Panasonic®

Operating Instructions
Plasma Television

Model No. **TH-P58V10M**
TH-P58V10P
TH-P58V10R
TH-P65V10D
TH-P65V10M
TH-P65V10P
TH-P65V10R
TH-P65V10S
TH-P65V10T

VIErA

AVCHD™   VIErA Link   ◻◻ DOLBY DIGITAL

SDHC VIErA IMAGE VIEWER   SDHC™   FULL HD 1920×1080p   HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE

Thank you for purchasing this Panasonic product.
Please read these instructions before operating your set and retain them for future reference.
The images shown in this manual are for illustrative purposes only.
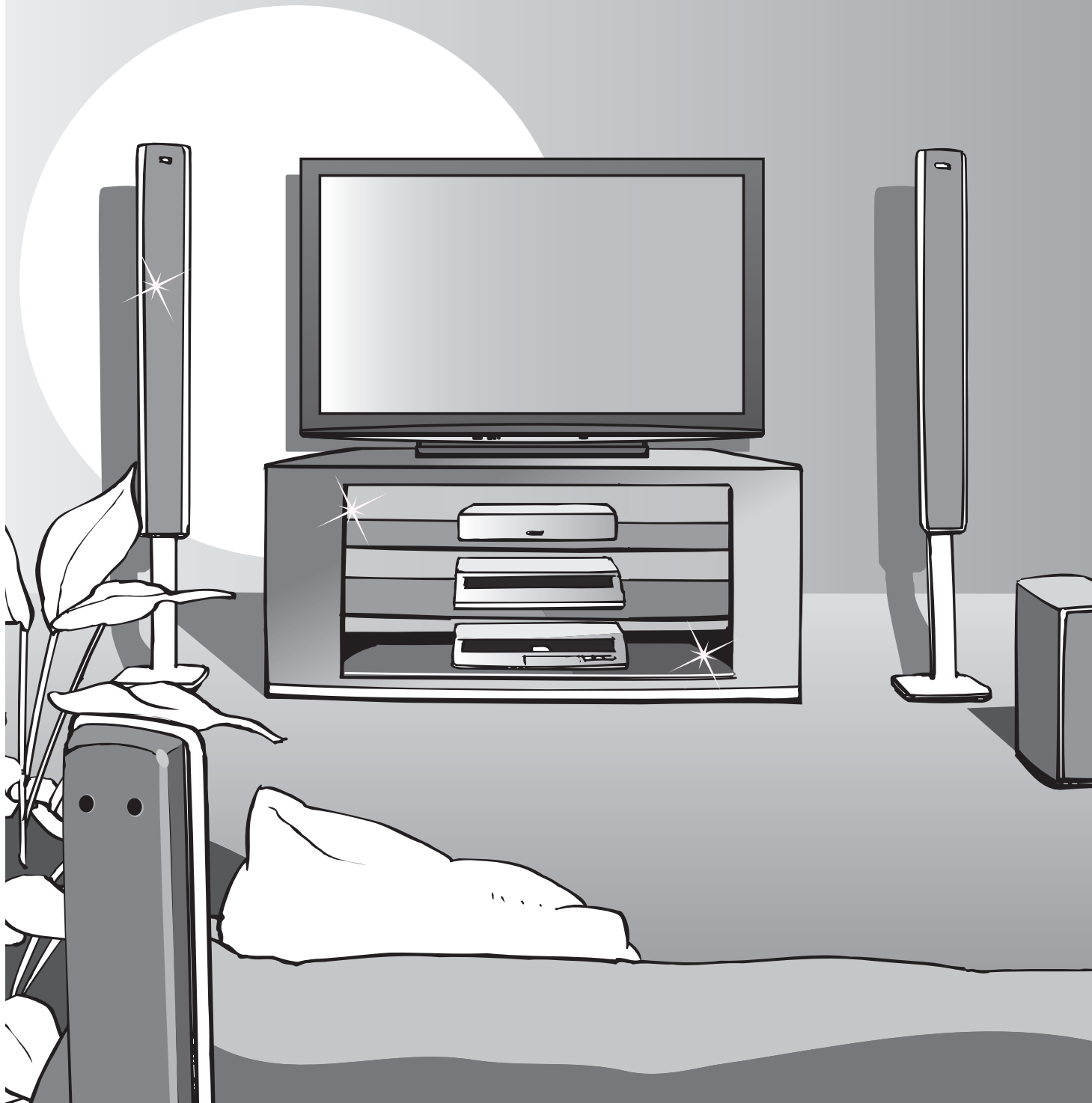
English

Turn your own living room into a movie theatre!

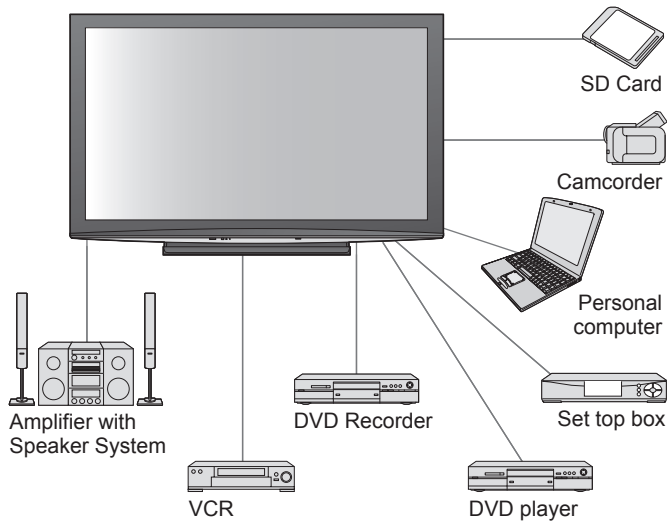# Experience an amazing level of multi-

Sharp pictures with HDMI terminal
Create home theatre and DVD recorder link-ups with "VIERA Link"
without complicated settings!

media excitement

Enjoy rich multimedia

SD Card

Camcorder

Personal computer

Amplifier with Speaker System

DVD Recorder

Set top box

VCR

DVD player

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Quick Start Guide

Basic Features

Advanced Features

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Quick Start Guide

Basic

Advanced

Technical

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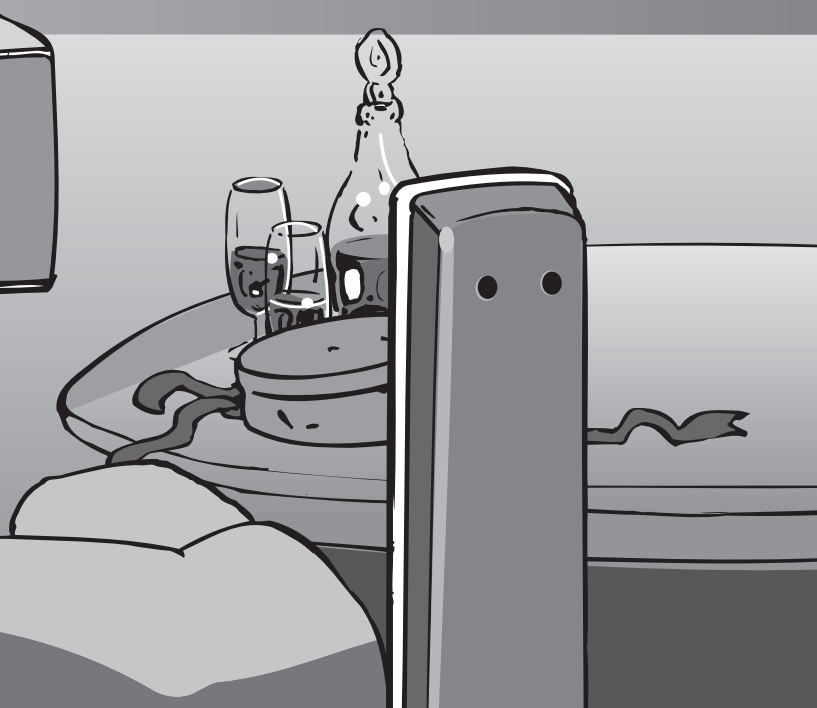
Safety Precautions

Handling the mains plug and lead
- Insert the mains plug fully into the socket outlet. If the mains plug is loose, it could generate heat and cause fire.
- Ensure that the mains plug is easily accessible.
- Ensure the earth pin on the mains plug is securely connected to prevent electrical shock.
- Do not touch the mains plug with a wet hand. This may cause electrical shock.
- Do not use any mains lead other than that provided with this TV. This may cause fire or electrical shock.
- Do not damage the mains lead. A damaged lead may cause fire or electrical shock.
  - Do not move the TV with the lead plugged in the socket outlet.
  - Do not place a heavy object on the lead or place the lead near a high-temperature object.
  - Do not twist the lead, bend it excessively, or stretch it.
  - Do not pull on the lead. Hold onto the mains plug body when disconnecting lead.
  - Do not use a damaged mains plug or socket outlet.

If you find any abnormality, remove the mains plug immediately!
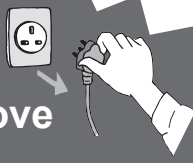
**AC 220 - 240V, 50 / 60 Hz
(TH-P58V10P / TH-P65V10P:
AC 110 - 240V, 50 / 60 Hz)**

- Mains plug types vary between countries.

Power source
- This TV is designed to operate on AC 220 - 240 V, 50 / 60 Hz.
  (TH-P58V10P / TH-P65V10P: AC 110 - 240 V, 50 / 60Hz)

Do not remove covers
NEVER modify the TV yourself
High-voltage components may cause serious electrical shock.
- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

Keep liquids away from the TV
- To prevent damage which may result in fire or shock hazard, do not expose this appliance to dripping or splashing.
- Do not place containers with water (flower vase, cups, cosmetics, etc.) above the TV, including on shelves above, etc.

Do not expose to direct sunlight and other sources of heat
- Avoid exposing the TV to direct sunlight and other sources of heat. To prevent fire never place any type of candle or naked flame on top or near the TV.

Do not place foreign objects inside the TV
- Do not allow any objects to drop into the TV through the air vents. Fire or electrical shock may result.

Do not place the TV on sloped or unstable surfaces
- The TV may fall off or tip over.

Use only the dedicated pedestals / mounting equipment
- Using an unapproved pedestal or other fixtures may make the TV unstable, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use approved pedestals / mounts (p. 8).

Do not allow children to handle SD Card
- As with a small object, SD Card can be swallowed by young children. Please remove SD Card immediately after use.

This appliance is intended for use in tropical climates

When cleaning the TV, remove the mains plug
●Cleaning an energized TV may cause electrical shock.

**When the TV is not going to be used for a long period of time, remove the mains plug**
●This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live socket outlet.

Transport only in upright position
Transporting the TV with its display panel facing upward or downward may cause damage to the internal circuitry.

Allow sufficient space around the TV for radiated heat
Minimum distance

10

10   10   7

(cm)
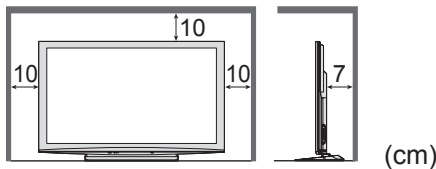
●When using the pedestal, keep the space between the bottom of the TV and the surface where the TV is set.
●In case of using Wall-hanging bracket, follow the manual of it.

Do not block the rear air vents
●Blocked ventilation by newspapers, table cloths, curtains, etc. may cause overheating, fire or electrical shock.

Do not expose your ears to excessive volume from the headphones
●Irreversible damage can be caused.

Display panel is made of glass. Do not apply strong force or impact to the display panel.
●This may cause damage resulting in injury.

The TV is heavy. Handle the TV by 2 or more people. Support as shown to avoid injury by the TV tipping or falling.
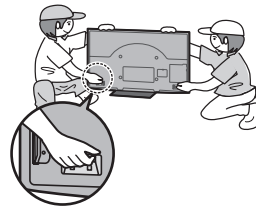
Notes

Do not display a still picture for a long time

This causes the image to remain on the plasma screen ("image retention").
This is not considered a malfunction and is not covered by the warranty.
Typical still images

●Programme number and other logos
●Image displayed in "4:3" mode
●Video game
●Computer image

To prevent image retention, contrast is lowered automatically after a few minutes if no signals are sent or no operations are performed. (p. 49)

Auto power standby function
●If no signal is received and no operation is performed for 30 minutes, the TV will automatically go to standby mode.

Keep the TV away from these types of equipment
●Electronic equipment
In particular, do not place video equipment near the TV. Electromagnetic interference may distort images / sound.
●Equipment with an infrared sensor
This TV also emits infrared rays. This may affect operation of other equipment.

Maintenance

First, remove the mains plug from the socket outlet.

Display panel

Regular care: Gently wipe the surface clean of dirt by using a soft cloth.
Major contamination: Wipe the surface clean using a soft cloth dampened with clean water or diluted neutral detergent (1 part detergent to 100 parts water). Then, using a soft dry cloth, evenly wipe the surface clean until it is dry.

(Caution)
● The surface of the display panel has been specially treated and may be easily damaged.
  Do not tap or scratch the surface with your fingernail or other hard object.
● Take care not to subject the surface to insect repellent, solvent, thinner, or other volatile substances.
  This may degrade surface quality.

Cabinet, Pedestal

Regular care: Wipe the surface clean using a soft dry cloth.
Major contamination: Dampen a soft cloth with clean water or water containing a small amount of neutral detergent.
Then, wring the cloth and wipe the surface clean with it. Finally, wipe the surface clean with a dry cloth.

(Caution)
● Take care not to subject the TV's surfaces to detergent. A liquid inside the TV could lead to product failure.
● Take care not to subject surfaces to insect repellent, solvent, thinner, or other volatile substances.
  This may deteriorate the surface by peeling the paint.
● Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time.

Mains plug

Wipe the mains plug with a dry cloth at regular intervals. Moisture and dust may lead to fire or electrical shock.

Accessories / Options

Standard accessories

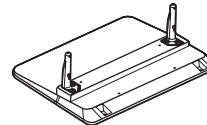Check that you have the accessories and items shown ☑

☐ Remote Control   ☐ Batteries for the   ☐ Pedestal
   ● N2QAYB000369   Remote Control (2)   ➡ p. 8
                 ● R6 (AA)

TH-P58V10M	TH-P65V10D
TH-P58V10P	TH-P65V10M
TH-P58V10R	TH-P65V10P
	TH-P65V10R
	TH-P65V10S
	TH-P65V10T
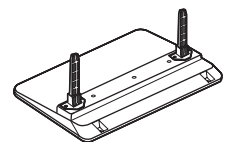
☐ Cleaning cloth   ☐ Mains Lead   ☐ Operating
                 ➡ p. 11   Instructions
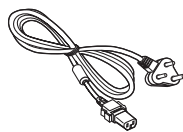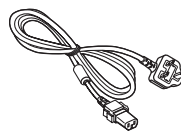
(TH-P65V10D)

| TH-P58V10M |
| TH-P58V10P |
| TH-P65V10M |
| TH-P65V10P |
| TH-P65V10S |

| TH-P58V10R |
| TH-P65V10R |

(TH-P65V10T)

(Caution)
This product contains possibly dangerous parts (such as plastic bags), that can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.

Accessories / Options

Optional accessories

Wall-hanging bracket
- TY-WK5P1RW
  (TH-P58V10M
    TH-P58V10P
    TH-P58V10R)
- TY-WK6P1RW
  (TH-P65V10D TH-P65V10R
    TH-P65V10M TH-P65V10S
    TH-P65V10P TH-P65V10T)

Caution
- In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licenced contractor to secure the wall-hanging brackets.
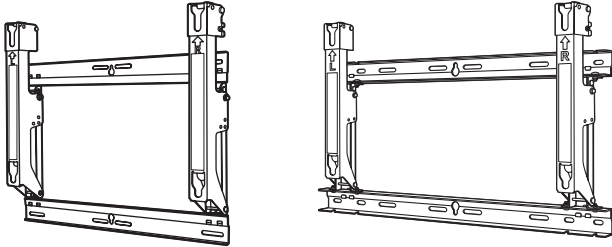- Carefully read the instructions accompanying the wall-hanging bracket, and be absolutely sure to take steps to prevent the TV from falling off.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.

Installing remote's batteries

1 Pull open

Hook

2 Close

Note the correct polarity (+ or -)
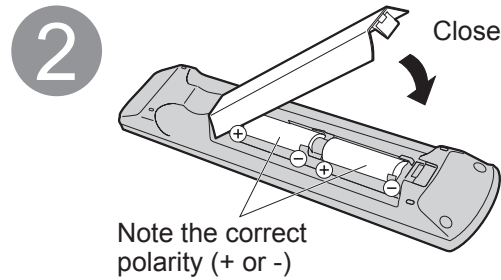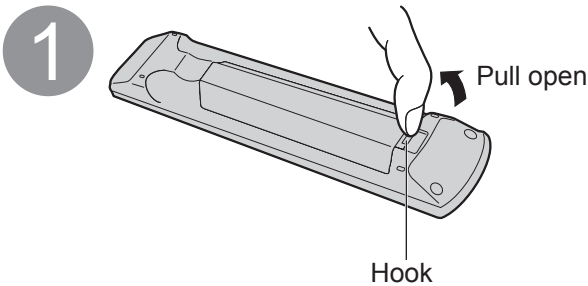
Caution
- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
- Do not mix old and new batteries.
- Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or breakup batteries.
  Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

Accessories / Options

Attaching the pedestal

Warning

Do not disassemble or modify the pedestal.
●Otherwise the TV may fall over and become damaged, and personal injury may result.

Caution

Do not use any other TV and displays.
●Otherwise the TV may fall over and become damaged, and personal injury may result.
Do not use the pedestal if it becomes warped or physically damaged.
●If you use the pedestal while it is physically damaged, personal injury may result. Contact your nearest Panasonic dealer immediately.
During set-up, make sure that all screws are securely tightened.
●If insufficient care is taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to support the TV, and it might fall over and become damaged, and personal injury may result.
Ensure that the TV does not fall over.
●If the TV is knocked or children climb onto the pedestal with the TV installed, the TV may fall over and personal injury may result.
Two or more people are required to install and remove the TV.
●If two or more people are not present, the TV may be dropped, and personal injury may result.

