

Installation

Television Location

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

- Avoid excessive sunlight or bright lights, including reflections.
- Keep away from excessive heat or moisture. Inadequate ventilation may cause internal component failure.
- Fluorescent lighting may reduce remote control transmitting range.
- Avoid magnetic equipment, including motors, fans, or external speakers.

Optional Cable Connections

Shielded audio and video cables should be used between components. For best results:

- Use 75-ohm coaxial shielded cables.
- Use appropriate input and output connectors that match your component connectors.
- Avoid long cables to minimize interference.

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 A PLUG WITH A RECEPTACLE OR OTHER OUTLET UNLESS THE BLADE CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE. FOR SOME MODELS THAT ARE NON-POLARIZED, THE USE OF AN AC ADAPTOR CONNECTOR MAY BE NECESSARY.



Polarized plug

Remote Control

The **Remote Control Quick Reference Guide** is located within the package provided with this TV.

Cable / Antenna

For proper reception, either a cable or antenna connection is required.

Cable Connection

Connect the cable supplied by your local cable company.

Note: A cable converter box may be required for proper reception. Check with your local cable company for compatibility requirements.

**Incoming Cable from
Cable Company**



**75 Ohm VHF/UHF
on back of TV**

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.



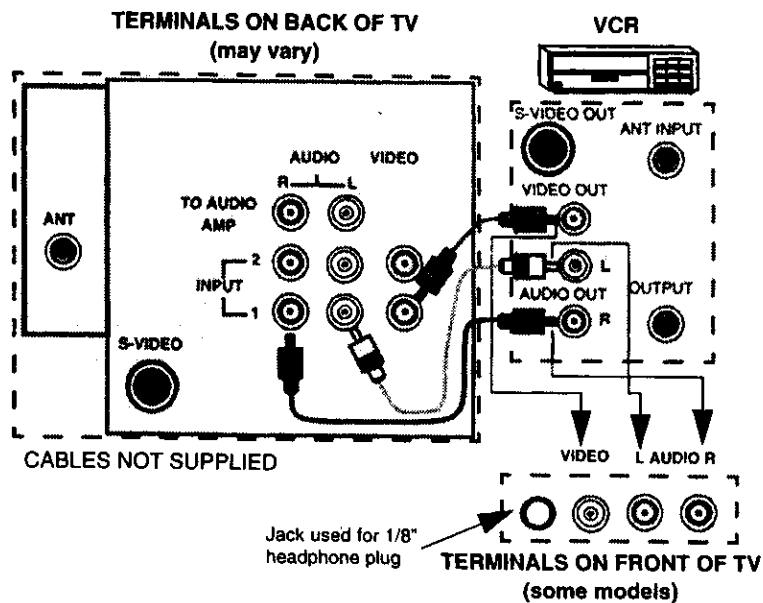
Cable Preset

Cable Mode is preset at the factory. Antenna users must change to Antenna Mode in the Setup Menu.

Optional Equipment Connections

VCRs, video disc players, video game equipment, and DSS equipment can also be connected to the video inputs. See the optional equipment manual for more information.

(Some models have only one video input and some models have an S-Video input.)



Procedure

1. Connect equipment as shown to front or rear Audio/Video input jacks.
Note: Front and rear Audio/Video connectors cannot be operated at the same time.
2. Select the Video mode by pressing TV/VIDEO button.
3. Operate optional equipment as instructed in equipment manual.

Note: If both S-VIDEO and VIDEO input are used at the same time, two images will appear on the TV screen.

MAIN MENU

TO AUDIO AMPLIFIER

Connect to an external audio amplifier input for listening to a stereo system.

Note: Do not connect TO AUDIO AMP terminals directly to external speakers.

