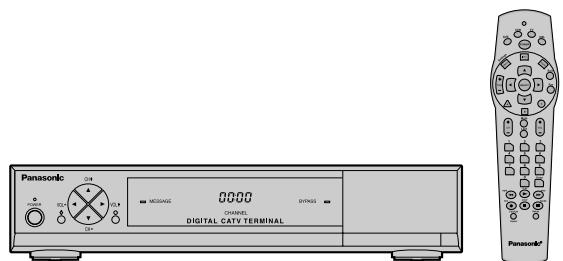
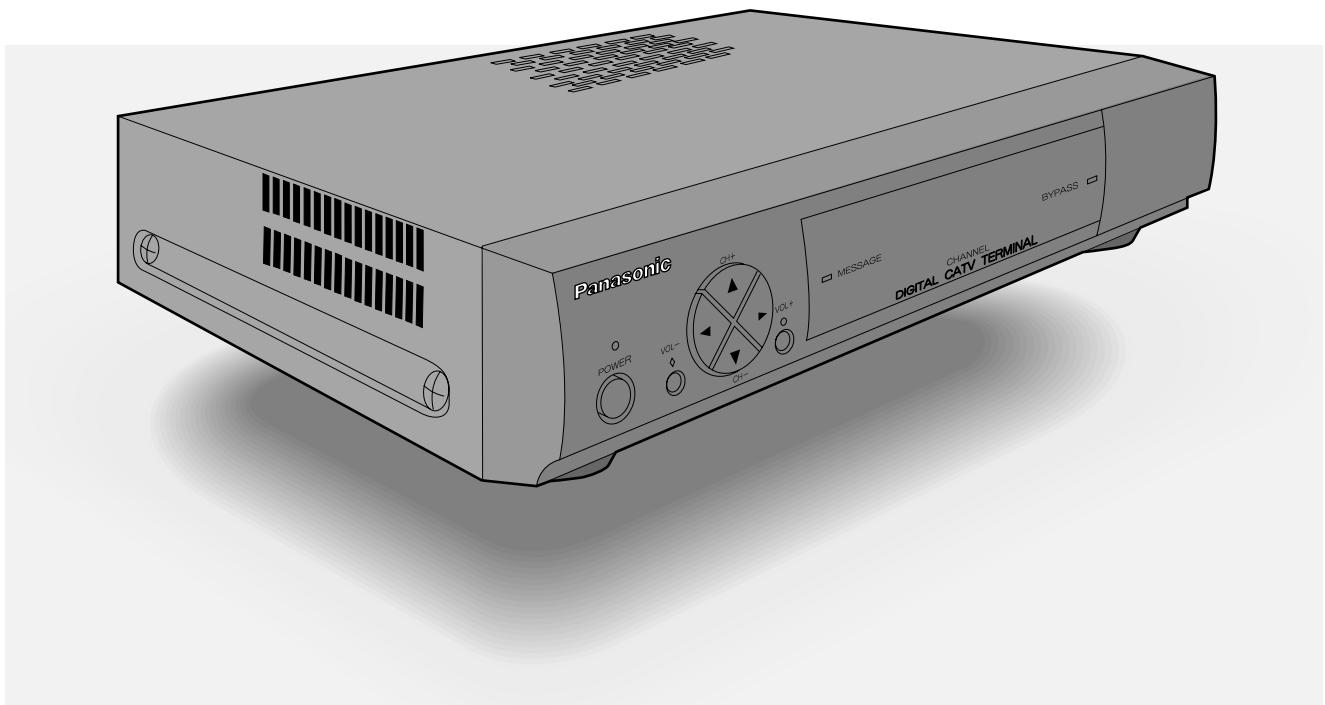


Panasonic®



Digital CATV Terminal Operating Instructions

Model No. **TZ-PCD2000**



For assistance, please call : your regional operator (installer)

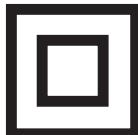
Before connecting, operating or adjusting this product, please read these instructions completely. Save this manual for future reference.



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 damage which may result in fire or shock hazard, do not expose this appliance to rain or moisture.



The double insulation symbol (a square within a square) is intended to alert qualified service personnel to use only identical replacement parts in this apparatus.

Note To CATV System Installer

This reminder is provided to call the CATV system installer's attention to article 820-40 of the National Electric Code 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.

Important Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over. 
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Additional Instructions

- **Power Sources**

This product shall be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your Cable operator or Digital CATV Terminal installer or local power company.

- **Overloading**

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

- **Object and Liquid Entry**

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

- **Servicing**

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

- **Replacement Parts**

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

- **Safety Check**

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

- **Damage Requiring Service**

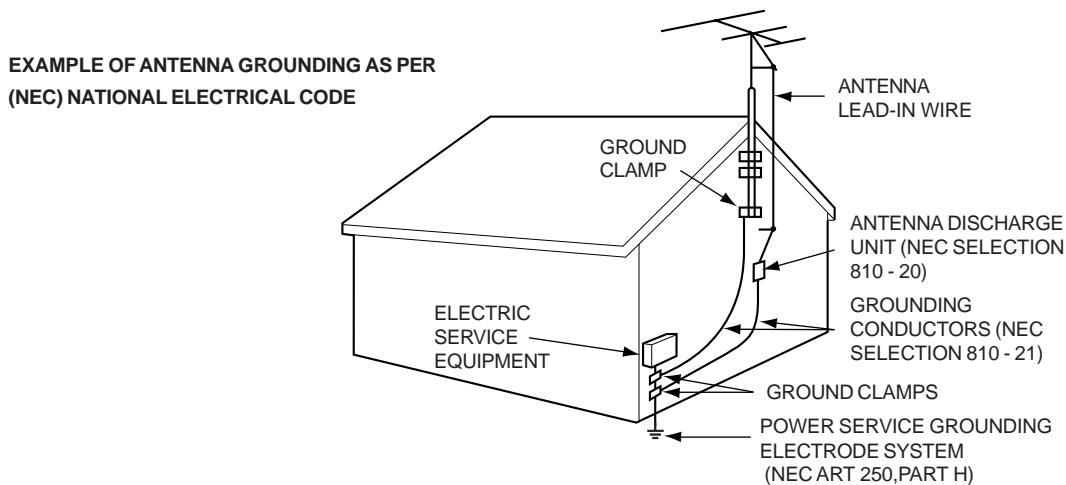
Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a. When the power-supply cord or plug is damaged.
- b. If liquid has been spilled, or objects have fallen into the product.
- c. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- d. If the product has been dropped or the cabinet has been damaged.
- e. When the product exhibits a distinct change in performance - this indicates a need for service.
- f. If the product has been exposed to rain or water.

Additional Instructions

● Outdoor Antenna Grounding

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



Installation

This unit Location

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

The Video / Audio connection between components can be made with shielded video and audio cables. For best performance, video cables should utilize 75Ω 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.

Do not place this unit upside down or in a vertical position.

Do not install and use this unit upside down.

Do not install and use this unit standing on its side.

Care and Cleaning

Turn Digital CATV Terminal Off

For Digital CATV Terminal, avoid excessive moisture and wipe dry.

Avoid bumping or scraping the Digital CATV Terminal.

Remote Control

For Remote Control, use a soft cloth dampened with water or a mild detergent solution. Avoid excessive moisture and wipe dry.

Do not use benzene, thinner or other petroleum based products.

FCC STATEMENT

FCC INFORMATION

Your Digital CATV Terminal is registered with the Federal Communication Commission and is in compliance with CFR47, Parts 15b, FCC Rules and Regulations.

Radio Interference

This equipment has been tested and found to comply with the limit for a Class B Digital Device in accordance with the specifications in Part 15 of FCC Rules. The rules are designed to provide reasonable protection against radio and television interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause interference to radio or televisions reception (which you can determine by turning the equipment off and on), try to correct the interference by one or more of the following measures.

- Reposition or relocate the receiving antenna for the radio or television that is "receiving" the interference.
- Change the position of the Digital CATV Terminal with respect to the radio or television equipment that is receiving interference.
- Move the Digital CATV Terminal away from equipment receiving interference.
- Plug the Digital CATV Terminal into a different wall outlet so the Digital CATV Terminal and equipment receiving the interference are on different branch circuits.

If these measures do not eliminate interference, please consult your dealer or an experienced radio/television technician for assistance.

FCC CAUTION:

Pursuant to 47CFR, Part 15.21 of the FCC rules, any changes or modifications to this Digital CATV Terminal not expressly approved by Matsushita Electric Corporation of America could cause harmful interference and would void the user's authority to operate this device.

FCC Declaration of Conformity

PANASONIC CONSUMER ELECTRONICS COMPANY

Responsible party:
Matsushita Electric Corporation of America
One Panasonic Way
Secaucus, NJ 07094
U.S.A.

Telephone Number: 201-392-4430
(8 a.m.-10 p.m., Mon-Fri, EST)
(10 a.m.-10 p.m., Sat-Sun, EST) OR

E-MAIL: CONSUMER PRODUCTS@PANASONIC.COM

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Dear Panasonic Customer

Welcome to the Panasonic Family of customers. We hope that you have many years of enjoyment from your new Digital CATV Terminal. To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference.

