Thank you for purchasing this Panasonic product. Please read these instructions carefully before operating this product and retain them for future reference. The images shown in this manual are for illustrative purposes only. Please refer to Pan European Guarantee Card if you need to contact your local Panasonic dealer for assistance.
Experience an amazing level of multimedia excitement

**Notice for DVB functions**
This TV is designed to meet the standards (as of August, 2009) of DVB-T (MPEG2 and MPEG4-AVC(H.264)) digital terrestrial services and DVB-C (MPEG2 and MPEG4-AVC(H.264)) digital cable services. Consult your local dealer for availability of DVB-T services in your area. Consult your cable service provider for availability of DVB-C services with this TV. This TV may not work correctly with the signal which does not meet the standards of DVB-T or DVB-C. Not all the features are available depending on the country, area, broadcaster and service provider. Not all CI modules work properly with this TV. Consult your service provider about the available CI module. This TV may not work correctly with CI module that is not approved by the service provider. Additional fees may be charged depending on the service provider. The compatibility with future DVB services is not guaranteed. Check the latest information on the available services at the following website. (English only)

http://panasonic.jp/support/global/cs/tv/
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Enjoy your TV!

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This product is licensed under the AVC patent portfolio license for the personal and non-commercial use of a consumer to (i) encode video in compliance with the AVC Standard (“AVC Video”) and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See http://www.mpegla.com.

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http://www.europe.guideplus.com/
Safety Precautions

Warning

Handling the mains plug and lead
- Insert the mains plug fully in to the socket outlet. (If the mains plug is loose, it could generate heat and cause fire.)
- Ensure that the mains plug is easily accessible.
- Do not touch the mains plug with a wet hand. This may cause an electrical shock.
- Do not damage the mains lead, damaged lead may cause fire or electrical shock.
  - Do not move the TV with the lead plugged in to a 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 the plug.
- Do not use a damaged mains plug or socket outlet.
- Ensure TV does not crush the mains lead.

If you find any abnormality, remove the mains plug immediately!

AC 220-240 V
50 Hz

Power source
- This TV is designed to operate on AC 220-240 V, 50 Hz.

Do not remove covers and NEVER modify the TV yourself
- High voltage components may cause serious electrical shock, do not remove the rear cover as live parts are accessible when it is removed.
- There are no user serviceable parts inside.
- Have the TV checked, adjusted or repaired at your local Panasonic dealer.

Do not expose the TV set to direct sunlight and other sources of heat
- Avoid exposing the TV to direct sunlight and other sources of heat.

To prevent the spread of fire, keep candles or other open flames away from this product at all times

Do not expose to rain or excessive moisture
- To prevent damage which might result in electric shock or fire, do not expose this TV to rain or excessive moisture.
- This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

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

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

Use only original dedicated pedestal / 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 the set up or installation.
- Use approved pedestals / wall-hanging brackets (p. 6 - 7).

Do not allow children to handle SD Card or dangerous parts
- As with any small object the SD card could be swallowed by young children. Please remove SD card immediately after use and store out of reach of children.
- This product contains possibly dangerous parts that can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.

Do not pull on the lead. Hold onto the mains plug body when disconnecting the plug.
Safety Precautions

Maintenance

First, remove the mains plug from the socket outlet.

Display panel, Cabinet, Pedestal

Regular care:
Gently wipe the surface of the display panel, cabinet, or pedestal by using a soft cloth to clean the dirt or fingerprints.

Caution
- Do not use a hard cloth or rub the surface too hard. This may cause scratches on the surface.
- Take care not to subject the TV’s surfaces to water or detergent. A liquid inside the TV could lead to product failure.
- Take care not to subject the surfaces to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling of the paint.
- Take care not to tap or scratch the surface with your fingernail or other hard objects.
- Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

For stubborn dirt:
Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water). Then wring the cloth and wipe the surface. Finally, wipe away all the moisture.

Mains plug

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

Do not block the rear air vents
- Adequate ventilation is essential to prevent failure of electronic components.
- Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table cloths and curtains.
- We recommend that a gap of at least 10 cm is left all around this television receiver even when placed inside a cabinet or between shelves.
- When using the pedestal, keep the space between the bottom of the TV and the surface where the TV is set. If pedestal is not used, ensure the vents in the bottom of the TV set are not blocked.

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

Do not apply strong force or impact to the display panel
- This may cause damage resulting in injury.

Transport TV set in upright position

Caution
- Cleaning an energized TV may cause electrical shock.

Remove the mains plug from the wall socket when TV is not in use for a prolonged period of time
- The TV will still consume some power even in the off mode, as long as the mains plug is still connected.
- Remove the mains plug from the wall socket before connecting or disconnecting leads.

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

<table>
<thead>
<tr>
<th>Remote Control</th>
<th>Batteries for the Remote Control (2)</th>
<th>Pedestal</th>
<th>Assembly screw for Pedestal (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N2QAYB000487</td>
<td>R6</td>
<td>(p. 7)</td>
<td>M4</td>
</tr>
</tbody>
</table>

**Accessories / Options**

Please contact professional installer to purchase and install the recommended wall-hanging bracket. For additional details, please refer to the installation manual of the wall-hanging bracket.