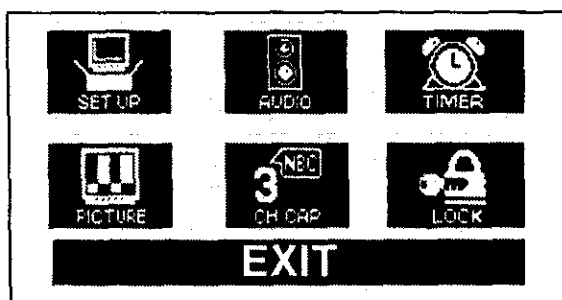
Audio Adjustments

1. Select TV SPEAKERS ON from the AUDIO menu.
2. Set amplifier volume to minimum.
3. Adjust TV volume to desired level.
4. Adjust amplifier volume to match the TV.
5. Select TV SPEAKERS OFF&VAO from the AUDIO menu.
6. Volume and Mute are now controlled by the TV.

Note: In OFF&FAO the volume is controlled by the external amplifier.

Main Menu

Main Menu



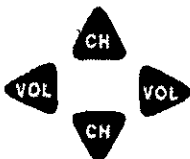
ACTION Button

Press the **ACTION** button to display the Main Menu and submenus. Press the **ACTION** button repeatedly to exit.

CH / VOL Buttons

Press the **CH** (channel) or **VOL** (volume) buttons to select an icon. Use the **CH** buttons to highlight the desired features. Use **VOL** buttons to select and adjust features.

Remote Navigation Buttons



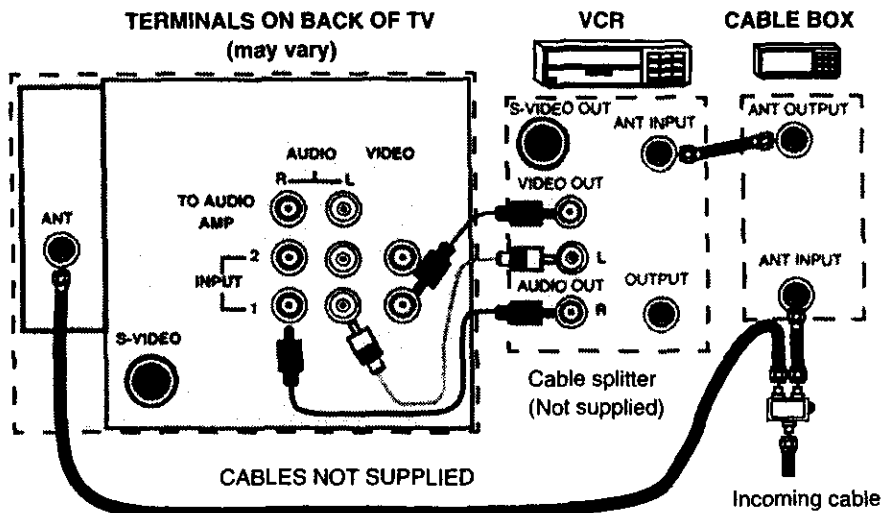
PICTURE IN PICTURE (PIP) OPERATION

Picture In Picture (PIP) Operation

PIP Operation with a VCR and Cable Box

This television includes a Picture In Picture (PIP) feature. A second video source (VCR, Camcorder, etc.) is required to provide a second picture.

Connect your television to a VCR and Cable Box, as shown. (Some models have only one video input and some models have an S-VIDEO video input.)



Note: The Remote Control must be programmed with supplied codes to operate the VCR and Cable Box. See Programming the Remote Control in the *Remote Control Quick Reference Guide*.

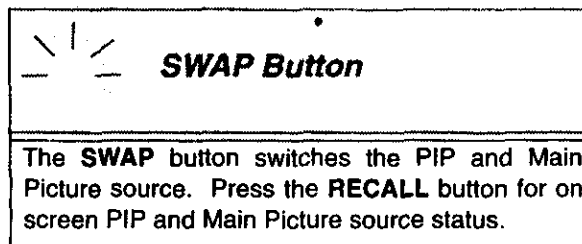
Procedure

Press the **PIP** button on the Remote Control to display the PIP frame.