Retain your purchase receipt also, and note down the model number and serial number of your set in the space provided on the rear cover of these instructions.

For assistance, please call : your regional operator (installer)

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Trademark acknowledgements

- "VCR Commander" is trademark of Scientific-Atlanta, Inc.
- "Dolby" and "AC-3" are trademarks of Dolby Laboratories.

All other trademarks are the property of the various trademark owners.

Installation

ACCESSORIES

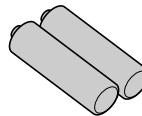
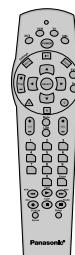
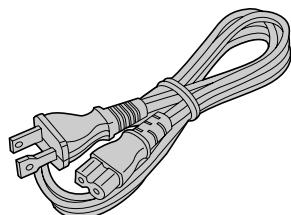
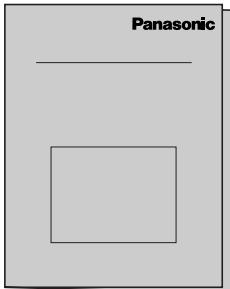
Check the accessories before installations.

- Operating Instruction book

- AC Power Cord

- Remote Control Unit

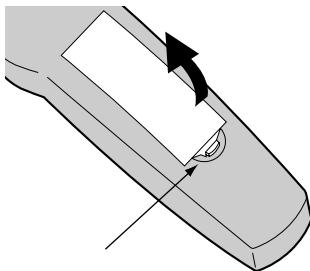
- Battery for the Remote Control Unit
(2xAA (IEC R6) size)



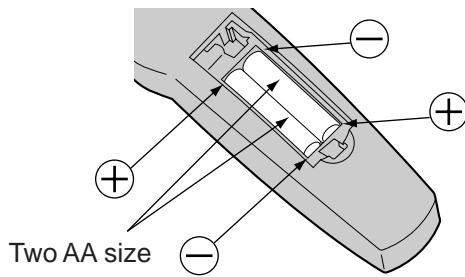
Remote Control battery installation

Requires two AA batteries.

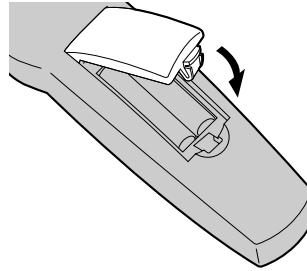
1. Push the section marked with an arrow while lifting the cover up to open it.



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



3. Close the cover by inserting the top end first.



⚠ 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 this unit.

Helpful Hint:

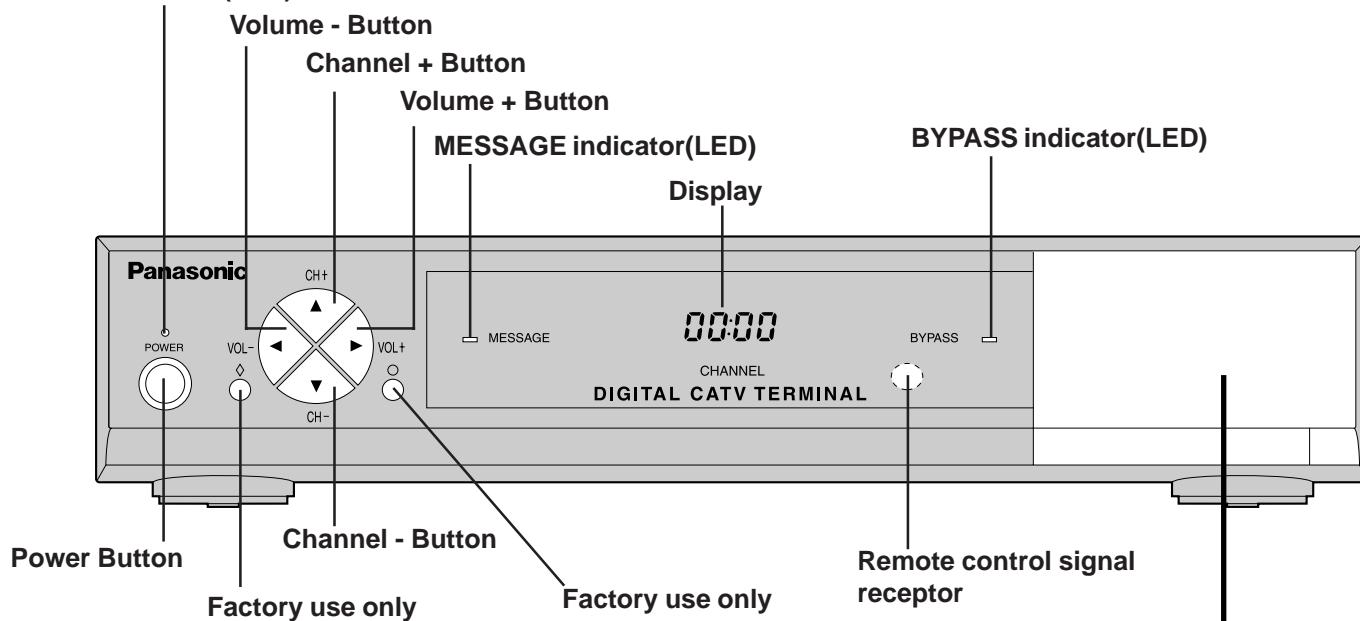
Whenever you remove the batteries, **you may need to reset the remote control infrared codes**. We recommend that you record the code on page 17-24, prior to setting up the remote.

Installation

Front and Rear View of the Digital CATV Terminal

Front Panel

POWER indicator(LED)



BYPASS indicator(LED)

Power Button

Volume - Button

Channel + Button

Volume + Button

MESSAGE indicator(LED)

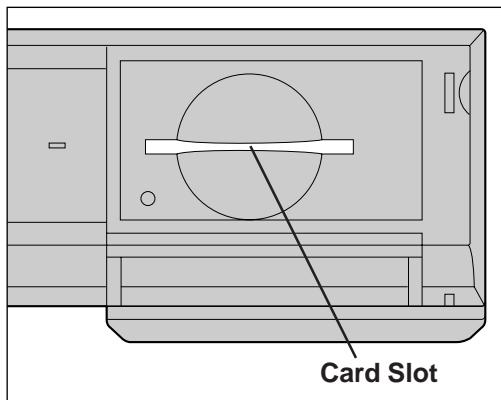
Display

BYPASS

Remote control signal
receptor

Factory use only

Factory use only



Door

Pull the door toward you to open it.

POWER

Turns the Digital CATV Terminal Power On or Off.

VOL -

Select Volume Up or Down

CH -

Select Channel Up or Down

MESSAGE

Message indicator

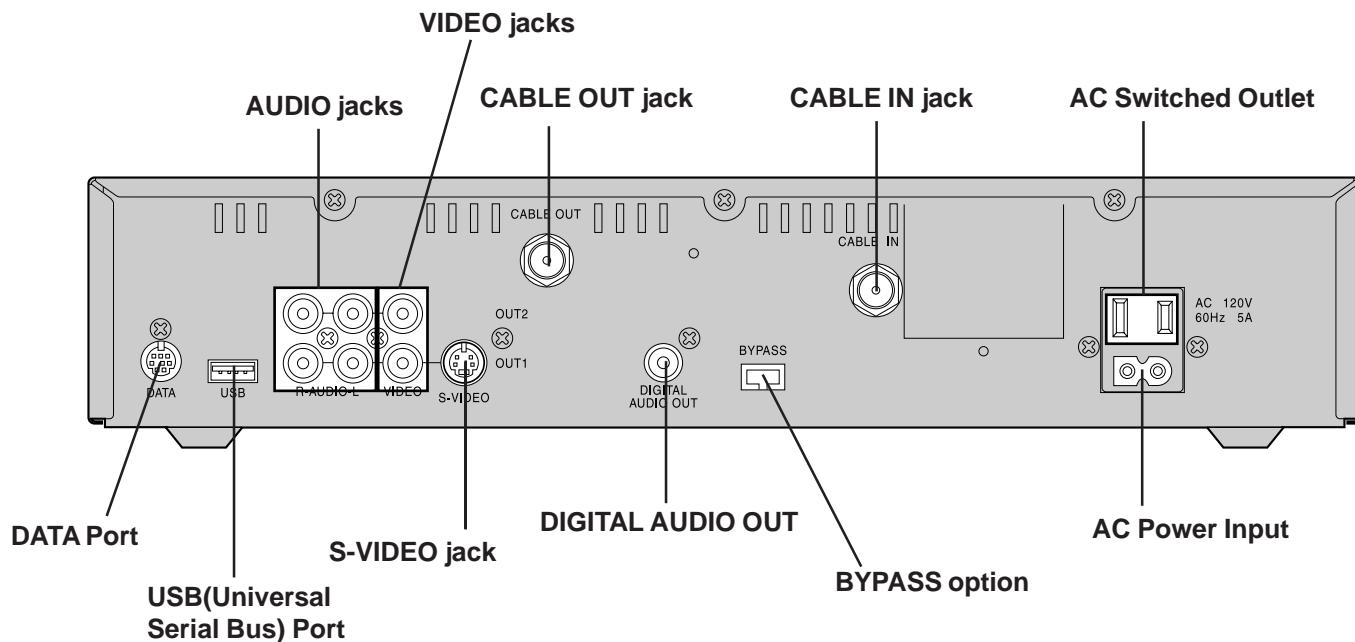
BYPASS

Bypass indicator

Card Slot

This is currently not being used. It is reserved for future applications as the place for cards to be inserted.