Ⓐ Assembly screw (silver)
  ●XYN5+F25FN
   M5 × 25 (4)
   ⎧ TH-P58V10M ⎫
   ⎨ TH-P58V10P ⎬
   ⎩ TH-P58V10R ⎭

  ●THEL074
   M5 × 30 (6)
   ⎧ TH-P65V10D ⎫
   ⎪ TH-P65V10M ⎪
   ⎨ TH-P65V10P ⎬
   ⎪ TH-P65V10R ⎪
   ⎪ TH-P65V10S ⎪
   ⎩ TH-P65V10T ⎭

Ⓑ Assembly screw (black)
  ●THEL073N
   M5 × 30 (4)
   ⎧ TH-P58V10M ⎫
   ⎨ TH-P58V10P ⎬
   ⎩ TH-P58V10R ⎭
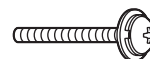
  ●XYN6+F25FJK
   M6 × 25 (4)
   ⎧ TH-P65V10D ⎫
   ⎪ TH-P65V10M ⎪
   ⎨ TH-P65V10P ⎬
   ⎪ TH-P65V10R ⎪
   ⎪ TH-P65V10S ⎪
   ⎩ TH-P65V10T ⎭

Ⓒ Pole (2)
  ●L:TBLA3690
   R:TBLA3689
   ⎧ TH-P58V10M ⎫
   ⎨ TH-P58V10P ⎬
   ⎩ TH-P58V10R ⎭
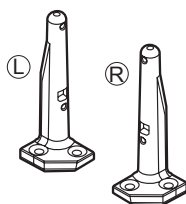
  ●TBLA3773
   ⎧ TH-P65V10D ⎫
   ⎪ TH-P65V10M ⎪
   ⎨ TH-P65V10P ⎬
   ⎪ TH-P65V10R ⎪
   ⎪ TH-P65V10S ⎪
   ⎩ TH-P65V10T ⎭
   Back   Front
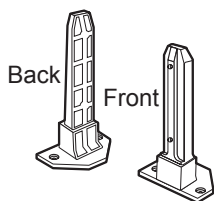
Ⓓ Base
  ●BLX0102
   ⎧ TH-P58V10M ⎫
   ⎨ TH-P58V10P ⎬
   ⎩ TH-P58V10R ⎭
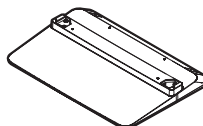
  ●TBLX0126
   ⎧ TH-P65V10D ⎫
   ⎪ TH-P65V10M ⎪
   ⎨ TH-P65V10P ⎬
   ⎪ TH-P65V10R ⎪
   ⎪ TH-P65V10S ⎪
   ⎩ TH-P65V10T ⎭
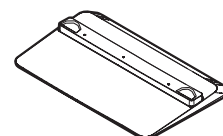
Ⓔ Allen wrench
  ●TKKX5116
   ⎧ TH-P65V10D ⎫
   ⎪ TH-P65V10M ⎪
   ⎨ TH-P65V10P ⎬
   ⎪ TH-P65V10R ⎪
   ⎪ TH-P65V10S ⎪
   ⎩ TH-P65V10T ⎭

Assembling the pedestal

Use the four assembly screws Ⓐ to fasten the left and right poles to the base securely.

TH-P58V10M, TH-P58V10P, TH-P58V10R

- ●Make sure that the screws are securely tightened.
- ●Forcing the assembly screws the wrong way will strip the threads.
- ●"L" or "R" mark is stamped on the bottom of the pole.

TH-P65V10D, TH-P65V10M, TH-P65V10P,
TH-P65V10R, TH-P65V10S, TH-P65V10T

- ●Make sure that the screws are securely tightened using Allen wrench Ⓔ
- ●Forcing the assembly screws the wrong way will strip the threads.

Securing the TV

Use the assembly screws Ⓑ to fasten securely.
- ●Make sure that the screws are securely tightened.
- ●Carry out the work on a horizontal and level surface.

view from bottom

Arrow mark

Hole for pedestal installation

Pole

Pole

Pole

Identifying Controls

TV

SD card slot

HDMI4 terminal

PC terminal

S VIDEO

AV4 IN terminals

Headphone jack

C.A.T.S. (Contrast Automatic Tracking System) sensor
- ●Senses brightness to adjust picture quality in "Eco Mode" in Picture Menu (p. 24)

Function Select
- ●Volume / Contrast / Brightness / Colour / Sharpness / Tint (NTSC mode) / Bass / Treble / Balance / Auto Tuning (p. 24 - 25)

Change the channel up/down. When a function is displayed, press up/down to adjust the setting of the selected function. When in standby mode, switches TV on.

Change the input mode

Power LED
- ●Standby: red
  On: green
- ●When using the remote control, indicates the TV has received a command.

Mains power On / Off switch
- ●Switch On to turn on the TV

Remote control signal receiver
- ● Do not place any objects between the TV remote control signal receiver and remote control.

9

Identifying Controls

Remote Control

Standby On / Off switch
● Switches TV On or Off standby

Stereo / Bilingual Sound Selection
(p. 45)

Main Menu (p. 22)
● Press to access Picture, Sound and Setup Menus

Aspect (p. 16)
● Changes aspect ratio from Aspect Selection list
● Also possible by pressing this button repeatedly until you reach the desired aspect

VIERA TOOLS (p. 41)
● Displays functions of the linked equipment and SD card

VIERA Link (p. 36)
● Press to access VIERA Link Menu

OK
● Confirms selections and choices
● Press after selecting channel positions to quickly change programme

Option Menu (p. 16)
● Easy setting for viewing and sound options

Teletext (p. 18)
● Switches to teletext mode

Viewing a favourite teletext channel
(p. 18)

Numeric buttons
● Changes channel and teletext pages
● When in Standby mode, switches TV On

Sound Mute
● Switches sound mute On or Off

Volume Up / Down

Input mode selection
● TV - switches to TV mode (p. 15)
● AV - switches to AV input mode from Input Selection list (p. 20)
● PC - switches to PC input mode (p. 32)

Multi window (p.17)
● Displays two windows at once

Surround (p.24)
● Switches surrounding sound setting

Exit
● Returns to the normal viewing screen

SD Card (p. 33)
● Switches to SD Card viewing mode

Cursor buttons
● Makes selections and adjustments

Return
● Returns to the previous menu

Coloured buttons
● Used for the selection, navigation and operation of various functions

Hold
● Freeze / unfreeze picture (p. 15)
● Holds the current teletext page (teletext mode) (p. 18)

Index (p. 18)
● Returns to the teletext index page (teletext mode)

Programme Information (p. 15)

Channel Up / Down
● Selects channel in sequence

VCR / DVD Panasonic equipment operations (p. 21)

10

Basic Connection

External equipment and cables shown are not supplied with this TV.
Please ensure that the TV is disconnected from the mains socket before attaching or disconnecting any leads.
When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.
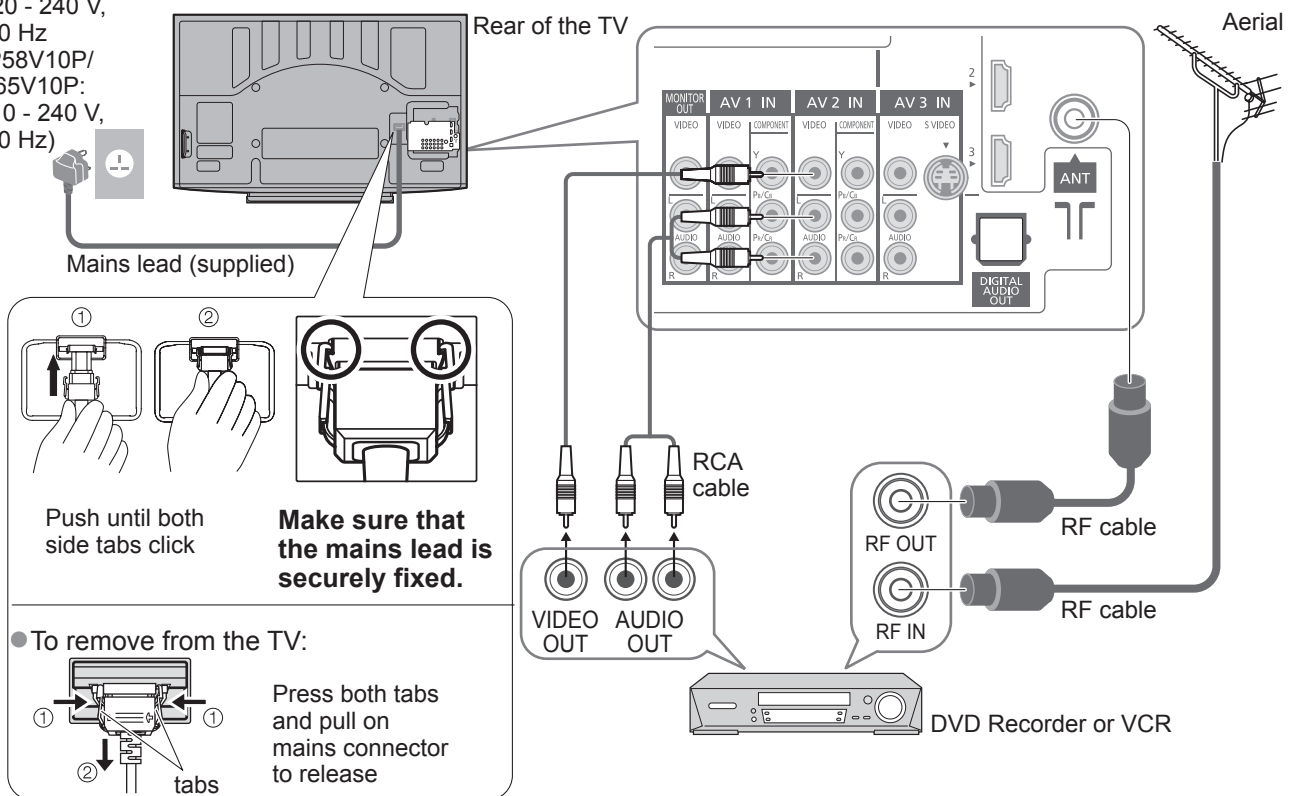
Connecting aerial

TV only

AC 220 - 240 V,
50 / 60 Hz
(TH-P58V10P/
TH-P65V10P:
AC 110 - 240 V,
50 / 60 Hz)

Rear of the TV

Aerial

RF cable

Mains lead (supplied)
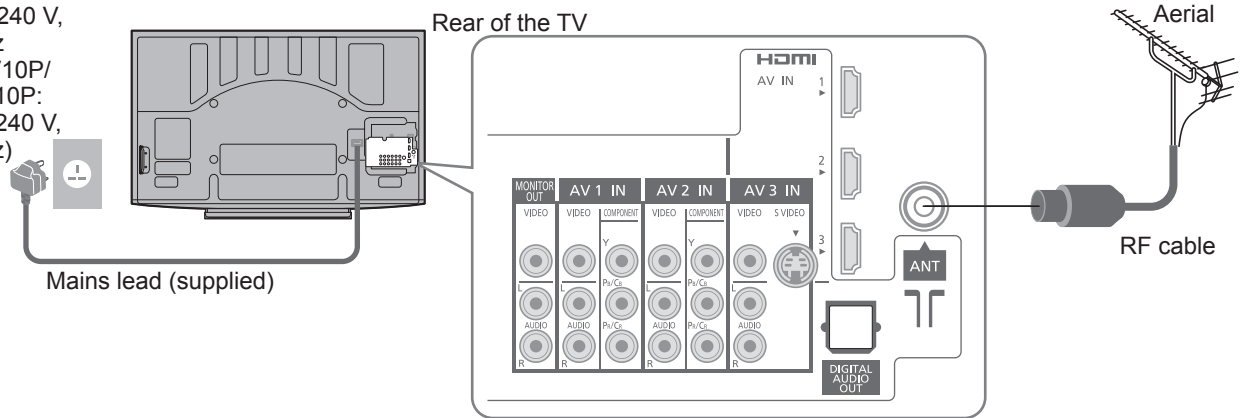
Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR

AC 220 - 240 V,
50 / 60 Hz
(TH-P58V10P/
TH-P65V10P:
AC 110 - 240 V,
50 / 60 Hz)

Rear of the TV

Aerial

Mains lead (supplied)

① ②

Push until both side tabs click

Make sure that the mains lead is securely fixed.

● To remove from the TV:

① ②

Press both tabs and pull on mains connector to release

tabs

RCA cable

VIDEO OUT   AUDIO OUT

RF OUT

RF IN

RF cable

RF cable

DVD Recorder or VCR

11

Auto Tuning

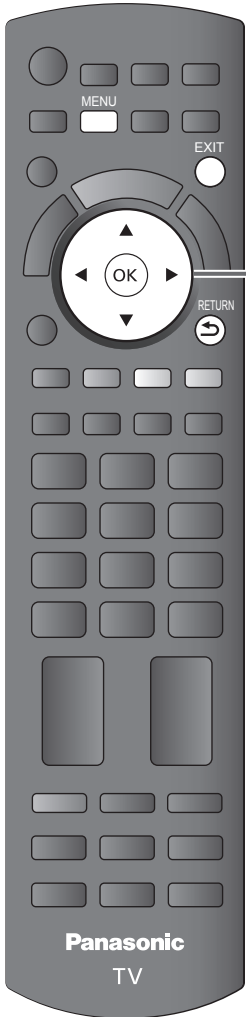Search and store TV channels automatically.
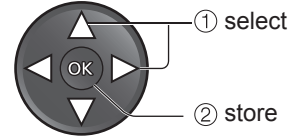These steps are not necessary if the setup has been completed by your local dealer.
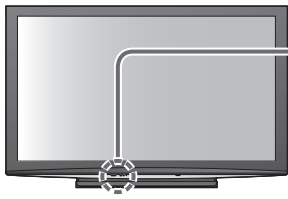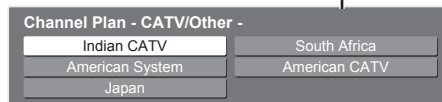
1 Plug the TV into mains socket and switch On

⎯⎯⎯ ⏻/I
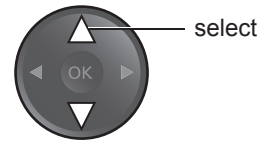- You can now use the remote control to turn On the TV or switch the TV to standby mode. (Power LED: On)

2 Select your language

OSD Language

English	ภาษาไทย
中文	Tiếng Việt
العربية	Indonesia
فارسی	Français

① select
② store

3 Select your area

Channel Plan

Asia/W.Europe
CIS/E.Europe
China
Hong Kong
NZ/Indonesia
CATV/Other

*1

Channel Plan - CATV/Other -

Indian CATV	South Africa
American System	American CATV
Japan	

select

- CATV/Other :
Press OK ➜ displays sub menu

*1) Refer to the table below or the display, to select your area.

Asia / W. Europe	Malaysia, Singapore, Thailand, India, Kuwait, United Arab Emirates, Saudi Arabia, Iran, etc.
CIS / E. Europe	CIS Countries, Viet Nam, etc.

4 Start Auto Tuning

OK

Auto Tuning
2   CH4
Scan   1 ▢▬▬▬▬▬   120
● EXIT
● RETURN

- Auto Tuning will start to search for TV channels and store them. The sorted channel order depends upon the TV signal, the broadcasting system and reception conditions.

5 Select the viewing environment

Please select your viewing environment.
| Home | Shop |
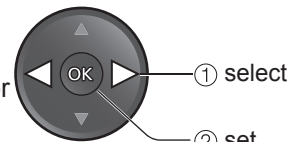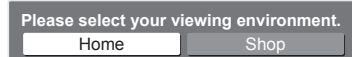
- "Home" is the recommended mode for viewing at home. Select "Home" for optimal picture / power consumption.
"Shop" is for in-store display.
Home: "Viewing Mode" is set as "Normal". (p. 24)
Shop: "Viewing Mode" is set as "Dynamic". (p. 24)

① select
② set

Auto Tuning is complete

If you select "Shop" by mistake
Return to the "Home" or "Shop" Selection menu   Select "Home"

Automatic Demo
| Off | On |

RETURN

Please select your viewing environment.
| Home | Shop |
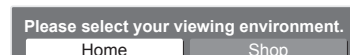
Auto Tuning is complete

- Once you press the OK button in this menu, the TV is set to Shop mode. Please reset all settings to set to "Home" mode.
➜ "Shipping Condition" (p. 31)

① select
② set

Panasonic
TV

MENU
EXIT
OK
RETURN

12

Using the On-Screen Displays

Many features available on this TV can be accessed via the On-Screen Display menu.

ON SCREEN HELP Instructions box (example: Sound Menu)

♪ Sound Menu	
Mode	◄ Music ►
Bass	+4
Treble	+4
Balance	0
Headphone Volume	17
Surround	Off
Volume Correction	0
Speaker Distance to Wall	Over 30cm
Reset to Defaults	Reset

Select
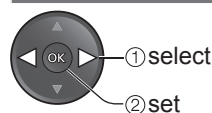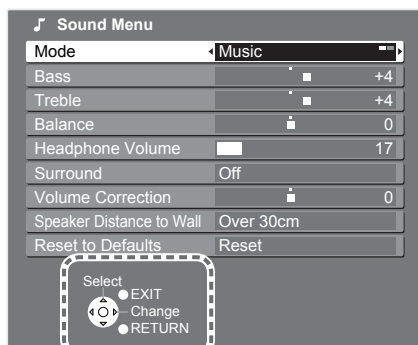● EXIT
● Change
● RETURN

On-screen operation guide

How to use remote control

MENU
Open the Main Menu

Move the cursor / select the menu

Move the cursor / adjust levels / select from a range of options

OK
Access the menu / store settings after adjustments have been made or options have been set

RETURN
Return to the previous menu

EXIT
Exit the menu system and return to the normal viewing screen

Note

● To edit channels
  ➡ "Editing Channels" (p. 28)
● If tuning has failed ➡ "Tuning Channels" (p. 29)
● To reset all settings ➡ "Shipping Condition" (p. 31)
● If you turned the TV Off during Standby mode last time, the TV will be in Standby mode when you turn the TV On with Mains power On / Off switch.

