Panasonic®

Operating Instructions Digital High Definition Plasma Television

Model No.

TH-37PX25 TH-42PX25 TH-50PX25



For assistance, please call : 1-888-VIEW-PTV(843-9788) or send e-mail to : consumerproducts@panasonic.com or visit us at www.panasonic.com

(U.S.A.)

For assistance, please call : 787-750-4300 or visit us at www.panasonic.com

(Puerto Rico)

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep 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 reduce the risk of electric shock, do not remove cover or back. No user-serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not place liquid containers (flower vase, cups, cosmetics, etc.) above the set. (including on shelves above, etc.)

WARNING: AS WITH ANY SMALL OBJECT, SD CARDS CAN BE SWALLOWED BY YOUNG CHILDREN. DO NOT ALLOW CHILDREN TO HANDLE THE SD CARD.

WARNING: 1) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

2) Do not remove the grounding pin on the power plug. This apparatus is equipped with a three pin grounding-type power plug. This plug will only fit a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician. Do not defeat the purpose of the grounding plug.

Note:

Do not allow a still picture to be displayed for an extended period, as this can cause a permanent afterimage to remain on the Plasma Television.

Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.



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U.S. Patents Nos. 4,631,603; 4,577,216; 4,819,098; 4,907,093; 6,381,747; and 6,516,132.

Important Safety Instructions

1) Read these instructions.

All the safety and operating instructions should be read before the appliance is operated.

2) Keep these instructions.

The safety and operating instructions should be retained for future reference.

3) Heed all warnings.

All warnings on the appliance and in the operating instructions should be adhered to.

4) Follow all instructions.

All operating and use instructions should be followed.

5) Do not use this apparatus near water.

For example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

6) Clean only with dry cloth.

Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning.

- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Slots and Openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

- 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.

Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

- 13) Unplug this apparatus during lightning storms or when unused for long periods of time. This will prevent damage to the product due to lightning and power-line surges.
- 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.
- 15) To prevent electric shock, ensure the grounding pin on the AC cord power plug is securely connected.



Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new Plasma TV.

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 record the model number and serial number of your set in the space provided on the back cover of these instructions.

Visit our Panasonic Web Site : www.panasonic.com

For assistance, please call : 1-888-VIEW-PTV(843-9788 or send e-mail to : consumerproducts@panasonic.com or visit us at www.panasonic.com) (IISA)
or visit us at www.panasonic.com	(0.0.7.)
For assistance, please call : 787-750-4300 or visit us at www.panasonic.com	(Puerto Rico)

FCC STATEMENT

FCC STATEMENT

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

FCC CAUTION:

To assure continued compliance and possible undesirable interference, the provided ferrite cores must be used when connecting this plasma television to video equipment; and maintain at least 40 cm spacing to other peripheral devices. Refer to instructions on pages 10, 13, 14, 17, 18.

Any changes or modifications to this TV not expressly approved by Matsushita Electric Corporation of America could result harmful interference and would void the user's authority to operate this device.

FCC Declaration of Conformity Model No. TH-37PX25, TH-42PX25, TH-50PX25

Responsible Party:	Matsushita Electric Corporation of America
	One Panasonic Way, Secaucus, NJ 07094
Contact Source:	Panasonic Consumer Electronics Company
	1-888-843-9788
	email: consumerproducts@panasonic.com

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Safety Precautions

Set up

Do not place the Plasma TV on sloped or unstable surfaces.

• The Plasma TV may fall off or tip over.

Do not place any objects on top of the Plasma TV.

• If water spills onto the Plasma TV or foreign objects get inside it, a short-circuit may occur which could result in fire or electric shock. If any foreign objects get inside the Plasma TV, please consult an Authorized Service Center.

Do not cover the ventilation holes.

• Doing so may cause the Plasma TV to overheat, which can cause fire or damage to the Plasma TV.

If using the pedestal, leave a space of $3 \frac{15}{16}$ (10 cm) or more at the top, left and right, $2 \frac{3}{8}$ (6 cm) or more at the bottom, and $2 \frac{3}{4}$ (7 cm) or more at the rear. If using some other setting-up method, leave a space of $3 \frac{15}{16}$ (10 cm) or more at the top, bottom, left and right, and $\frac{3}{4}$ (1.9 cm) or more at the rear.

Avoid installing this product near electronic equipment that easily receives electromagnetic waves.

• It may cause interference in image, sound, etc. In particular, keep video equipment away from this product.

AC Power Supply Cord

The Plasma TV is designed to operate on 120 V AC, 50/60 Hz.

Securely insert the power cord plug as far as it will go.

• If the plug is not fully inserted, heat may be generated which could cause fire. If the plug is damaged or the wall socket plate is loose, they should not be used.

Do not handle the power cord plug with wet hands.

• Doing so may cause electric shocks.

Do not do anything that might damage the power cable. When disconnecting the power cable, hold the plug, not the cable.

• Do not make any modifications, place heavy objects on, place near hot objects, heat, bend, twist or forcefully pull the power cable. Doing so may cause damage to the power cable which can cause fire or electric shock. If damage to the cable is suspected, have it repaired at an Authorized Service Center.

If the Plasma TV will not be used for a long period of time, unplug the power cord from the wall outlet.

If problems occur during use

If a problem occurs (such as no picture or no sound), or if smoke or an abnormal odor is detected from the Plasma TV, unplug the power cord immediately.

• Continuous use of the TV under these conditions might cause fire or permanent damage to the unit. Have the TV evaluated at an Authorized Service Center. Services to the TV by any unauthorized personnel are strongly discouraged due to its high voltage dangerous nature.

If water or foreign objects get inside the Plasma TV, if the Plasma TV is dropped, or if the cabinet becomes damaged, disconnect the power cord plug immediately.

• A short may occur, which could cause fire. Contact an Authorized Service Center for any repairs that need to be made.

This Plasma TV is for use only with the following optional accessories. Use with any other type of optional accessories may cause instability which could result in the possibility of injury.

(All of the following accessories are manufactured by Matsushita Electric Industrial Co., Ltd.)

•	Pedestal (included)	TY-ST42PX20 (TH-37PX25, TH-42PX25)
		TY-ST50PX20 (TH-50PX25)
٠	Wall-hanging bracket (Vertical)	TY-WK42PV3U
٠	Wall-hanging bracket (Angled)	TY-WK42PR2U
٠	Display stand	TY-S37PX20W (TH-37PX25)
		TY-S42PX20W (TH-42PX25)
		TY-S50PX20W (TH-50PX25)
		TY-DP4201W (TH-37PX25, TH-42PX25, TH-50PX25)

Always be sure to ask a qualified technician to carry out set-up.

When using the Plasma TV

Do not bring your hands, face or objects close to the ventilation holes of the Plasma TV.

• Top of the Plasma TV is usually very hot due to the high temperature of exhaust air being released through the ventilation holes. Burns or personal injuries can happen if any body parts are brought too close. Placing any object near the top of the TV could also result in heat damages to the object as well as to the TV if its ventilation holes are blocked.

Be sure to disconnect all cables before moving the Plasma TV.

- Moving the TV with its cables attached might damage the cables which, in turn, can cause fire or electric shock.
- Disconnect the power plug from the wall outlet as a safety precaution before carrying out any cleaning. • Electric shocks can result if this is not done.

Clean the power cable regularly to prevent it from becoming dusty.

• Built-up dust on the power cord plug can increase humidity which might damage the insulation and cause fire. Unplug the cord from the wall outlet and clean it with a dry cloth.

This Plasma TV radiates infrared rays, therefore it may affect other infrared communication equipment. Install your infrared sensor in a place away from direct or reflected light from your Plasma TV.

Cleaning and maintenance

The front of the display panel has been specially treated. Wipe the panel surface gently using only a cleaning cloth or a soft, lint-free cloth.

- If the surface is particularly dirty, soak a soft, lint-free cloth in a weak detergent solution and then wring the cloth to remove excess liquid. Use this cloth to wipe the surface of the display panel, then wipe it evenly with a dry cloth, of the same type, until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects. Furthermore, avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the surface may be adversely affected.

If the cabinet becomes dirty, wipe it with a soft, dry cloth.

- If the cabinet is particularly dirty, soak the cloth in a weak detergent solution and then wring the cloth dry. Use this cloth
 to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow any detergent to come into direct contact with the surface of the Plasma TV. If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the cabinet surface may be adversely affected or the coating may peel off. Furthermore, do not leave it for long periods in contact with articles made from rubber or PVC.

Note:

Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma TV.

Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.

Installation

Receiver Location

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.

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 75 ohm coaxial shielded wire. Cables are available from your dealer or electronic supply store. 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 will need.

Remote Control Battery Installation

1. Open the cover.

Install the batteries and replace the cover.

Note the correct polarity (+ and -).





Helpful Hints:

For frequent remote control users, replace old batteries with alkaline batteries for longer life.

Helpful Hints:

Whenever you remove the batteries, **you may need to reset the remote control infrared codes.** We recommend that you record the code on page 59, prior to setting up the remote control.

\triangle 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 TV set.



Attaching the ferrite core

Be sure to choose the appropriate size of ferrite core (large or small) and the correct setting of the cable (winding or passing), as indicated by each connection diagram on the following pages (13, 14, 17, 18).



Cable Connection



Cable Cover Removal and Fitting



Note:

Cables and adapters are not supplied with this set unless otherwise indicated.

Antenna Connection

- For proper reception of VHF/UHF channels, an external antenna is required. For best reception, an outdoor antenna is recommended.
- When you enjoy the terrestrial TV programs only, connect the home antenna to ANTENNA (A).
- When you enjoy both the terrestrial TV programs and the cable TV programs, connect the cable TV's cable to ANTENNA (A), and the terrestrial antenna cable to ANTENNA (B).
- Select the antenna mode in Input Setup (see page 22).



Notes:

- 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.
- To obtain optimum quality picture and sound, an antenna, the correct cable (75 Ohm coaxial) and the correct terminating plug are required.
- If a communal antenna system is used, you may require the correct connection cable and plug between the wall antenna socket and your television receiver.
- Your local television service centre or dealer may be able to assist you in obtaining the correct antenna system for your particular area and the accessories required.
- Any matters regarding antenna installation, upgrading of existing systems or accessories required, and the costs incurred, are your responsibility.

Cable Box Connection

- When you enjoy the cable TV programs only, connect the cable TV's cable to ANTENNA (A). When you enjoy both the terrestrial TV programs and the cable TV programs, connect the cable TV's cable to ANTENNA (A), and the terrestrial antenna cable to ANTENNA (B).
- Select the antenna mode in Input Setup (see page 22).