Rear Panel



CABLE IN	Use to connect Cable Signal from Cable Service Provider.
CABLE OUT	Use to connect the Digital CATV Terminal to your TV or VCR.
VIDEO	Use to connect the Digital CATV Terminal to your TV or VCR.
S-VIDEO	Use to connect the Digital CATV Terminal to your TV with S-VIDEO, or VCR with S-VIDEO.
AUDIO	Use to connect the Digital CATV Terminal to your TV with stereo sound, or VCR with stereo sound.
DIGITAL AUDIO OUT	Use to connect the Digital CATV Terminal to a Dolby Digital AC-3 decoder.
DATA	Use to connect the Digital CATV Terminal to the VCR Commander™ module or similar equipment. See the VCR Commander™ User's Guide for more information.
USB (Universal Serial Bus)	Use to connect the Digital CATV Terminal to external equipment.
BYPASS	Use to connect a RF Bypass Module (optional) to bypass the Digital CATV Terminal when watching regular cable TV broadcasts.
AC Power Input	Use to connect the Digital CATV Terminal to an AC electrical outlet with AC cord (included).
AC Switched Outlet	Use to connect the power cord plug of some other component such as a TV. (120 V AC, 60 Hz, 5 A)

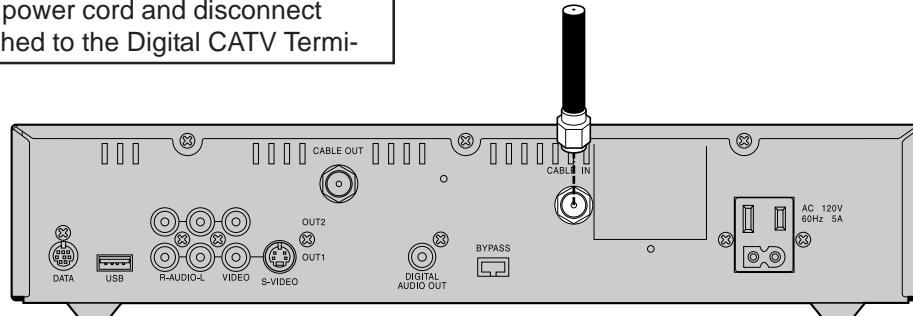
Installation

Cable connection

Connect the cable wire to the CABLE IN jack on the rear panel of the Digital CATV Terminal.

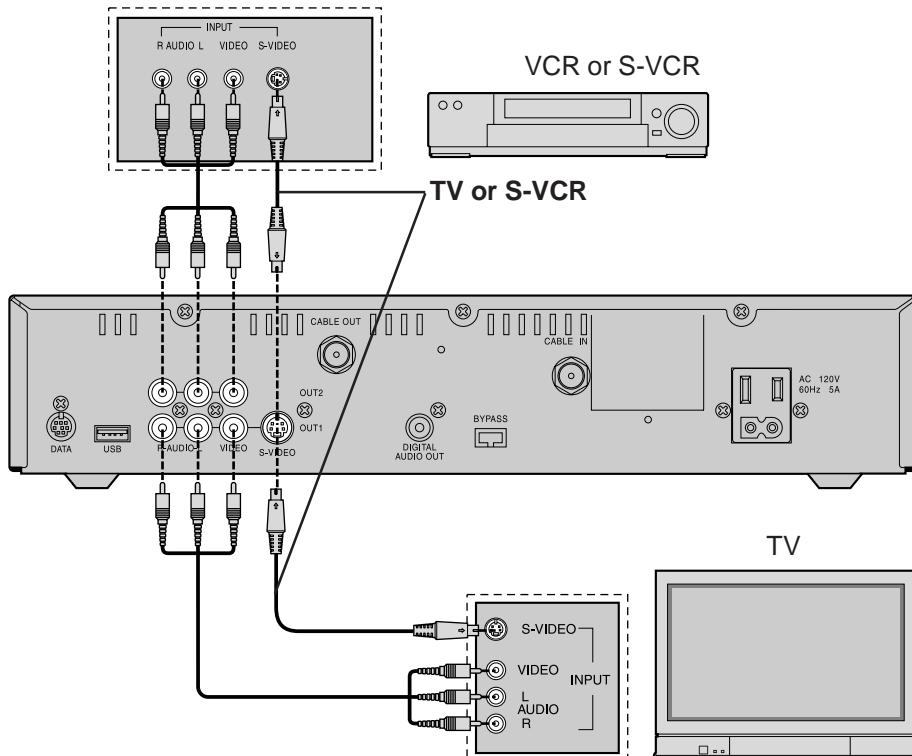
Incoming signal from the Cable Service Provider

Unplug the AC power cord and disconnect all cables attached to the Digital CATV Terminal.



Digital CATV Terminal connection to stereo TV and stereo VCR

Follow this diagram when connecting the Digital CATV Terminal to a stereo TV and stereo VCR.

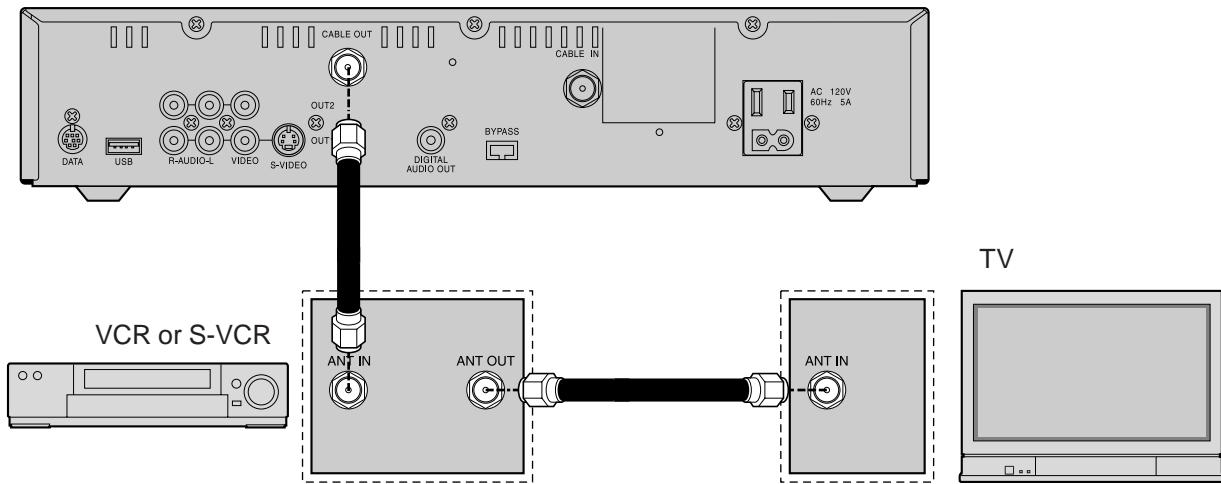


Procedure

- 1 Connect S-VIDEO Cable from the S-VIDEO output jack on the Digital CATV Terminal to the S-VIDEO input jack on the TV or S-VCR.
Note: Connect either the S-VIDEO or video input/output as shown above.
 - S-VIDEO will provide better picture quality.
- 2 Connect audio cables from the left and right audio output jacks on the Digital CATV Terminal to the left and right audio input jacks on the TV or VCR (S-VCR).
Note:
 - Additional equipment and cables shown are not supplied with this set.

Digital CATV Terminal connection to TV and VCR

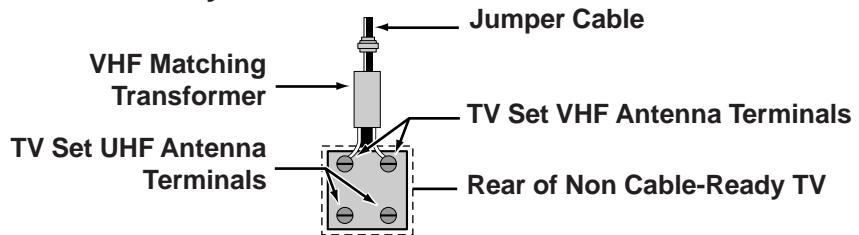
Follow this diagram when connecting the Digital CATV Terminal to a TV and VCR.



Procedure

- Connect the CABLE OUT jack of the Digital CATV Terminal to the ANT IN jack of the VCR, and connect the ANT OUT jack of the VCR to the ANT IN jack of the TV using 75 Ω shielded cable.