Language Setting

You can change language for on-screen displays.
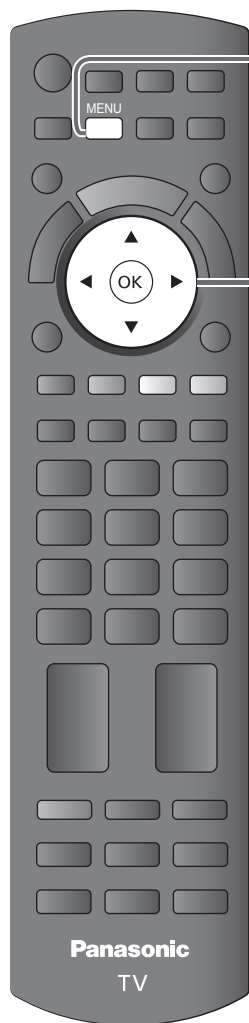
1 **Display the menu**

MENU

2 **Select "Setup"**

VIEᴦA **Main Menu**

▢ **Picture**

♪ **Sound**

≡ **Setup**

② access

① select

3 **Select "OSD Language"**

≡ **Setup Menu**

Off Timer	Off
Child Lock	
Tuning Menu	
OSD Language	Access
Display Settings	
VIERA Link Settings	
System Menu	
Other Settings	

② access

① select

4 **Select the language**

OSD Language

English	ภาษาไทย
中文	Tiếng Việt
العربية	Indonesia
فارسی	Français

① select

② set

Panasonic

TV
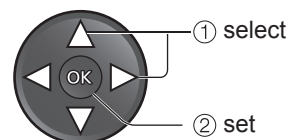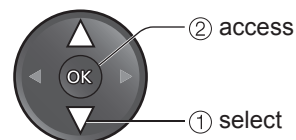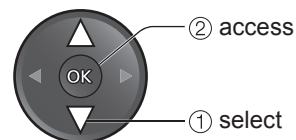
Watching TV

1 **Turn power on**

POWER
●Mains power On / Off switch should be On. (p. 9)

2 **Select TV mode**
[TV]

3 **Select a channel**

∧ up
CH
∨ down

or

[1][2][3]
[4][5][6]
[7][8][9]
[0]

●To select the two or three-digit channel number, e.g. 39
➡ [3] ➡ [9] (in a short time)
●If one or two-digit channel number
➡ [OK] ➡ quickly changes the channel

Note
●When the TV is switched to standby, there will be a clicking sound after a short delay. This is normal.
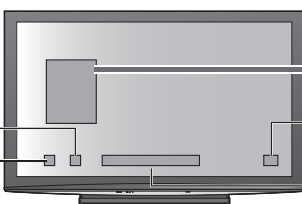
Other useful functions

Hold

HOLD
Freeze / unfreeze picture

Display information banner

Display information banner
RECALL
●Also appears when changing channels
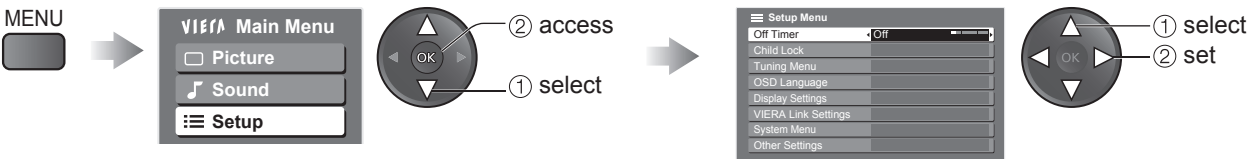
TV — Input mode
1 BBC — Channel position / name
CH08 — Channel number
5.5MHz — Sound system
PAL — Colour system
16:9 — Aspect ratio

○○, I, II, ▽ Audio mode (p. 45)
✗ Sound mute On

1 - 90 Off Timer remaining time
●For settings ➡ See below

Teletext
(varies depending on the broadcasters)
Teletext service available

●To set display timeout
➡ "Banner Display Timeout" (p. 25)

●To hide ➡ EXIT

Off Timer

Turn the TV off automatically after a fixed period of time (Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)

MENU ➡

VIErA **Main Menu**
☐ **Picture**
♪ **Sound**
☰ **Setup**

② access
① select

☰ **Setup Menu**
Off Timer — Off
Child Lock
Tuning Menu
OSD Language
Display Settings
VIERA Link Settings
System Menu
Other Settings

① select
② set

Select "Off Timer" and set the time

●To cancel ➡ Set to "Off" or turn the TV off.
●To display the remaining time ➡ Information banner
●When the remaining time is within 3 minutes, the remaining time will flash on screen.

Watching TV

Other useful functions

Display the selectable settings for the current programme

OPTION **Check or change the current programme status instantly**

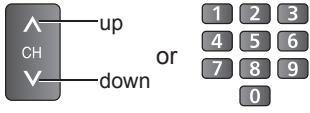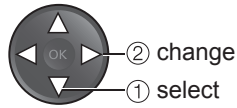② change
① select

Change the settings

Channel Colour Set
Sets colour depth

Teletext Character Set
Sets the teletext language ➡ Setup Menu (p. 25)

MPX
➡ Sound Menu (p. 24)

Volume Correction
Adjusts volume of individual programme or input mode

Note
● Also possible to change the settings in Menu list (p. 24 - 25)

Change aspect ratio

ASPECT
Change the aspect ratio

Aspect Selection list

Enjoy viewing the picture at its optimum size and aspect.

ASPECT
Display Aspect Selection list

② store
① select
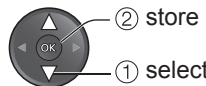
While the list is displayed, select the mode

● To change the mode using the ASPECT button only

ASPECT
➡ Press repeatedly until you reach the desired mode

16:9
Directly displays the image at "16:9" without distortion (anamorphic).

14:9
Displays the image at the standard "14:9" without distortion.

Just
Displays a "4:3" image full-screen. Stretching is only noticeable at the left and right edges.

4:3
Displays the image at the standard "4:3" without distortion.

4:3 Full
Displays a "4:3" image enlarged horizontally to fit the screen.
● HD signal only

Zoom1
Displays a "16:9" letterbox or "4:3" image without distortion.

Zoom2
Displays a "16:9" letterbox (anamorphic) image full-screen without distortion.
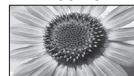
Zoom3
Displays a "2.35:1" letterbox (anamorphic) image full-screen without distortion.
At "16:9", displays the image at its maximum (with slight enlargement).

Note
● Only "16:9" and "4:3" are available in PC mode.
● Only "16:9" is available when "Viewing Mode" is set to "Game".
● Not available in teletext mode and Multi window.
● Aspect mode can be memorized separately for each input mode.

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Other useful functions

Multi window

View in multi window (p. 47)
● Remote control operations apply to the main screen.

Enjoy viewing two images at once, such as a TV programme and a DVD.

Picture-in-Picture mode (PinP)   **Picture-and-Picture mode (PandP)**
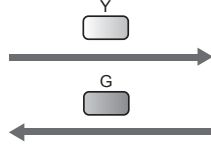
Y

G

B

Main screen   Sub screen
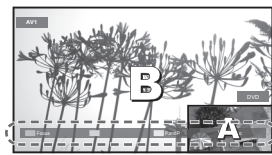
Colour bar

Operations in multi window
● To exit multi window (return to the single-screen view with main screen) ➡ PIP
● To change the layout or images, first show the colour bar ➡ RECALL

● To change the layout ➡ G Y
● To change the focus to sub window ➡ R
● To change the input mode of sub screen
➡ Swap sub screen for main screen — B ➡ Change the input mode with the remote control (p. 20) ➡ Swap again — B

Watching TV

Basic

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Viewing Teletext

You can enjoy teletext broadcasting, including news, weather forecasts and subtitles, if this service is provided by the broadcasters.

To change mode ⇒ "Teletext" in Setup Menu (p. 25)

1 Switch to Teletext

TEXT ● Displays Index (content varies depending on the broadcasters)

F.P. ● Pressing this button while watching TV programme directly accesses to the favorite page stored in "blue".

Sub page number

<< 01 02 03 04 05 06 07   >>
P100   **17:51 28 Feb**

Current page number — P100

Time / date

TELETEXT INFORMATION

Colour bar

2 Select the page (up to page 899)

123
456
789
0
or ⟨OK⟩ or ᴧCHᴠ or R G Y B
(Corresponds to the colour bar)

To adjust contrast

⇒ MENU (Press three times) ⇒ ◄OK► As the blue bar is displayed

To return to TV ⇒ TEXT or EXIT

What is FASTEXT mode?
In FASTEXT mode, four differently coloured subjects are situated at the bottom of the screen. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

What is TOP mode? (in case of TOP text broadcasting)
TOP is a particular improvement of the standard teletext service that results in an easier search and effective guide.
● Fast overview of the teletext information available
● Easy to use step-by-step selection of the topical subject
● Page status information at the bottom of the screen

Available page up / down ⇒ R G

To select among subject blocks ⇒ B

To select next subject within the subject block ⇒ Y
(After the last subject, it moves to the next subject block.)

What is List mode?
In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. ("Store frequently viewed pages", p. 19)

Using teletext conveniently

Hold	Reveal hidden data
HOLD **Stop automatic updating** (If you wish to hold the current page without updating) **To resume** ⇒ HOLD	MENU ⇒ R Reveal hidden words e.g. quiz page answers **Re-hide** ⇒ R

INDEX	Call up a favourite page
INDEX **Return to the main index page**	F.P. **View a favourite page stored** ● Call up the page stored in "blue". ● Factory setting is "P103".

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Using teletext conveniently

View in multiwindow

Watch TV and Teletext in two windows at once

MENU [ ] (Press twice)

or

PIP [ ]

Select teletext only or picture / teletext.
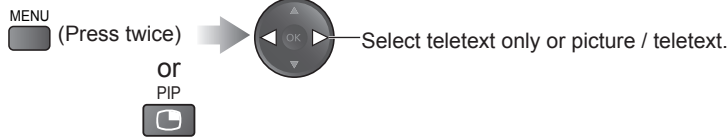
● Operations can be made only in Teletext screen.

FULL / TOP / BOTTOM

MENU [ ] → G [ ]

(TOP)

P100
Broadcast

(Expand the TOP half)

(BOTTOM)

(Expand the BOTTOM half)

Normal (FULL)

P100
Broadcast
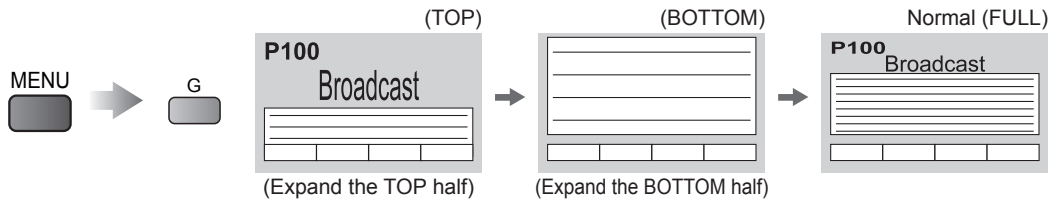
Store frequently viewed pages

Store frequently viewed pages in the colour bar (List mode only)

[ ]
Corresponding
colour button
(As page is displayed)

OK
press and hold

P100
Broadcast

| 101 | 200 | 400 | 888 |

The number changes to white.

To change stored pages

➡ [ ]
Colour button you
want to change

1 2 3
4 5 6 Enter new
7 8 9 page number
0

OK
press and hold
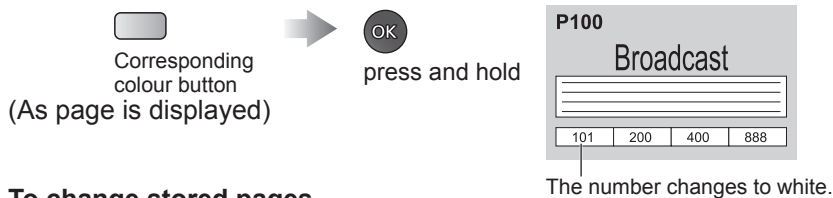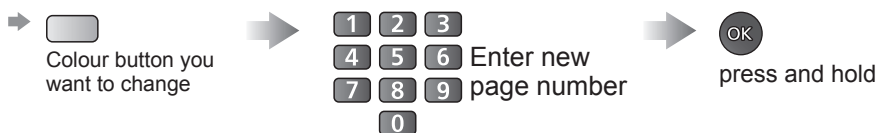
View sub page

View sub page (Only when teletext is more than one page)

◀ OK ▶

<<01 02 03 04 05 — Appears at top of the screen
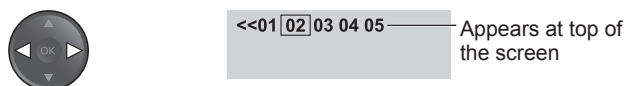
To view specific sub page

➡ MENU [ ] ➡ B [ ]

T**
Broadcast

➡ 0 0 0 6
example: P6

Enter the
4-digit number

➡ **T0006**

● Sub pages:
The number of sub pages varies depending on the broadcasters.
It may take some time for searching, during which time you can watch TV.

Watch TV while waiting for update

View the TV picture while searching for a teletext page

Teletext automatically updates itself when new information becomes available.

MENU [ ] ➡ Y [ ] ➡

P108 — Appears
when
updating is
completed

Changes to TV screen temporarily
(You cannot change the programme.)

➡ Y [ ] ➡ View the updated page
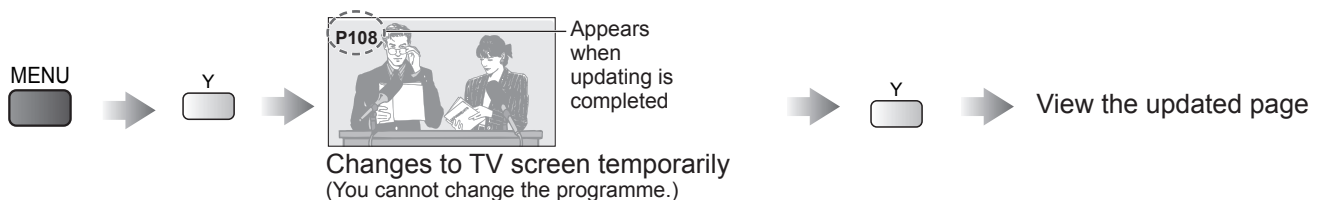
● The news page provides a function that indicates arrival of latest news ("News Flash").

Watching Videos and DVDs

Connect the external equipment (VCRs, DVD equipment, etc.) and you can watch the input.
● To connect the equipment ➡ p. 11
You can operate some functions of selected Panasonic external equipment with this remote control.

1 **Display the input selection menu**

AV

2 **Select the input mode of the connected equipment**

Input Selection

AV1
AV2
AV3
AV4
PC
HDMI1
HDMI2
HDMI3
HDMI4
TV

② watch

OK
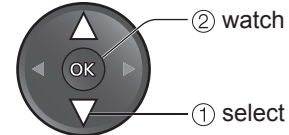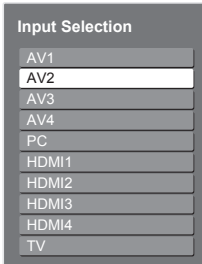
① select

● You can also select the input using the AV button on the remote control or the side panel of the TV.
  Press the button repeatedly until the desired input is selected.
● You can label or skip each input mode ➡ "Input Labels" (p. 26)

3 **View**
Displays the selected mode

AV2

POWER   PROGRAMME
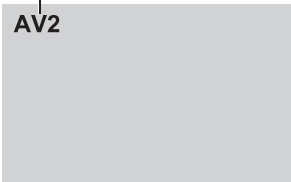
To return to TV ➡ TV

Note
● If the external equipment has an aspect adjustment function, set to "16:9".
● For details, see the manual of the equipment or ask your local dealer.

Panasonic equipment connected to the TV can be directly operated with the remote control.

POWER ⏻	**Standby** Set to Standby mode / Turn on	
▶	**Play** Playback videocassette / DVD	
■	**Stop** Stop the operations	
⏮ ⏪	**Rewind / Skip / Search** VCR: Rewind, view the picture rapidly in reverse DVD: Skip to the previous track or title Press and hold to search backward	
⏭ ⏩	**Fast-forward / Skip / Search** VCR: Fast-forward, view the picture rapidly forward DVD: Skip to the next track or title Press and hold to search forward	
⏸/▶	**Pause** Pause / Resume DVD: Press and hold to play at slow speed	
PROGRAMME ∨ ∧	**Programme Up / Down** Select programme	
REC ●	**Record** Start recording	

How to change the code for each equipment

Each type of Panasonic equipment has its own remote control code.

Please change the code for each equipment you want to operate.

Press and hold ⏻POWER during the following operations

Enter the appropriate code
See table below

［1］［2］［3］
［4］［5］［6］
［7］［8］［9］ ➡ Press ［■］
［0］

Type of equipment	Code
DVD Recorder / DVD Player / Blu-ray Disc Player	70 (default)
Player theatre / Blu-ray Disc theatre	71
VCR	72
VIERA Link compatible equipments ➡ "VIERA Link Control" (p. 36)	73

(**Note**)

● Confirm if the remote control works correctly after changing the code.
● The codes will be reset to default values if batteries are replaced.
● Some operations may not be possible on some equipment models.

How to Use Menu Functions

Various menus allow you to make settings for the picture, sound, and other functions.
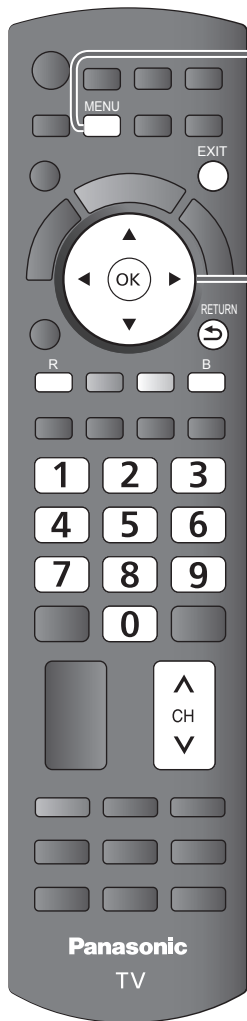
1 Display the menu

MENU ● Displays the functions that can be set (varies according to the input signal)

2 Select the menu

VIErA Main Menu
- ☐ Picture
- ♪ Sound
- ☰ Setup

(example)

② access
① select

3 Select the item

☐ Picture Menu		1/2
Viewing Mode	Normal	
Contrast		90
Brightness		0
Colour		50
Sharpness		50
Tint		0
Colour Balance	Normal	
Channel Colour Set		0
Colour Management	On	

(example)

select

4 Adjust or select

☐ Picture Menu		1/2
Viewing Mode	◂ Normal ▸	
Contrast	◂	90 ▸
Brightness	◂	0 ▸
Colour	◂	50 ▸
Sharpness	◂	50 ▸
Tint	◂	0 ▸
Colour Balance	◂ Normal	▸
Channel Colour Set	◂	0 ▸
Colour Management	◂ On ▸	

(example)

① change
② store or access (Required by some functions)

To return to TV at any time
➡ EXIT

To return to the previous screen
➡ RETURN

To change menu pages
➡ CH ∧ — up / ∨ — down
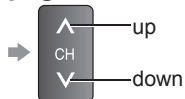
Choose from among alternatives

Number and positions of alternatives

Colour Balance ◂ Normal ▬▬

Changed

Adjust using the slide bar

Sharpness ◂ 50 ▸

Moved

Go to the next screen

Tuning Menu   Access

Displays the next screen

Enter characters by free input menu

User input
Name   A|

A B C D E F G H I J K L M N O P Q R S T
U V W X Y Z 0 1 2 3 4 5 6 7 8 9 ! . #
a b c d e f g h i j k l m n o p q r s t
u v w x y z ( ) + - . * _

① select
② set

or 1 2 3 / 4 5 6 / 7 8 9 / 0

RETURN ➡ Store

● To delete a character ➡ R
● To delete all characters ➡ B

Every press changes the character by one. Leave it for a second to set the character, or press OK or any numeric button within a second.
See the table below for the corresponding characters for each numeric button.