Digital TV - Set-Top Box (DTV-STB) or DVD Connection

This TV is capable of displaying 1080i and 480p DTV signals when connected to a DTV Tuner Set-Top-Box (STB). This TV also utilizes a progressive scan doubler, which de-interlaces the NTSC signal and progressively scans the image. This allows you to sit close to the TV and not see the thin black horizontal lines (venetian blind effect) associated with interlaced TV pictures.

- To view DTV programs, connect the STB to the component video input terminals (Y, P_B, P_R) of the TV. Component color inputs provide luminance and color separation.
- Select the output of the STB to either 1080i or 480p.
- A DTV signal must be available in your area.
- Use a Panasonic DTV-STB (Digital TV-Set-Top Box) or DVD Player.



CableCARD Connection

CableCARD allows you to tune digital and high definition cable channels through the cable antenna. Consult your cable company on the availability of CableCARD.

- Procedure
- 1. Connect the cable antenna to ANTENNA (A).
- 2. Turn the TV on (see page 19).
- 3. Set the input mode to TV (see page 20).
- 4. Insert the CableCARD (as it's upper side facing to your side) into CABLE CARD slot on the back of the TV. Follow the messages displayed on the screen.



- If you experience keyboard or remote control function hang-up when using CableCARD, unplug the TV and plug it back on and try the controls again. If this condition still exists, please call Panasonic Customer Call Center for further instructions.
- Do not insert a PCMCIA card into CABLE CARD slot.

HDMI Connection

HDMI*1 (High Definition Multi media Interface) is the first all digital consumer electronics A/V interface that supports uncompressed standard. The HDMI terminal supports both video and audio information.

To the HDMI*1 input terminal, you can connect an EIA/CEA-861/861B*2 compliant consumer electronic device, such as a Set Top Box or DVD player with HDMI or DVI output terminal.

Input a High-bandwidth Digital Content Protection (HDCP) high-definition picture source to this HDMI terminal, so you can display the high-definition pictures on this TV in the digital form.



Compatible VIDEO Signal

	No. of dots $(H \times V)$	Vertical scanning frequency (Hz)
1080i	1,920 × 1,080i	59.94/60
480p	720 × 480p	59.94/60
	640 × 480p	59.94/60
480i	720(1,440) × 480i	59.94/60

This input terminal is not intended for use with computers.

Compatible sampling frequency of AUDIO signal (L.PCM) : 48kHz / 44.1kHz / 32 kHz

- This HDMI connector is Type A.
- If you connect an equipment without a digital output terminal, connect to the COMPONENT VIDEO, S VIDEO or VIDEO input terminal on the TV so you can enjoy an analog signal.
- The DIGITAL IN terminal can only be used with 1080i, 480i or 480p picture signals. Set the Digital Set -Top -Box DIGITAL OUT terminal Output setting to 1080i, 480i or 480p. For detailed information, refer to the Digital Set -Top -Box instruction manual. If you cannot display the picture because your Digital Set -Top -Box does not have a DIGITAL OUT terminal Output setting, use the component Video Input (or the S Video Input or Video Input). In this case the picture will be displayed as an analog signal.
- *1. HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
 *2. EIA/CEA-861/861B profiles compliance covers profiles for transmission of uncompressed digital video including
- *2. EIA/CEA-861/861B profiles compliance covers profiles for transmission of uncompressed digital video including high bandwidth digital content protection.
- *3. HDMI-DVI conversion cable (TY-SCHO3DH): available on Panasonic Website (www.panasonic.com). Consult your consumer electronics dealer for availability details.

VCR Connection



Amplifier Connection (TO AUDIO AMP)

For a full Home Theater sound experience, an external Dolby Digital^{*} decoder and a multichannel amplifier must be connected to the DIGITAL AUDIO OUT terminal on the TV.

*Dolby Digital 5.1 channel surround sound delivers digital-quality sound. Dolby Digital provides five discrete full-bandwidth channels for front left, front right, center, surround left and surround right, plus a LFE (Low Frequency Effect) subwoofer channel.



Procedure

- 1. Select Speakers "Off" in Audio menu (see page 29).
- 2. Adjust the amplifier volume to the desired level.

- External speakers cannot be connected directly to TO AUDIO AMP terminals.
- When ATSC channel is selected, the output from the DIGITAL AUDIO OUT jack will be Dolby Digital. When NTSC channel is selected, the output will be PCM.

Program Out Connection (PROG OUT)

See optional equipment manual for further instructions for recording and monitoring.



Notes:

- When a device (STB, DVD, etc.) is connected to the HDMI terminal (see page 15), no video or audio is output due to license restrictions.
- Program Out signal may not be available when COMPONENT input (see page 20) is selected for the Main picture during PIP or SPLIT operation (see pages 52, 54).
- When receiving digital channel signals, all digital formats are down-converted to composite NTSC video to be output through Program Out terminals.
- Some programs contain Macrovision signal to prevent VCR recording.

Connecting Headphones / Earphones



Connecting to the front AV terminals

Push to open the front panel and connect equipment to front Audio/Video input terminals.



A second VCR, video disc player, video game equipment and DSS equipment can also be connected to the video input terminals. See the optional equipment manual for details.

Note:

The S-VIDEO connection provides higher quality picture. It overrides other VIDEO connections. Use INPUT 3, AUDIO L and R with S-VIDEO connection.

PC Input Terminals Connection



Notes:

- (1) Computer signals which can be input are those with a horizontal scanning frequency of 15 to 110 kHz and vertical scanning frequency of 48 to 120 Hz. (However, the image will not be displayed properly if the signals exceed 1,200 lines.)
- (2) The maximum resolution:

	Aspect		
Model	4:3	16:9	
TH-37PX25	768 × 720	1,024 × 720	
TH-42PX25	768 × 768	1,024 × 768	
TH-50PX25	1,024 × 768	1,366 × 768	

If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.

(3) Some PC models cannot be connected to the set.

- (4) There is no need to use an adapter for computers with DOS/V compatible D-sub 15P terminal.
- (5) The computer shown in the illustration is for example purposes only.
- (6) Additional equipment and cables shown are not supplied with this set.
- (7) Do not set the horizontal and vertical scanning frequencies for PC signals which are above or below the specified frequency range.

Signal Names for D-sub 15P Connector

Pin Layout for PC Input Terminal

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1	R	6	GND (Ground)	(1)	NC (not connected)
2	G	7	GND (Ground)	12	NC
3	В	8	GND (Ground)	13	HD/SYNC
4	NC (not connected)	9	NC (not connected)	14	VD
5	GND (Ground)	10	GND (Ground)	15	NC

Power ON / OFF



Location of Controls

The Main Unit



The Illuminated Remote Control





First Time Setup

For your convenience, First Time Setup menu will be displayed on screen when the set is turned on for the first time. If needed, follow the menus and procedures displayed on-screen for setting up the features. You can also make the settings in Setup menu (see pages 36, 37).



Auto Scan

This feature allows you to selectively auto scan channels. You can scan All, Analog only channels or Analog & Digital channels.



If the EXIT button is pressed at anytime during Auto Scan, Auto Scan will be cancelled and the TV will return to the First Time Setup menu.

• If a CableCARD is present during the First Time Setup and Antenna (A) is set to cable, Antenna (A) will not be scanned due to the CableCARD providing the channel map.

Watching TV programs

VHF and UHF





Notes:

- The channel number and volume level remain the same even after the TV is turned off.
- Power consumption and howling sound can be reduced if the volume level is lowered.

Cable TV

Make sure that registration with cable TV provider and connection of equipment are completed.



Menu Navigation



Menu Navigation

[To select Other Adjust sub-menu]





Other Adjust	
Color Temp	Cool
Natural Color	On
Video NR	Off
3D Y/C Filter	Off
Color Matrix	HD
Freeze	Split

To return to the previous screen



Press to return.

To exit menus



Press to return to normal picture.

Picture

Picture	
Pic Mode	Vivid
Color	31
Tint	31
Brightness	26
Picture	63
Sharpness	50
Normal	No
Other Adjust	

Pic Mode

Lets you choose the pre-set picture modes that best suits the program you are viewing. This feature also affects Color Temp setting (see page 27).

CH VOL OK VOL Press to select Pic Mode.

Press to select the picture mode.

- Vivid (default): Provides enhanced picture contrast and sharpness for viewing in a well-lit room.
- Standard : Recommended for normal viewing conditions with subdued room lighting.
- Cinema
- : For watching movies in a darkened room. It provides a soft, film-like picture.
- Auto
- : Automatically senses the ambient light conditions and adjusts the brightness and gradation accordingly, to optimise contrast.

Note:

Each mode has its own picture settings (Color, Tint, Brightness, Picture and Sharpness).

Color / Tint / Brightness / Picture / Sharpness / Normal

Press to select the sub-menu.

- Press to adjust the sub-menu.

ltem	Explanations
Color	Adjusts desired color intensity.
Tint	Adjusts natural flesh tones.
Brightness	Adjusts dark areas of picture.
Picture	Adjusts white areas of picture.
Sharpness	Adjusts clarity of outline detail.
Normal	Resets all picture adjustments to factory default settings.

Other Adjust

Press to select Other Adjust.

Press to display the sub-menu.



Other Adjust	
Color Temp	Cool
Natural Color	On
Video NR	Off
3D Y/C Filter	Off
Color Matrix	HD
Freeze	Split

1

Color Temp (temperature) / Natural Color / Video NR / 3D Y/C Filter



Press to select the sub-menu.

Press to adjust or activate the sub-menu.

Item	Explanations
Color Temp (temperature)	To increase or decrease Warm (red) and Cool (blue) colors to suit personal preferences.
Natural Color	To increase the color reproduction range with natural color gradation and highly delicate hues.
Video NR	Reduces noise in the channel, commonly called snow. Remains off when receiving a strong signal.
3D Y/C Filter	Minimizes noise and cross color in the picture.

Color Matrix

Displays 480p input signals in a natural color from digital equipment adapters connected to COMPONENT VIDEO INPUT (Y, P_B, P_R) terminals.

Select HD or SD to automatically adjust color parameters for HD (high definition) or SD (standard definition).



- Press to select Color Matrix.

Press to select SD or HD.

- SD : When the input signal is a normal TV system (NTSC).
- HD : When the input signal is a High-Definition system (ATSC).