Connecting a non-cable ready TV



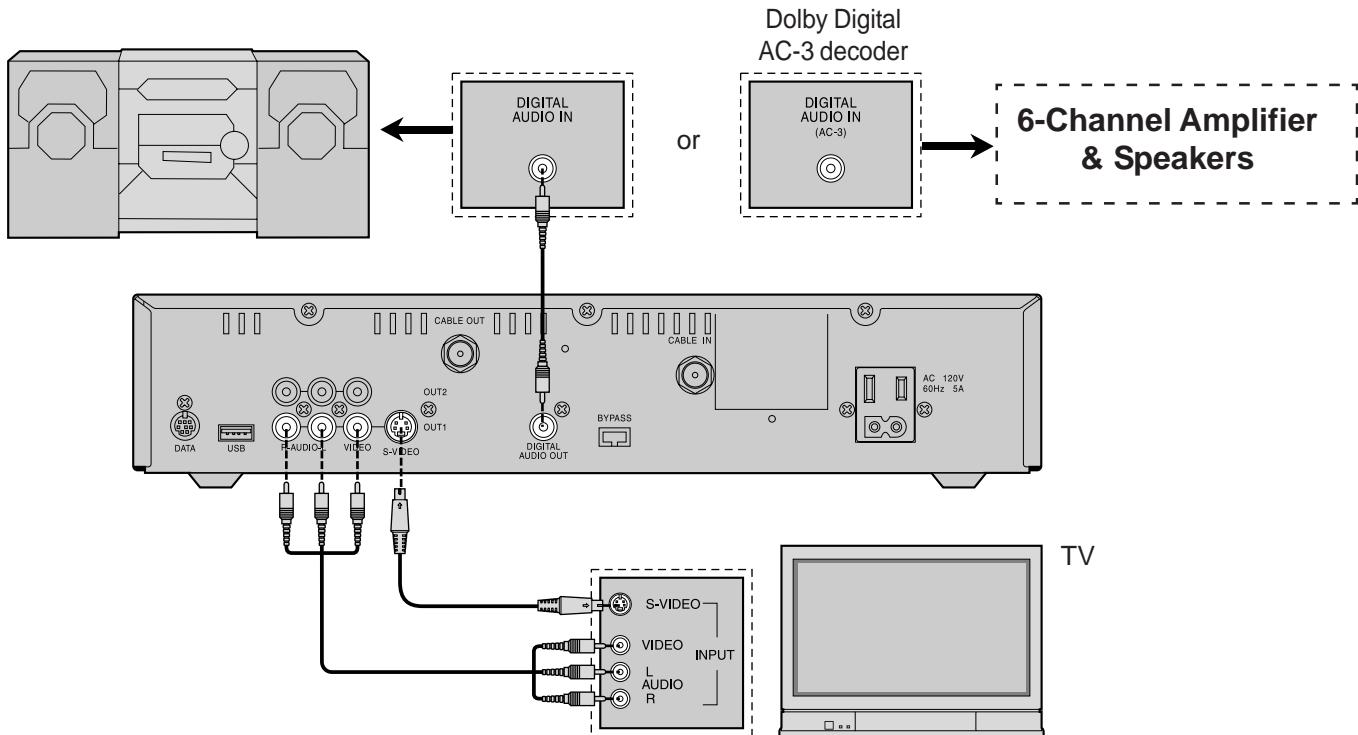
Note:

- Additional equipment and cables shown are not supplied with this set.

Installation

Digital CATV Terminal connection to component with Digital Audio Input jack

Follow this diagram to connect the Digital CATV Terminal to a component with a Digital Audio Input jack.



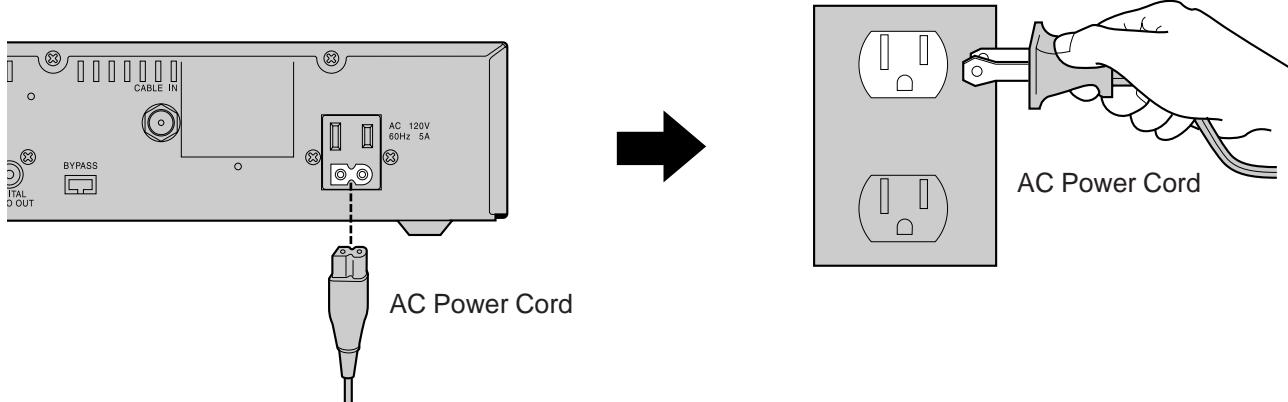
Procedure

- 1 Connect the Digital Audio Cable from the Digital Audio Out jack on the Digital CATV Terminal to the Digital Audio Input jack on the component with the Digital Audio Input jack.
- 2 Connect the TV or other component while referring to page 10.

Note:

- If using a Dolby Digital AC-3 decoder, you can enjoy Dolby Digital (AC-3) 5.1 channel surround sound.
- Additional equipment and cables shown are not supplied with this set.

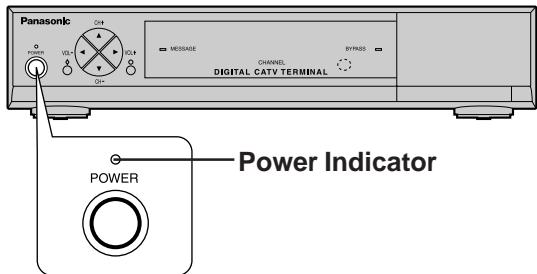
Connect AC Power Cord



Procedure

- Connect the AC power cord to the AC power input at the rear of the Digital CATV Terminal, and plug the AC power cord into a grounded outlet.

Power ON/OFF



Push the POWER button on this unit to turn the set on
POWER-ON

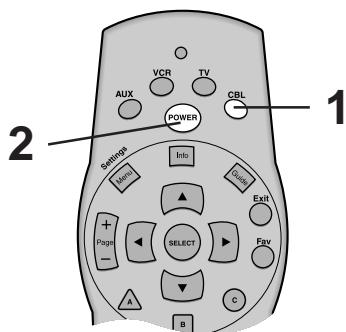
Power Indicator: Green

Press POWER once more to turn off.

Power Indicator: Indicator not illuminated

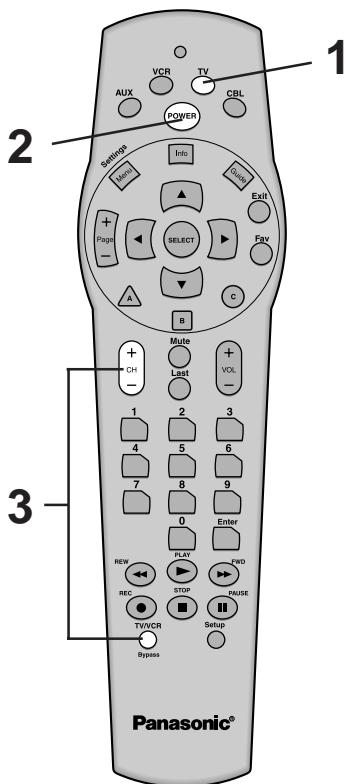
(Please understand the Digital CATV Terminal is not updated when you plug off from AC outlet.)

<When using the remote control>



- 1 Press the Remote Control CBL mode button
- 2 Press the POWER button.

Changing the TV input source (Panasonic TV models)



Procedure

- 1 Press the TV mode button.
- 2 Press the POWER button to turn on the power for the TV.
- 3 Press the TV/VCR button to select the picture from the Digital CATV Terminal. If the connection is via the CABLE OUT jack as shown on page 11, use the CH UP/DOWN button on the TV to set the channel to the VCR output channel (channel 3 or 4).

Note:

- If using a non-Panasonic brand TV, make the selection directly at the TV itself, or use the TV's remote control to make the setting as described on page 17.
- Some Panasonic brand TVs may have different remote control codes, so that these TVs cannot be operated as described above even though they are Panasonic-brand TVs. In such cases, make the selection directly at the TV itself, or use the TV's remote control to make the setting as described on page 17.
- The default remote control settings do not allow TV and VCR CH UP/DOWN settings to be made. You first need to clear the channel lock as described on page 20.

Remote Control

CBL, TV, VCR, AUX

Press to select remote operation.

POWER

Press to turn ON and OFF.

▲▼◀▶

Press to move through interactive screen choices.

SELECT

Press to choose interactive screen item.

Page

Press to display Next/Previous screen.