Numeric buttons	Characters	Numeric buttons	Characters
1	. 1 ! : # + - * _ ( )	6	m n o 6 M N O
2	a b c 2 A B C	7	p q r s 7 P Q R S
3	d e f 3 D E F	8	t u v 8 T U V
4	g h i 4 G H I	9	w x y z 9 W X Y Z
5	j k l 5 J K L	0	Space 0
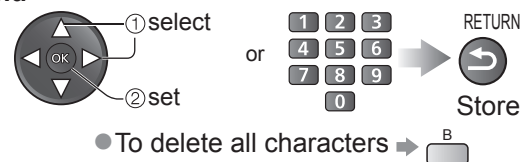
To reset the settings

● To reset the picture settings only
➡ "Reset to Defaults" in Picture Menu (p. 24)

● To reset the sound settings only
➡ "Reset to Defaults" in Sound Menu (p. 24)

● To reset all settings
➡ "Shipping Condition" (p. 31) in Setup Menu

Panasonic
TV

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Overview

VIERA Main Menu

- ☐ **Picture**
- ♪ **Sound**
- ☰ **Setup**

☐ **Picture Menu** 1/2

Viewing Mode	Normal
Contrast	90
Brightness	0
Colour	50
Sharpness	50
Tint	0
Colour Balance	Normal
Channel Colour Set	0
Colour Management	On

☐ **Picture Menu** 2/2

Digital Cinema Colour	Auto
Eco Mode	Off
P-NR	Off
3D-COMB	On
Multi Window	Access
Advanced Settings	Access
Reset to Defaults	Reset

(p. 24)

Advanced Settings

W/B High R	
W/B High B	
W/B Low R	
W/B Low B	
Gamma	2.2
Reset to Defaults	Reset

(p. 32)

♪ **Sound Menu** 1/2

Mode	Music
Bass	+4
Treble	+4
Balance	0
Headphone Volume	17
Surround	Off
Volume Correction	0
Speaker Distance to Wall	Over 30cm
MPX	Stereo

♪ **Sound Menu** 2/2

HDMI1 Input	Digital
Reset to Defaults	Reset

(p. 24)

Tuning Menu

Channel List Edit	Access
Auto Tuning	Access
Manual Tuning	Access

(p. 29)

OSD Language

English	ภาษาไทย
中文	Tiếng Việt
العربية	Indonesia
فارسی	Français

(p. 14)

☰ **Setup Menu**

Off Timer	Off
Child Lock	Access
Tuning Menu	Access
OSD Language	Access
Display Settings	Access
VIERA Link Settings	Access
System Menu	Access
Other Settings	Access

(p. 25)

Display Settings

Teletext	TOP
Teletext Character Set	English
Side Panel	High
Input Labels	Access
Banner Display Timeout	3 seconds
Playing Time Display	On

(p. 25)

VIERA Link Settings

VIERA Link	On
Power on Link	Off
Power off Link	On
Standby Power Save	Off
Intelligent Auto Standby	Off

(p. 37)

System Menu

Shipping Condition	Access
Software Licence	Access
System Information	Access

(p. 25)

Other Settings

AV Colour System	Auto
Colour Matrix	SD
Intelligent Frame Creation	Off
24p Smooth Film	Off
Power Save	Off
Picture Overscan	Off
SD Card LED	On

(p. 25)

● Depending on the received signals, available items are varied.

How to Use Menu Functions (picture, sound quality, etc.)

Advanced

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How to Use Menu Functions

Menu list

Menu	Item	Adjustments / Configurations (alternatives)
Picture	**Viewing Mode**	Basic picture mode **(Dynamic / Normal / Cinema / THX / Game)** Dynamic : Provides enhanced picture contrast and sharpness when viewing in a bright room Normal : Recommended for viewing under normal ambient room lighting conditions Cinema : For watching movies in a darkened room producing a cinema-like picture THX : Faithfully reproduces the image quality that the movie makers intended in order to provide the ultimate cinematic experience at home Game : Game playing time is displayed only when connecting a game equipment. ●Set for each input signal.
	Contrast, Brightness, Colour, Sharpness	Increases or decreases the levels of these options according to your personal preference.
	Tint	With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste. ●For NTSC or Component / HDMI input signal reception only
	Colour Balance	Allows you to set the overall colour tone of the picture **(Cool / Normal / Warm)** ●Not valid when the viewing mode is set to THX
	Channel Colour Set	Colour density varying between broadcast channels can be adjusted to three levels for each reception channel. ●Select the channel you want to adjust and set this function.
	Colour Management	Automatically adjusts colours to vivid ones **(Off / On)** ●Not valid on PC signal
	Digital Cinema Colour	Displays the vivid images with the expanded colour gamut **(Off / On / Auto)** This is effective when watching HD moving pictures. ●HDMI input mode or Movie View Mode only ●Not valid when the viewing mode is set to THX
	Eco Mode	Adjusts picture settings automatically dependent on ambient lighting conditions **(Off / On)**
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture **(Off / Min / Mid / Max)** ●Not valid on PC signal
	3D-COMB	Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen Set to "On" to display sharper and more accurate colours. **(Off / On)** ●For PAL or NTSC signal reception only ●Not valid on S-Video, Component, PC, HDMI and SD Card
	Multi Window	Displays two windows at once (p. 17) ●Not valid on PC or SD Card
	Advanced Settings	Set for colour balance, view and position. (p. 32) Set for colour balance in Normal, Cinema or THX viewing mode.
	Reset to Defaults	Press the OK button to reset the present Picture Menu to the default settings.
Sound	**Mode**	Basic sound mode **(Music / Speech)** ●Set for each input signal
	Bass	Increases or decreases level to enhance or minimise lower, deeper sound output
	Treble	Increases or decreases level to enhance or minimise sharper, higher sound output
	Balance	Adjusts volume level of right and left speakers
	Headphone Volume	Adjusts the volume of the headphones
	Surround	Surround sound settings **(Off / V-Audio / V-Audio Surround / V-Audio ProSurround)** V-Audio: Provides a dynamic enhancer to simulate improved spatial effects V-Audio Surround: Provides a dynamic enhancer of width and depth to simulate improved spatial effects V-Audio ProSurround: Provides a more progressive enhancer and reverberation to simulate improved spatial effects. ●Switching is also possible by the Surround button on the remote control. (p. 10)
	Volume Correction	Adjusts volume of individual channel or input mode
	Speaker Distance to Wall	Adjusts the low frequency sound **(Over 30cm / Up to 30cm)** ●Over 30cm: Recommended when the back space between the TV and wall is over 30 cm ●Up to 30cm: Recommended when the back space between the TV and wall is within 30 cm
	MPX	Selects stereo / monaural **(Mono / Stereo)** (p. 45) ●Normally: Stereo ●Stereo signal cannot be received: Mono ●M1 / M2: Available while mono signal is transmitted
	HDMI1 / 4 Input	Select to fit the input signal. **(Digital / Analogue)** (p. 47) Digital: HDMI cable connection Analogue: HDMI-DVI adapter cable connection ●HDMI input mode only ●HDMI2 / 3 terminals are for digital signal only
	Reset to Defaults	Press the OK button to reset the present Sound Menu to the default settings.

Menu list

Menu	Item		Adjustments / Configurations (alternatives)
Setup	**Off Timer**		Sets the time the TV automatically turns Off **(Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)** (p. 15)
	Child Lock		Locks a channel / AV input to prevent access to it (p. 27)
	Tuning	**Channel List Edit**	Skips the unwanted channels / Edits channels (p. 28)
		Auto Tuning	Sets all TV channels automatically (p. 30)
		Manual Tuning	Sets the TV channels manually (p. 30)
	OSD Language		Changes language for on-screen displays (**English / Thai / Chinese / Vietnamese / Arabic / Indonesia / Persian / French)** (p. 14)
	Display Settings	**Teletext**	Teletext display mode **(TOP (FASTEXT) / List)** (p. 18)
		Teletext Character Set	Selects teletext language **(English / CIS / E.Europe / Persian)**
		Side Panel	Increases the brightness of the side panel **(Off / Low / Mid / High)** ●The recommended setting is "High" to prevent panel "image retention".
		Input Labels	Labels or skips each input mode (p. 26)
		Banner Display Timeout	Sets how long the information banner stays on screen from 0 (No display) to 10 sec. in 1-sec. increments
		Playing Time Display	Displays the length of time in every thirty minutes for playing game **(Off / On)** ●When "Viewing Mode" is set to "Game"
	VIERA Link Settings	**VIERA Link**	Sets to use VIERA Link functions **(Off / On)** ●VIERA Link functions become available when "VIERA Link" is set to "On". (p. 37)
		Power on Link	Sets to use Power on Link functions **(Off / On)** (p. 37)
		Power off Link	Sets to use Power off Link functions **(Off / On)** (p. 37)
		Standby Power Save	Controls the power consumption in Standby mode of the connected equipment to reduce the consumption **(Off / On)** (p. 37)
		Intelligent Auto Standby	Makes unwatched or unused connected equipment go into Standby mode to reduce the power consumption **(Off / On (With reminder) / On (No reminder))** (p. 37)
	System Menu	**Shipping Condition**	Resets all settings to the original condition (p. 31)
		Software Licence	Displays the software licence information
		System Information	Displays the system information of this TV
	Other Settings	**AV Colour System**	Selects optimum colour system based on video signals in AV mode **(Auto / PAL / SECAM / M.NTSC / NTSC)**
		Colour Matrix	Available only with 480p or 576p input on video signals in a natural colour from digital equipment connected to AV1/AV2 component or HDMI1/HDMI2/HDMI3/HDMI4 terminals Select SD or HD to adjust suitable colour parameters for SD (standard definition) or HD (high definition) ●SD: Input signal is a normal TV system ●HD: Input signal is a high definition system
		Intelligent Frame Creation	Automatically compensates the picture frame rate to make the image smooth **(Off / On)** ●Set to "Off" if the image wiggles.
		24p Smooth Film	Automatically compensates the picture frame rate to make the image smooth **(Off / Mid / Max)** ●24p signal input only ●Set to "Off" if noise is generated on the screen.
		Power Save	Reduces brightness of picture to minimise power consumption **(Off / On)**
		Picture Overscan	Selects the screen area for displaying the image **(Off / On)** On: Enlarges the image to hide the edge of the image Off: Displays the image in the original size ●Set to "On" if noise is generated on the edges of the image. ●This function is available when aspect is set to "16:9". ●This function can be memorized separately for SD (Standard Definition) and HD (High Definition) signals.
		SD Card LED	Lights blue LED while SD Card is inserted **(Off / On)** (p. 33)

●A different menu will be displayed while PC or SD Card is used. (p. 32 and p. 33)
●Only available items can be selected.

Input Labels

For easier identification and selection of the input mode, you can label each input terminals or skip terminal that is not connected to any equipment. (p. 20)

1 Display the menu

MENU

2 Select "Setup"

VIErA **Main Menu**
- ☐ Picture
- ♪ Sound
- ☰ Setup

② access
① select

3 Select "Display Settings"

☰ Setup Menu

Off Timer	Off
Child Lock	
Tuning Menu	
OSD Language	
Display Settings	Access
VIERA Link Settings	
System Menu	
Other Settings	

② access
① select

4 Select "Input Labels"

Display Settings

Teletext	TOP
Teletext Character Set	English
Side Panel	High
Input Labels	Access
Banner Display Timeout	3 seconds
Playing Time Display	On

② access
① select

5 Select an input terminal and set

Input Labels

AV1	◄ AV1 ►
AV2	AV2
AV3	AV3
AV4	AV4
PC	PC
HDMI1	HDMI1
HDMI2	HDMI2
HDMI3	HDMI3
HDMI4	HDMI4

② set
① select

The labels you set will be displayed in "Input Selection" menu (p. 20) or banner.
● If "Skip" is selected, you cannot select the mode.

To return to TV ➡ EXIT

User input
You can name each input terminals freely.

①select
②access
Select "User input"

User input

Name   A|

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z		0	1	2	3	4	5	6	7	8	9	!	:	#
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
u	v	w	x	y	z	(	)	+	-	.	*	_							

(maximum: ten characters)
You can set characters by using numeric buttons. ➡ p. 22

①select
②set
Set characters

RETURN

Store

Control Channel Audience

You can lock specific channels / AV input terminals and control who watches them.
When the locked channel / input is selected, a message appears; by entering the PIN number, you can watch it.

1 **Display the menu**
MENU

2 **Select "Setup"**

VIErA **Main Menu**
☐ **Picture**
♪ **Sound**
☰ **Setup**

② access
① select

3 **Select "Child Lock"**

☰ Setup Menu	
Off Timer	Off
Child Lock	Access
Tuning Menu	
OSD Language	
Display Settings	
VIERA Link Settings	
System Menu	
Other Settings	

② access
① select

4 **Set**

To return to TV ➡ EXIT

Control channel audience | Child Lock |

① **Enter the PIN number (4 digits)**

Child Lock-PIN Entry
Please enter new PIN
PIN ∗ ∗ ∗ ∗

● Enter the PIN number twice at first setting.
● Make a note of the PIN number in case you forget it.

② **Select "Child Lock List"**

Child Lock
Change PIN
Child Lock List Access

② access
① select

③ **Select the channel / input to be locked**

Child Lock List - TV and AV			
Name	Input	Type	Lock
1 BBC	TV	TV	🔒
7 THREE	TV	TV	🔒
14 E4	TV	TV	
70 CBBC	TV	TV	
72 Nwk	TV	TV	
80 BBCi	TV	TV	
AV1	External	AV	🔒
AV2	External	AV	

Appears when the channel / input is locked

② set
① select

● To cancel
  ➡ Select the locked channel / input
  ➡ OK
● To lock all ➡ G
● To cancel all locks ➡ Y
● To jump to the next block of channels ➡ R

To change the PIN number
Select "Change PIN" in "Child Lock" and enter a new PIN number twice.

(Note)
● Performing "Shipping Condition" (p. 31) erases the PIN number and all settings.

27

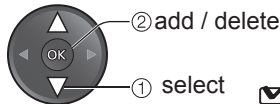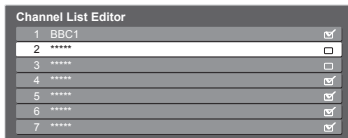# Editing Channels

You can skip unwanted channels, etc.

1 **Display the menu**
MENU

2 **Select "Setup"**

VIEΓΛ **Main Menu**
- ☐ **Picture**
- ♪ **Sound**
- ☰ **Setup**

② access
① select

3 **Select "Tuning Menu"**

☰ Setup Menu

Off Timer	Off
Child Lock	
Tuning Menu	Access
OSD Language	
Display Settings	
VIERA Link Settings	
System Menu	
Other Settings	

② access
① select

4 **Select "Channel List Edit"**

Tuning Menu

Channel List Edit	Access
Auto Tuning	
Manual Tuning	

② access
① select

To return to TV ➡ EXIT

5 **Set**

Skip unwanted channels / Edit channels (Change name, Move) `Channel List Edit`

You can hide unwanted channels. The hidden channels cannot be displayed except in this function. Use this function to skip unwanted channels.
Select a channel and add / delete

Channel List Editor
1	BBC1	☑
2	*****	☐
3	*****	☐
4	*****	☑
5	*****	☑
6	*****	☑
7	*****	☑

② add / delete
① select

☑ :add
☐ :delete (skip)

- To retune each channel (Manual Tuning) (p. 30)
  ➡ R
- To reveal all channels
  ➡ Y

You can edit channels.
- If a VCR is connected only with the RF cable, edit "VCR".

① **Select a channel to edit**

Channel List Editor
1	BBC1	☑
2	*****	☐
3	*****	☐
4	*****	☑
5	*****	☑
6	*****	☑
7	*****	☑

select
or
CH ∧ Page up
CH ∨ Page down
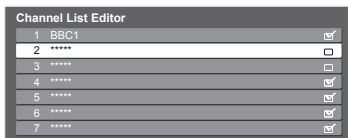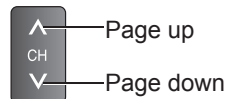
② **Edit**
   To change the displayed name when selecting channels

B
Select "Rename"

① select
② set
Set characters

Edit channel name
Name

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
U	V	W	X	Y	Z		0	1	2	3	4	5	6	7	8	9	!	:	#
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
u	v	w	x	y	z	(	)	+	-	.	*	_							
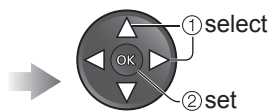
(maximum: five characters)

You can set characters by using numeric buttons.
➡ p. 22

To move channel position

G
select
Store
G

Tuning Channels

You can retune all the TV channels when moving house.

1 **Display the menu**

MENU

2 **Select "Setup"**

VIEΓΛ **Main Menu**
☐ **Picture**
♪ **Sound**
≡ **Setup**

② access
① select

3 **Select "Tuning Menu"**

≡ Setup Menu	
Off Timer	Off
Child Lock	
Tuning Menu	Access
OSD Language	
Display Settings	
VIERA Link Settings	
System Menu	
Other Settings	

② access
① select

To return to TV ➡ EXIT

4 **Select a function**

Tuning Menu	
Channel List Edit	
Auto Tuning	Access
Manual Tuning	Access
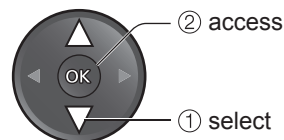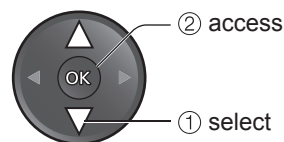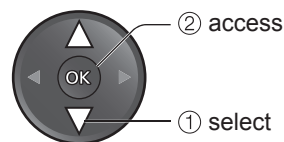
② access
① select

5 **Set**

Tuning Channels

Set all channels automatically Auto Tuning

Automatically retune all TV channels received in the area.