Notes:

- This feature is available only with 480p signal and not available with regular TV (NTSC) program.
- When viewing a non-standard DTV signal format, you can change color parameters manually for the best picture quality.

Freeze

This feature is used to freeze main picture and display it in a PIP or SPLIT frame, when the **FREEZE** button on the remote control is pressed. Press **FREEZE** again to delete frame (see pages 53, 55).



Audio

Audio	
Bass	7
Treble	7
Balance	31
Normal	Set
Other Adjust	

Bass / Treble / Balance / Normal



Press to select the sub-menu.

- Press to adjust or activate the sub-menu.

ltem	Explanations	
Bass	Increase or decrease the bass response.	
Treble	Increase or decrease the treble response.	
Balance	Emphasize the left / right speaker volume.	
Normal	Reset Bass, Treble and Balance adjustments to factory default settings.	

Other Adjust



2 Press to select the sub-menu. Press to select or activate the sub-menu.

Other Adjust	
Al Sound	On
BBE VIVA 3D	Off
BBE	Off
Surround	Off
Speakers	On
HDMI In	Auto

Al Sound

Equalize overall volume levels across all channels. Al sound is not available in VIDEO input mode (see page 20).



BBE VIVA 3D / BBE

BBE VIVA 3D BBE VIVA 3D provides a musically accurate natural 3D image with hi-fi sound. The clarity of the sound is improved by BBE while the width, depth and height of the sound image are expanded by BBE's proprietary 3D sound processing. BBE VIVA 3D is compatible with all TV programs including news, music, dramas, movies and sports as well as electronic games. BBE VIVA 3D enhances the surround sound effect, while maintaining the clarity of dialogue.

BBE Sound technology enhances speech intelligibility and restores the dynamic range of musical passages to provide outstanding natural sound.

Press to select BBE VIVA 3D or BBE.

- Press to select On or Off.

Notes:

- When "BBE VIVA 3D" is set to On, "BBE" and "Surround" setting are fixed to "On".
- When "BBE VIVA 3D" is set to Off, "BBE" and "Surround" can be set individually.

Surround

Enhances audio response when listening to stereo.



Note:

This feature is effective when BBE VIVA 3D is set to Off.

Speakers

This feature is used to turn TV speakers On or Off (see page 16, Amplifier Connection).



Press to select Speakers.

Press to select On or Off.

- On : TV speakers operate normally.
- Off : TV speakers off.

HDMI In

When using HDMI (see page 15), this feature will let you switch between Analog Input and Digital Input.



- Press to select HDMI In.

- Press to select the mode.

- Auto : Automatically selects Analog / Digital signal.
- Digital : Digital Input only.
- Analog : Analog Input only.

Channel



Favorite

Allows you to create Favorite channel list from Antenna (A) or Antenna (B).

Surf Mode



Press to select Surf Mode.

Press to select Favorites or All Channels.

Press to enter your selection.

RF Input



Channel



2



Press to select the channel.

Press to add the channel.

To delete the channel, press again while the channel number is displayed. • Repeat step 2 up to 16 favorite channels.

Favorite Surf Mode All Channels **RF Input** Antenna (A) Channel A: 2 The maximum is 16 favorite channels.

OK

EXIT

Ó

MENU

to return

2

Favorite

Captions

Captions

To enter preset and manual labels to desired stations. Also to enter input label to video inputs.

Preset Labels

To enter channel numbers for popular TV stations.



Captions		
Preset Labels	RF Input	Antenna (A)
Manual Labels	ABC	
Input Labels	CBS	
	FOX	
	NBC	
	PBS	
	CNN	
	ESPN	
	НВО	





Press to select the desired preset caption.



Select the channel (refer to your local TV guide).

5



Press to enter your selection. To delete a channel number, while highlighted press ◀ repeatedly until all numbers are removed, then press **OK** button.

Note:

Only input with signal will be selectable.

Manual Labels

To enter numbers and captions manually.



2 Press to select RF Input. Press to select Antenna (A) or Antenna (B). Press to enter your selection.







Press to select the character position.

Press to select the character (refer to your local TV guide).

- Repeat until all characters are added, up to 7 characters can be added for each channel.
- To delete the Channel Caption, press until no character is displayed. Press to enter your selection.

Note: Only input with signal will be selectable.

Captions		
Preset Labels	RF Input	Antenna (A)
Manual Labels	Channel	A: 2
Input Labels	Caption	

Input Labels

To label video input connections for on-screen display.



• To skip the input, select "SKIP". The input will be skipped when you press TV/VIDEO. Press to enter your selection.

Timer

Set the time in Clock Set (see page 35) before setting Timer.

Sleep



- Press to select Sleep.

Press to select the desired sleep time (No, 30, 60 or 90). • To turn off the timer, select No.

• To confirm the remaining time, press RECALL button (see page 21).

Timer	
Sleep	No
Timer	
Clock Set	:
Day Set	

Menu Navigation



Select timer to turn the TV on and off at selected times and on selected day.



Press to select Timer.

-Press to enter the Timer sub-menu.

Timer		
Sleep		No
Timer		
Clock Set	:	
Day Set		•••

ł

Timer	
Day	MON-FRI
On Time	7:10 AM
Off Time	8:10 PM
Set	Yes

Day



Press to select Day.

Press to select appropriate day setting.

On Time/ Off Time

Press to select On Time or Off Time.

Press to enter the time field.



 Press to select the hour (AM or PM) or the minutes position.

- Press to set the hour (AM or PM) and the minutes.



Notes:

2

- The TV automatically turns Off after 90 minutes when turned On by the Timer. It will be cancelled if the Off Time is selected or if a key is pressed.
- When the power to the TV set is disrupted due to a power outage or similar problem, the off-timer will be deactivated and the TV will be in standby mode even after power is restored.



To return to the previous screen



Press to return.

To activate Timer

Select the channel and turn off the TV.

Clock Set	
Press to select Clock Set.	

- Press to enter the time field.



Day Set

Set the day of the week.



Setup



Press to select the menu.

Press to display the sub-menu.



Program CH

Input Setup

Lets you specify the antenna mode (Cable only, Cable/Antenna or Antenna only).



- Auto scan is necessary when you select the input signal for the first time or whenever you change the antenna configuration.
- If CableCARD is not inserted, the Auto scan performs Scan All.
- When CableCARD is inserted and Cable only is selected, Auto Scan will be skipped.
- When CableCARD is inserted and Cable/Antenna is selected, Antenna (B) Analog & Digital Auto Scan will be performed.
Auto Scan

Automatically scans all available channels, Antenna (A) Analog, Antenna (A) Analog & Digital, Antenna (B) Analog and Antenna (B) Analog & Digital.



Manual Program

To add or delete channels from either channels list (A/B) manually.



Program Channel		
Input Setup	Scan All	
Auto Scan	Antenna (A) Analog	
Manual Program	Antenna (A) Analog & Digital	
Signal Meter	Antenna (B) Analog	
	Antenna (B) Analog & Digital	

Program Channel			
Input Setup	RF Input	Antenna (A)	
Auto Scan	Channel Add	A: 1	
Manual Program	Channel Del	A: 2	
Signal Meter			

Signal Meter

(For digital channels only)

Displays the signal strength of the ATSC digital channel in either Antenna (A) or Antenna (B).



Program Channel				
Input Setup	RF Input	Antenna (B)		
Auto Scan	Channel	 ■ <u>B: 26-3</u> 		
Manual Program				
Signal Meter				
	Signal Stre	ngth : 96%		
	Peak	: 96%		



Press to select the channel.

Press to display the Signal Strength.

• The color of the signal bar usually indicates the strength of the received signal. Green - Adequate signal for a good reception. Yellow - Poor signal strength.

Red - Very poor signal strength.

Closed Caption

The television includes a built-in decoder that is capable or providing a visual display of the audio portion. The program viewed must provide Closed Captioning (CC) for the television to display it.

CC Mode

Activates Closed Captioning when the MUTE button is pressed.



• On Mute : To display Closed Captions when audio is muted.

Notes:

- The closed caption is not displayed when you use HDMI connection.
- When displaying or recording an analog channel program on a connected equipment, select the closed caption On/ Off setting on the connected equipment. The TV's CC Mode setting does not affect with the analog channel output signal.
- When displaying or recording a digital channel program on a connected equipment, set the TV's CC Mode setting to Off and select the closed caption On/Off setting on the connected equipment. The digital closed captions will overlap if the closed caption setting is On on both the TV and the connected equipment.

Analog

Lets you choose the closed caption service of Analog broadcasting.



Closed Caption			
CC Mode	Setting	Off	
Analog			
Digital			

Digital

The Digital Closed Caption menu lets you configure the way you choose to view the digital captioning.



Press to enter your selection.

Other Adjust Press to select Other Adj. 1 Press to display the sub-menu. VOL Press to select the sub-menu. Other Adjust 2 СН Auto Power On Off Press to enter the next field. Side Bar Bright ſ VOL **Power Save** Off

Auto Power On (Set or Off)

Select Set to power up the TV at the same time as the cable box or other connected components.

Press to select or activate the sub-menu.

Side Bar (Off, Dark, Mid, Bright)

Displaying a picture in 4:3 mode for an extended period may cause an after-image. Change the brightness of the side bars to prevent the after-image.

Notes:

- Setting the side bar to Bright for an extended period may cause an after-image.
- The side bar may flash (alternate black/white) depending on the picture. In such a case, set Pic Mode to Cinema (see page 26).

Power Save (Off or On)

Supress the luminous level of the TV to reduce power consumption.

Cable CARD

This menu provides information when a CableCARD is inserted into the CABLE CARD slot (see page 14).

Notes:

- If CableCARD is not inserted and you access the CableCARD Info, the message "Cable Module Not present" appears.
- To receive the features offered by your cable company, you may have to subscribe to those services. Contact your cable company regarding availability of the CableCARD. The CableCARD is required receive premium digital services (where available) through the cable input. You may also be able to order call-ahead pay per view events.

Menu Navigation

Lock





Password

Create a 4-digit password to enter the Lock menu.



Enter a 4-digit password.

Password		
New Password		

Notes:

- Use a code that is easy to remember and record it in a safe place.
- If Always is secreted in How Long? (see page 45) and you forget your secret code, the TV must be serviced by a qualified technician to clear the Lock setup.

Lock Set

Select Lock Set to prevent viewing video games, VCR tapes, channels and Video modes.