A, B, C

On-Screen decision buttons

CH

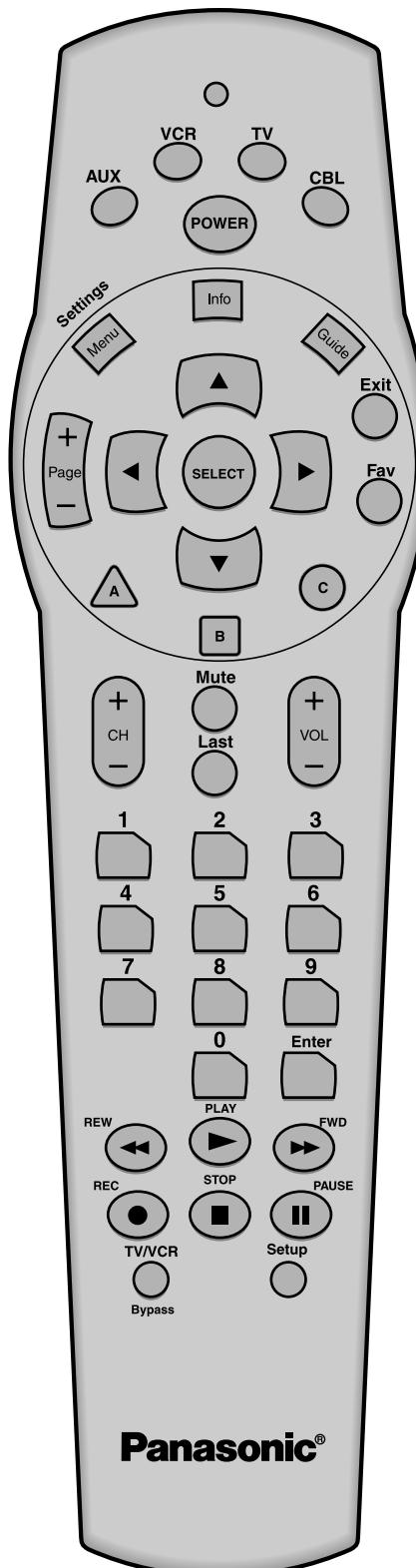
Press to select channel Up/Down

Mute

Press to turn sound off.

Last

Press to return to last channel viewed.



Menu

Press to display Settings menu.

Info

Press to display channel information.

Guide

Press to display interactive program guide.

Exit

Press to hide interactive screen.

Fav

Press to view favorite channels.

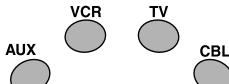
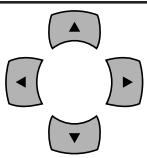
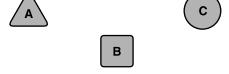
VOL

Press to adjust volume.

0-9

Press to enter channel and personal identification numbers(PIN).

Remote Control Function Key Chart

Key	Component	Function
	ALL COMPONENTS	Component mode selection for remote control
	ALL COMPONENTS	Turn components On and OFF
	CBL	Interactive program guide
	CBL TV VCR	Channel information On screen display Program
	CBL TV VCR AUX	Settings menu ACTION Menu Program mode
	CBL, TV	Exit Menus
	CBL	View favorite channels
	CBL, TV	Up,Down,Left and Right navigation
	CBL	Select
	CBL	Display Next/Previous screen
	CBL	On-Screen decision buttons
	CBL, TV, VCR	Volume up/down
	CBL, TV, VCR AUX	Channel up/down Skip forward/rewind
	CBL, TV, VCR	Mute audio
	CBL, TV	Return to last channel viewed

The description of functions for each of the components in the table above apply when the factory default code settings are in place. The factory default code settings are as follows:

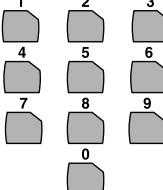
TV:Panasonic brand TV (code: 0250)

VCR:Panasonic-brand VCR (code: 1062)

AUX:Panasonic-brand CD Player (code: 0303)

Remote Control

Remote Control Function Key Chart

Key	Component	Function
	CBL, TV, VCR	Select channel Select code
	VCR AUX	Channel enter Disc
	CBL TV VCR AUX	VOD rewind Punch to VCR Rewind Fast search rev
	CBL TV VCR AUX	VOD play Punch to VCR Play Play
	CBL TV VCR AUX	VOD fast fwd Punch to VCR Fast forward Fast search fwd
	CBL TV VCR	VOD record Punch to VCR record
	CBL TV VCR AUX	VOD stop Punch to VCR Stop Stop
	CBL TV VCR AUX	VOD pause Punch to VCR Pause Pause
	CBL TV VCR AUX	BYPASS TV/VIDEO TV/VCR SIDE A-B
	ALL COMPONENTS	SETUP

The description of functions for each of the components in the table above apply when the factory default code settings are in place. The factory default code settings are as follows:

TV:Panasonic brand TV (code: 0250)

VCR:Panasonic-brand VCR (code: 1062)

AUX:Panasonic-brand CD Player (code: 0303)

Programming the Remote Control

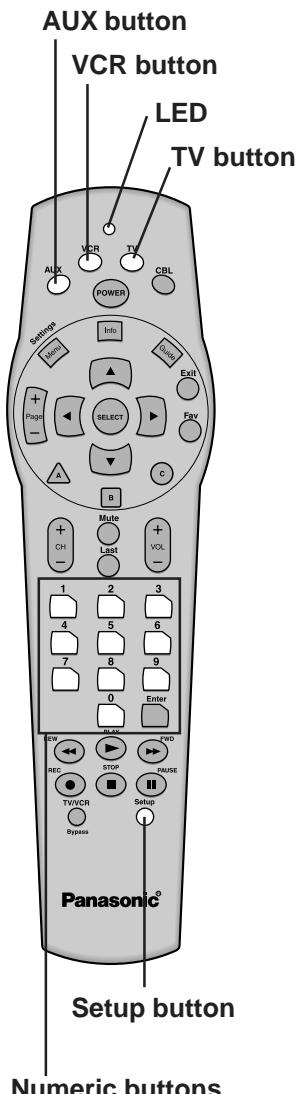
The Universal Remote Control can be programmed to operate many manufacturers' components using the component function buttons for TV, VCR, or AUX. Follow the procedures for programming your Remote Control with and without codes for the component. Determine the manufacturer of the component and look in the table for the code.

■ Programming for TV operation

Use the following procedure to program the TV remote control code. At the time of shipment from the factory, this is set to Panasonic-brand TVs (code:0250).

Use the following procedure to program the TV remote control code.

1. Select the Setup Code for your TV by referring to the tables on pages 21 to 24. If you cannot find the right Setup Code, refer to "Programming Without Code" on page 18.
2. Press the TV button, and then press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
3. Use the numeric buttons on the remote control to enter a 4-digit Setup Code. When programming is complete, the LED on the remote control will flash twice.



■ Programming for VCR operation

You can use the remote control for the Digital CATV Terminal to operate your VCR,DVD player. However, a VCR Commander Module (not included) is required in order to program your VCR for recording. If you are not using a VCR Commander Module, you will need to make the programming operations directly at the VCR. For details, refer to the User's Guide which is supplied with the VCR Commander package. At the time of shipment from the factory, the code is set to Panasonic-brand VCRs (code: 1062).

Use the following procedure to program the VCR or DVD player remote control code.

1. Select the Setup Code for your VCR by referring to the tables on pages 21 to 24. If you cannot find the right Setup Code, refer to "Programming Without Code" on page 18.
2. Press the VCR button, and then press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
3. Use the numeric buttons on the remote control to enter a 4-digit Setup Code. When programming is complete, the LED on the remote control will flash twice.

■ Programming for AUX (other component) operation

You can use the remote control for the Digital CATV Terminal to operate a CD player, DVD player, Audio Amplifier, Miscellaneous Audio component, Audio Amplifiers and Tuners, Home Automation equipment or Cable Converter. At the time of shipment from the factory, the code is set to Panasonic-brand CD player (code: 0303).

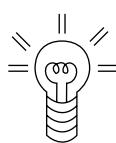
Use the following procedure to program the desired component.

1. Select the Setup Code for the desired component by referring to the tables on pages 21 to 24. If you cannot find the right Setup Code, refer to "Programming Without Code" on page 18.
2. Press the AUX button, and then press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
3. Use the numeric buttons on the remote control to enter a 4-digit Setup Code. When programming is complete, the LED on the remote control will flash twice.

Unsuccessful Code

If the component does not operate with the remote control, repeat the procedure using another code. (Some brands have multiple codes.)