Start Auto Tuning
Access "Auto Tuning"

Auto Tuning

All tuning data will be erased

Start Auto Tuning ──○ ● EXIT
                    ○ ● RETURN

(OK) ➡
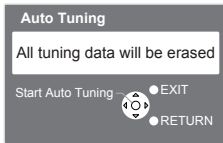
Settings are made automatically

Auto Tuning
2   CH3
Scan   1▮   120
● EXIT

● All the previous tuning settings are erased.
● When the operation is completed, the channel at channel position "1" will be displayed.
● If tuning has not been done completely ➡ "Manual Tuning"

For Auto Tuning, using the buttons on the side panel of the TV (p. 9)

① Press repeatedly until "Auto Tuning" appears F

② Access "Auto Tuning" TV

③ Start "Auto Tuning" TV   ● To return to TV ➡ F
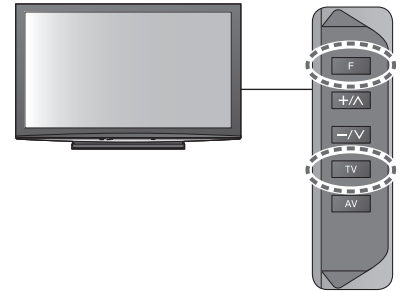
Set manually Manual Tuning

Fine Tuning
Use to make small adjustments to the tuning of an individual programme (affected by weather conditions, etc.)
Manual Tuning
Set programme manually after Auto Tuning.
● Set Sound System and Colour System, and then perform this function. Normally set Colour System "Auto".
● If a VCR is connected only with the RF cable, select programme position "0".

Manual Tuning
1 BBC1   CH33
Fine Tuning   ▮
Manual Tuning   1◀▮   ▶120
Sound System   5.5MHz
Colour System   Auto
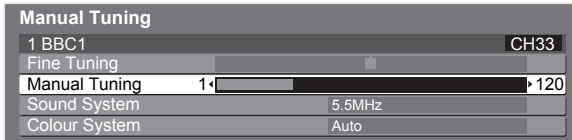
Select the channel position   Select the channel   Search and store

[1] [2] [3]
[4] [5] [6]   ∧   ▲
[7] [8] [9]   CH   ◀ (OK) ▶ ──① search
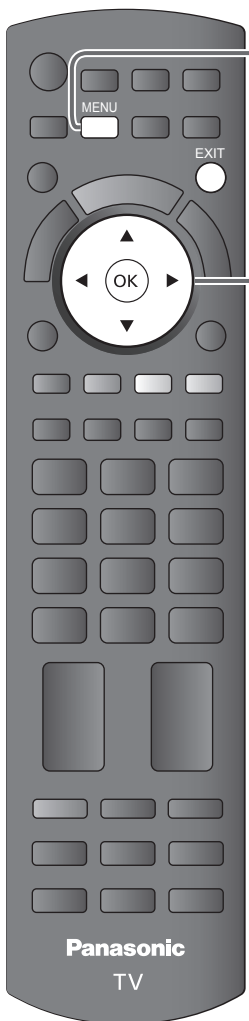   [0]   ∨   ▼ ──② store
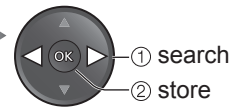
Restore Settings
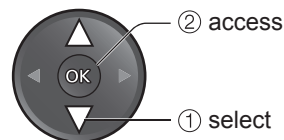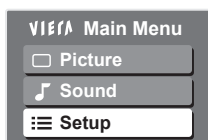## (Shipping Condition)

Resets the TV to its original condition, i.e. no channels tuned in.
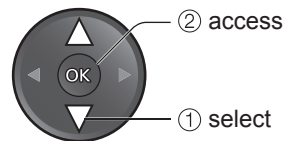All settings (channels, picture, sound quality, etc.) are reset.

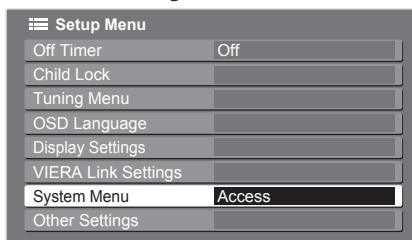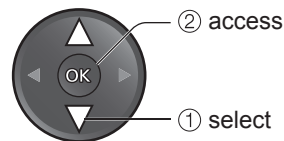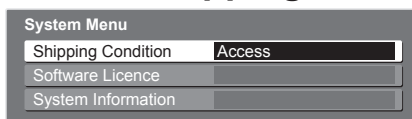**1** **Display the menu**

MENU

2 **Select "Setup"**

VIErA **Main Menu**
☐ Picture
♪ Sound
☰ **Setup**

② access
① select

3 **Select "System Menu"**

☰ Setup Menu	
Off Timer	Off
Child Lock	
Tuning Menu	
OSD Language	
Display Settings	
VIERA Link Settings	
System Menu	Access
Other Settings	

② access
① select

4 **Select "Shipping Condition"**

System Menu	
Shipping Condition	Access
Software Licence	
System Information	

② access
① select

5 **Set**

To return to TV ⇒ EXIT

Restore Settings Shipping Condition

① **Check the message and reset**

Shipping Condition
All tuning data will be erased
Are you sure?
Are you sure?
Confirm — ● EXIT
● RETURN

OK
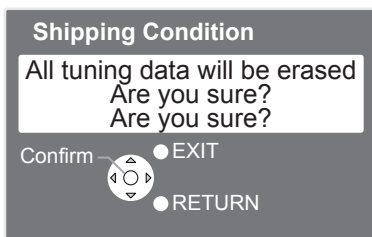
② **Follow the on-screen instructions**
● "Auto Tuning" will automatically start when Mains power On / Off switch is next turned On. (p. 12)
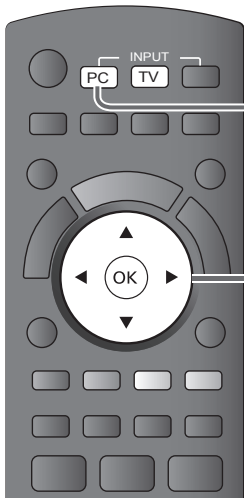
To retune TV channels only, e.g. after moving house
⇒ "Auto Tuning" (p. 30)

Displaying PC Screen on TV

The screen of the PC connected to the TV can be displayed on the TV.
You can also listen to PC sound with the audio cable connected.
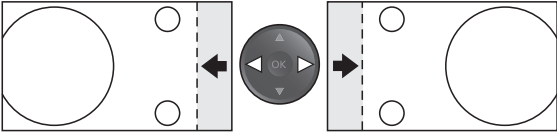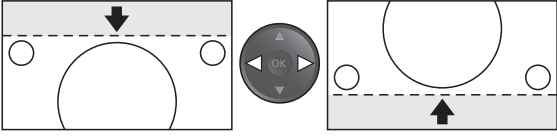● To connect PC ➡ p. 42

1 **Select the PC input**
[PC]

2 **To change the settings, see the table below**

To return to TV ➡ [TV]

PC menu setting (changed as desired)

Menu	Item		Adjustments / Configurations (options)		
Picture	**Advanced Settings**	W/B High R	White balance of bright red area	①	
		W/B High B	White balance of bright blue area		① and ② repeatedly adjusted
		W/B Low R	White balance of dark red area	②	
		W/B Low B	White balance of dark blue area		
		Gamma	**(S Curve / 2.0 / 2.2 / 2.5)**		
		Reset to Defaults	Press the OK button to reset to the default Picture settings		
Setup	**PC Setup**	Input Resolution	Switches to a wide view ● VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,280 × 768 pixels, 1,366 × 768 pixels) ● Options change depending on signals		
		Clock	Set to the minimum level if noise occurs		
		H-pos	Adjusts horizontal position		
		V-pos	Adjusts vertical position		
		Clock Phase	Eliminates flicker and distortion ● Adjust after Clock adjustment ● Set to the minimum level if noise occurs		
		Sync	PC sync signal type **(H & V / On Green)** ● H & V : Horizontal and Vertical sync from your PC (Most common sync format) On Green : Sync on Green sync from your PC		
		Reset to Defaults	Press the OK button to reset to the default Setup settings		

● Other items ➡ p. 24 - 25

32

Viewing from SD Card
(VIERA IMAGE VIEWER)

Photo View: Still images recorded by digital cameras will be displayed.
Movie View: Moving pictures recorded by digital video cameras will be played back.
- During the operation, no signals are output from any of the AV terminals. But the sound in Movie View can be output from AUDIO OUT and DIGITAL AUDIO OUT terminals.
- "Date" shows the date on which the recording was made by the digital camera or digital video camera. The file without record of the date is shown "****/**/**".
- For details on SD Cards ➡ p. 46

To insert SD Card

Label surface

Push until a click is heard

SD CARD

To remove SD Card

Press the centre of the card

SD CARD

Blue LED

- Blue LED lights while SD Card is inserted if "SD Card LED" is set to "On" in the Setup Menu (p. 25).

Photo View
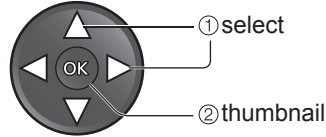
1 **Insert the SD Card**

2 **Select "Photo View"**

SD Card
- Photo View
- Movie View

② access
① select
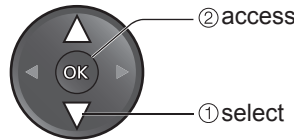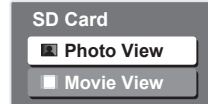
3 **Select a folder to display the thumbnail**

Photo View Mode
Folder view
1/23
Folder name
100_PANA
Number of pictures
38 pictures

100_PANA 38 pictures
101_PANA 3 pictures
102_PANA 14 pictures
200_PANA 20 pictures
201_PANA 7 pictures
ROOM 1 picture
Fruit 18 pictures
Nature 14 pictures

Select EXIT
Select
RETURN
View
All pictures

(Folder view)

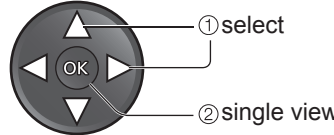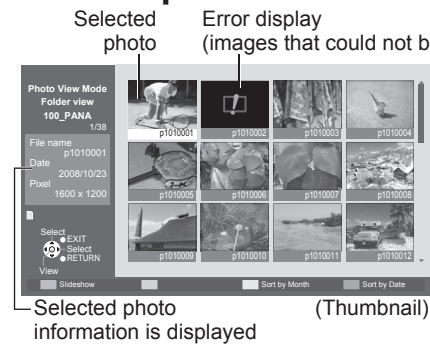① select
② thumbnail
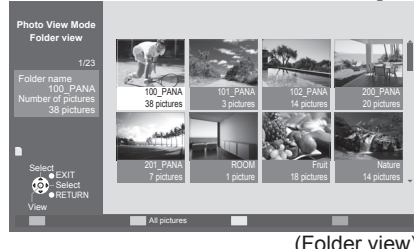
- The files which are not in a folder will be collected to the folder named "/".
- To display all the photos ➡ p. 34

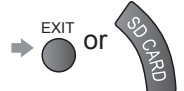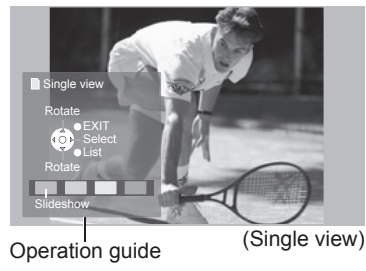**4** **Select a photo from the thumbnail to be viewed**

Selected photo
Error display (images that could not be loaded, etc.)

Photo View Mode
Folder view
100_PANA
1/38
File name
p1010001
Date
2008/10/23
Pixel
1600 x 1200

p1010001 p1010002 p1010003 p1010004
p1010005 p1010006 p1010007 p1010008
p1010009 p1010010 p1010011 p1010012

Select EXIT
Select
RETURN
View
Slideshow   Sort by Month   Sort by Date

Selected photo information is displayed

(Thumbnail)

① select
② single view

- Slideshow ➡ p. 34
- To sort by date or month recorded ➡ p. 34

Single view
Rotate
EXIT
Select
List
Rotate
Slideshow
Operation guide

(Single view)

Displayed one at a time
- To display / hide the operation guide

RECALL

To the previous photo
Rotate 90˚ (counter-clockwise)
To the next photo
Rotate 90˚ (clockwise)
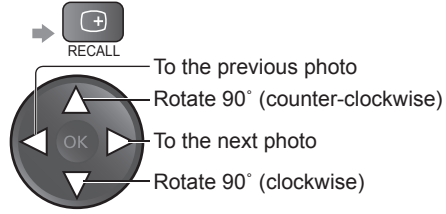
- To return to thumbnail ➡ RETURN

To return to TV
➡ EXIT or SD CARD

To return to the previous screen
➡ RETURN

Viewing from SD Card
(VIERA IMAGE VIEWER)

Slideshow

Start Slideshow (operate in step ④)

Select the photo for the first view   Start Slideshow

R

● To pause ➡

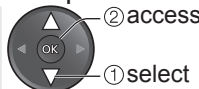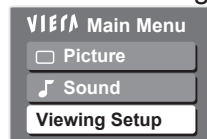● To return to Single view ➡ G

Note

● Slideshow is done within the thumbnail.

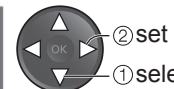**Slideshow settings** (operate in Photo View Mode)

Display the menu   Select "Viewing Setup"   Select the items and set

MENU

VIERA Main Menu
- ☐ Picture
- ♪ Sound
- **Viewing Setup**

②access
①select

Viewing Setup
Back Ground Music	Type1
Effect	Off
Interval	5 seconds
Repeat	Off

②set
①select

● Other Items ➡ p. 24 - 25

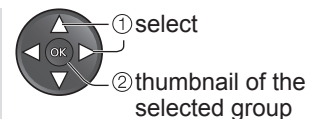| Menu	Item	Adjustments / Configurations (alternatives)
Viewing Setup	**Back Ground Music**	Selects the back ground music during the slideshow (**Off / Type1 / Type2 / Type3**)
	Effect	Selects the effect for switching the photo during the slideshow **(Off / Fade / Slide / Dissolve / Random)** Fade : The next photo fades in gradually Slide : The next photo slides and appears from the left side Dissolve : The photo is replaced by an indefinite block unit Random : Selects each effect at random
	Interval	Selects slideshow interval (**5 / 10 / 15 / 30 / 60 / 90 / 120 seconds**)
	Repeat	Slideshow repeat (**Off / On**)

To display all the photos
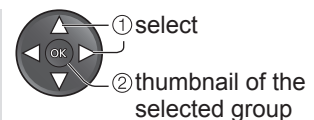
Display the thumbnail of all the photos in SD Card.

①select
②single view

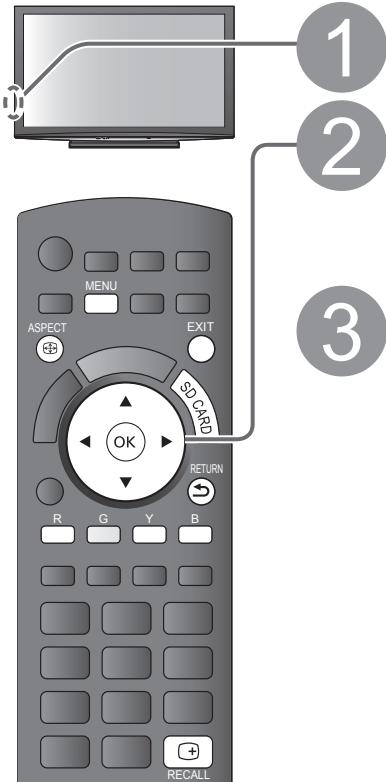(Folder view)   (Thumbnail - All pictures)
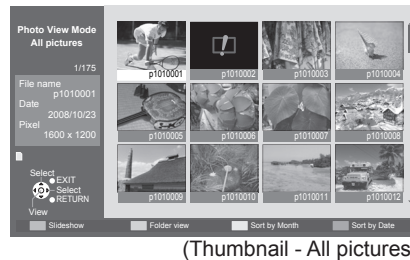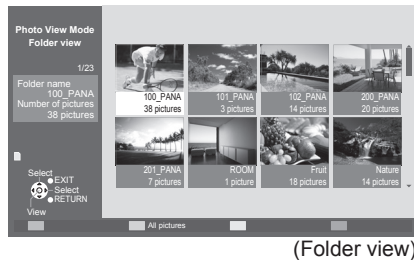
To sort by date or month recorded

Display the list of groups sorted by the same date or the same month.
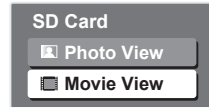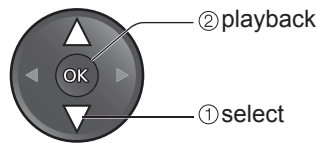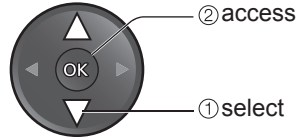● The group of the photos without record of the date is shown as "Unknown".