Lock Set			
Mode	•	<u>Off</u>	►

- Off : Turns off Lock set functions.
- Lock All : All channels are locked regardless of the rating level.
- Game Lock : Locks out CH 3, 4 and Video inputs.
- Channel Lock : Locks out specific analog and digital channels. Password is required to view any of the locked channels.

The maximum is 4 locked channels.

_ _

Antenna (A)

A: 2

Channel Lock RF Input

Channel

Channel Lock

RF Input

Select either Antenna (A) or Antenna (B).



Channel

Select up to four (4) channels to be blocked out. These channels will be blocked out regardless of the program rating.



Block Program

This television incorporates V-CHIP technology to block the viewing of movies and television programs according to the rating category. There are two (2) Content Advisory Categories: MPAA (Motion Picture Association of America) and TV Parental Guidelines Ratings. These categories are used as guidelines for blocking the programs.

• The default mode for the Lock category is the Unlocked state.



Notes:

- The NR rating is independent of other ratings.
- Placing a block on a specific age based rating level, the NR rating and any other more restrictive ratings will also be blocked.

Off

Viewable Viewable Viewable Viewable

NR

G

PG

Х

NR	Not Rated. SEE CUSTOMER CAUTION on the next page.
TV-Y	All children. The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.
TV-Y7	Directed to older children. Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.
TV-G	General audience. It contains little or no violence, no strong language, and little or no sexual dialogue or situations.
TV-PG	Parental guidance suggested. The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.
TV-14	Parents strongly cautioned. This program may contain sophisticated themes, sexual content, strong language and more intense violence.
TV-MA	Mature audiences only. This program may contain mature themes, profane language, graphic violence, and explicit sexual content.
FV	FANTASY/CARTOON VIOLENCE
V	VIOLENCE
S	SEX
L	OFFENSIVE LANGUAGE
D	DIALOGUE WITH SEXUAL CONTENT

U.S. TV PROGRAMS RATINGS CHART

U.S. MOVIES RATINGS CHART

NR	CONTAINS NO RATING (NOT RATED) AND NA (NOT APPLICABLE) PROGRAMS. Movie has not been rated or rating does not apply.
G	GENERAL AUDIENCES. All ages admitted.
PG	PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.
PG-13	PARENTS STRONGLY CAUTIONED. Some material may be inappropriate for children under 13.
R	RESTRICTED. Under 17 requires accompanying parent or adult guardian.
NC-17	NO ONE 17 AND UNDER ADMITTED.
X	ADULTS ONLY.

Customer Caution

The V-Chip system that is used in this set is capable of blocking "NR" programs (non rated, not applicable and none) per FCC Rules Section15.120(e)(2). If the option of blocking "NR" programs is chosen "unexpected and possibly confusing results may occur, and you may not receive emergency bulletins or any of the following types of programming:"

• Emergency Bulletins (Such as EAS messages, weather warnings and others)

• Locally originated programming • News • Political • Public Service Announcements • Religious • Sports

• Weather

How Long?

The Lock settings remain for the selected duration.



Press to select How Long?

Press to select 12 hours, 24 hours, 48 hours or Always.

Press to enter your selection.

How Long?			
Time		<u>12 hours</u>	►
The TV will remain locked for the selected duration			

Note:

When you select Always and you forget your secret code, the TV must be serviced by a qualified technician to clear the Lock setup.

Blocking Messages

Various Blocking messages are displayed on-screen depending upon the type of blocking you have selected in the Lock menu.

Note:

Entering the password will override the block condition. However, the ratings selection will be retained.

Message	Possible cause
Video Inputs Locked.	Game Lock is selected.
Channel Locked. Press OK to enter password.	Channel Lock is selected.
Rating Limit Exceeded. Press OK to enter password.	The rating level is exceeded.

Photo Viewer[™]

Photo Viewer[™] lets you display JPEG images recorded by digital camera on SD card or other types of memory card when it is inserted in the proper card slot.



Folders and Files

- Photo Viewer[™] can only show still images recorded by a digital still camera with DCF^{*} and EXIF standard JPEG file. *DCF (Design rule for Camera File system)
- Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).
- Memory cards must be formatted with FAT12 or FAT16 in order to be viewed on TV. If the card is not formatted, it may cause incompatibility with certain memory card adapters. If this happens, reformat the card using your digital camera. **Reformatting the card will erase the images stored in it.** Refer to your camera manual for more information.
- Maximum number of folders that can be displayed: 100.
- Maximum number of files that can be displayed: 3000.
- Picture resolution: Compatible in the range 64 x 64 8192 x 8192 (sub-sampling 4:2:2 or 4:2:0)
- If the image is imported from a PC, it must follow the EXIF (Exchangeable image file format) 2.0, 2.1, 2.2 in addition to the DCF (design rule for Camera File system) format.
- The JPEG modified using a PC will not be displayed on TV.
- The Photo Viewer™ cannot display Motion JPEG and still image not DCF formatted (i.e. TIFF, BMP).
- If the file is partially corrupted, it may be shown in lower resolution.
- The displayed image size depends on the recorded size.



Thumbnail Mode

The thumbnail screen is the initial entry screen from the main menu.

• When both SD card and PCMCIA card are inserted, the TV plays SD card. To play a PCMCIA card, select "PC" in "Card" (see page 50) after inserting the PCMCIA card.



1 Insert the card into the appropriate slot (see page 46).



OR Press to display the thumbnail screen.

0001/0012 Picture No. /Total No. of pictures File name, the date and the pixel (resolution) of the picture

Notes:

3

- You can also enter the thumbnail screen from MENU screen (see page 24).
- It may take long time to display the thumbnail if there are lots of files or the file size is large.
- The video disappears from the screen while the Photo Viewer[™] access the information from the card. After accessing the images from the card, a thumbnail screen is displayed.



Select the thumbnail Single picture view mode image.

Press to display the

image in the single

picture view mode.







Press to select the next or the previous picture. • Press OK to return to the thumbnail screen.

To rotate the picture

While in the single picture view mode

Press to rotate the picture ninety degree.

Photo Viewer[™] Setup Menu

This menu allows you to customize features in the Photo Viewer[™] Setup Menu.

While in the thumbnail mode or the single picture view mode (see page 48)



Slide Show

Select the settings of Interval, Sequence and Repeat before starting the slide show.

1	CH VOL OK VOL CH	 Press to select the sub-menu. Press to adjust or activate the sub-menu. Interval Allows you to change the length of time that a slide is being displayed on screen. (5Sec, 10Sec, 15Sec, 30Sec, 60Sec, 90Sec, 10Min). Sequence (Order or Random) Repeat (OFF or ON)
2	CH	- Press to select Start.
		 Press to start the slide show.

- Press again to stop.
- Press ASPECT to change the aspect of the image (see page 56).

Rotate

Allows you to rotate the image (see also page 48).



Zoom

(While in the single picture view mode only)

Lets you select the magnification of the single picture display.





Press to move the image in the picture frame.

To cancel Zoom

Press **OK** to view the picture in normal magnification.

Card

Select either SD or PC when both cards are inserted in the slots.



Photo Viewer[™] Troubleshooting

Symptom	Cause and remedy	Page
Cannot read the content of the card	• Not compatible format. Must be formatted with FAT 12 or FAT 16.	47
	Ihe extension is not "JPG". The foldere pet under DCE standard	47
		4/
PC card cannot be ejected.	Push the card all the way in, and eject.	46
Poor picture quality.	If the main image cannot be read (the file is partially corrupted), the Photo viewer [™] will read the thumbnail. Please confirm the format of the image.	47
Long time to display.	There are lots of images or the file size is large.	47
The screen turns black.	If the TV is left with no operation for longer than 5 minutes during the thumbnail screen or the single picture view mode, the screen turns black to avoid image retention. Press any key to return to the normal display.	_

Error messages

"Card is not inserted correctly."	Insert a card.	
"This type of image is not supported."	The JPEG file is corrupted and cannot be decoded.	
"This type of format is not supported."	The card is not formatted with FAT 12 or FAT 16 or if it is not DCF standard.	
" 🔊 "	Thumbnail and main picture cannot be shown.	
"Photo Viewer cannot support over 3000 JPEG files."	Over 3000 image files.	
"Photo Viewer cannot support over 8192 x 8192 pixels."	Resolution over.	
"This type of card is not supported."	Incompatible card is inserted.	
"Press any key to return."	The screen turned black to avoid image retention. Press any key to return to the normal display.	

PIP (Picture in Picture) Operation

This television includes a two-tuner Picture In Picture (PIP) feature. This allows you to watch two (2) live broadcasts at the same time with or without an external video source such as a VCR, cable box, etc.



To freeze the picture

PIP frame

FREEZE TV/VCR

• Press again to cancel Freeze.

Main Picture

While PIP frame is not displayed



• Select PIP or Split (see page 27, Freeze) when freezing the Main picture.

Note:

- Freeze is canceled after 3 minutes.
- Only MOVE (see below) is active while the Main picture is frozen.

To select the input mode of PIP frame



To search the channel

(For analog channels only)



Press to display search frames. • Press again to cancel Search.





Press to select the channel.You can also use the numbered buttons.

To move PIP frame



Press to position PIP frame to one of the four corners.



PIP Frame

SPLIT Operation

This feature lets you watch two different channels side by side with or without an external video source.



To freeze the picture

SPLIT frame



• Press again to cancel Freeze.

Main Picture

While SPLIT frame is not displayed



• Select PIP or Split (see page 27, Freeze) when freezing the Main picture.

Note:

• Freeze is canceled after 3 minutes.

To select the input mode of SPLIT frame



To search the channel

(For analog channels only)



- Press to display search frames. • Press again to cancel Search.
 - e channel.

CH1



- Press to select the channel.
- You can also use the numbered buttons.



Search frames

Notes:

- The Main picture and the SPLIT frame are processed in the individual circuits, and may have slight difference in image quality.
- You cannot display the same picture in the Main picture and the SPLIT frame at the same time.
- While Main picture freeze frame is displayed, you cannot select or search the channel, swap the pictures, or select the input mode.

Aspect Controls

Lets you choose the aspect depending on the format of the received signal and your preference.



Press to change the aspect mode.

Note: The available aspect modes depend on the receiving signal.