Note: The PIP picture is the same as the main picture, initially.

To view a different picture in the PIP frame:

- Press the **TV/VIDEO** button on the Remote Control to select the video PIP source.
- Verify the **CABLE BOX** and **VCR** are **ON** and the VCR is tuned to **channel 3**.
- Choose channels for the *PIP* frame by pressing the **CBL** button on the Remote Control and using the numeric keypad or **CH** up/down buttons.
- Choose channels for the *Main Picture* by pressing the **TV** button on the Remote Control and using the numeric keypad or **CH** up/down buttons.

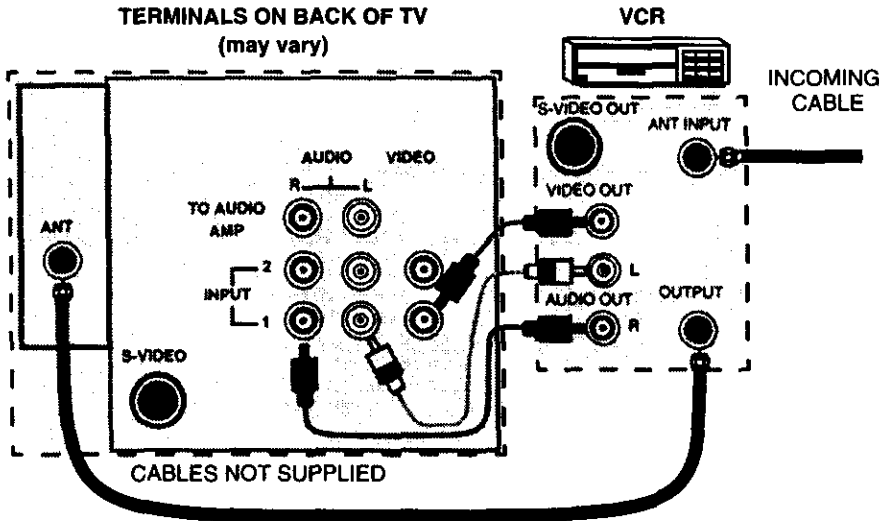


PICTURE IN PICTURE (PIP) OPERATION

PIP Operation with a VCR - No Cable Box

This television includes a Picture In Picture (PIP) feature. A second video source (VCR) is required to provide a second picture.

Connect your television to a VCR, as shown. (Some models have only one video input and some models have an S-VIDEO input.)



Note: The Remote Control must be programmed with the supplied codes to operate the VCR. See Programming the Remote Control in the Remote Control Quick Reference Guide.

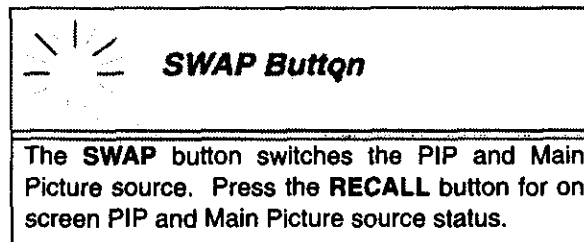
Procedure

Turn the VCR OFF and tune the TV to channel 3.

Press the **PIP** button on the Remote Control to display the PIP frame on screen.




Note: The PIP picture is the same as the Main picture, initially.

- Press the **TV/VIDEO** button on the Remote Control to select the VIDEO PIP source.
- Press the **VCR** button on the Remote Control and turn ON the VCR.
- Press the **TV/VCR** button on the Remote Control.
- Choose channels for *PIP* frame by pressing **VCR CHANNEL** up/down buttons on the Remote Control.
- Choose channels for the *Main Picture* by pressing the **TV** button on the Remote Control and using the numeric keypad or **CH** up/down buttons.