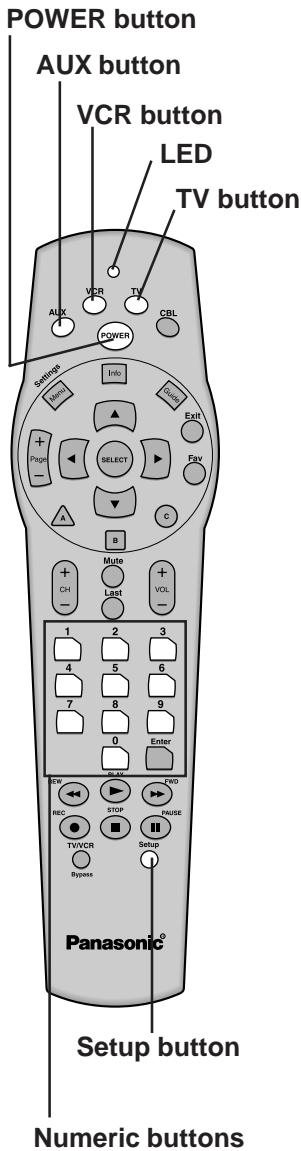
If you enter an incorrect Code, or if no button is pressed for 10 seconds or more, the program will be canceled.



Programming the Remote Control

■ Programming Without Code

If you cannot find the right Code, you can call up all Codes one after the other to search for a Code.



- 1.Turn on the power for the Component to be programmed.
- 2.Press the mode button (TV, VCR or AUX) for the component to be programmed, and then press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
- 3.Use the numeric buttons on the remote control to enter "991". After this number is entered, the LED on the remote control will flash twice.
- 4.Press the POWER button. (A remote control signal will be transmitted.)
- 5.If the component turns off, go to step 6. If the component remains on, press the mode button (TV, VCR or AUX), and then repeat step 4. (Repeat this step until the right Code is found.)
- 6.Press the Setup button to register the Code. When programming is complete, the LED on the remote control will flash twice.

■ Identifying programmed Codes

If you would like to know what Code has been programmed, you can find out by observing the flashing pattern of the remote control LED.

- 1.Press the mode button (TV, VCR or AUX) for the component that you would like to find out the Code for, and then press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
- 2.Use the numeric buttons on the remote control to enter "990". After this number is entered, the LED on the remote control will flash twice.
- 3.When a "1" is then entered using the numeric buttons, the remote control LED will flash. The number of times it flashes corresponds to the first digit of the Code. For example, if the LED flashes five times, the first digit of the Code is 5.
- 4.When a "2" is then entered using the numeric buttons, the remote control LED will flash. The number of times it flashes corresponds to the second digit of the Code.
- 5.When a "3" is then entered using the numeric buttons, the remote control LED will flash. The number of times it flashes corresponds to the third digit of the Code.
- 6.When a "4" is then entered using the numeric buttons, the remote control LED will flash. The number of times it flashes corresponds to the fourth digit of the Code.
- 7.Write the code numbers for your components in the space provided below. This will serve as a reference when you need to program your remote control.

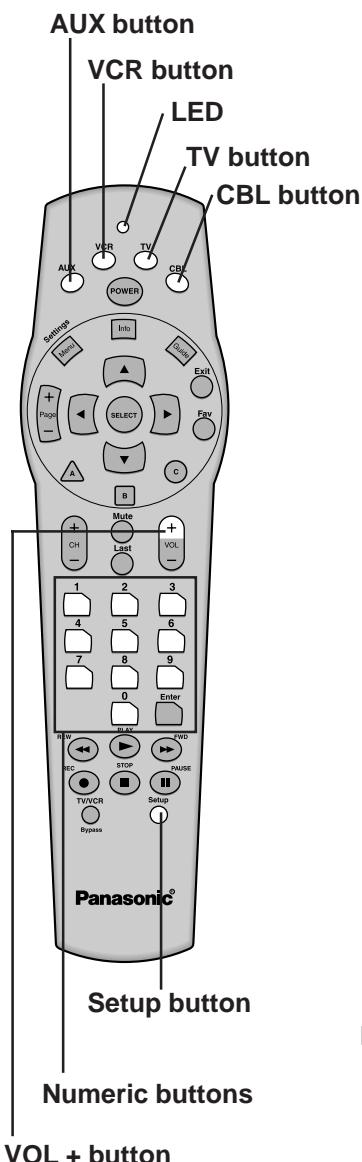
Name of component

TV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(TV)
VCR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(<u>VCR</u>	, <u>DVD player</u>)
AUX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	()

■ Programming for volume control

The volume adjustment function can be locked so that regardless of whether CBL, TV or VCR mode is active, the volume is adjusted for only one of the modes. (Refer to the table below.)

The default setting is TV. When the setting is AUX mode, you can adjust the volume for the AUX component at all times, even if some other mode is currently active.



Physical Mode Keys				
Volume Locked to:	TV	VCR	CBL	AUX
TV	TV	TV	TV	AUX
VCR	VCR	VCR	VCR	AUX
CBL	CBL	CBL	CBL	AUX
AUX	AUX	AUX	AUX	AUX

Setting method

1. Press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
2. Use the numeric buttons on the remote control to enter "993". After this number is entered, the LED on the remote control will flash twice.
3. Press the button for the mode that you would like to lock the volume adjustment for. When the setting is complete, the LED on the remote control will flash twice.

Cancelling the setting

1. Press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
2. Use the numeric buttons on the remote control to enter "993". After this number is entered, the LED on the remote control will flash twice.
3. Press the VOL + button. When the setting is canceled, the LED on the remote control will flash four times.

Note:

- In the case of Mode Reassignment, the operation will be as shown in the table below. See below for details on Mode Reassignment.

Physical Mode Keys					
Volume Locked to:	Mode Reassigned to:	TV	VCR	CBL	AUX
TV	TV2	TV	TV2	TV	AUX
VCR	TV2	TV2	TV2	TV2	AUX
CBL	TV2	TV2	TV2	CBL	AUX
AUX	TV2	TV2	AUX	AUX	AUX

■ Mode Reassignment

You can assign the Code for setting a certain mode (TV, VCR or AUX) to use as the Code for setting some other mode.

(Example) Assigning the button setting Code for TV mode to the button for VCR mode

1. Press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
2. Use the numeric buttons on the remote control to enter "992". After this number is entered, the LED on the remote control will flash twice.
3. Press the TV button.
4. Press the VCR button. When the setting is complete, the LED on the remote control will flash twice. Then you can use second TV (which has other Remote Code) instead of VCR.

Note:

- The Code for CBL mode cannot be assigned to any other mode. Furthermore, no other Code can be assigned to CBL mode.

Programming the Remote Control

■ Changing button functions

The functions of the remote control buttons can be assigned to other buttons.

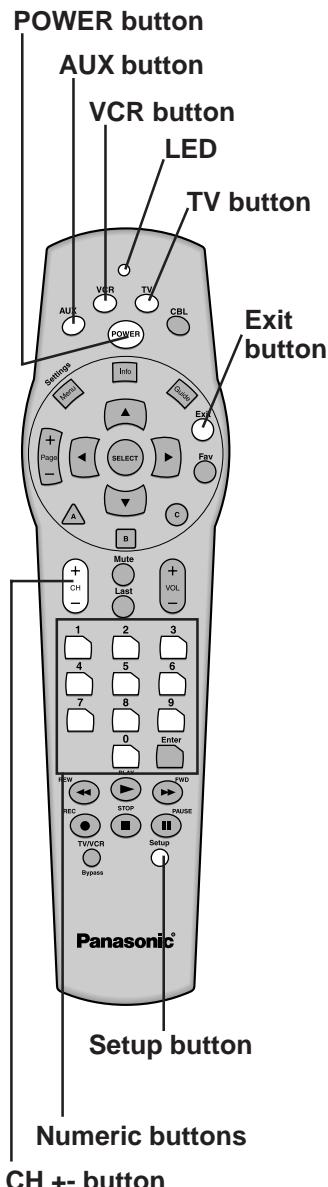
Setting method

(Example) Assigning the function of the POWER button in TV mode to the Exit button in VCR mode

1. Press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
2. Use the numeric buttons on the remote control to enter "994". After this number is entered, the LED on the remote control will flash twice.
3. Press the TV mode button, and then press the POWER button.
4. Press the VCR button, and then press the Exit button. When programming is complete, the LED on the remote control will flash twice.

Canceling the setting

1. Press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
2. Use the numeric buttons on the remote control to enter "994". After this number is entered, the LED on the remote control will flash twice.
3. Press the Mode button twice. When programming is complete, the LED on the remote control will flash twice.



■ Channel lock

The Digital CATV Terminal lets you lock the channel selection (0~9 buttons, CH Up/Down buttons, Last button) functions. The following procedure can be used to set whether channel selection is locked or not.

Clearing the lock

1. Press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
2. Use the numeric buttons on the remote control to enter "973". After this number is entered, the LED on the remote control will flash twice.
3. Press the CH - button. When programming is complete, the LED on the remote control will flash twice.

Setting the lock

1. Press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
2. Use the numeric buttons on the remote control to enter "973". After this number is entered, the LED on the remote control will flash twice.
3. Press the CH + button. When programming is complete, the LED on the remote control will flash twice.

■ Reset

You can reset any remote control settings which have been changed. The settings can be reset in either of two ways.

Operation setting reset

This resets all remote control settings to their factory default values, except for Codes set in TV, VCR and AUX modes.

1. Press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
2. Use the numeric buttons on the remote control to enter "980". When resetting is complete, the LED on the remote control will flash four times.

Factory default reset

This resets all remote control settings to the factory defaults.