- 480i : 4:3, Full, Just or Zoom
- 480p (4:3) : 4:3, Full or Zoom
- 480p (16:9) : 4:3, Full or Zoom
- 1080i : 16:9 only

Mode	Picture	Explanation	
4 : 3		Displays a 4:3 picture at its standard 4:3 size with gray side bars. (It may create an after-image on screen if displayed for a prolonged period of time.)	
Zoom	$\begin{array}{c c} \bullet & \bullet & \bullet \\ \hline & \hline$	Expands a 4:3 picture uniformly (width and height) to full screen width and then reposition the picture vertically. (Recommended for letterbox. This will show picture at full screen size.)	
Full		Displays a picture at full screen size. (Recommended for anamorphic pictures.)	
Just		Stretches the right and left edges of a 4:3 picture to fill the screen, and the center of the screen have aspect correction applied. The size of the picture depends on the original signal. (Recommended for regular TV viewing.)	

PC MENU

Preparation:

- Connect a PC to the TV (see page 18).
- Select PC input mode (see page 20).





PICTURE

NORMALIZE

Select "NORMALIZE" to reset adjustments to the factory default setting. **Note:**

• You can select "NORMALIZE" when you changed the settings.

NORMALIZE NORMAL	
PICTURE MENU	
PICTURE	25
BRIGHTNESS	
SHARPNESS	3
COLOR TEMP	

PICTURE MENU

MENU	Function	
Αυτο	Automatically selects the mode that best suits the brightness of the environment.	
STANDARD	For viewing in standard (evening lighting) environments.	
DYNAMIC	For viewing in brighter environments.	
CINEMA	Ideal for movies.	

■ PICTURE, BRIGHTNESS, SHARPNESS, COLOR TEMP

Item	Function	
PICTURE	Adjusts white areas of picture.	
BRIGHTNESS	Adjusts dark areas of picture.	
SHARPNESS	Adjusts clarity of outline detail.	
COLOR TEMP	To increase or decrease WARM (red) and COOL (blue) colors to suit personal preferences.	

PICTURE POS./SIZE

PICTURE POS./SIZE	
NORMALIZE NORMAL	
🗇 H-POS	
H-SIZE	
U-POS	
T V-SIZE	
← CLOCK PHASE	

Note:

If a "Cue" or "Rew" signal from a VCR or may DVD player is received, the picture position may shift up or down despite of the PICTURE POS./SIZE settings.

NORMALIZE

Select "NORMALIZE" to reset adjustments to the factory default setting. **Note:**

• You can select "NORMALIZE" when you change the settings.

Menu	When "◀" button is pressed	When "▶" button is pressed
H-POS		
H-SIZE		-
V-POS		
V-SIZE		
CLOCK PHASE (RGB/PC in Mode)	Flickering and distortion can be eliminated by using the Position Left " " or Right " " button to carry out adjustment.	

SIGNAL

SYNC

(Only for RGB INPUT signal)

- H & V: The H and V sync signals are input from the HD/VD connector.
- ON G: Uses a synchronized signal on the Video G signal, which is input from the G connector.

SIGNAL	-
SYNC	Image: Constraint of the second sec

■ H-FREQ. (kHz)/V-FREQ. (Hz) (Only for RGB input signal)

Displays the H (Horizontal)/V (Vertical) frequencies.

Display range: Horizontal 15 - 110 kHz Vertical 48 - 120 Hz

H-FREQ.	31.5 kHz
V-FREQ.	60.0 Hz

Operating peripheral equipment using the remote control

Programming the remote control code

You can operate other manufacturers' components using this TV's remote control.

Preparation:

- Connect the plug of the external component to the well outlet.
- Make sure the component is turned off.



Infrared Code Index

The remote control is capable of operating many brands of peripheral equipment. Refer to page 59 for programming procedures.

Notes:

- The remote control memory is limited and therefore some models may not operate. The remote control is not designed to control all features available in all models.
- After entering the proper infrared code, press the desired Mode Selection buttons (see page 20). Refer to pages 63 and 64 for details on operating peripheral equipment using the remote control.

Infrared	Remote Codes for Specific Co	omponents	
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 Box DBS Digital Broadcast System	VCR Video Cassette Recorder	CD Compact Disc Player LD Laser Disc Player	
Other Component	Other Component	Other Component	
Other Component	Other Component	Other Component	

	Codes for VCR		Brand	Code
VCD	Brand	Code	Optimus	306, 321, 328, 335
VCR	Admiral	335	Orion	320, 326
	Aiwa	332	Panasonic	321, 322, 323, 324
	Akai	314, 315, 316, 329	Penney	300, 305, 310, 311, 324, 339, 345
	Audio Dynamic	311, 339	Pentax	300, 311, 345
	Bell &Howell	305, 313	Philco	320, 323, 324, 326, 331, 343
	Broksonic	320, 326	Philips	323, 324, 331
AUX	Canon	323, 325	Pioneer	323
	CCE	343	Proscan	300, 301, 302, 323, 324, 331,
	Citizen	306		333, 345, 346
	Craig	305, 306, 329	Quasar	321, 322, 323, 324
	Curtis Mathes	324, 345	Radio Shack	305, 309, 324, 333, 336, 340
	Daewoo	301, 324, 343	RCA	300, 301, 302, 323, 324, 331,
	DBX	310, 311, 339		333, 345, 346
	Dimensia	345	Realistic	305, 309, 324, 336, 340
	Emerson	303, 319, 320, 325, 326, 343	Samsung	302, 304, 333
	Fisher	305, 307, 308, 309, 313	Sansui	320, 326, 339, 352
	Funai	320, 326, 334	Sanyo	305, 309, 313
	GE	324, 333, 345	Scott	301, 302, 304, 309, 320, 326,
	Goldstar	306		338, 340, 347, 348
	Gradiente	334	Sears	300, 305, 306, 307, 308
	Hitachi	300, 323, 345	Sharp	335, 336
	Instant Replay	323, 324	Shintom	317
	Jensen	339	Signature 2000	335
	JVC	310, 311, 334, 339	Singer	317
	Kenwood	306, 310, 311, 339	Sony	328, 329, 330
	LXI	300, 305, 306, 307, 308, 309	Sylvania	323, 324, 331
	Magnavox	323, 324, 331	Tashiro	306
	Marantz	310, 311, 339	Tatung	310, 311, 339
	Marta	306	Teac	310, 311, 339
	Memorex	309, 324	Technics	321, 322, 323, 324
	MGA	338, 340, 341, 347, 348	Teknika	324
	Minolta	300, 345	Toshiba	301, 346
	Mitsubishi	338, 340, 341, 347, 348	Vector Research	311
	Multitech	304, 347	Wards	306, 309, 335, 336, 344
	NEC	310, 311, 334, 339	Yamaha	305, 310, 311, 339
	Olympic	323, 324	Zenith	306, 344

Operating peripheral equipment using the remote control

Codes for DVD

DVD

Brand	Code	
Denon	100	S
Ferguson	101	5
JVC	109	5
Mitsubishi	105	5
Nordmende	101	1
Panasonic	100	1
Philips	103	1
Pioneer	102	Ň
RCA	101	Z

Brand	Code
Saba	101
Samsung	110
Sharp	108
Sony	104
Technics	100
Thomson	101
Toshiba	103
Yamaha	100
Zenith	107

Codes for CD

DVD

Brand	Code
Admiral	226
Aiwa	233, 235
Carver	229
Denon	242
Emerson	239
Fisher	205
Harman Kardon	219, 220, 221, 223
Hitachi	207
Jensen	234
JVC	240, 241, 245
Kardon	223
Kenwood	200, 201, 211, 245
LXI/Sears	236
Magnavox	229, 232
Marantz	229
McIntosh	221
Nakamichi	210
Onkyo	214, 215

Brand	Code
Optimus	208, 218, 220, 222
Panasonic	224, 225, 227
Philips	229, 230
Pioneer	208
Quasar	224, 225, 227
RCA	231, 237, 238, 247
Sansui	210, 246
Sanyo	205
Scott	210, 246
Sharp	242, 243
Sherwood	220
Sony	228
Soundesign	244
Teac	212, 216, 218
Technics	224, 225, 227
Victor	240, 241, 245
Yamaha	202, 203, 204

Codes for Personal Video Recorders

	Brand	Code
AUX	Panasonic Replay TV	100
	Philips Tivo	101
	Sony Tivo	102

AUX

Codes for Cassette Deck

Brand	Code
Aiwa	223, 224, 225
Denon	231
Fisher	203
Jensen	214
JVC	229, 230
Kenwood	200, 207
Marantz	202
Nakamichi	205
Onkyo	208, 209, 213
Panasonic	216, 218

Brand	Code
Philips	222
Pioneer	204
RCA	226, 227, 228
Sansui	205, 210
Sharp	231
Sony	219, 220
Teac	210, 211, 215
Technics	216, 218
Yamaha	201, 202

RCVR

Codes for Receivers

Brand	Code
Admiral	120
Aiwa	125, 126
Denon	134, 135, 136
Fisher	104
Garrard	113
Harman Kardon	115, 123
Jensen	129
JVC	132, 133
Kenwood	100, 108
Magnavox	127
Marantz	124
McIntosh	116
Nakamichi	106
Onkyo	109, 114

Brand	Code
Optimus	103, 127, 130, 131
Panasonic	118, 119, 121
Philips	123
Pioneer	105, 107
Quasar	118, 119, 121
RCA	103, 105, 127, 130, 131
Sansui	103, 111, 139
Sharp	134, 137
Sony	122
Soundesign	138
Teac	111, 112, 113
Technics	118, 119, 121
Victor	132, 133
Yamaha	101, 102

Codes for Cable Box

CBL

Brand	Code
ABC	124
Archer	125, 132
Cableview	105, 132
Citizen	105, 122
Curtis	112, 113
Diamond	124, 125, 132
Eagle	129
Eastern	134
GC Brand	105, 132
Gemini	122
General	111, 119, 120, 121, 122, 123,
Instrument/Jerrold	124, 125, 126, 127
Hamlin	112, 118, 140, 141, 142, 145
Hitachi	103, 124
Macom	103, 104, 105
Magnavox	133
Memorex	130
Movietime	105, 132
Oak	102, 137, 139
Panasonic	109, 110, 114
Philips	106, 107, 128, 129, 130
Pioneer	101, 116
Pulsar	105, 132

Brand	Code
Puser	132
RCA	115
Realistic	132
Regal	112, 118, 140, 141, 142, 145
Regency	134
Rembrandt	105, 132, 137
Samsung	105
Scientific Atlanta	111, 112, 113
Slmark	101, 105
Sprucer	105, 110
Stargate	105, 132
Tel eview	101, 105
Texscan	144
Tocom	135
Toshiba	104
Unika	125, 132
Universal	122, 132
Videoway	106
Viewstar	129, 130
Zenith	100, 117
Zenith /Drae	100
Satellite	

DBS

Codes for DBS

Brand	Code
Dish Network	105, 115, 116
Echo Star	105
(Echostar)	
Express VU	105, 115
G.E.	106
G.I.	108
(General Instrument)	
Gradiente	114
Hitachi	103, 111, 112
HNS (Hughes)	103

Brand	Code
Magnavox	101, 102
Panasonic	104
Philips	101, 102
Primestar	108
Proscan	106, 109, 110, 113
RCA	106, 109, 110, 113
Sony	107
Star Choice	103, 108
Toshiba	100
Uniden	101, 102

Mode Operational Key Chart

This chart defines which keys that are operational after programming (if needed), while in the selected remote control mode, DTV, CABLE, DBS, VCR, DVD ...etc.