①select
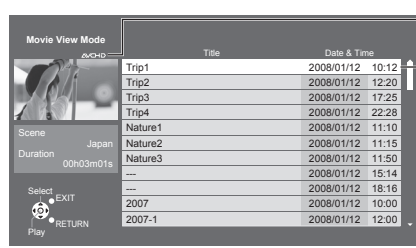②thumbnail of the selected group

(Sort by Month)

(Thumbnail)

①select
②thumbnail of the selected group

(Sort by Date)
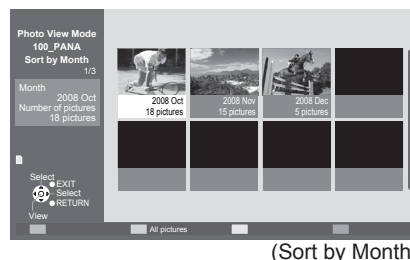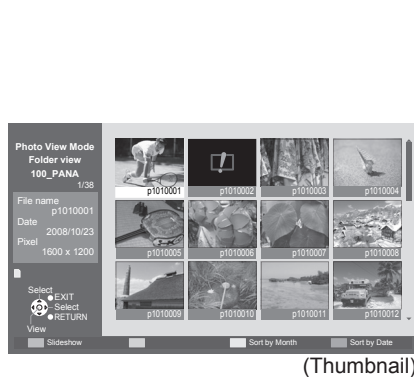
Movie View

1 **Insert the SD Card**

2 **Select "Movie View"**

SD Card
- Photo View
- **Movie View**

② access
OK
① select

3 **Select the file to be viewed**

Movie View Mode

AVCHD

Title	Date & Time
Trip1	2008/01/12 10:12
Trip2	2008/01/12 12:20
Trip3	2008/01/12 17:25
Trip4	2008/01/12 22:28
Nature1	2008/01/12 11:10
Nature2	2008/01/12 11:15
Nature3	2008/01/12 11:50
---	2008/01/12 15:14
---	2008/01/12 18:16
2007	2008/01/12 10:00
2007-1	2008/01/12 12:00

Scene   Japan
Duration   00h03m01s
Select   EXIT
Play   RETURN

(List)

File format
Only AVCHD or MPEG2 is supported.
● For details ➡ p. 46
Selected file

② playback
OK
① select

▮▮/▶
▶ EXIT
◀◀   ▶▶
■ RETURN
◀◀ ▶▶

Title   Trip1   «   ▶   AVCHD
Date & Time   2008/01/12   10:12   00:00:05/00:03:01

Operation guide   (Playback)

information banner ➡ RECALL ⊞

● To return to list ➡ (stop)

● To change aspect ratio
(only for the 4:3 movie content)
➡ ASPECT ⊕

Playback will start
● To display the operation guide
➡ R G Y B or OK
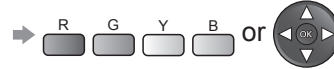
● To hide the operation guide ➡ RETURN ↩

◀◀ Rewind
▮▮/▶ Pause / Playback
▶ Playback
▶▶ Fast forward
■ Stop
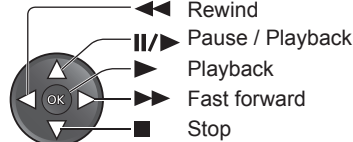
● To the previous movie ➡ R

● To the next movie ➡ G

To return to TV
➡ EXIT or SD CARD
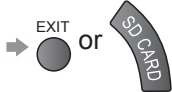
To return to the previous screen
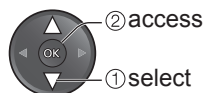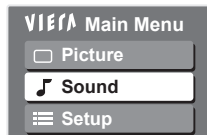➡ RETURN ↩

Audio Settings

You can enjoy the multi-channel sound via an amplifier connected to DIGITAL AUDIO OUT terminal.
To confirm or change the current sound status (during playback)

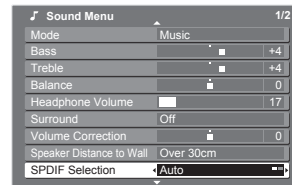**Audio output settings** (operate in step ③)

Display the menu
MENU

Select "Sound"
VIErA Main Menu
- Picture
- **Sound**
- Setup

② access
OK
① select

● Other items ➡ p. 24 - 25

Select "SPDIF Selection" and set

♪ Sound Menu   1/2
Mode	Music
Bass	+4
Treble	+4
Balance	0
Headphone Volume	17
Surround	Off
Volume Correction	0
Speaker Distance to Wall	Over 30cm
SPDIF Selection	Auto

② set
OK
① select

Menu	Item	Adjustments / Configurations (alternatives)
Sound	**SPDIF Selection**	SPDIF : A standard audio transfer file format Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal **(Auto / PCM)** Auto: Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM. PCM: Digital output signal is fixed to PCM.

VIERA Link "HDAVI Control™"

Enjoy additional HDMI interoperability with Panasonic products which have "HDAVI Control" function.
This TV supports "HDAVI Control 4" function.
Connections to the equipment (DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI cable allow you to interface them automatically.
These features are limited to models incorporating "HDAVI Control" and "VIERA Link".
- Some functions are not available depending on the equipment's version of HDAVI Control. Please confirm the connected equipment's version of HDAVI Control.
- VIERA Link "HDAVI Control", based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.
- Please refer to individual manuals for the equipments. About applicable Panasonic equipment, consult your local Panasonic dealer.

VIERA Link features and connections

VIERA Link

Features \ Connected equipment with VIERA Link function	DIGA Recorder*1	DVD Player / Blu-ray Disc Player*1	HD Video Camera / LUMIX Camera*1	Player theatre*2	Blu-ray Disc theatre*2	Amplifier*2
Channel download	○*4	–	–	–	–	–
Easy playback	○	○	○	○*7	○*7	–
Power on link	○	○	○	○	○	–
Power off link	○	○	○	○	○	○
Reduce unnecessary power consumption in standby	○*5	○*5	–	–	○*5	–
Auto standby for unnecessary equipment	○*3	○*3	–	○*3 *8	○*3 *8	○*3
Pause Live TV programme	○*4 *6	–	–	–	–	–
Direct TV Recording	○*4	–	–	–	–	–
Control the menu of the connected equipment by VIERA remote control	○*3	○*3	○*3	○*3	○*3	–
Speaker control	–	–	–	○	○	○

∗1: HDMI Connection only
∗2: HDMI and Audio out connections
∗3: available with the equipment which has "HDAVI Control 2 or later" function
∗4: available with the equipment which has "HDAVI Control 3 or later" function
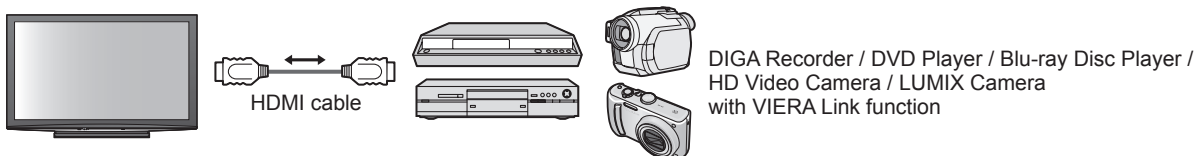∗5: available with the equipment which has "HDAVI Control 4" function
∗6: available with DIGA Recorder which has HDD
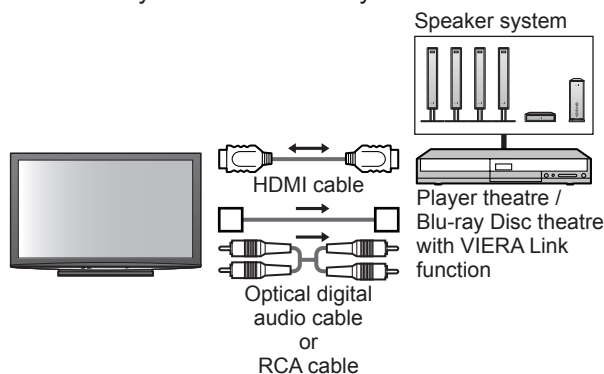∗7: while playingback a disc
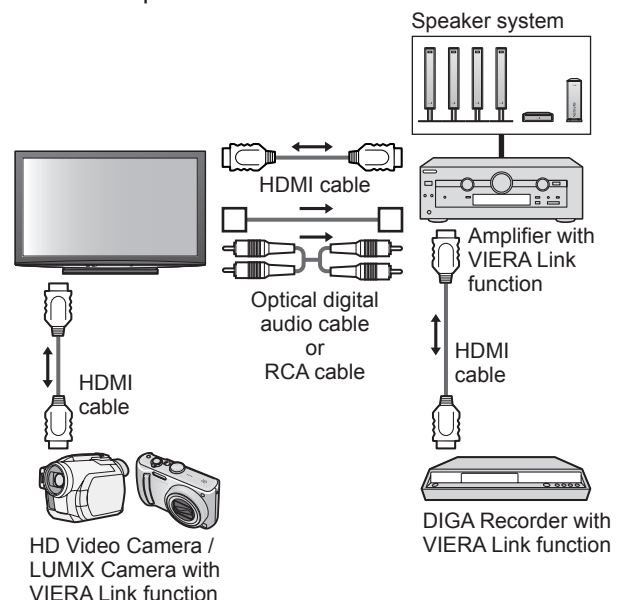∗8: except for watching a disc

Connection
- To use DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera

HDMI cable

DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera with VIERA Link function

- To use Player theatre / Blu-ray Disc theatre:

Speaker system

HDMI cable

Optical digital audio cable or RCA cable

Player theatre / Blu-ray Disc theatre with VIERA Link function

- To use Amplifier:

Speaker system

HDMI cable

Optical digital audio cable or RCA cable

Amplifier with VIERA Link function

HDMI cable

HDMI cable

HD Video Camera / LUMIX Camera with VIERA Link function

DIGA Recorder with VIERA Link function

● This function may not work properly depending on the connected equipment.
● For DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera with VIERA Link function, connect to HDMI1, HDMI2, HDMI3 or HDMI4 terminal via an HDMI cable.
● For Player theatre / Blu-ray Disc theatre / Amplifier, connect to HDMI1, HDMI2, HDMI3 or HDMI4 terminal via an HDMI cable and/or either the optical digital audio cable or RCA cable for audio output from the TV.
● Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilized.
  Recommended Panasonic's HDMI cable part number:
  • RP-CDHG10 (1.0 m) • RP-CDHG15 (1.5 m) • RP-CDHG20 (2.0 m) • RP-CDHG30 (3.0 m) • RP-CDHG50 (5.0 m)

Preparations
● Connect the equipment supporting VIERA Link.
● Set up the connected equipment. Read the manual of the equipment.
● For optimal recording, the settings of the recorder might be required. For details, read the manual of the recorder.
● Set VIERA Link On in Setup Menu ➡ "VIERA Link" (p. 25)
● Set up the TV ➡ **After connection, turn the equipment on and then switch the TV on. Select the input mode to HDMI1, HDMI2, HDMI3 or HDMI4 (p. 20), and make sure that an image is displayed correctly.**
  This setup should be done each time when the following conditions occur:
  • for the first time • when adding or reconnecting equipment • when changing setup

Features available

Channel download
Channel setting can be downloaded to the recorder.

Easy playback
Automatic input switching - When the connected equipment is operated, input mode is switched automatically.

Power on link
Set Power on Link "On" in Setup Menu to use this function ➡ "Power on Link" (p. 25) When the connected equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when the TV is in Standby mode.)

Power off link
Set Power off Link "On" in Setup Menu to use this function ➡ "Power off Link" (p. 25) When the TV is set to Standby mode, the connected equipment is also automatically set to Standby. ● This function will work even if the TV enters standby mode automatically by Off Timer function or auto power standby function.

Reduce unnecessary power consumption in standby Standby Power Save
Set Standby Power Save "On" in the Setup Menu to use this function ➡ "Standby Power Save" (p. 25) The power consumption in Standby mode of the connected equipment is controlled higher or lower in synchronization with the TV On / Off state to reduce the consumption. When the TV is set to Standby mode, the connected equipment is automatically set to Standby and the power consumption in Standby mode of the connected equipment is automatically minimized. When the TV is turned on, the connected equipment is still in Standby mode, but the power consumption is increased to make startup time early. ● This function is effective if the connected equipment can change the power consumption in Standby mode and is set to higher consumption.

Auto standby for unnecessary equipment Intelligent Auto Standby
Set Intelligent Auto Standby "On (With reminder)" or "On (No reminder)" in the Setup Menu to use this function ➡ "Intelligent Auto Standby" (p. 25) When the TV is on, the connected equipments not in use go into Standby mode automatically to reduce the power consumption. ● If you select "On (With reminder)", the on screen message will be displayed to be noticed before working this function.

VIERA Link "HDAVI Control™"

Advanced

VIERA Link "HDAVI Control™"
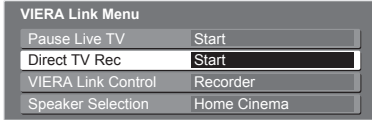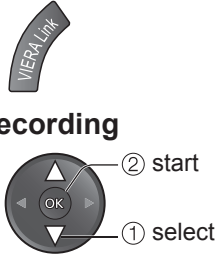
Features available (Using VIERA Link Menu)

Direct TV Recording - What you see is What you record `Direct TV Rec`

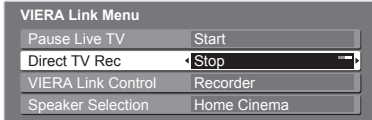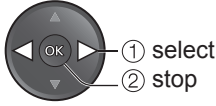Recording the current programme in DIGA Recorder immediately.
- If you connect several recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder to the TV's lower HDMI terminal number.
- If you cannot operate, check the settings and the equipment ➡ "VIERA Link features and connections" (p. 36)

① **Display "VIERA Link Menu"**

② **Select "Direct TV Rec" and start recording**

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

② start
① select

To stop recording
Select "Stop" in "Direct TV Rec" and access

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Stop
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

① select
② stop

Pause Live TV programme `Pause Live TV`

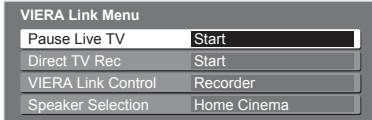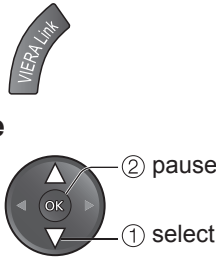You can pause the live TV programme and resume later.
Live TV programme will be recorded on HDD of the connected DIGA Recorder.
- This function is available with DIGA Recorder which has HDD.
- If you connect several recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder which has HDD to the TV's lower HDMI terminal number.
- If you cannot operate, check the settings and the equipment ➡ "VIERA Link features and connections" (p. 36)

Access and pause the live TV programme
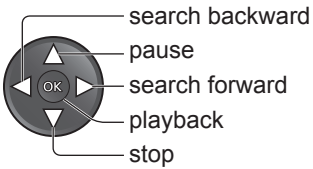
① **Display "VIERA Link Menu"**

② **Select "Pause Live TV" and pause**

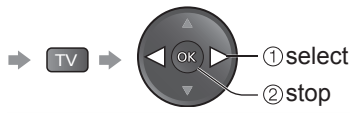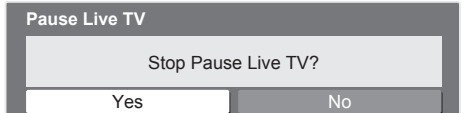| VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

② pause
① select

TV picture will be paused.
- Live TV programme is recorded on HDD from where it was paused.
- Follow the operation guide to operate Pause Live TV function.

To operate Pause Live TV

- search backward
- pause
- search forward
- playback
- stop

To return to Live TV
(stop playback of Pause Live TV / cancel pause)

Select "Yes"

➡ TV ➡

① select
② stop

Pause Live TV	
Stop Pause Live TV?	
Yes	No

- If you stop playback or cancel pause, the recorded programme will be deleted from HDD.
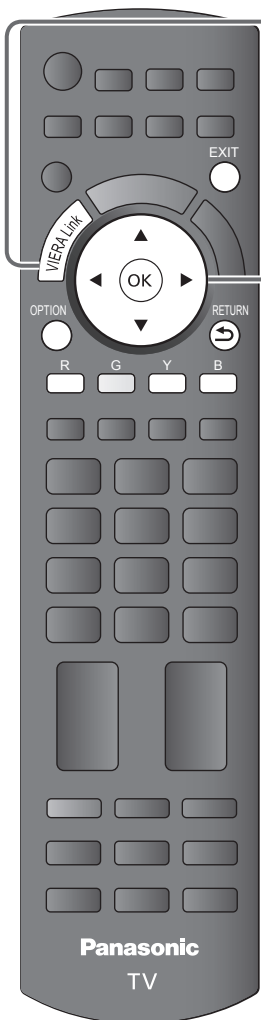
Features available (Using VIERA Link Menu)

Operate the connected equipment with VIERA remote control VIERA Link Control

You can control some functions of the connected equipment with this TV remote control by pointing at the TV's signal receiver.

● If you cannot operate, check the settings and the equipment ➡ "VIERA Link features and connections" (p. 36)
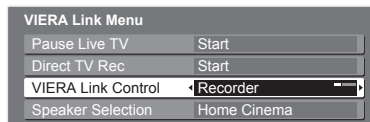● For details of the operations for the connected equipment, read the manual of the equipment.

Access and operate the menu of the equipment
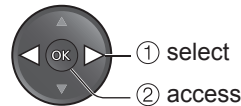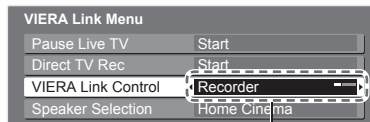
① **Display "VIERA Link Menu"**

② **Select "VIERA Link Control"**

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	◄ Recorder
Speaker Selection	Home Cinema

select

③ **Select the equipment you want to access**
The type of the connected equipment is displayed.
Select the type of the equipment and access.

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

① select
② access

Recorder / Player / Home Cinema / Video Camera / LUMIX / Other

● "Home Cinema" means Player theatre, Blu-ray Disc theatre or Recorder theatre.
● "Other" means Tuner set top box.

The menu of the accessed equipment
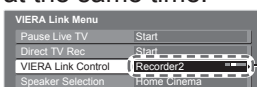(Input mode will be changed automatically)

④ **Operate the connected equipment**

1. Set the remote control code to "73" (p. 21)
2. Follow the operation guide

To display the operation guide ➡ OPTION   Store / set / access ➡ OK

Move the cursor / select the menu ➡   Return to the previous menu ➡ RETURN

Move the cursor / access / adjust ➡   Exit the menu ➡ EXIT

When the key words are displayed on colour bar ➡ R G Y B

Note
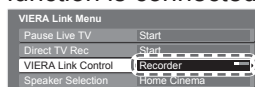● Some operations may not be available for some equipment. If so, use its own remote control.

If several recorders or players are connected
You can connect up to three recorders or players at the same time.

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder2
Speaker Selection	Home Cinema

Recorder1-3 / Player1-3

The number is given from the TV's lower HDMI terminal connected to the same type of equipment. For example, when two recorders are connected to HDMI2 and HDMI3, one connected to HDMI2 is displayed as Recorder1 and the other as Recorder2.

If you access the invalid equipment
When the equipment with "HDAVI Control" function is connected

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

Recorder1-3 / Player1-3

Type of the connected equipment is displayed. You can access the menu of the equipment. But you cannnot operate it. Use its own remote control to operate the equipment.