1. Press the Setup button and hold for 3 seconds (until the visible LED blinks twice).
2. Use the numeric buttons on the remote control to enter "977". When resetting is complete, the LED on the remote control will flash four times.

Programming the Remote Control

Component Codes

The Universal Remote Control is capable of operating many component brands after entering a code. Some components may not operate. The Universal Remote Control does not control all features in all models.

Codes for TVs (for TV mode)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
AOC	0030, 0019	LG	0056
Admiral	0093, 0463	LXI	0047, 0054, 0154, 0156, 0178
Aiko	0092	Logik	0016
Akai	0030	Luxman	0056
Alaron	0179	MGA	0150, 0030, 0178, 0019
Ambassador	0177	MTC	0060, 0030, 0056, 0019
America Action	0180	Magnavox	0054, 1254, 0030, 0179
Ampro	0751	Majestic	0016
Anam	0180	Marantz	0054, 0030
Anam National	0055	Matsushita	0250
Audiovox	0451, 0180, 0092	Megatron	0178, 0145
Baysonic	0180	Memorex	0154, 0250, 0463, 0150, 0178, 0056, 0016
Belcor	0019	Midland	0047, 0017, 0051, 0135, 0039
Bell & Howell	0154, 0016	Minutz	0021
Bradford	0180	Mitsubishi	0093, 0150, 0178, 0019
Brockwood	0019	Motorola	0093, 0055
Broksonic	0236, 0463	Multitech	0180
CXC	0180	NAD	0156, 0178, 0166
Candle	0030, 0056	NEC	0030, 0056, 0019
Carnivale	0030	NTC	0092
Carver	0054	Nikko	0030, 0178, 0092
Celebrity	0000	Onwa	0180
Cineral	0451, 0092	Optimus	0154, 0250, 0166
Citizen	0060, 0030, 0056, 0092, 0039	Optonica	0093, 0165
Concerto	0056	Orion	0236, 0463, 0179
Contec	0180	Panasonic	0051, 0250, 0055
Craig	0180	Penney	0047, 1347, 0156, 0051, 0060, 0030, 0178, 0021, 0056, 0019, 0135, 0039
Crosley	0054	Philco	0054, 0463, 0030, 0145, 0019
Crown	0180, 0039	Philips	0054
Curtis Mathes	0047, 1147, 1347, 0054, 0154, 0051, 0451, 0093, 0060, 0030, 0056, 0145, 0016, 0039, 0166, 0466	Pilot	0030, 0019, 0039
Daewoo	0451, 0019, 0092, 0039	Pioneer	0166
Daytron	0019	Portland	0019, 0092, 0039
Denon	0145	Prism	0051
Dumont	0017, 0019	Proscan	0047
Dwin	0720, 0774	Proton	0178, 0466
Electroband	0000	Pulsar	0017, 0019
Emerson	0154, 0236, 0463, 0180, 0178, 0179, 0019, 0282, 0039, 0177	Quasar	0051, 0250, 0165, 0055
Envision	0030	RCA	0047, 1047, 1147, 1247, 1347, 1447, 0090, 0051, 0093, 0019, 0135
Fisher	0154	Radio Shack	0047, 0154, 0180, 0030, 0178, 0056, 0019, 0165, 0039
Fujitsu	0179, 0683	Realistic	0154, 0180, 0030, 0178, 0056, 0019, 0165, 0039
Funai	0180, 0179, 0171	Runco	0017, 0030
Futuretech	0180	SSS	0180, 0019
GE	0047, 1147, 1347, 0051, 0451, 0093, 0178, 0021, 0282, 0135, 0055	Sampo	0030, 0039
Gibralter	0017, 0030, 0019	Samsung	0060, 0030, 0178, 0056, 0019
GoldStar	0030, 0178, 0056, 0019	Samsux	0039
Gradiente	0053, 0056	Sansei	0451
Grunpy	0180, 0179	Sansui	0463
Hallmark	0178	Sanyo	0154
Harley Davidson	0179	Scimitsu	0019
Harman/Kardon	0054	Scotch	0178
Harvard	0180	Scott	0236, 0180, 0178, 0179, 0019
Hitachi	0056, 0145, 0016, 0151	Sears	0047, 0054, 0154, 0156, 0178, 0179, 0056, 0171
Infinity	0054	Semivox	0180
Inteq	0017	Semp	0156
JBL	0054	Sharp	0093, 0165, 0039
JCB	0000	Shogun	0019
JVC	0053	Signature	0016
KEC	0180	Sony	0000
KTV	0180, 0030, 0039		
Kenwood	0030, 0019		

Programming the Remote Control

Codes for TVs (for TV mode) (continued)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
Soundesign	0180, 0178, 0179	Telefunken	0056
Squareview	0171	Toshiba	0154, 0156, 0060
Starlite	0180	Toshiba	1256
Supreme	0000	Totevision	0039
Sylvania	0054, 0030	Vector Research	0030
Symphonic	0171	Victor	0053
TMK	0178, 0056, 0177	Vidikron	0054
Tandy	0093	Vidtech	0178, 0019
Tatung	0055	Wards	0054, 0030, 0178, 0021, 0179, 0056, 0019, 0165, 0016
Technics	0051, 0250	White Westinghouse	0463
Technol Ace	0179	Yamaha	0030, 0019
Techwood	0051, 0056	Zenith	0017, 0463, 0016, 0092
Teknika	0054, 0180, 0150, 0060, 0179, 0056, 0019, 0016, 0092, 0039		

Codes for VCRs (for VCR mode)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
Admiral	0048, 0209	Logik	0072
Adventura	0000	MEI	0035
Aiko	0278	MGA	0240, 0043
Aiwa	0037, 0000	MGN Technology	0240
Akai	0041	MTC	0000, 0240
America Action	0278	Magnasonic	0278
American High	0035	Magnavox	0035, 0039, 0081, 0000
Asha	0240	Magnin	0240
Audiovox	0037	Marantz	0035, 0081
Beaumark	0240	Marta	0037
Bell & Howell	0104	Matsushita	0035, 0162, 0454
Broksonic	0184, 0121, 0209, 0002	Memorex	0035, 0037, 1037, 0048, 0039, 0047, 1162, 1262, 0000, 0240, 0104, 0209, 0454, 0046
CCE	0072, 0278	Memorex	0162
Calix	0037	Minolta	0042
Canon	0035	Mitsubishi	0048, 0067, 0043
Carver	0081	Motorola	0035, 0048
Cineral	0278	Multitech	0000, 0072
Citizen	0037, 0278	NEC	0067, 0104, 0041
Colt	0072	Nikko	0037
Craig	0037, 0047, 0240, 0072	Noblex	0240
Curtis Mathes	0035, 0060, 0162, 0041	Olympus	0035
Cybernex	0240	Optimus	0037, 0048, 1048, 1062, 0162, 1162, 1262, 0104, 0454
Daewoo	0045, 0278	Orion	0184, 0209, 0002
Denon	0042	Panasonic	0035, 0225, 1062, 0162, 1162, 1262, 0454, 0616
Dynatech	0000	Penney	0035, 0037, 0042, 0240
Electrohome	0037	Pentax	0042
Electrophonic	0037	Philco	0035, 0209
Emerex	0032	Philips	0035, 0081, 0618
Emerson	0037, 0184, 0000, 0121, 0043, 0209, 0002, 0278	Pilot	0037
Fisher	0047, 0104	Pioneer	0067
Fuji	0035, 0033	Profitronic	0240
Funai	0000	Proscan	0060
GE	0035, 0060, 0048, 0240	Protec	0072
Garrard	0000	Pulsar	0039
Go Video	0526	Quarter	0046
GoldStar	0037	Quartz	0046
Gradiente	0000	Quasar	0035, 0162, 1162, 0454
Hi-Q	0047	RCA	0035, 0060, 0048, 0042, 0240
Harley Davidson	0000	RCA	0060
Harman/Kardon	0081	Radio Shack	1037, 0000
Harwood	0072	Radix	0037
Headquarter	0046	Randex	0037
Hitachi	0000, 0042, 0041	Realistic	0035, 0037, 0048, 0047, 0000, 0104, 0046
Hughes Network Systems	0042	ReplayTV	0614, 0616
JVC	0067, 0041	Runco	0039
Jensen	0041	STS	0042
KEC	0037, 0278	Samsung	0045, 0240
KLH	0072		
Kenwood	0067, 0041		
Kodak	0035, 0037		
LXI	0037		
Lloyd's	0000		

Programming the Remote Control

Codes for VCRs (for VCR mode) (continued)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
Sankyo	0048, 0039	Technics	0035, 0162
Sansui	0000, 0067, 0209, 0041	Teknika	0035, 0037, 0000
Sanyo	0047, 0240, 0104, 0046	Thomas	0000
Scott	0184, 0045, 0121, 0043	Tivo	0618
Sears	0035, 0037, 0047, 0000, 0042, 0104, 0046	Toshiba	0045, 0043
Semp	0045	Totlevision	0037, 0240
Sharp	0048	Unitedech	0240
Shintom	0072	Vector	0045
Shogun	0240	Video Concepts	0045
Singer	0072	Videosonic	0240
Sony	0035, 0032, 0000, 0033	Wards	0035, 0060, 0048, 0047, 0081, 0000, 0042, 0240, 0072
Sylvania	0035, 0081, 0000, 0043	White Westinghouse	0209, 0278
Symphonic	0000	XR-1000	0035, 0000, 0072
TMK	0240	Zenith	0039, 0000, 0209, 0033
Tatung	0041		
Teac	0000, 0041		