KEY NAME	DTV MODE	CABLE MODE	DBS MODE	
POWER	POWER	POWER	POWER	
	NAVIGATION UP/DOWN	CABLE CHANNEL UP/DOWN	DBS NAVIGATION UP/DOWN	
	ОК	_	DBS MENU	
СН	NAVIGATION RIGHT/LEFT	_	DBS NAVIGATION RIGHT/LEFT	
MENU	DTV MENU	_	_	
ROLL	PROGRAM INFO.	_	DBS PROGRAM INFO.	
EXIT	EXIT (EPG)ELECTRONIC PROGRAM GUIDE	_	EXIT DBS MENU	
1 2 3 4 5 6 7 8 9 0	Select Channel	Select Channel	Select Channel	
R-TUNE	PREVIOUS STB CHAN	CABLE PREVIOUS CHAN	DBS PREVIOUS CHAN	
PROG	DTV PROGRAM/DASH	_	_	
REC Info (EPG) ELECTRONIC PROGRAM GUIDE		_	_	
PIP CH DVD/VCR CH	_	_	DBS CHANNEL UP/DOWN	

Operating peripheral equipment using the remote control

KEY NAME	VCR MODE	DVD/CE (DVD)) MODE (CD)	AUX MODE (PVR) (VCR2)		(TAPE)	RCVR MODE
POWER	POWER	POWER	POWER	POWER	POWER	POWER	POWER
and the second s	_	_	_	_	_	_	RCVR MUTE
TV/VIDEO	TV INPUT SW	_	_	_	TV INPUT SW	_	RCVR INPUT SW
	_	-	_	_	_	_	REMOTE BUTTONS
	_	NAVIGATION UP/DOWN	NEXT/PREVIOUS TRACK	NAVIGATION UP/DOWN	-	_	TUNER +/-
	_	_	-	_	-	_	-
СН	-	_	_	NAVIGATION RIGHT/LEFT	_	VOLUME +/-	RCVR VOLUME +/-
MENU	_	_	_	PVR MENU	_	_	-
RECALL	ONSCREEN VCR DISPLAY	DVD DISPLAY	TIME FORMAT	_	ONSCREEN VCR DISPLAY	_	-
EXIT	_	_	-	EXIT PVR MENU	-	_	-
1 2 3 4 5 6 7 8 9 0	_	_	_	Select Channel	_	_	1 AV1 2 AV2 3 AV3 4 AV4 5 CD 6 TUNER 7 PHONO 8 TAPE 9 AUX
	_	-	_	PREVIOUS CHAN RELAY ZONES	-	DECK A/B	-
PROG	-	_	-	PVR RETURN TO LIVE	-	_	-
PIP MIN REW FF	VCR REW/FF	SKIP SEARCH REW/FF	SEARCH REW/FF	_	VCR REW/FF	TAPE REW/FF	SURROUND -/+
PLAY	PLAY	PLAY	PLAY	PLAY	PLAY	PLAY	-
PAUSE	PAUSE	STILL/PAUSE	PAUSE	PAUSE	PAUSE	PAUSE	_
STOP	STOP	STOP	STOP	_	STOP	STOP	_
REC	VCR RECORD	_	_	PVR RECORD	VCR RECORD	TAPE RECORD	_
FREEZE TV/VCR	TV/VCR SWITCH	SLOW +/-	-	_	TV/VCR SWITCH	_	_
PIP CH DVD/VCR CH	VCR CHANNEL UP/DOWN	_	_	PVR CHANNEL UP/DOWN	VCR CHANNEL UP/DOWN	_	RCVR CENTER +/-
SEARCH OPEN/CLOSE	_	OPEN/CLOSE	OPEN/CLOSE	PVR QUICK SKIP	_	_	-

Troubleshooting Chart

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

Symptoms		Solutions	
VIDEO	AUDIO	3010110115	гаус
Snowy Video	Noisy Audio	 Adjust the antenna location and connection. 	13-14
Multiple Image	Noisy Audio	 Adjust the antenna location and connection. Check the antenna lead-in cable. 	13, 14 13, 14
Interference	Noisy Audio	 Move the television away from electrical appliances, lights, vehicles and medical equipment. 	_
Normal Video	No Audio	 Increase volume. Check Mute. Check Television Speakers on/off. Change channel. 	23 20 29 23
	Noisy Audio	Set Input Setup properly.Check the antenna cables.	36 13, 14
No Video / No PIP	No Audio	 Check the power cord is plugged into the wall outlet. Adjust Brightness and Audio controls. Change channel. Check the cable connections. Program the remote control code. Check the second video source operation. Make sure that a PC is not connected to HDMI input. Rarely, the TV will not display video in HDMI input from devices with HDMI or DVI output due to bad communication between the TV and the devices. Should this happens, unplug the HDMI/DVI device and plug it back on. 	19 26,28,29 23 13-18 59-61 59-64 15
No Color	Normal Audio	Adjust Color settings.Change channel.	26, 27 23
Digitalization of image Image freeze up	Audio Break up	 Re-orient the ATSC antenna. Check signal meter. If the signal is weak, add a signal booster to boost the signal strength. 	_ 38
Normal Video	Wrong Audio	 Check the audio mode is set to Stereo or Mono, Not SAP. Change the audio of the HDMI device to Linear PCM. Check the audio setting for HDMI. If there is functional problem with Digital Audio, use Analog audio. 	21 _ 29
Black Box on Screen	Normal Audio	Change CC (Closed Caption).	39, 40
Normal Video	Normal Audio	 Replace the remote control batteries. 	9
Intermittent Remote C	ontrol Operation		

Troubleshooting Chart / VIDEO/COMPONENT/RGB/PC/HDMI input signals

Plasma Display panel

Symptoms	Check	Page
Some parts of the screen do not light up.	 The plasma display panel is manufactured using an extremely high level of precision technology, however, sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a malfunction. 	_
Panasonto An after-image appears	 Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma TV. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode. Note: The permanent after-image on the Plasma TV resulting from fixed image use is not an operating defect and as such is not covered by the Warranty. This product is not designed to display fixed images for extended periods of time. 	56
Whirring sounds can be heard from the display unit.	 The TV is fitted with a cooling fan to dissipate heat generated during normal use. The rotating fan may cause a whirring sound but it is not a malfunction. The TV slightly consumes power and rotates the cooling fan even when turned off in order to receive program guide data etc. through the Cable CARD. The rotating fan may cause a whirring sound but it is not a malfunction. 	_

VIDEO/COMPONENT/RGB/PC/HDMI input signals

VIDEO input

	signal name	horizontal frequency(kHz)	vertical frequency(Hz)	
1	NTSC	15.73	59.94	

Applicable input signals (* mark)

	signal name	horizontal frequency(kHz)	vertical frequency(Hz)	COMPONENT	PC	HDMI
1	525 (480) /60i	15.73	59.94	*	*	*
2	525 (480) /60p	31.47	59.94	*	*	*
3	750 (720) /60p	45.00	60.00		*	
4	1,125 (1,080) /60i	33.75	59.94	*	*	*
5	640 × 400 @70	31.47	70.00		*	
6	640 × 480 @60	31.47	59.94		*	
7	Macintosh13" (640×480)	35.00	66.67		*	
8	640 × 480 @75	37.50	75.00		*	
9	852×480 @60	31.50	60.00		*	
10	$800 \times 600 @60$	37.88	60.32		*	
11	800 × 600 @75	46.88	75.00		*	
12	$800 \times 600 @85$	53.67	85.06		*	
13	Macintosh16" (832 \times 624)	49.73	74.55		*	
14	1,024 × 768 @60	48.36	60.00		*	
15	1,024 × 768 @70	56.48	70.07		*	
16	1,024 × 768 @75	60.02	75.03		*	
17	1,024 × 768 @85	68.68	85.00		*	
18	Macintosh21" (1,152 × 870)	68.68	75.06		*	
19	1,280 × 1,024 @60	63.98	60.02		*	
20	1,280 × 1,024 @75	79.98	75.03		*	
21	1,280 × 1,024 @85	91.15	85.02		*	
22	1,600 × 1,200 @60	75.00	60.00		*	



HDMI input

Note: Signals without above specification may not be displayed properly.