Panasonic
TV

VIERA Link "HDAVI ControlTM"

Features available (Using VIERA Link Menu)

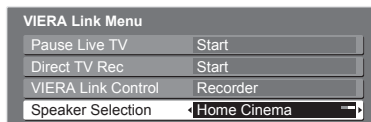## Speaker control | Speaker Selection

You can control the theatre speaker with this TV remote control by pointing at the TV's signal receiver.

● If you cannot operate, check the settings and the equipment ➡ "VIERA Link features and connections" (p. 36)
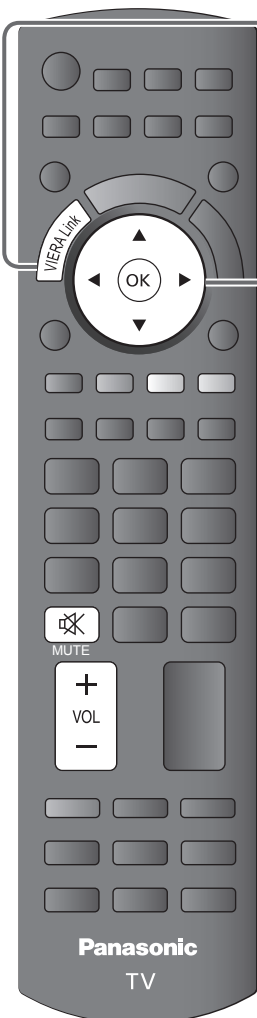
Access and control the speaker volume

① **Display "VIERA Link Menu"**

② **Select "Speaker Selection"**

| VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	◄ Home Cinema

select

③ **Set to "Home Cinema" or "TV"**

set

Home Cinema
Player theatre, Blu-ray Disc theatre or Amplifier will be automatically turned on if it is in Standby mode and the sound is from theatre speakers connected to the equipment.

● Volume up / down

➡ (Volume slide bar will be displayed when adjusting the volume of the equipment.)
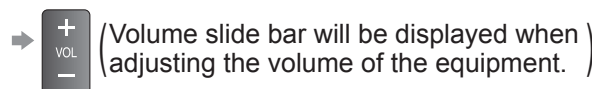
● Mute ➡ [MUTE]

● The sound of TV speakers is mute.
● When the equipment is turned off, TV speakers will be active.

TV
TV speakers are active.

◁ **Note** ▷

● If you wish to enjoy the multi-channel sound (e.g. Dolby Digital 5.1ch) via an Amplifier, connect with HDMI cable and Optical digital audio cable (p. 36), and then select "Home Cinema".
To enjoy the sound from the DIGA Recorder in multi-channel sound, connect an HDMI cable from the DIGA Recorder to the Amplifier (p. 36).
● Easy playback may be available by using the remote control for Player theatre, Blu-ray Disc theatre or Amplifier. Read the manual of the equipment.

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◁ **Note** ▷

● These functions may not work properly depending on the connected equipment.
● Image or sound may not be available for the first few seconds when input mode is switched.
● "HDAVI Control 4" is the newest standard (current as of December, 2008) for HDAVI Control compatible equipment. This standard is compatible with conventional HDAVI equipment.
● To confirm this TV's version of HDAVI Control ➡ "System Information" (p. 25)
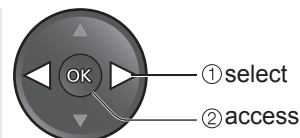
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VIERA Tools

With VIERA Tools, you can directly access to some of the useful functions of connected equipment or SD card.
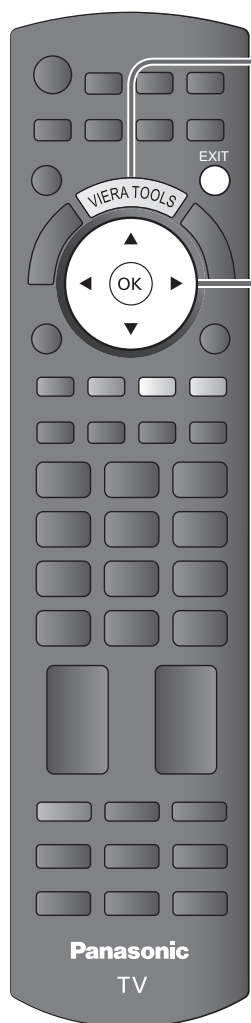
1 Display VIERA Tools Menu

VIERA TOOLS

2 Select a feature

① select
② access

To return to TV

➡ EXIT ● **or** VIERA TOOLS

3 Follow the operation of each feature

VIERA Link Control
VIERA Link Control (p.39)
The connected device can be operated with the VIERA remote control.
When multiple devices are connected, an indicator appears below the icon so that one device can be selected.

Pause Live TV
Pause Live TV (p. 38)
A live TV programme can be paused and resumed later.

Direct TV Rec
Direct TV Rec (p. 38)
What is on TV can be recorded immediately.

Speaker Selection
Speaker Control (p. 40)
Theatre speaker can be set.

Slideshow
SD card slideshow (p. 34)
Photo slideshow will start.

Photos
SD card photo view (p. 33)
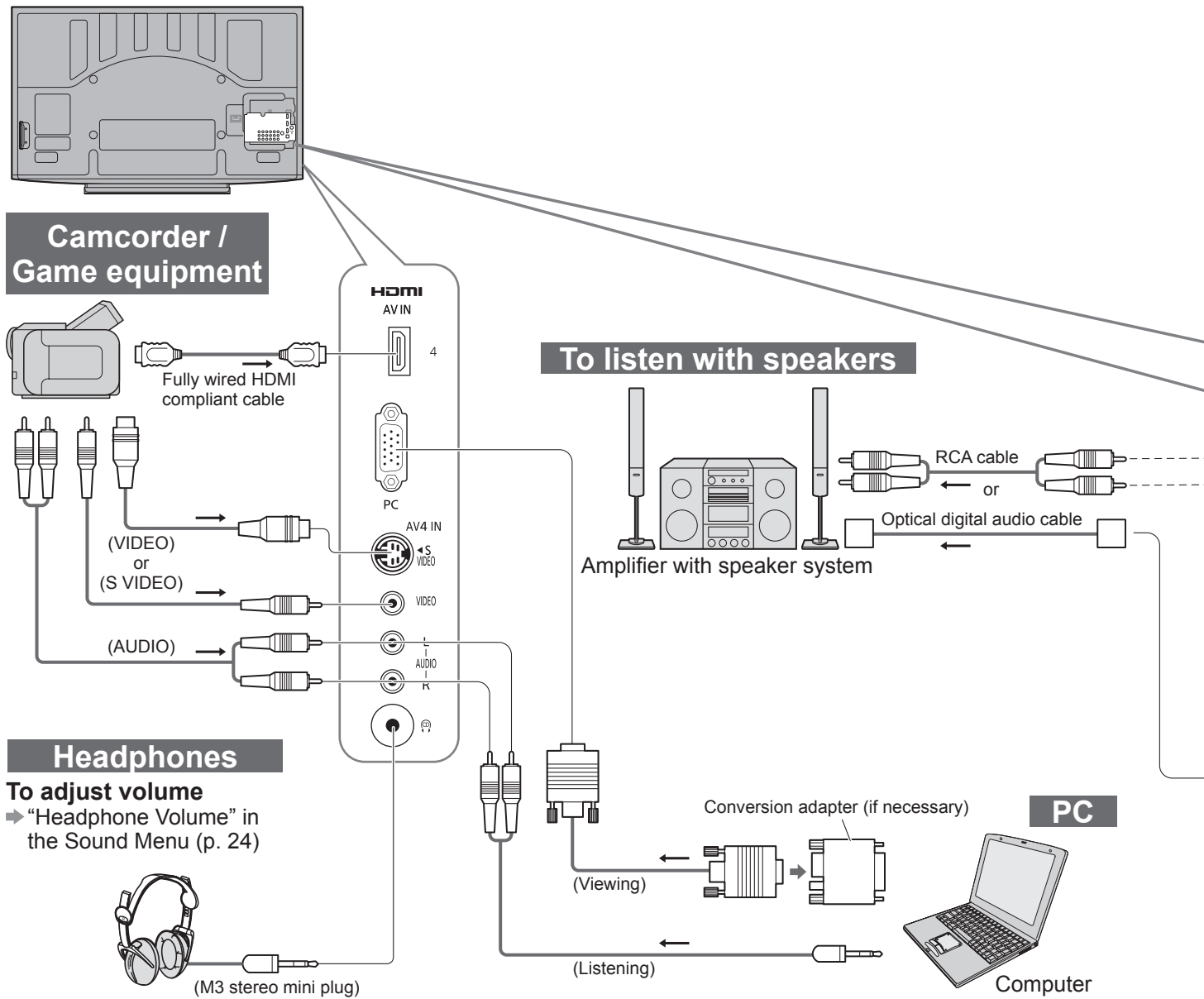Photo folders are displayed.

Movies
SD card movie view (p. 35)
The title list for SD movie image is displayed.
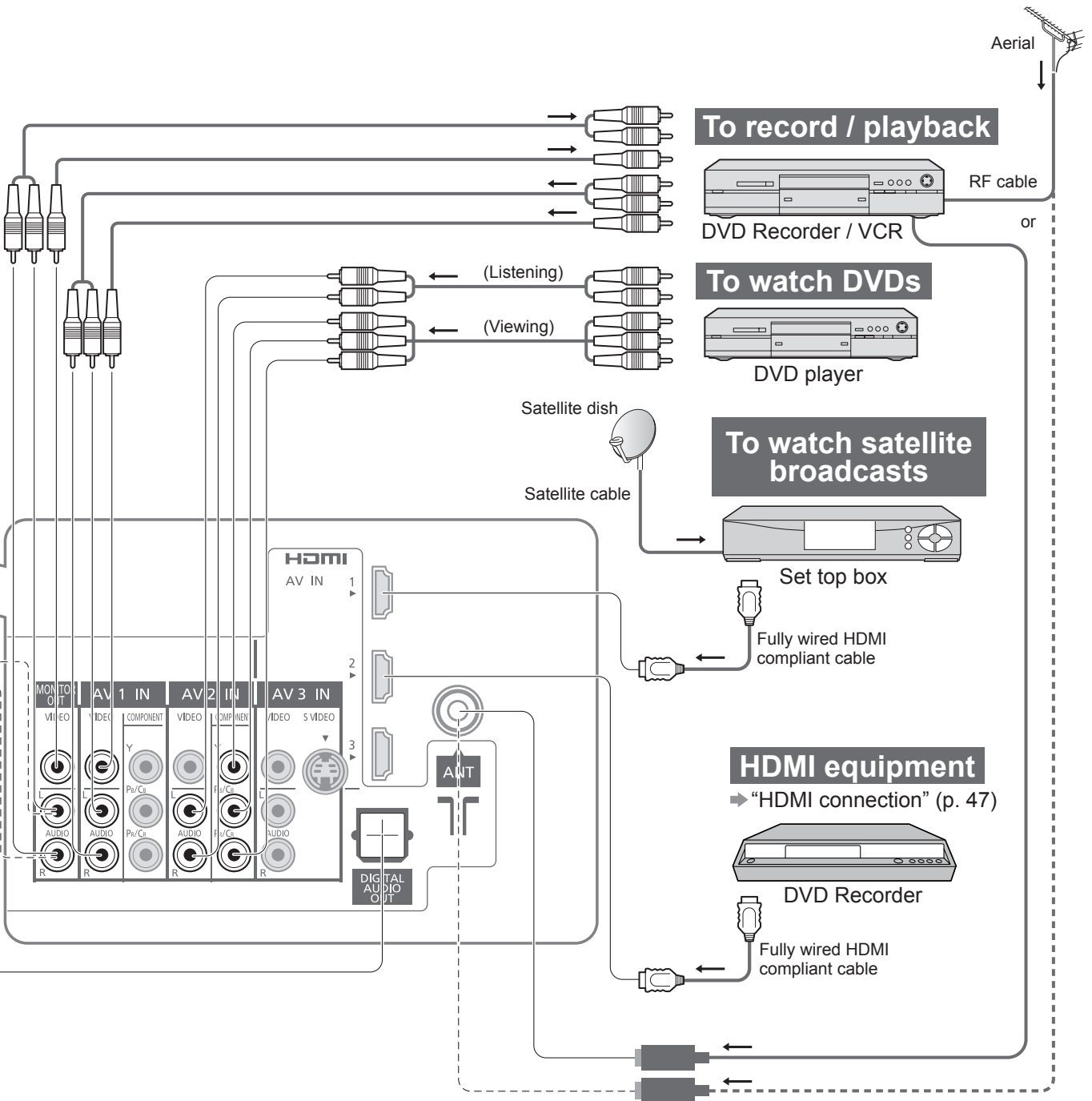
External Equipment

These diagrams show our recommendations for how to connect the TV to your various equipment.
For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 51).
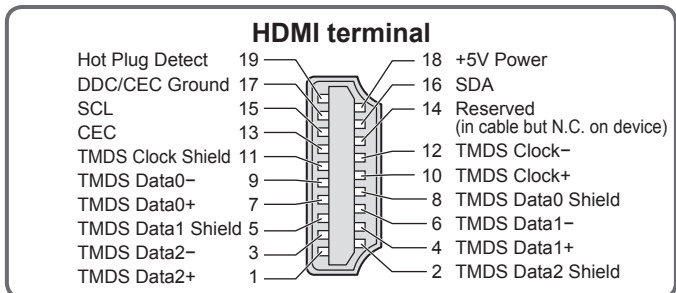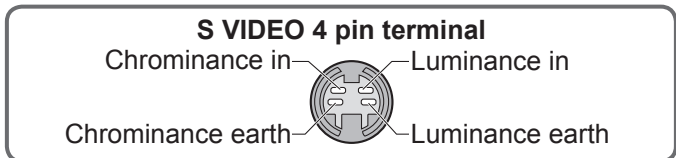

Camcorder / Game equipment

HƏMI
AV IN
4

Fully wired HDMI compliant cable

PC

AV4 IN

(VIDEO) or (S VIDEO)

◄S VIDEO

VIDEO

(AUDIO)

L AUDIO R

To listen with speakers

RCA cable

or

Optical digital audio cable

Amplifier with speaker system

Headphones

To adjust volume
➡ "Headphone Volume" in the Sound Menu (p. 24)

(M3 stereo mini plug)

(Viewing)

(Listening)

Conversion adapter (if necessary)

PC

Computer

Types of connectable equipment to each terminal

Terminal	AV1 IN	AV2 IN	AV3 IN	AV4 IN (Side of TV)	MONITOR OUT
Recording / Playback (equipment)	VIDEO COMPONENT	VIDEO COMPONENT	VIDEO S VIDEO	◄S VIDEO / VIDEO / L AUDIO R	VIDEO / L AUDIO R
To record / playback videocassettes / DVDs (VCR / DVD recorder)	◯	◯	◯	◯	◯
To watch DVDs (DVD player)	◯	◯	◯	◯	
To watch camcorder images (Video camera)	◯	◯	◯	◯	
To watch satellite broadcasts (Set top box)	◯	◯	◯	◯	
To play games (Game equipment)	◯	◯	◯	◯	
To use amplifier with speaker system					◯
VIERA Link					

◯: Recommended Connection

To record / playback

Aerial

DVD Recorder / VCR

RF cable

or

(Listening)

To watch DVDs

(Viewing)

DVD player

Satellite dish

To watch satellite broadcasts

Satellite cable

Set top box

Fully wired HDMI compliant cable

HƏMI

AV IN 1

2

3

ANT

HDMI equipment

→ "HDMI connection" (p. 47)

DVD Recorder

Fully wired HDMI compliant cable

MONITOR OUT AV 1 IN AV 2 IN AV 3 IN

VIDEO VIDEO COMPONENT VIDEO COMPONENT VIDEO S VIDEO

Y

P$_B$/C$_B$

P$_R$/C$_R$

L

AUDIO

R

DIGITAL AUDIO OUT

	DIGITAL AUDIO OUT ⬜	HƏMI			
		1	**2**	**3**	**4**
		◯	◯	◯	◯
		◯	◯	◯	◯
		◯	◯	◯	◯
		◯	◯	◯	◯
	◯	◯	◯	◯	◯
		◯	◯	◯	◯

S VIDEO 4 pin terminal

Chrominance in — Luminance in

Chrominance earth — Luminance earth

HDMI terminal

Hot Plug Detect 19 — 18 +5V Power
DDC/CEC Ground 17 — 16 SDA
SCL 15 — 14 Reserved (in cable but N.C. on device)
CEC 13 — 12 TMDS Clock−
TMDS Clock Shield 11 — 10 TMDS Clock+
TMDS Data0− 9 — 8 TMDS Data0 Shield
TMDS Data0+ 7 — 6 TMDS Data1−
TMDS Data1 Shield 5 — 4 TMDS Data1+
TMDS Data2− 3 — 2 TMDS Data2 Shield
TMDS Data2+ 1

● Connect the S VIDEO or VIDEO terminal when using AV3 / AV4 IN terminal.
● Connect the COMPONENT or VIDEO terminal when using AV1 / AV2 IN terminal.

Technical Information

Channel Allocation

Channel Plan CH DISPLAY	Asia/W. Europe	CIS / E.Europe	China	Hong Kong	NZ / Indonesia	Indian CATV	South Africa	American System	American CATV	Japan
				Receive channel						
0	–	–	–	–	–	–	–	–	–	–
1	–	1	1	–	1	1	1	–	1	1
2	2	2	2	–	2	2	2	2	2	2
3				–		3				
4				–		4				
5				–		S'1				
6				–		S'2				
7				–		S'3				
⁓				–		S1				
11	11	11		–	11	S2	11			
12	12	12	12	–	–	S3	12			12
13	–	–	13	–	–	S4	13	13		13
14				–			–	14		
15	–	–		–	–		–			
16	–	–		–	–		–			
⁓	–	–		–	–		–			
19	–	–		–	–	S10	–			
20	–	–		–	–	5	–			
21	21	21		21	21	6	21			
22						⁓				
23										
24										
⁓						12				
28						S11				
⁓			57			⁓				
57			57			S40				
58			–			S41				
59			–			21				
⁓			–							
62	62	62	–	62	62	24	62	62	62	62
63	63	63	–	63	63	25	63	63	63	C13
⁓			–							
69	69	69	–	69	69	31	69	69		
70	–	–	–	–	–	32	–	–		
⁓										
73	–	–	–	–	–		–	–		
74	S'1	S'1	–	S'1	S'1		S'1	–		
75	S'2	–	–	S'2	S'2		S'2	–		
76	S'3	–	–	S'3	S'3		S'3	–		
77	–	–	–	–	–		–	–		
78	–	–	–	–	–		–	–		
79	–	–	–	–	–	41	–	–		
80	S1	S1	–	S1	S1	42	S1	–		
81	S2	S2	Z1	S2	S2		S2	–		
⁓			⁓					–		
89	S10	S10	Z9	S10	S10	51	S10	–		
90	S11	S11	Z10	S11	S11	52	–	–		
91	S12	S12	Z11	S12	S12		–	–		
92	S13	S13	Z12	S13	S13		–	–		
93	S14	S14	Z13	S14	S14		S14	–		
94	S15	S15	Z14	S15	S15		S15	–		
95	S16	S16	Z15	S16	S16		S16	–		
96	S17	S17	Z16	S17	S17		S17	–		
97	S18	S18	Z17	S18	S18		S18	–		
98	S19	S19	Z18	S19	S19		S19	–		
99	S20	S20	Z19	S20	S20	61	S20	–	99	C49
100	S21	S21	Z20	S21	S21	62	S21	–	100	–
107						69		–		–
						70		–		–
117			Z37			–		–		–
118			–			–		–		–
			–			–		–		–
120	S41	S41	–	S41	S41	–	S41	–		–
⁓	–	–	–	–	–	–	–	–		–
125	–	–	–	–	–	–	–	–	125	–

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Stereo / Bilingual Sound Selection

⊂⊃/▽
I/II
When you receive the stereo / bilingual sound system, sound output modes can be selected by pressing the **Stereo / Bilingual Sound Selection** button.