**Wall-hanging bracket**

- **TY-WK3L2RW** (for TX-L32E3E, TX-L37E3E only)
- **Rear of the TV**

Holes for wall-hanging bracket installation

- TX-L32E3E, TX-L37E3E
  - a: 200 mm / b: 200 mm
- TX-L42E3E
  - a: 400 mm / b: 400 mm

**Warning**

- Failure to use a Panasonic bracket or choosing to mount the unit yourself will be done at the risk of the consumer. Always be sure to ask a qualified technician to carry out set up. Incorrect wall-hanging bracket or incorrect fitting may cause equipment to fall, resulting in injury and product damage. Any damage resulting from not having a professional installer mount your unit will void your warranty.
- When any optional accessories or wall hanging brackets are used, always ensure that the instructions provided are followed fully.
- Do not mount the unit directly below ceiling lights (such as spotlights or halogen lights) which typically give off high heat. Doing so may warp or damage plastic cabinet parts.
- Take care when fixing wall brackets to the wall. Wall mounted equipment shall not be grounded by metal within the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.
- To prevent fall and injury, remove TV from its fixed wall position when no longer in use.
- Panasonic disclaims liability for any damage or injury arising from incorrect wall-hanging bracket, incorrect fitting or otherwise failure to follow the above instructions.

**Installing / removing remote’s batteries**

1. **Pull open**

2. **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.
- Replace only with same or equivalent type. Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or break up batteries.
- Do not expose batteries to excessive heat such as sunshine, fire or the like.
- Make sure you dispose of batteries correctly.
- Ensure batteries are replaced correctly, there is danger of explosion and fire if battery is reversed.
- Do not disassemble or modify the remote control.
## 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 pedestal other than that provided with this TV.
- 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.
- Otherwise the TV may fall over and become damaged, and personal injury may result.

During assembly, use only screws supplied and make sure that all screws are securely tightened.
- If you use the pedestal while it is physically damaged, personal injury may result. Contact your nearest Panasonic dealer immediately.

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 screws

<table>
<thead>
<tr>
<th>Part</th>
<th>Screw Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>XSS5+15FNK M5 × 15</td>
</tr>
<tr>
<td>B</td>
<td>XYN4+F30FJK M4 × 30</td>
</tr>
<tr>
<td>C</td>
<td>TBL5ZA3017 (TX-L32E3E, TX-L37E3E)</td>
</tr>
<tr>
<td></td>
<td>TBL5ZA3014 (TX-L42E3E)</td>
</tr>
<tr>
<td>D</td>
<td>TBL5ZX0041 (TX-L32E3E)</td>
</tr>
<tr>
<td></td>
<td>TBL5ZX0039 (TX-L37E3E)</td>
</tr>
<tr>
<td></td>
<td>TBL5ZX0147 (TX-L42E3E)</td>
</tr>
</tbody>
</table>

### Assembling the pedestal

1. **Assembling the pedestal**
   - Use the four assembly screws A to fasten the bracket C to the base D securely.
   - Make sure that the screws are securely tightened.
   - Forcing the assembly screws the wrong way will strip the threads.

2. **Securing the TV**
   - Use only the supplied assembly screws B to fasten securely.
   - Tighten the four assembly screws loosely at first, then tighten them firmly to fix securely.
   - Carry out the work on a horizontal and level surface.

---

*Front View of the pedestal with the TV installed.*

Foam mat or thick soft cloth
Identifying Controls

1 Standby On / Off switch
   - Switches TV On or Off standby
2 [Media Player]  ➤ (p. 50)
   - Switches to SD Card viewing / listening mode
3 [Main Menu]  ➤ (p. 26)
   - Press to access Picture, Sound and Setup Menus
4 Aspect  ➤ (p. 17)
   - Changes aspect ratio from [Aspect Selection] list
   - Also possible by pressing this button repeatedly until you reach the desired aspect
5 Information  ➤ (p. 15)
   - Displays channel and programme information
6 VIERA TOOLS  ➤ (p. 25)
   - Displays some special feature icons and accesses easily
7 [VIERA Link Menu]  ➤ (p. 62)
   - Accesses VIERA Link Menu
8 OK
   - Confirms selections and choices
   - Press after selecting channel positions to quickly change channel
   - Displays the Channel List
9 [Option Menu]  ➤ (p. 16)
   - Easy optional setting for viewing, sound, etc.
10 Teletext  ➤ (p. 21)
   - Switches to teletext mode
11 Subtitles  ➤ (p. 15)
   - Displays subtitles
12 Numeric buttons
   - Changes channel and teletext pages
   - Sets characters
   - When in Standby mode, switches TV On (Press for about 1 second)
13 Sound Mute
   - Switches sound mute On or Off
14 Volume Up / Down
15 Input mode selection
   - TV - switches DVB-C / DVB-T / Analogue mode  ➤ (p. 14)
   - AV - switches to AV input mode from Input Selection list  ➤ (p. 23)
16 Direct TV Recording  ➤ (p. 60, 62)
   - Records programme immediately in DVD Recorder / VCR with Q-Link or VIERA Link connection
17 Normalise  ➤ (p. 26)
   - Resets picture and sound settings to their default levels
18 Exit
   - Returns to the normal viewing screen
19 TV Guide  ➤ (p. 18)
   - Displays TV Guide
20 Cursor buttons
   - Makes selections and adjustments
21 Return
   - Returns to the previous menu / page
22 Coloured buttons
   - Used for the selection, navigation and operation of various functions
23 Hold
   - Freeze / unfreeze picture  ➤ (p. 16)
   - Holds the current teletext page (teletext mode)  ➤ (p. 21)
24 Index  ➤ (p. 21)
   - Returns to the teletext index page (teletext mode)
25 Last view  ➤ (p. 17)
   - Switches to previously viewed channel or input mode
26 Channel Up / Down
   - Selects channel in sequence
27 Connected equipment operations  ➤ (p. 24, 54, 65)
Identifying Controls