Specifications

		TH-37PX25		TH-42P	X25	TH-50PX25		
Power S	Source	AC 120 V, 50/60 Hz						
Power C	Consumption	Maximum : 395 W Stand-by condition : 18	R W	Maximum : 445 W		Maximum : 545 W Stand-by condition : 18 W		
Diasma	Display papel	Drive method : AC type 37	-inch,	Drive method : AC	type 42-inch,	Drive method : AC type 50-inch,		
Flasilia		16 : 9 aspect	t ratio	16 :	9 aspect ratio	16 : 9 aspect ratio		
Screen	Size	32.20 " (818 mm) (W) × 18.15 " (461 mm) (H) × 36.97 " (939 mm) (diago	onal)	36.22 " (920mm) (W) × 20.39 " (518 mm) (H) × 41.57 " (1056 mm) (diagonal)		43.54 " (1106 mm) (W) × 24.49 " (622 mm) (H) × 49.96 " (1269 mm) (diagonal		
Dimens (W×H	ions × D)	40.94 " (1040 mm) × 27.44 " (697 mm) × 5.47 " (139 mm)		44.88 " (1140 mm) × 29.8 " (757 mm) × 5.47 " (139 mm)		52.32 " (1329mm) × 34.25 " (870 mm) × 5.47 " (139 mm)		
Mass (V	/eight)	81.6 lb. (37 kg) Net		92.6 lb. (42 kg)	Net	125.7 lb. (57 kg) Net		
Channel Ca	pability-ATSC/NTSC	VHF/ UHF : 2-69, CAT	V:1-13	36				
	Speaker	Woofer ϕ 80 mm \times 2, T	weete	er 16 mm $ imes$ 73 mr	$n \times 8$			
Sound	Audio Output	26 W [5 W + 5 W, 8 W	/ + 8 \	W](10 % THD)				
	Headphone	M3 (3.5 mm) Jack $ imes$ 1						
FEATURES		Two screen display fuctions3D Y/C FILTERHDMIBBE VIVA 3DLINEAR PIPJPEG ViewerCLOSED CAPTIONV-Chip						
Accessories Supplied		Remote control: EUR7627Z10Ferrite cores : large × 4, small × 5AA Battery × 2F-type antenna adapter (3C-2V × 2, 5C-2V × 2)AC CordPedestalClamper × 2Clamper × 2						
Operati	ng Conditions	Temperature : 34 °F - 104 °F (0 ° - 40 °C) Humidity : 20 % - 80 % (non-condensing)						
Connec	tion Terminals	RGB input	D-SL	D-SUB 15pin R,G,E		Vp-p (75 Ω)		
		AV INPUT 1- 3	VIDEO		1.0 Vp-p (7	(75 Ω)		
			(Phor S-VI	no Jack Type) DEO	Y : 1.0 Vp-p	(75 Ω), C : 0.286 Vp-p (75 Ω)		
			(Mini DIN 4-pin) AUDIO L-R (Bhana Jack Type y 2)		0.5 Vrms			
		AV PROG. OUT	VIDEO		1.0 Vp-p (75 Ω)			
			(Phor AUD (Phor	IO Jack Type) IO L-R To Jack Type \times 2)	0.5 Vrms			
		TO AUDIO AMP	AUD (Phor	IO L-R no Jack Type × 2)	0.5 Vrms			
		COMPONENT VIDEO INPUT1-2	Y P _B / F AUD	P _R IO L-R	1.0 Vp-p (in ± 0.35 Vp-p 0.5 Vrms	/p-p (including synchronization) 35 Vp-p /rms		
		HDMI		HDMI type A Connector AUDIO L-R 0.5 Vrms				
		DIGITAL AUDIO OUT	(Phono Jack Type × 2) F PCM / Dolby Digital, Fiber Optic					

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Model Number

Serial Number

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<section-header>

Model No. TY-ST42PX20

Pedestal for Wide Plasma Display Installation Instructions

Before attempting to assemble these accessories, please read these instructions completely. Please retain this book for future reference.

Piédestal pour l'Ecran plasma 16/9ème Manuel d'installation

Avant d'essayer d'assembler ces accessoires, veuillez lire ces instructions complètement. Veuillez garder ce manuel pour une rèfèrence future.

Pedestal para Pantalla Panorámica de Plasma Instrucciones de instalación

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Français

Español

Precautions with regard to setting up

WARNING

Installation work should only be carried out by a qualified technician.

• If the pedestal is not installed correctly, the Wide Plasma Display may fall over and personal injury may result.

CAUTION

Do not use any displays other than those given in the catalogue. Do not climb up onto the pedestal or use it as a step. (Young children should be made particularly aware of this caution.)

• If the unit falls over or becomes damaged through misuse, injury may result.

Do not use the pedestal if it becomes warped or physically damaged.

• If you use the pedestal whilst it is physically damaged, personal injury may result. Contact your nearest Panasonic Dealer immediately.

Set up on a stable, level surface.

• If this is not done, the unit may fall over and become damaged, and personal injury may result.

Do not use in places with high humidity.

• Long-term usage in such conditions can cause warping or deformation. This can lead to loss of strength, and the unit may fall over and become damaged, and personal injury may result.

During setting-up, make sure that all screws are securely tightened.

 If sufficient care is not taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to support the Wide Plasma Display, and it might fall over and become damaged, and personal injury may result.

Use the accessory parts for fall-prevention to secure the Wide Plasma Display.

• If the unit is knocked or children climb onto the pedestal with the Wide Plasma Display installed, the Wide Plasma Display may fall over and personal injury may result.

Two people are required to install and remove the display.

- If two people are not present, the display may be dropped, and personal injury may result.
- Leave a space of at least 3 $^{15}/_{16}$ inches (10 cm) at the top, left and right, at least 2 $^{3}/_{8}$ inches (6 cm) at the bottom, and at least 2 $^{49}/_{64}$ inches (7 cm) at the rear.
- Do not cover the air inlet holes at the bottom or rear of the display, or air outlet holes at the top, or a fire may result.

Notes on handling

1) If the unit is placed in direct sunlight or next to a stove, the light and heat may cause discoloration or deformation.

2) Cleaning

Wipe the unit with a dry cloth. If the unit is particularly dirty, clean it using a cloth soaked with water to which a small amount of neutral detergent has been added, and then wipe with a dry cloth.

Do not use products such as solvents, thinner or household wax for cleaning, as they can damage the surface coating.

(If using a chemically-treated cloth, follow the instructions supplied with the cloth.)

3) Do not attach sticky tape or labels, as they can make the surface of the pedestal dirty.

Notes on installing the pedestal

- Be sure to connect the power plug to an easily accessible power outlet.
- Ensure there is free circulation of air around the equipment sufficient to keep the ambient temperature below 40°C.

Failure to do this may cause the display to overheat, and malfunction may result.



Securely attach both left and right poles to the top face of the base as shown below using short screws (1).



Attach to the display console

1. Insert the poles into the holes in the display console.



- * Position the side of the pedestal with the model no. label to the rear. Push the assembly into the display until it stops.
- 2. Remove terminal cover.

3. Fasten with screws



4. Connect cables

(Example of connecting cable routing)



5. Fit the terminal cover.









Warranty

Panasonic Consumer Electronics Company Division of Matsushita Electric Corporation of America One Panasonic Way Secaucaus, NJ 07094 Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc. AVE. 65 de Infanteria, Km 9.5 San Gabriel Industrial Park Carolina, Puerto Rico 00985



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In-warranty parts in the USA

can be obtained during the warranty period be contacting:

Panasonic Services Company (PASC) 20421 84th Avenue South Kent, Washington 98032 Tel.:1-800-833-9626 Fax.:1-800-237-9080 (6 am to 5 pm Monday-Friday; 6 am to 10:30 am Saturday; PST)

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LIMITS AND EXCLUSIONS

There are no express warranties except as listed above.

PANASONIC SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGE RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES. INCLUDING THE WARRANTIES OF MERCHANTABILITY, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or call the number listed above.

If the problem is not handled to your satisfaction, then write to the Customer Satisfaction Center at the Panasonic Consumer Electronics Company address indicated above.

Matsushita Electric Industrial Co., Ltd

Web Site : http://www.panasonic.co.jp/global/

O Matsushita Electric Industrial Co., Ltd. 2003

Printed in japan SS0703A0073 (MBS) (Recycled paper) PANASONIC CONSUMER ELECTRONICS COMPANY, DIVISION OF MATSUSHITA ELECTRIC CORPORATION OF AMERICA One Panasonic Way Secaucus, New Jersey 07094 PANASONIC SALES COMPANY, DIVISION OF MATSUSHITA ELECTRIC OF PUERTO RICO, INC., Ave. 65 de Infanteria, Km. 9.5 San Gabriel Industrial Park Carolina, Puerto Rico 00985

Panasonic Color Television/Display Products Limited Warranty

Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

CATEGORIES	ALL PARTS EXCEPT CRT	LABOR	CRT	CRT LABOR	SERVICE
PLASMA DISPLAY	1 (ONE) YEAR	1 (ONE) YEAR	Not Applicable	Not Applicable	IN-HOME OR CARRY-IN
DLP PROJECTION MONITOR	1 (ONE) YEAR	1 (ONE) YEAR	Not Applicable	Not Applicable	IN-HOME OR CARRY-IN
WIDE SCREEN TV (30"-36" diagonal)	1 (ONE) YEAR	1 (ONE) YEAR	2 (TWO) YEARS	1 (ONE) YEAR	IN-HOME OR CARRY-IN

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must carryin your product or arrange for in-home service during the warranty period. If non-rechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is". A purchase receipt or other proof of the original purchase date is required for warranty service.

In-Home or Carry-In Service

For In-Home or Carry-In Service in the United States call 1-888-VIEW-PTV(1-888-843-9788). For assistance in Puerto Rico call Panasonic Sales Company (787)-750-4300 or fax (787)-768-2910.

In-Home service requires clear, complete and easy access to the product by the authorized servicer and does not include removal or re-installation of an installed product. It is possible that certain in-home repairs will not be completed in-home, but will require that the product, or parts of the product, be removed for shop diagnosis and/or repair and then returned.

Limited Warranty Limits And Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage, nor does it cover makings or retained images on the picture tube resulting from viewing fixed images (including, among other things, letterbox pictures on standard 4:3 screen TV's, or non-expanded standard 4:3 pictures on wide screen TV's, or onscreen data in a stationary and fixed location). The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as in a hotel, office, restaurant, or other business), rental use of the product, service by anyone other than a Factory Servicenter or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, or travel to and from the servicer. The items listed are not exclusive, but are for illustration only.) ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you.

This warranty gives you specific legal rights and you may also have others rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

PARTS AND SERVICE (INCLUDING COST OF AN IN-HOME SERVICE CALL, WHERE APPLICABLE) WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBLITY.

TQDC18017-1

THE CUSTOMER CARE PLAN OFFERS ALL OF THESE OUTSTANDING BENEFITS:

- □ Labor to complete repairs.
- □ Replacement parts.
- □ Electronic or mechanical adjustments.
- □ Specified internal cleaning.
- Requested preventive maintenance.
- □ No hidden charges or deductibles. Complete
 - coverage for one low, up-front price.
- Coverage is transferable.

Service is performed by our nationwide network of conveniently located Factory or Local Authorized Servicenters.

ACT NOW:

enesone

Just complete the attached postage paid postcard and drop it in the mail. We will contact you promptly with more information about the Customer Care Plan.

1-800-637-2007 **OR CALL:**

OFFERED AND ADMINISTERED BY: Customer Care Plan Administration PANASONIC SERVICES COMPANY 1703 N. Bandall Boad Elgin, IL 60123-9964

PRODUCT INFORMATION CARD

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THE Panasonic CUSTOMER CARE PLAN

USA ONLY

An extended service plan that assures continued top performance of your electronic product after the factory warranty has expired!

use the convenience of our toll-free customer care plan hotline: **1-800-637-2007 RESPOND PROMPTLY AND RECEIVE AN "EARLY BIRD" DISCOUNT!** TOMORROW'S SERVICE AT TODAY'S PRICES!