Codes for DVD Players (for VCR and AUX mode)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
Denon	0490	Pioneer	0525, 0571
GE	0522	Proscan	0522
JVC	0558	RCA	0522
Kenwood	0534	Samsung	0573
Magnavox	0503	Sony	0533
Marantz	0539	Technics	0490
Mitsubishi	0521	Theta Digital	0571
Onkyo	0503	Toshiba	0503
Optimus	0571	Yamaha	0490, 0545
Panasonic	0490	Zenith	0503
Philips	0503, 0539		

Codes for Home Automation (for AUX mode)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
LiteTouch	0084	Security System	0167
Lutron	0597	Universal X10	0167
One For All	0167	X10	0167
Sanyo	0336		

Codes for Cable Converters (for AUX mode)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
Pioneer	0877	Scientific Atlanta	0877

Codes for Miscellaneous Audio (for AUX mode)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
Aiwa	0159	Sony	0159
Jerrold	0459	Starcom	0459
Scientific Atlanta	0460		

Codes for Audio Amplifiers (for AUX mode)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
Aiwa	0406	Optimus	0300
Carver	0269	Panasonic	0308
Curtis Mathes	0300	Philips	0269, 0892
Denon	0160	Pioneer	0013, 0300
Harman/Kardon	0892	Sony	0220, 0689
JVC	0331	Technics	0308
Linn	0269	Victor	0331
Magnavox	0269	Wards	0013
Marantz	0269	Yamaha	0354

Programming the Remote Control

Codes for Audio Amp/Tuners (for AUX mode)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
ADC	0531	Optimus	1023, 0531, 0670, 0186, 0080, 0738, 0801, 0042, 0181, 0219
Aiwa	1089, 1405, 0158, 0189, 0121, 0405	Panasonic	1518, 0039, 0309
Capetronic	0531	Penney	0195
Carver	1089, 1189, 0189, 0042, 0360, 0008	Philips	1089, 1189, 0189
Casio	0195	Philips	0391
Clarinette	0195	Pioneer	1023, 0531, 0014, 0150, 0630, 0080
Curtis Mathes	0080	Proscan	1254
Denon	1104, 1160, 0004	Quasar	0039
Emerson	0424	RCA	1254, 0531, 0360, 0054
Fisher	0042, 0360, 0219	Realistic	0195, 0181
Garrard	0463, 0424	Sansui	1089, 0189
Harman/Kardon	0110, 0189, 0891	Sanyo	0801, 0219
JBL	0110	Scott	0322
JVC	0074	Sharp	0186
Kenwood	1313, 1027, 1569, 0027, 0186, 0042	Sherwood	0491, 0502
Koss	0424	Sony	1058, 1158, 1258, 0158
LXI	0181	Soundesign	0670
Linn	0189	Sunfire	1313
Lloyd's	0195	Teac	0463
MCS	0039	Technics	1308, 1309, 1518, 0039, 0309
Magnavox	1089, 1189, 0531, 0189, 0195, 0391	Thorens	1189
Marantz	1089, 1189, 0039, 0189	Victor	0074
Modulaire	0195	Wards	0158, 0014, 0189, 0080, 0054
NAD	0320	Yamaha	0176, 0186
Nakamichi	0097, 0347	Yorx	0195
Onkyo	0135	Zenith	0857

Codes for CD Players (for AUX mode)

Manufacturer List			
Manufacturer	Set Up No.	Manufacturer	Set Up No.
ADC	0018	Optimus	1063, 0000, 0032, 0179, 0305, 0037, 0420, 0145, 0468, 0437, 0087, 0342, 0426, 0280
Adcom	0155	Panasonic	0029, 0303, 0367, 0752
Aiwa	0157, 0124	Parasound	0420
Audio-Technica	0170	Philips	0626, 0157
Burmester	0420	Pioneer	1063, 0032, 0305, 0468, 0244
California Audio Labs	0029, 0303	Proton	0157
Carver	0157, 0179, 0437	QED	0157
DKK	0000	Quasar	0029
Denon	0003	RCA	0179, 0305, 0053, 0764, 0155, 0009
Emerson	0305, 0164, 0155, 0469	Realistic	0179, 0420, 0180, 0164, 0155
Fisher	0179, 0174, 0342	Rotel	0157, 0420
GE	0009	SAE	0157
Garrard	0420, 0393, 0280	STS	0018
Genexxa	0032, 0305, 0164	Sansui	0157, 0305
Harman/Kardon	0157, 0173, 0426	Sanyo	0179, 0087
Hitachi	0032, 0155	Scott	0305, 0164, 0155
JVC	0072	Sears	0305
Kenwood	0826, 0626, 0028, 0037, 0190	Sharp	0861, 0037, 0180
Krell	0157	Sherwood	0180, 0426
Kyocera	0018	Sony	0490, 0000, 0185, 0604, 0605
LXI	0305	Soundesign	0145
Linn	0157	Tascam	0420
MCS	0029	Teac	0420, 0393, 0180, 0174
MTC	0420	Technics	0029, 0303
Magnavox	0157, 0305	Victor	0072
Marantz	0029, 0157, 0180	Wards	0157, 0053
Mission	0157	Yamaha	0036, 0187, 0170
NSM	0157	Yorx	0461
Nikko	0174, 0164, 0170		
Onkyo	0101		

Troubleshooting

Symptom	Remedy
No power	Check that the AC power plug is securely plugged into the power outlet.
No reception	<ul style="list-style-type: none"> ● Check that equipment is connected properly. ● Check that the cable wire is connected properly.
No picture	<ul style="list-style-type: none"> ● Check that equipment is connected properly. ● Check if the channel is available. ● Make sure the TV power is turned on. ● If your setup includes a VCR and/or stereo, make sure you have properly connected them to the Digital CATV Terminal unit. ● Make sure your TV is tuned to the proper output channel (3 or 4). ● Make sure the RF Bypass is disabled.
No sound	<ul style="list-style-type: none"> ● Properly plug your television and Digital CATV Terminal unit into an electrical outlet. ● Make sure all cables are properly connected. ● Make sure the TV power is turned on. ● If your setup includes a VCR and/or stereo, make sure you have properly connected them to the Digital CATV Terminal unit. ● Make sure your TV is tuned to the proper output channel (3 or 4). ● Make sure the volume is turned up. ● Make sure the RF Bypass is disabled. ● Make sure the TV is not in "MUTE" mode.
Distorted picture	<ul style="list-style-type: none"> ● Make sure all cables are properly connected. ● Adjust the TV to channel 3 or 4.
No color	<ul style="list-style-type: none"> ● Make sure the current TV program is broadcast in color. ● Adjust the TV color controls.
The remote control is not responding	<ul style="list-style-type: none"> ● Check that the batteries are installed with the correct polarities (+and -). ● The batteries are depleted: Replace them with new ones. ● Point the remote control unit at the remote control sensor and operate. ● Operate the remote control unit at a distance of not more than 23 feet (7 meters) from the remote control sensor. ● Remove any obstacles between the remote control unit and remote control sensor. ● Make sure the remote control is in the proper component mode (i.e. CBL, TV, VCR,AUX).

Specifications

Power Source	120 V AC, 60 Hz
Power Consumption	MAX 0.6 A
Operating conditions	Temperature : 32 °F-104 °F(0 °C - 40 °C) Humidity: 20 %-80 % (non-condensing)
Connection terminals	CABLE IN : F connector, 75 Ω CABLE OUT : F connector, 75 Ω VIDEO OUT : RCA pin jack x 2, 1 Vp-p, 75 Ω S-VIDEO OUT : Mini DIN 4-pin , Y:1 Vp-p(75 Ω), C:0.286 Vp-p(75 Ω) AUDIO OUT : RCA pin jack x 2(L-R), 0.5 Vrms DIGITAL AUDIO OUT(AC-3) : RCA pin jack , AC-3/PCM BYPASS : For Bypass Module (optional accessory) DATA : For VCR Commander™ Module (optional accessory) USB : Use to connect the Digital CATV Terminal to external equipment. AC Switched Outlet : 120 V AC, 60 Hz, 5 A
Dimensions (WxHxD)	14.17 "(360 mm) x 2.78 "(70.5 mm) x 10.55 "(268 mm)
Weight (Mass)	5.5 lb. (2.5 kg)

Note:

Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

Notes

Customer Record

The model number and serial number of this product can be found on its rear panel. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number TZ-PCD2000 Serial Number

**Panasonic Consumer Electronics Company,
Division of Matsushita Electric Corporation of America**
One Panasonic Way Secaucus New Jersey 07094

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