1 AV2 terminals (p. 69)
2 Headphones jack (p. 69)
3 CI slot (p. 46)
4 SD Card slot (p. 50)
5 HDMI3 terminal (p. 67)
6 Function select
   - *(Music) or [Speech] mode in the Sound Menu

7 Channel Up / Down, Value change (when using the F button). Switching the TV On (press either button for about 1 second when in Standby mode)
8 Changes the input mode
9 Mains power On / Off switch
   - Use to switch the mains power.
   - If you turned the TV Off during Standby mode by the remote control last time, the TV will be in Standby mode when you turn the TV on with Mains power On / Off switch.
10 Remote control signal receiver
   - Do not place any objects between the TV remote control signal receiver and remote control.
11 C.A.T.S. (Contrast Automatic Tracking System) sensor
   - Senses brightness to adjust picture quality when [Eco Mode] in the Picture Menu is set to [On] (p. 27)
12 Power and Timer LED
   - Red : Standby
   - Green : On
   - Orange : Timer Programming On
   - Orange (flash) : Recording of Timer Programming or Direct TV Recording in progress
   - Red with orange flash : Standby with Timer Programming On or Direct TV Recording
   - The LED blinks when the TV receives a command from the remote control.

Using the On Screen Displays - Operation guide

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

Operation guide
Operation guide will help you to operate by using the remote control.
Example : [Sound Menu]

<table>
<thead>
<tr>
<th>Sound Menu</th>
<th>1/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>Music</td>
</tr>
<tr>
<td>Bass</td>
<td>Off</td>
</tr>
<tr>
<td>Treble</td>
<td>Off</td>
</tr>
<tr>
<td>Balance</td>
<td>Off</td>
</tr>
<tr>
<td>Headphone Volume</td>
<td>Off</td>
</tr>
<tr>
<td>Surround</td>
<td>Off</td>
</tr>
<tr>
<td>Auto Gain Control</td>
<td>Off</td>
</tr>
<tr>
<td>Volume Correction</td>
<td>Off</td>
</tr>
<tr>
<td>Speaker Distance to Wall</td>
<td>Over 30cm</td>
</tr>
</tbody>
</table>

How to use remote control

- **Open the main menu**:
  - MENU

- **Move the cursor / select the menu item**
  - Arrow keys

- **Move the cursor / adjust levels / select from a range of options**
  - Arrow keys and values

- **Access the menu / store settings after adjustments have been made or options have been set**
  - RETURN

- **Return to the previous menu**
  - RETURN

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

Auto power standby function

The TV will automatically go to Standby mode in the following conditions:
- no signal is received and no operation is performed for 30 minutes in Analogue TV mode
- [Off Timer] is active in the Setup Menu (p. 16)
- no operation is performed for the period selected in [Auto Standby] (p. 33)
- This function does not affect the recording of Timer Programming and Direct TV Recording.
Basic Connection

External equipment and cables shown are not supplied with this TV. Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.

Example 1
Connecting aerial

**TV only**

Rear of the TV

- Terrestrial aerial
- Mains lead
- Cable
- AC 220-240 V
- 50 Hz

**Example 2**
Connecting DVD Recorder / VCR

**TV, DVD Recorder or VCR**

Rear of the TV

- Terrestrial aerial
- Mains lead
- RF cable
- Fully wired SCART cable

- DVD Recorder or VCR

**How to use the clamper bundling the mains lead**

1. Keep pushing the knob
2. Set the tip in the hooks

1. Keep pushing both side snaps
2. To loosen:

**Bundle the cables**

1. Keep pushing both side snaps
2. Set the tip in the hooks

**Note**

- Do not bundle the RF cable and mains lead together (could cause distorted image).
- Fix cables with clamps as necessary.
- When using the optional accessory, follow the option’s assembly manual to fix cables.

**Quick Start Guide**

**Basic Connection**
Example 3
Connecting DVD Recorder / VCR and Set top box

TV, DVD Recorder / VCR and Set top box

Rear of the TV

AC 220-240 V
50 Hz

Mains lead

Terrestrial aerial

Cable

Fully wired HDMI compliant cable

Fully wired SCART cable

Fully wired SCART cable

RF OUT

RF IN

RF cable

Set top box

DVD Recorder or VCR

RF OUT

RF IN

RF cable

RF cable
Auto Setup

Search and store TV channels automatically.
- These steps are not necessary if the setup has been completed by your local dealer.
- Please complete connections (p. 10, 11) and settings (if necessary) of the connected equipment before starting Auto Setup.
  For details of settings for the connected equipment, read the manual of the equipment.