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Panasonic

Panasonic Product Registration

THREE IMPORTANT REASONS

to register your new purchase immediately:

1. Protect Your New Investment

Register your new product for insurance purposes in case it is lost or stolen.

2. Product Safety Notification

Registering your product can help us to contact you in the unlikely event a safety notification is required under the Consumer Product Safety Act.

3. Improved Product Development

Help us continue to design products that meet your needs.

See details inside...

Send this card by mail or register via the Internet at: http://www.panasonic.com/register

TQDC17001-1



Important! Please complete and return within ten days.

You can also register online via the Internet at: http://www.panasonic.com/register

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It is not necessary to return this card in order to effectuate the limited warranty.

1.	1. L.I. Mr. First Name	2. 💷 Mrs.	3. 🖾 Ms. Initial	4. 🗇 Miss Last Name		MVK01- PI	01 asma
	Street					Apt. No.	
	City			SI	ate	ZIP Code	
2.	E-mail Address:						
3.	Telephone number: ())			16.	6. What products did you connect to your Plasma TV? 1. □ VCR 5. □ 5.1 Channel Surround 2. □ DVD Player Amplifier 3. □ DVD Recorder 6. □ PC 4. □ Set-top Box 7. □ Blue Ray Disk	
4. 5.	Date of purchase: A. Model #: (reler to	/ Month Day operating manual or bo	/ Year x)		17.	7. Which types of programs do you watch regularly? 1. □ HDTV Programming 4. □ News 2. □ Sports 5. □ Other 3. □ Movies 5. □ Other	
	B. Serial #: (refer to	the product)			18.	8. Your date of birth: / / / / / / / / / / / / / / / / / / /	
6.	Name of store whe City	re purchased:		State	19. 20.	 9. Marital status: 1. T Married 2. L Single 0. Not including yourself, what is the GENDER and AGE (in years) of children and other adults living in your household? 1. T No one else in household 2. L3 Child under 1 year Male Female Age Male Female Age 	15
	or website address	; if purchased via the	e internet:			1 f 2 i · vrs 1 f 2 i · v	15.
7.	Price paid (excludi contract, shipping Did you purchase c	ng service and taxes): \$ or receive an extend	ed service cont	.00 ract with	21.	Professional/Technical You Spou Upper Management/Executive 2 3 Middle Management 3 4	ISE
0.	your product? 1.		2. [.] No			Clerical/Service Worker 1 5. L. Tradesman/Machine Operator/Laborer 1 6. 1 6. 1	
9. 10.	Is this product: 1. □ The first pla 2. □ A replacement 3. □ An additional 4. □ An additional Where did you first	isma you've ever purch ent for another plasma al product, already own al product, already own al product, already own t learn about this prod	nased? ? n one other plasm n two or more oth pduct?	ia? ier plasmas? Article/Doview	22.	You Spoi A Homemaker? 1 Retired? 1 Retired? 2 A Student? 3 Self Employed/Business Owner? 4 Working from a Home Office? 5 In the Military? 6 A Federal Employee? 7	156
	 01. □ Received as 02. □ In-store Dis 03. □ Store Advet Store Flyer/ 04. □ Newspaper 05. □ Nagazine A 06. □ I TV Advertis 07. □ Radio Advetis 	a din tri play (tisement/ Circular Ad d ement rtisement	09. ☐ Kiagazhi 10. ∐ Direct Ma 11. ☐ Friend/Fa 12. ⊆ Salespera 13. ☐ Internet 14. ☐ Other	Analementer il Promotion mily Recommendation son Recommendation	23 .	23. Which group describes your annual family income? 01. □ Under \$15,000 08. □ \$75,000-\$99,999 02. □ \$15,000-\$19,999 09. □ \$100,000-\$124,999 03. □ \$20,000-\$29,999 10. □ \$125,000-\$149,999 04. □ \$30,000-\$29,999 11. □ \$150,000-\$174,999 05. □ \$40,000-\$49,999 12. □ \$175,000-\$199,999 06. □ \$50,000-\$59,999 13. □ \$200,000-\$249,999	
11.	What were the most of this product? (i) 01. Trust in Part 02. (i) 02. Quality 03. Features 04. □ Price 05. □ State	st important factors check up to 2 respon lasonic	Inal influenced (ses) 07. [] Ease of C 08. [] Salespers 09. [] Friend/Fa 10. [] Online Ro 11. [] Warranty	your selection operation won's Recommendatio mily Recommendatio esearch	24. n n 25.	 Secondars/1,399 Level of education: (check highest level completed) Completed High School Completed College Completed College Check highest level completed Graduate School Completed College School Completed College School Completed College Completed College School Completed College Completed College	u ata
	06. L.I Appearance	e/Design	12. L.: Other			1. L. American Express, Diners Gub 3. L. Dept. Store, Oil Comparing 2. L. MasterCard, Visa, Discover 4. L. Do not use credit cards	iy, etc.
12	what were the mo- of this product? (i 01. □ Picture Qua 02. □ Plasma dis (high defini) 03. □ Plasma dis (standard d 04. □ Comb Filter 05. [i] Sound Qua	st important features check up to 3 respon ility play is HD titon) play is ED lefinition)	s mat influencer ises) 06. [] Surround 07. [] Input Jac 08. [] Picture-ir 09. [] Lighted f 10. [] On-scree 11. [] Parental 12. [] Other	a your selection I Sound I-Picture Remote n Menu Controls	26 27	26. For your primary residence, do you: 1. U Own? 2. U Rent 27. Which of the following do you plan to do within the next 6 or 12 m. 1-6 Months 7-12 M. Get Married 1. L 1. L 1. L Have a Baby 2. U 2. U 1. L Buy a House 3. L 3. L 2. U Remodel a Home 4. I 1. L 1. L Move to a New Residence 1. S. L 5. L	? lonths?]]]]]]]
13 14 15	Which of the follow Panasonic? (chec 01. Did not corany other b 02. Apex 03. Hitachi 04. JVC 05. Mitsubishi 06. Philips 07. Pinips 07. Pinips 08. RCA In what room is th 1. 1. Living Roo 2. Family Roo 3. Home Thee Where is this prod 1. 0. On nedeste	wing trands did you k all that apply) isider isinds is new product locat m m ater or Media Room lact placed? il stand included	seriously consider 09. Samsung 10. Samsung 11. Sanyon 12. Sharp 13. Sony 14. Sylvania 15. Toshiba 16. Zenith 17. Other ed? Master E 5. Other Be 6. Other	der before selectin edroom droom	g 28	Buy/Lease a New Vehicle I Buy/Lease a Used Vehicle I 7. I Buy/Lease a Used Vehicle I 7. I 8. I 28. Please check all that apply to your household. 01. I 9. Phone of Frequent Flyer Program 03. Donate to Charitable Causes 04. Own a Compact Disc Player 05. I 14ave a Dog 06. L 14ave a Cat 07. Own a Cellular Phone 08. I 09. Own an IBM or Compatible Computer 10. I. 09. Own an Apple/MacintoshComputer 11. I. 09. Own a CD-Rom	

- 2. U On display stand
 3. Wall-hanging bracket

Please send products and other correspondence to:

Panasonic Consumer Affairs Panasonic Consumer Electronics Company A Division of Matsushita Electric Corporation of America One Panasonic Way, 2F-3 Secaucus, NJ 07094

MVK01-01

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PANASONIC CONSUMER ELECTRONICS COMPANY PO BOX 174287 DENVER CO 80217-4287

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Please fold here

29. To help us understand our customers' lifestyles, please indicate the interests and activities in which you or your spouse enjoy participating on a regular basis.

01. L.I	Bicycling	14. LJ	Needlework/Knitting/Sewing	27. 1.3	Health/Natural Foods	40.	\Box	Real Estate Investments
02.	Golf	15. 🗍	Flower Gardening	28. 🔛	Photography	41.	60	Stocks/Bonds/Mutual Funds
03 🗔	Physical Fitness/Exercise	16. 🖂	Vegetable Gardening	29. 🖸	Attending Cultural/Arts Events	42	[_]	Entering Sweepstakes
04. [[]	Running/Jogging	17. 🗆	Crafts	30. 💭	Fashion Clothing	43.	£.;;	Casino Gambling
05. L.J	Snow Skiing	18. L.I	Buy Prerecorded Videos	31. L.	Fine Art/Antiques	44.	[_]	Science Fiction
06 ET	Tennis	19. 🗍	Automotive Work	32. 🗂	Foreign Travel	45.	$\{ \mathcal{A} \}$	Wildlife/Environmental Issues
07. L.I	Camping/Hiking	20. L.I	Electronics	33	Cruise Ship Vacations	46.	£	Dieting/Weight Control
08. CT	Fishing	21. [``	Home Workshop/Do-It-Yourself	34.	Travel in USA	47.		Science/New Technology
09 EB	Hunting/Shooting	22. i.J	Recreation Vehicles	35. LJ	Gourmet Cooking/Fine Foods	48.		Self-Improvement
10. L.)	Horseback Riding	23. 📋	Listen to Records/Tapes/CDs	36. 🗋	Wines	49.	01	Walking for Health
- 1 1. 🔘	Powerboating	24. (1	Surf the Internet	37. 🖂	Coin/Stamp Collecting	50.		Watching Sports on TV
12 🗍	Sailing	25. [``]	Avid Book Reading	38. L.I	Collectibles/Collections	51.	ΓE	Home Video Recording
13.	Grandchildren	26. LJ	Bible/Devotional Reading	39. I 1	Our Nation's Heritage	52.	[]	Moneymaking Opportunities

30. Using the numbers in the above list, please indicate your 3 most important activities:

Thanks for taking the time to fill out this questionnaire. Your answers will be used for market research studies and reports. They will also allow you to receive important mailings and special offers from a number of fine companies whose products and services relate directly to the specific interests, hobbies, and other information indicated above. Through this selective program, you will be able to obtain more information about activities in which you are involved and less about those in which you are not. Please check here if, for some reason, you would prefer *not* to participate in this opportunity.

Failure to return this card will not diminish your warranty rights.

Send any correspondence about our product to:

Panasonic Consumer Affairs, Panasonic Consumer Electronics Company,

A Division of Matsushita Electric Corporation of America, One Panasonic Way, 2F-3, Secaucus, NJ 07094

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