MAIN MENU FEATURE CHART

Main Menu Feature Chart

MENU	DESCRIPTION
	SETUP
SET TIME	When entered, TIME will display on screen after pressing POWER button, RECALL button, or changing channels.
ANT	Choose CABLE or TV to match the signal at your antenna input.
AUTO PROG	Automatically program channels with a signal into memory.
MANUAL PROG	Manually add or delete channels from memory.
CC MODE	Select CC for Closed Captioning display. Select OFF to display closed captioning when MUTE button is pressed.
LANGUAGES	Select English, Spanish, or French menu.
	AUDIO
MODE	Select the audio mode: <input type="checkbox"/> STEREO - Two channel audio reception. <input type="checkbox"/> SAP - (Second Audio Program) Tune to the alternate audio channel if available in your area (bilingual or descriptive audio). <input type="checkbox"/> MONO - One channel audio. Use when stereo signal is weak.
AI SOUND	Automatically maintain constant volume between programs and commercials.
TV SPEAKERS	Select TV SPEAKERS: <input type="checkbox"/> ON - TV SPEAKERS operate normally. <input type="checkbox"/> OFF&VAO (Variable Audio Output) - TV Speakers off - audio adjustable by TV. <input type="checkbox"/> OFF&FAO (Fixed Audio Output) - TV Speakers off - audio adjustable only by the external amplifier (some models).
	CH CAP
CHANNEL CAPTION	Provide labels for up to 30 stations using up to four characters for each station.

MAIN MENU FEATURE CHART

Main Menu Feature Chart (Cont.)

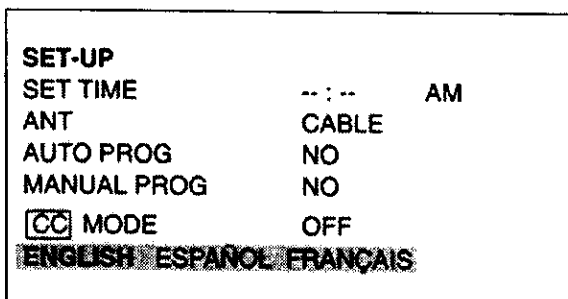
MENU	DESCRIPTION
	TIMER
SLEEP TIMER	Program TV to automatically turn off in 30, 60, or 90 minutes. Select NO to turn timer off.
PROGRAM TIMER	Program TV to automatically turn on and off at selected time, on a selected channel, and on a selected day or daily.
	PICTURE
PICTURE NORM	Reset all picture adjustments to factory default settings.
COLOR	Adjust desired color intensity.
TINT	Adjust natural flesh tones.
BRIGHTNESS	Adjust dark areas for crisp detail.
PICTURE	Adjust white areas of picture.
SHARPNESS	Adjust clarity of outline detail.
	LOCK
GAME GUARD	Program to prevent video games, cable box, and VCRs from being viewed.

Special Features

Languages



In SETUP menu, select ENGLISH, ESPAÑOL, OR FRANÇAIS.

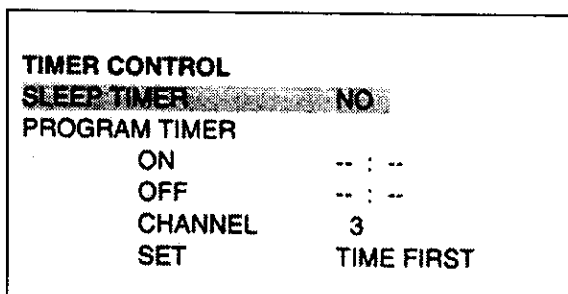


Timer



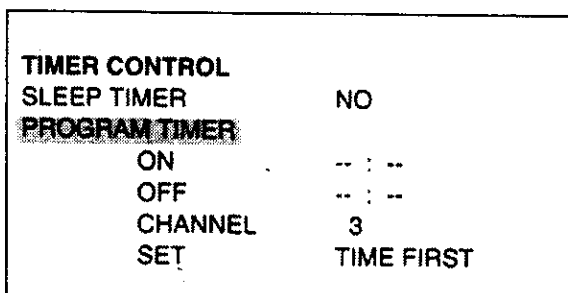
Sleep Timer

In TIMER menu, program to turn TV OFF in 30, 60, or 90 minutes. Select NO to turn off timer.