Audio Signal	STEREO	MAIN I	SUB II	MONO
Mode Indicator	⊂⊃	I	II	▽

NICAM ....Used in New Zealand, Singapore, Hong Kong etc.

Type of broadcast	Regular broadcast (Standard Audio)	Regular + NICAM MONO I (MAIN I)	NICAM STEREO	NICAM DUAL MONO (MAIN I / SUB II)
Mode Indicator	No Indicator ←→ ▽	I ←→ ▽	⊂⊃ ←→ ▽	I → II, ▽

A2 (German) ....Used in Australia, Malaysia etc.

Type of broadcast	Regular broadcast (Standard Audio)	BILINGUAL or DUAL MONO: MAIN I / SUB II	STEREO
Mode Indicator	No Indicator ←→ ▽	I ←→ II	⊂⊃ ←→ ▽

● If the stereo signal is poor or the receiving conditions are not optimum or if STEREO:MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.
● Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
● When the receiving conditions deteriorate, listening will be easier if the mode is set to the MONO position, using the stereo / bilingual sound selection button.
● DUAL, also known as DUAL MONO or as BILINGUAL is not currently transmitted in some countries.

Technical Information

Technical

Technical Information

SD Card

Cautions in handling SD Card
- Do not remove the card while the TV is accessing data (this can damage card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to a high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical interference, static electricity, or erroneous operation may damage the data or card.
- Back up the recorded data at regular intervals in case of deteriorated or damaged data or erratic operation of the TV. (Panasonic is not liable for any deterioration or damage of recorded data.)

Data format for Card browsing
Photo : Still images recorded with digital still cameras compatible with JPEG files of DCF* and EXIF standards
　　　　Data format - Baseline JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
　　　　Max. number of files - 9,999
　　　　Image resolution - 8 × 8 to 30,719 × 17,279 pixels
Movie : SD-Video Standard Ver. 1.2 [MPEG-2 (PS format)] and AVCHD Standard compatible files with an audio format that is either MPEG-1/Layer-2 format or Dolby Digital format
　　　　(AVCHD files recorded with vertical frequency 50 Hz are applicable. A modified data with a PC may not be displayed correctly.)
- Compliant card type (maximum capacity): SDHC Card (32 GB), SD Card (2 GB) and miniSD Card (2 GB) (requiring miniSD adapter)
- If miniSD Card is used, insert / remove it together with the adapter.
- Check the latest information on the card type at the following website. (English only)
 http://panasonic.co.jp/pavc/global/cs/
　　　*DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

Note
- Format the card with the recording equipment.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Display may take some time when there are many files and folders.
- This function cannot display Motion JPEG and still image not JPEG formatted (i.e. TIFF, BMP).
- A data modified with a PC may not be displayed.
- Images imported from a PC must be compatible with EXIF (Exchangeable Image File) 2.0, 2.1, and 2.2.
- Partly degraded files might be displayed at a reduced resolution.
- All ".JPG" extension datas in the card will be read in Photo View Mode.
- The folder and file names may be different depending on the digital camera used.
- Do not use two-byte characters or other special codes.
- The card may become unusable with this TV if the file or folder names are changed.

On screen messages

Message		Meaning / Action
Cannot read file	▶	- The file is broken or unreadable. - The TV does not support the format. (For the applicable formats and data, see above.)
Please confirm the SD card is OK	▶	- The inserted SD card has a problem.
No SD card inserted	▶	- Insert a SD Card.
No valid file to play	▶	- The card has no data.
Over 9999 pictures found. (max. is 9999)	▶	- Maximum valid number of photos is 9,999.
This operation is not possible	▶	- Your operation is not available.

Multi Window

You can watch two images at once. (p. 17)
- The same input mode cannot be displayed at once.
- The sound is active for main screen only in multi window.
- You cannot change the aspect ratio in multi window.
- This function is not available for PC or SD card.
- Component or HDMI input is available only as the main screen.
- Some signals are reformatted for suitable viewing on your display.
- The display timeout for the input mode or programme position can be adjusted by "Banner Display Timeout" in Setup Menu (p. 25).

HDMI connection

HDMI (high-definition multimedia interface) allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.
HDMI-compatible equipment (∗1) with an HDMI or DVI output terminal, such as a set top box, a DVD player or a game equipment can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable.
About connections, see "External Equipment" (p. 42).
- HDMI is the world's first complete digital consumer AV interface complying with a non-compression standard.
- If the external equipment has only a DVI output, connect to the HDMI1 terminal via a DVI to HDMI adapter cable (∗2).
- When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal (HDMI1: use AV2 IN AUDIO terminal).
- Audio settings can be made on the "HDMI1 / 4 Input" menu screen. (p. 24)
- Applicable audio signal sampling frequencies (2ch L.PCM): 48 kHz, 44.1 kHz, 32 kHz
- HDMI2/3 terminals are for digital audio signal only.
- Use with a PC is not guaranteed. Only HDMI video formats indicated in the HDMI table (p. 48) are applicable.
- If the connected equipment has an aspect adjustment function, set the aspect ratio to "16:9".
- These HDMI connectors are "type A".
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- An equipment having no digital output terminal may be connected to the input terminal of either "COMPONENT", "S-VIDEO", or "VIDEO" to receive analogue signals.
- The HDMI input terminal can be used with only the following image signals:
  480i, 480p, 576i, 576p, 720p, 1080i and 1080p. Match the output setting of the digital equipment.
- For details of the applicable HDMI signals, see p. 48.
    - (∗1): The HDMI logo is displayed on HDMI-compliant equipment.
    - (∗2): Enquire at your local digital equipment retailer shop.

PC connection

A PC may be connected to this TV so that the PC screen is displayed and sound is heard from the TV.
- PC signals that can be inputted: Horizontal scanning frequency 31 to 69 kHz; vertical scanning frequency 59 to 86 Hz (more than 1,024 signal lines could result in incorrect display of the image).
- A PC adapter is not necessary for the DOS/V-compliant D-sub 15-pin connector.

Note
- Some PC models cannot be connected to this TV.
- When using PC, set the colour display quality of PC to the highest position.
- For details of the applicable PC signals, see below.
- Max. display resolution

Aspect	4:3	1,440 × 1,080 pixels
	16:9	1,920 × 1,080 pixels

- D-sub 15-pin connector signal
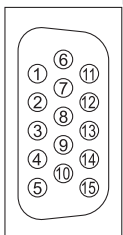
Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	NC (not connected)
②	G	⑦	GND (Ground)	⑫	NC (not connected)
③	B	⑧	GND (Ground)	⑬	HD
④	NC (not connected)	⑨	NC (not connected)	⑭	VD
⑤	GND (Ground)	⑩	GND (Ground)	⑮	NC (not connected)

Technical Information

Input signal that can be displayed

COMPONENT (Y, P_B/C_B, P_R/C_R)**, HDMI**

∗ Mark: Applicable input signal

Signal name	COMPONENT	HDMI
525 (480) / 60i	∗	∗
525 (480) / 60p	∗	∗
625 (576) / 50i	∗	∗
625 (576) / 50p	∗	∗
750 (720) / 60p	∗	∗
750 (720) / 50p	∗	∗
1,125 (1,080) / 60i	∗	∗
1,125 (1,080) / 50i	∗	∗
1,125 (1,080) / 60p		∗
1,125 (1,080) / 50p		∗
1,125 (1,080) / 24p		∗

PC (D-sub 15P)

Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 400 @70 Hz	31.47	70.07
640 × 480 @60 Hz	31.47	59.94
640 × 480 @75 Hz	37.50	75.00
800 × 600 @60 Hz	37.88	60.32
800 × 600 @75 Hz	46.88	75.00
800 × 600 @85 Hz	53.67	85.06
852 × 480 @60 Hz	31.44	59.89
1,024 × 768 @60 Hz	48.36	60.00
1,024 × 768 @70 Hz	56.48	70.07
1,024 × 768 @75 Hz	60.02	75.03
1,024 × 768 @85 Hz	68.68	85.00
1,280 × 1,024 @60 Hz	63.98	60.02
1,280 × 768 @60 Hz	47.70	60.00
1,366 × 768 @60 Hz	48.39	60.04
Macintosh13" (640 × 480)	35.00	66.67
Macintosh16" (832 × 624)	49.73	74.55
Macintosh21" (1,152 × 870)	68.68	75.06

Note

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- Applicable input signal for PC is basically compatible to VESA standard timing.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem.
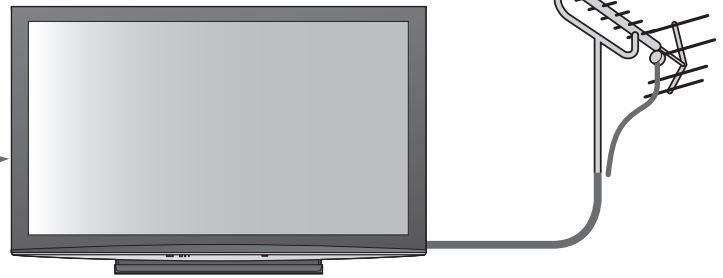If the problem still persists, please contact your local Panasonic dealer for assistance.

White spots or shadow images (noise)
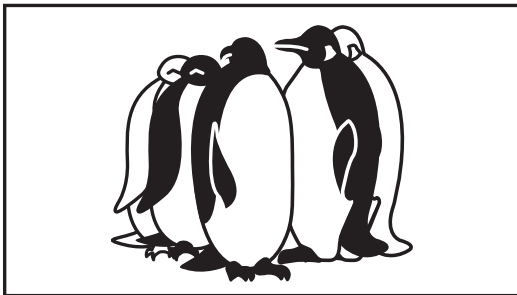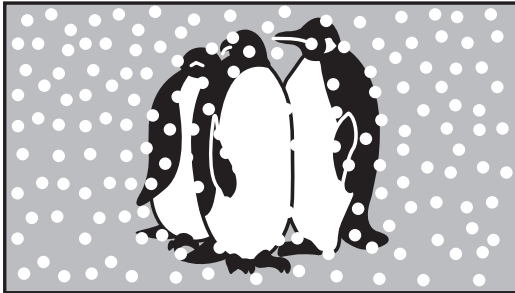
●Check the position, direction, and connection of the aerial.

Neither image nor sound is produced

●Is the TV in "AV mode"?
●Is the mains lead plugged into the socket outlet?
●Is the TV turned On?
●Check Picture Menu (p. 24) and volume.

An error message appears

●Follow the message's instructions.
●If the problem persists, contact your local Panasonic dealer.

"VIERA Link" function does not work and an error message appears

●Confirm the connection.
●Turn the connected equipment on and then switch the TV on. (p. 39)

Permanently lit spots on screen

●Due to production process involved in this technology this may result in some pixels which are permanently lit or unlit. This is not a malfunction.

Contrast is reduced

●Contrast is lowered in the following conditions without any user operation for a few minutes:
  ● no signal in AV mode
  ● selected locked programme
  ● selected invalid programme
  ● displayed menu
  ● Thumbnail or still picture in SD Card mode

FAQs

Problem	Actions
Screen	
Chaotic image, noisy	●Change the setting of "P-NR" in the Picture Menu (to remove noise). (p. 24) ●Check nearby electrical products (car, motorcycle, fluorescent lamp).
No image can be displayed	●Is "Colour" or "Contrast" in the Picture Menu set to the minimum? (p. 24)
Blurry or distorted image (no sound or low volume)	●Reset channel. (p. 31)
Unusual image is displayed	●Turn off the TV with Mains power On / Off switch, then turn it on again.
Sound	
No sound is produced	●Is "Sound Mute" active? (p. 10) ●Is the volume set to the minimum?
Sound level is low or sound is distorted	●Sound signal reception may be deteriorated. ●Set "MPX" (p. 24) in the Sound Menu to "Mono".
HDMI	
Sound is unusual	●Set the sound setting of the connected equipment to "2ch L.PCM". ●Check the "HDMI1 / 4 Input" setting in the Sound Menu. (p. 24) ●If digital sound connection has a problem, select analogue sound connection. (p. 36, 47)
Pictures from external equipment are unusual when the equipment is connected via HDMI	●Is the HDMI cable connected properly? (p. 47) ●Turn Off the TV and equipment, then turn them On again. ●Check an input signal from the equipment. (p. 48) ●Use an equipment compliant with EIA/CEA-861/861B.
Other	
TV goes into "Standby mode"	●Off Timer function is activated. ●The TV enters "Standby mode" about 30 mins. after analogue broadcasting ends.
The remote control does not work	●Are the batteries installed correctly? (p. 7) ●Has the TV been switched On?

Specifications

	TH-P58V10M TH-P58V10R	TH-P58V10P	TH-P65V10D TH-P65V10M TH-P65V10R TH-P65V10S TH-P65V10T	TH-P65V10P
Power Source	AC 220 - 240 V, 50 / 60 Hz	AC 110 - 240 V, 50 / 60 Hz	AC 220 - 240 V, 50 / 60 Hz	AC 110 - 240 V, 50 / 60 Hz

Power Consumption		
Average use	640 W	695 W
Standby condition	0.6 W	0.6 W

Display panel		
Aspect Ratio	16:9	
Visible screen size	147 cm (diagonal) 1,284 mm (W) × 722 mm (H)	165 cm (diagonal) 1,434 mm (W) × 806 mm (H)
Number of pixels	2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]	

Sound	
Speaker	160 mm × 40 mm × 2 pcs, 6 Ω
Audio Output	20 W (10 W + 10 W), 10% THD
Headphones	M3 (3.5 mm) stereo mini Jack × 1

PC signals
VGA, SVGA, WVGA, XGA
SXGA, WXGA ······ (compressed)
Horizontal scanning frequency 31 - 69 kHz
Vertical scanning frequency 59 - 86 Hz

Receiving Systems / Band name

17 Systems	Function		17 Systems	Function
1 PAL B, G, H			8 NTSC 4.43/5.5 MHz	
2 PAL I			9 NTSC 4.43/6.0 MHz	
3 PAL D, K	Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders		10 NTSC 4.43/6.5 MHz	Playback from Special VCR's or DVD
4 SECAM B, G			11 NTSC 3.58/5.5 MHz	
5 SECAM D, K			12 NTSC 3.58/6.0 MHz	
6 SECAM K1			13 NTSC 3.58/6.5 MHz	
7 NTSC M (NTSC 3.58/4.5 MHz)			14 SECAM I	
			15 PAL 60 Hz/5.5 MHz	Playback from Special Disc Players and Special VCR's or DVD
			16 PAL 60 Hz/6.0 MHz	
			17 PAL 60 Hz/6.5 MHz	

Receiving Channels (Analogue TV)

VHF BAND	UHF BAND	CATV
2-12 (PAL/SECAM B, K1)	21-69 (PAL G, H, I/SECAM G, K, K1)	S1-S20 (OSCAR)
0-12 (PAL B AUST.)	28-69 (PAL B AUST.)	1-125 (USA CATV)
1-9 (PAL B N.Z.)	13-57 (PAL D, K)	C13-C49 (JAPAN)
1-12 (PAL/SECAM D)	13-62 (NTSC M Japan)	S21-S41 (HYPER)
1-12 (NTSC M Japan)	14-69 (NTSC M USA)	Z1-Z37 (CHINA)
2-13 (NTSC M USA)		5A, 9A (AUST.)

Aerial - Rear	VHF / UHF
Operating Conditions	**Temperature** : 0 °C - 40 °C **Humidity** : 20 % - 80 % RH (non-condensing)

Connection Terminals				
AV1 Input	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]	
	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)	
	COMPONENT	Y	1.0 V[p-p] (including synchronization)	
		P_B/C_B, P_R/C_R	±0.35 V[p-p]	
AV2 Input	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]	
	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)	
	COMPONENT	Y	1.0 V[p-p] (including synchronization)	
		P_B/C_B, P_R/C_R	±0.35 V[p-p]	
AV3 Input	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]	
	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)	
	S VIDEO	Mini DIN 4-pin	Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)	
AV4 Input	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms]	
	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)	
	S VIDEO	Mini DIN 4-pin	Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)	
Monitor Output	AUDIO L - R	RCA PIN Type × 2	0.5 V[rms] (high impedance)	
	VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)	
Others	HDMI1 - 4 Input	TYPE A Connectors	This TV supports "HDAVI control 4" function.	
	PC Input	HIGH-DENSITY D-SUB 15PIN	R, G, B/0.7 V[p-p] (75 Ω) HD, VD/TTL Level 2.0 - 5.0 V[p-p] (high impedance)	
	DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber optic		
	Card slot	SD Card slot × 1		

Dimensions (W × H × D)	1,422 mm × 933 mm × 387 mm (With Pedestal) 1,422 mm × 880 mm × 93 mm (TV only)	1,572 mm × 1,016 mm × 415 mm (With Pedestal) 1,572 mm × 964 mm × 97 mm (TV only)
Mass	51.0 kg Net (With Pedestal) 49.0 kg Net (TV only)	66.0 kg Net (With Pedestal) 60.0 kg Net (TV only)

Note
● Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.

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Customer's Record

The model number and serial number of this product may 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 _____   Serial Number _____