1. Plug the TV into mains socket and switch On
   - Takes a few seconds to be displayed
   - If the red LED shows on the TV, press the Standby On / Off switch on the remote control for about 1 second.

2. Select the language
   - Depending on the country you select, select your Region or store the Child Lock-PIN number ("0000" cannot be stored) by following the on screen instructions.

3. Select your country
   - Depending on the country you select, select your cable provider beforehand by following the on screen instructions.

4. Select the mode you want to tune
   - Depending on the country you select, select your Region or store the Child Lock-PIN number ("0000" cannot be stored) by following the on screen instructions.

5. Select [Start Auto Setup]
   - Depending on the country you select, select your cable provider beforehand by following the on screen instructions.

- Auto Setup will start to search for TV channels and store them.
  The stored channels and sorted channel order vary depending on the country, area, broadcasting system and conditions of signal reception.

Auto Setup screen varies depending on the country you select.

1. [DVB-C Network Settings]
   - Depending on the country you select, select your cable provider beforehand by following the on screen instructions.

   Normally set [Frequency] and [Network ID] to [Auto].
   If [Auto] is not displayed or if necessary, enter [Frequency] and [Network ID] specified by your cable provider with numeric buttons.
2 [DVB-C Auto Setup]

DVB-C Auto Setup

- Channel No.
- Channel Name
- Type
- Quality
- Free TV: Pay TV: Radio:

DVB-C Auto Setup

Select [Home]

Select [Home] viewing environment to use in your home environment.

Select [Home] viewing environment to use in your home environment.

1 Return to viewing environment selection screen

2 Select [Home]

Auto Setup is now complete and your TV is ready for viewing.

If tuning has failed, check the connection of the RF cable, and then, follow the on screen instructions.

- To check channel list at-a-glance “Using TV Guide” (p. 18)
- To edit or hide (skip) channels “Tuning and Editing Channels” (p. 36 - 40)
- To retune all channels [Auto Setup] (p. 34, 35)
- To add the available TV mode later [Add TV Signal] (p. 31, 32)
- To initialise all settings [Shipping Condition] (p. 47)
Watching TV

1 Turn power on

Press for about 1 second
Mains power On / Off switch should be On. (p. 9)

2 Select the mode

TV

The selectable modes vary depending on the
stored channels (p. 12).

3 Select a channel

∪ up

To select a more than two-digit channel position
number, e.g. 399

or

V down

To sort channel names in
alphabetical order
(red)
To change the category
(blue)

To select from the Channel List

All DVB-T Channels

1 Display Information banner if it is not displayed

2 While the banner is displayed, select the channel

Select a channel using Information banner (p. 15)

Select a channel using TV Guide (p. 18)

The postcode entry or update may be required depending on the country you select (p. 12). Follow the on screen
instructions.

Note

To watch pay-TV “Using Common Interface” (p. 46)
Other useful functions

Display Information banner

Display Information banner
- Also appears when changing a channel

1 Channel position and name
2 Channel type ([Radio], [Data], [HDTV], etc.)
3 Current time
4 Category
  - To change the category (DVB)
  | (blue)  
  | select  
  | set

5 Programme
6 Programme Start / Finish time (DVB)
7 Progress time indicator of the selected programme (DVB)

Features available / Message meanings

- Sound mute On
- [Bad signal] Poor TV signal quality
- [Encrypted] Scrambled programme
- [Dolby D +], [Dolby D] Dolby Digital Plus or Dolby Digital audio track

- To confirm another tuned channel name
- To watch the channel listed in the banner
- Information on the next programme (DVB)
- To hide EXIT
- Extra information (DVB)
- To set display timeout [Banner Display Timeout] (p. 32)

Display subtitles

Display / hide subtitles (if available)

STTL
- To change the language for DVB (if available)

Note
- If you press the STTL button in Analogue mode, it switches to teletext service and calls up a favourite page (p. 21). Press the EXIT button to return to TV mode.
Watching TV

Hold

Freeze / unfreeze picture

Hold

Display the selectable settings for the current status

Check or change the current status instantly

- To change
  - select
  - change

[Multi Video] (DVB mode)
Allows you to select the image (if available)
- This setting is not memorized and it will return to the default setting once you exit the current programme.

[Multi Audio] (DVB mode)
Allows you to select between alternative language for sound tracks (if available)
- This setting is not memorized and it will return to the default setting once you exit the current programme.

[Dual Audio] (DVB mode)
Allows you to select stereo / monaural (if available)

[Sub Channel] (DVB mode)
Allows you to select the multifeed programme - sub channel (if available)

[Subtitle Language] (DVB mode)
Allows you to select the language in which subtitles should appear (if available)

[Teletext Character Set]
Sets the teletext language

- [Setup Menu] (p. 32)

[Teletext Language] (DVB mode)
Allows you to select between alternative language for teletext (if available)

[MPX] (Analogue mode)
Selects multiplex sound mode (if available)

- [Sound Menu] (p. 29)

[Volume Correction]
Adjusts volume of individual channel or input mode

Off Timer

Turn the TV to Standby mode automatically after a fixed period

1 Display the menu

MENU

2 Select [Setup]

3 Select [Off Timer] and set the time

- To cancel Set to [Off] or turn the TV off.
- To confirm the remaining time “Display Information banner” (p. 15)
- When the remaining time is within 3 minutes, the remaining time will flash on the screen.
Aspect

Change the aspect ratio (image size)

Enjoy viewing the image at its optimum size and aspect. Programmes usually contain an “Aspect Control Signal” (Widescreen signal, etc.), and the TV will choose the aspect ratio automatically according to the “Aspect Control Signal” (p. 70).