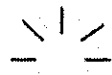
Program Timer

In Timer menu, program TV to automatically turn on and off at selected time on a selected channel, daily or one day.



Note: TIME must be entered in the SETUP menu to operate PROGRAM TIMER.

SPECIAL FEATURES



Turn Off After 90 Minutes

The TV automatically turns **OFF** after 90 minutes when turned on by the PROGRAM TIMER. If the OFF time is programmed or if a key is pressed, the automatic OFF after 90 minutes will be cancelled.



PROGRAM TIMER Activation

The PROGRAM TIMER is active when the TV is OFF or ON. The TV will switch to the selected channel at the selected time set by the PROGRAM TIMER.

CH CAP (Channel Caption)



Program channel captions (station labels) for 30 stations using up to four characters.

CHANNEL CAPTION

ENTER CHANNEL NUMBER

123

ENTER CAPTION

- - - -

▲ TO MOVE

◀▶ TO SELECT

▼ CURSOR

CHANNEL

Note: Delete channel captions by entering dashes (-) in all four character slots.

LOCK

**Game Guard Lock and Unlock**

Select GAME GUARD to prevent video games and videotapes from being viewed.


Lock Channel 3, Channel 4, and video inputs for 12, 24, or 48 hours by entering a four-digit secret code, then selecting GAME GUARD ON.

Note: Understand how to unlock GAME GUARD before using it. Use a code that is easy to remember or record it in a safe place.

LOCK	
GAME GUARD	OFF
MOTION PIC. STATUS	OFF
CHANGE SETTINGS	▶
TV PARENTAL STATUS	OFF
CHANGE SETTINGS	▶
HOW LONG?	12 HRS
ENTER CODE	

Note: If GAME GUARD is selected, and if a blocked channel or video input is selected, the message GAME GUARD ON displays in the upper right corner of the TV screen.










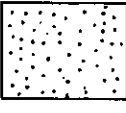








Unlock GAME GUARD by reentering the same four-digit secret code, then selecting GAME GUARD OFF.

	GAME GUARD Unlock
<p>If you do not remember your code, LOCK will unlock in 12, 24, or 48 hours, depending on the current setup. Be cautious when selecting ALWAYS. If ALWAYS is selected and you forget your secret code, the TV must be serviced by a qualified technician in order to clear the LOCK setup.</p>	

TROUBLESHOOTING CHART

Troubleshooting Chart

Before calling for service, determine the symptoms and follow suggested solutions.

AUDIO	VIDEO	Solutions
 Noisy Audio	 Snowy Video	Adjust Antenna Location and Connection
 Noisy Audio	 Multiple Image	Adjust Antenna Location and Connection Check Antenna Lead-in Wire
 Noisy Audio	 Interference	Move TV from Electrical Appliances, Lights, Vehicles, and Medical Equipment
 No Audio	 Normal Video	Increase Volume Change Channel Check Mute Check TV SPEAKERS on/off
 Noisy Audio	 No Video	Set TV or Cable Mode Properly Check Antenna Cables
 No Audio	 No Video No PIP	Check Power Cord is Plugged into Active Outlet Adjust Brightness and Audio Controls Change Channel Check Cable Connections Program the Remote Control Again Check Second Video Source Operation
 Normal Audio	 No Color	Adjust Color Settings Change Channel
 Wrong Audio	 Normal Video	Check Audio Is Set To Stereo Or Mono, Not SAP
 Normal Audio	 Normal Video	Replace Remote Control Batteries
Intermittent Remote Control Operation		

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