■ If you would like to change the aspect ratio manually

1. Display Aspect Selection list
2. While the list is displayed, select the mode

- You can also change the mode only using the ASPECT button.

ASPECT (Press repeatedly until you reach the desired mode)

[Auto] The best ratio is chosen and the image expanded to fill the screen. For details ⇒ (p. 70)

[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 input mode.
- Aspect is fixed to [16:9] when [Viewing Mode] is set to [Game] in the Picture Menu.
- Not available in teletext service.
- Aspect mode can be memorized separately for SD (Standard definition) and HD (High definition) signals.

Last view

Switch to previously viewed channel or input mode easily

- Press again to return to the present view.

Note
- Switching channel is not available while the recording of Timer Programming or Direct TV Recording is in progress.
- Watching less than 10 seconds is not regarded as the previously viewed channel or input mode.
Using TV Guide

TV Guide - Electronic Programme Guide (EPG) provides an on-screen listing of the programmes currently broadcast and the forthcoming broadcasts over the next seven days (depending on the broadcasters).

- This function varies depending on the country you select (p. 12).
- The postcode entry or update may be required to use the GUIDE Plus+ system depending on the country you select.

“View advertisement” (p. 19)

- DVB-T and Analogue channels are displayed on the same TV Guide screen. [D] means DVB-T channel and [A] means Analogue channel. There will be no programme listings for Analogue channels.
- When this TV is turned on for the first time, or the TV is switched off for more than a week, it may take some time before TV Guide is completely shown.

Select the mode

1 Select the mode

   ➪ (p. 14)

TV

View TV Guide

- Press again to change the layout ([Landscape] / [Portrait]).
- View [Landscape] to see many channels.
- View [Portrait] to see one channel at a time.

Example:

[Landscape] (Displays by channel)

Example:

[Portrait] (Displays by time)

Depending on the country you select, you can select the TV Guide type

- [Default Guide] in [Display Settings] (p. 32)

If you select [Channel List], the channel list will appear when the GUIDE button is pressed.

To watch the programme

1 Select the current programme or channel

2 Select [View] (DVB mode)
To the previous day (DVB mode)
(red)
To view a channel list of the selected type
(DVB mode)
(yellow)

(Type list)
① select type
② view

Other useful functions
View details of the programme (DVB mode)

1 Select the programme
2 View details
   Press again to return to TV Guide.

View advertisement
Depending on the country you select, this TV supports the GUIDE Plus+ system in DVB-T or Analogue mode
The postcode entry or update is required. Follow the on screen instructions.
   Also possible to setup manually from the Setup Menu
   [Update] / [Postcode] in [GUIDE Plus+ Settings] (p. 33)
   Enter your postcode when using this function for the first time. If you enter an incorrect postcode for your area, or no
   postcode is entered, advertisements may not be displayed correctly.

Display advertisement information
OPTION
   To display the latest advertisement
   [Update] in [GUIDE Plus+ Settings] (p. 33)

To change advertisements

To return to TV Guide

Note
   To update the information continuously, the TV must be left in Standby mode.
**Timer Programming (DVB mode)**

Timer Programming is a timer to remind watching or record the programme to the external recorder.

1. **Select the forthcoming programme**
   - ① select
   - ② set

   LED will turn to orange if Timer Programming is set.
   (Orange LED will flash if the recording of Timer Programming is in progress.)

2. **Select the function ([Ext Rec.] or [Reminder])**

   ![Timer Programming screen]

   **[Ext Rec.]**: to record the programme to the external recorder
   When the start time comes, the channel will be switched automatically and the video and audio signals will be output. 2 minutes before the starting time, a reminder message appears if you are watching TV.

   **[Reminder]**: to remind watching the programme
   When you are watching TV, a reminder message appears 2 minutes before the start time. Press the OK button to switch to the programmed channel.

- **To check / change / cancel a timer programming event**
  ➜ “Timer Programming” (p. 41 - 43)

- **If you select the current programme**
  A confirmation screen whether you wish to watch or record it will appear.
  Select [Timer Programming] and set [Ext Rec.] to record from the time you finish the timer programming event setting.

- **To return to TV Guide**
  RETURN

- **Note**
  - This function is not available in Analogue mode.
  - Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
  - No other channel can be selected while the recording of Timer Programming is in progress.
  - When recording programmes to the external recorder, be sure to make the proper settings on the recorder connected to the TV.

  If a compatible recorder with Q-Link, VIERA Link or similar technologies is connected to the TV (p. 60, 61) and the [Link Settings] (p. 30) are completed, no setting of the recorder is required. Also read the manual of the recorder.
Viewing Teletext

Teletext services are the text information provided by the broadcasters. The features may vary depending on the broadcasters.

What is FLOF (FASTEXT) mode?
In FLOF 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 To select among subject blocks To select next subject within the subject block
(red) (green) (blue)

(After the last subject, it moves to the next subject block.)
(yellow)

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. 22)

To change mode
- [Teletext] in the Setup Menu (p. 32)

Switch to Teletext

Sub page number

P100
17:51 28 Feb Time / date

TELETEXT INFORMATION Colour bar

Current page number

Select the page

To adjust contrast

As the blue bar is displayed

Reveal hidden data
Reveal hidden words e.g. quiz page answers

INDEX

Return to the main index page

Call up a favourite page

View a favourite page stored

Call up the page stored on the blue button (List mode).

STTL Factory setting is “P103”.

Stop automatic updating
(If you wish to hold the current page without updating)

Hold Press again to resume.
FULL / TOP / BOTTOM

MENU (green) (TOP) NORMAL (FULL) (BOTTOM) (Expand the TOP half) (Expand the BOTTOM half)

View in multi window

Watch TV and Teletext in two windows at once

MENU (Press twice) Select Picture and text On or Off

Operations can be made only in teletext screen.

Store frequently viewed pages

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

As page is displayed

(Corresponding coloured button)

Press and hold

The number changes to white.

To change stored pages

Coloured button you want to change Enter new page number

Press and hold

View sub page

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

The number of sub pages varies depending on the broadcasters (up to 79 pages).

It may take some time for searching, during which time you can watch TV.

To view specific sub page

Enter the 4-digit number Example : P6

View TV while waiting for update

View the TV picture while searching for a teletext page

Teletext automatically updates itself when new information becomes available.

Changes to TV screen temporarily

View the updated page

(You cannot change the channel.)

The news page provides a function that indicates arrival of latest news ("News Flash").
Watching External Inputs

Connect the external equipment (VCRs, DVD equipment, etc.) and you can watch through the input.

To connect the equipment (p. 10, 11, 67, 68, 69)
The remote control is capable of operating some functions of selected external equipment.

“Operating the equipment with the TV remote control” (p. 24)

1. **Turn the TV on**

   ![Remote control with INPUT button highlighted]

   **When connecting with SCART as example 2 or 3 (p. 10, 11)**
   Receives input signals automatically when playback starts
   - Input signals are automatically identified by the SCART (pin 8) terminal.
   - This function is also available for HDMI connections (p. 67).

2. **Display the input selection menu**

   ![Remote control with AV button highlighted]

   **If input mode is not switched automatically**
   Perform 2 and 3
   - Check the setup of the equipment.

3. **Select the input mode connected to the equipment**

   ![Remote control with Input Selection menu]

   - You can also select the input using the AV button on the remote control or the side panel of the TV (except [SD Card]).
   - Press the button repeatedly until the desired input is selected.
   - [SD Card] : Switches to Media Player "Using Media Player" (p. 50)
   - You can label or skip each input mode (except [SD Card]), “Input Labels” (p. 45)
   - Skipped inputs will not be displayed when the AV button is pressed.

4. **View**

   ![Remote control with AV1 selected]

   Displays the selected mode

**Note**
- If the external equipment has an aspect adjustment function, set it to "16:9".
- For details, see the manual of the equipment or ask your local dealer.
Operating the equipment with the TV remote control

The Panasonic equipment connected to the TV can be directly operated with the below buttons of this TV remote control.

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>🌛</td>
<td>Standby</td>
</tr>
<tr>
<td>🎮</td>
<td>Play</td>
</tr>
<tr>
<td>🕹️</td>
<td>Stop</td>
</tr>
<tr>
<td>⏪ ⏫</td>
<td>Rewind / Skip / Search</td>
</tr>
<tr>
<td>⏪ ⏫</td>
<td>Fast-forward / Skip / Search</td>
</tr>
<tr>
<td>🕵️‍♂️</td>
<td>Pause</td>
</tr>
<tr>
<td>🎭</td>
<td>Programme</td>
</tr>
<tr>
<td>🎥</td>
<td>Record</td>
</tr>
</tbody>
</table>

**How to change the code for the type of the equipment**

Each type of the Panasonic equipment has its own remote control code.
Please change the code according to the equipment you want to operate.

If you operate in Video mode of Media Player (p. 55) or operate the connected equipment in VIERA Link (p. 64), select the code “73”.

Press and hold 🌛 during the following operations

Enter the appropriate code, see table below

<table>
<thead>
<tr>
<th>Type of the equipment</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD Recorder, DVD Player, Blu-ray Disc Player</td>
<td>70 (default)</td>
</tr>
<tr>
<td>Player theatre, Blu-ray Disc theatre</td>
<td>71</td>
</tr>
<tr>
<td>VCR</td>
<td>72</td>
</tr>
</tbody>
</table>

Using in Video mode of Media Player ⇒ “Video mode” (p. 55)
The equipment using in VIERA Link ⇒ “VIERA Link Control” (p. 64) | 73 |

**Note**

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

You can access some special features easily by using the VIERA TOOLS function.

1 Display icons of the feature

2 Select a feature

3 Follow the operations of each feature

- **[VIERA Link Control]** ➔ “VIERA Link Control” (p. 64)
  When two or more compatible equipment are connected, a selection screen will be displayed. Please select the correct description and access.

- **[Photo]** ➔ “Photo mode” (p. 51)

- **[Video]** ➔ “Video mode” (p. 54)

- **[Music]** ➔ “Music mode” (p. 56)

**Note**

- If the selected feature is not available, the demonstration to explain how to use it can be displayed. Press the OK button to view the demonstration after selecting the unavailable feature.
How to Use Menu Functions

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

1. Display the menu
   - Displays the functions that can be set (varies according to the input signal)

2. Select the menu
   Example: [Picture Menu]
   - 
   - 

3. Select the item
   Example: [Picture Menu]
   - 
   - 

4. Adjust or select
   Example: [Picture Menu]
   - 
   - 
   - 

- Choose from among alternatives
  Number and positions of alternatives
  Colour Balance: Normal

- Adjust using the slide bar
  Sharpness: 5

- Go to the next screen
  Child Lock: Access

- Enter characters by free input menu
  You can enter names or numbers freely for some items.

- To return to TV at any time
  EXIT

- To return to the previous screen
  RETURN

- To change menu pages
  up, down

- To reset the settings
  - To reset the picture settings only
    - [Reset to Defaults] in the Picture Menu (p. 28)
  - To reset the sound settings only
    - [Reset to Defaults] in the Sound Menu (p. 30)
  - To reset the picture and sound settings together
    - (Also volume level and aspect mode are reset)
  - To initialise all settings
    - [Shipping Condition] in the Setup Menu (p. 33)

- You can set characters by using numeric buttons.
  - “Characters table for numeric buttons” (p. 72)
### Menu list

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
</table>
| **Viewing Mode**     | Basic picture mode [**Dynamic**] / [**Normal**] / [**Cinema**] / [**True Cinema**] / [**Game**] | In each Viewing Mode and input, [Contrast], [Brightness], [Colour], [Sharpness], [Tint], [Colour Balance], [Vivid Colour], [Eco Mode], [P-NR] and [3D-COMB] can be adjusted and stored to suit your particular viewing requirement.  
   - Set for each input signal.                                                                                             |
|                      | [**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 with the improved performance of contrast, black and colour reproduction.                                                                                                                         |
|                      | [**True Cinema**]                          | Precisely reproduces the original quality of the image without any revision.                                                                                                                                                    |
|                      | [**Game**]                                 | Fast response signal specifically to provide suitable images for playing games  
   - Not valid on TV mode  
   - A continuous record of time spent using Game mode can be displayed in the top right of the screen. [Playing Time Display] (p. 32)                                           |
| **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 signal reception only                                                                                           |
| **Colour Balance**   | Allows you to set the overall colour tone of the picture [**Cool**] / [**Normal**] / [**Warm**]  
   - Not valid when [Viewing Mode] is set to [True Cinema].                                                                       |
| **Vivid Colour**     | Automatically adjusts colours to vivid ones [**Off**] / [**On**]  
   - Not valid on PC signal                                                                                                    |
| **Eco Mode**         | Automatic Brightness Control function  
   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**          | Makes still or slow moving pictures look more vivid [**Off**] / [**On**]  
   - Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen. Set to [On] to display sharper and more accurate colours.  
   - For PAL or NTSC signal reception only  
   - Not valid on RGB, Component, PC, HDMI and Media Player                                                                          |
| **Screen Display**   | Turns the screen off when you select [**Off**] [**Off**] / [**On**]  
   - The sound is active even if the screen turns off.  
   - Press any buttons (except Standby) to turn the screen on.  
   - This function is effective in reducing power consumption when listening to the sound without watching the TV screen. |

*How to Use Menu Functions*
<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picture</td>
<td>Resolution Enhancer</td>
<td>Enhances the picture resolution to make the image sharper [Off] / [Mid] / [Max]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* This function is available for SD (Standard definition) signal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* As for HD (High definition) signal, this function is available when aspect mode is set to [16:9] (16:9 Overscan is set to [On]), [4:3 Full] or [Zoom].</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Not valid on Media Player</td>
</tr>
<tr>
<td></td>
<td>Advanced Settings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16:9 Overscan</td>
<td>Selects the screen area displaying the image [Off] / [On]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[On] : Enlarges the image to hide the edge of the image.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Off] : Displays the image in the original size.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Set to [On] if noise is generated on the edge of the screen.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* This function is available when aspect is set to Auto (16:9 signal only) or 16:9.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* This function can be memorised separately for SD (Standard definition) and HD (High definition) signals.</td>
</tr>
<tr>
<td></td>
<td>DVI Input Setting</td>
<td>Changes the black level in the image for HDMI input mode with DVI input signal manually [Normal] / [Full]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* When the DVI input signal from the external equipment, especially from PC, is displayed, the black level may not be suitable. In this case, select [Full].</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* The black level for HDMI input signal will be adjusted automatically.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* For HDMI input mode with DVI input signal only</td>
</tr>
<tr>
<td></td>
<td>Reset to Defaults</td>
<td>Press the OK button to reset the present Picture Viewing Mode of the selected input to the default settings</td>
</tr>
<tr>
<td>Sound</td>
<td>Mode</td>
<td>Selects the basic sound mode [Music] / [Speech] / [User]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* The selected mode affects all input signals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Music] : Improves sound quality for watching music videos, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Speech] : Improves sound quality for watching news, drama, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* In Music and Speech modes, you can adjust [Bass] and [Treble] settings, and those settings will be stored for each mode.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[User] : Adjusts the sounds manually by using the equaliser to suit your favourite sound quality.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* For the User mode, [Equaliser] will appear on the Sound Menu instead of [Bass] and [Treble]. Select the [Equaliser] and adjust the frequency. * [Equaliser] (see below)</td>
</tr>
<tr>
<td></td>
<td>Bass</td>
<td>Increases or decreases level to enhance or minimise lower, deeper sound output</td>
</tr>
<tr>
<td></td>
<td>Treble</td>
<td>Increases or decreases level to enhance or minimise sharper, higher sound output</td>
</tr>
<tr>
<td></td>
<td>Equaliser</td>
<td>Adjusts the frequency level to suit your favourite sound quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* This function is available when [Mode] is set to [User].</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Select the frequency and change the frequency level by using the cursor button.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* If you want to enhance the bass sound, raise the level of the lower frequency. If you want to enhance the treble sound, raise the level of the higher frequency.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* To reset the levels of each frequency to the default settings, select the [Reset to Defaults] by using the cursor button, and then press the OK button.</td>
</tr>
<tr>
<td></td>
<td>Balance</td>
<td>Adjusts volume level of right and left speakers</td>
</tr>
<tr>
<td></td>
<td>Headphone Volume</td>
<td>Adjusts the volume of the headphones</td>
</tr>
<tr>
<td>Menu</td>
<td>Item</td>
<td>Adjustments / Configurations (alternatives)</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>------------------------------------------</td>
</tr>
</tbody>
</table>
       |       | [V-Audio] : Provides a dynamic enhancer of width to simulate improved spatial effects
       |       | [V-Audio Surround] : Provides a dynamic enhancer of width and depth to simulate improved spatial effects
|      | Auto Gain Control | Adjusts the current volume level if it is extremely different from the previous viewed channel or input mode [Off] / [On]
|      | Volume Correction | Adjusts the volume of individual channel or input mode
|      | Speaker Distance to Wall | Adjusts the low frequency sound [Over 30cm] / [Up to 30cm]
|      |       | • If the back space between the TV and wall is over 30 cm, [Over 30cm] is recommended.
|      |       | • If the back space between the TV and wall is within 30 cm, [Up to 30cm] is recommended.
|      | MPX | Selects multiplex sound mode (if available)
|      |       | [Stereo] : Use this normally
|      |       | [Mono] : When stereo signal cannot be received
|      |       | [M1] / [M2] : Available while mono signal is transmitted
|      |       | • Selectable options vary depending on the country you select.
|      |       | • [Auto] : Automatically selects the audio tracks if programme has more than two tracks.
|      |       | The priority is given in the following order - Dolby Digital Plus, HE-AAC, Dolby Digital, MPEG.
|      |       | • [Multichannel] : The priority is given to multi-channel audio track.
|      |       | • [Stereo] : The priority is given to stereo (2ch) audio track.
|      |       | • [MPEG] : The priority is given to MPEG.
|      |       | • Dolby Digital Plus and Dolby Digital are the methods of coding digital signals developed by Dolby Laboratories. Apart from stereo (2ch) audio, these signals can be multi-channel audio.
|      |       | • HE-AAC is a perceptual coding method used to compress digital audio for efficient storage and transmission.
|      |       | • MPEG is an audio compression method that compresses audio to the smaller size without any considerable loss of audio quality.
|      |       | • Dolby Digital Plus and HE-AAC are the technologies for HD (High definition) programmes.
|      |       | • DVB mode only
|      | SPDIF Selection | SPDIF : A standard audio transfer file format
|      |       | Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI2 (ARC function) terminals [Auto] / [PCM]
|      |       | • [Auto] : Dolby Digital Plus and Dolby Digital are output as Dolby Digital Bitstream. HE-AAC (48 kHz) multi-channel is output as DTS.
|      |       | • MPEG is output as PCM.
|      |       | • [PCM] : Digital output signal is fixed to PCM.
|      |       | • For DVB mode or Video mode of Media Player (p. 54)
|      |       | • ARC (Audio Return Channel) : A function of digital audio output using HDMI cable
### Menu Functions

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
</table>
* Normally, PCM sound is larger comparing with the other types of audio track.  
* DVB mode only |
| | HDMI1 / 2 / 3 Input | Select to fit the input signal [Digital] / [Analogue] (p. 72)  
[Digital] : HDMI cable connection  
[Analogue] : HDMI-DVI adaptor cable connection  
* HDMI input mode only |
| | SPDIF Delay | Adjusts the delay time of the sound output from DIGITAL AUDIO OUT terminal if the sound does not synchronize the image  
* DVB mode only |
| | Reset to Defaults | Press the OK button to reset the present Sound Mode, [Balance], [Headphone Volume] and [Surround] to the default settings |
| **Setup** | Timer Programming | Sets a timer to remind watching or record forthcoming programmes (p. 41)  
* DVB mode only |
| | Off Timer | Sets the time until the TV automatically goes to Standby mode  
| | Eco Navigation | Automatically sets the TV to the most suitable energy-saving mode  
* If you press the OK button, the following items are set as below:  
[Eco Mode], [VIERA Link], [Power off Link], [Standby Power Save], [Power Save] ➔ [On]  
[Intelligent Auto Standby] ➔ [On (No reminder)]  
[Auto Standby] ➔ [2 hours] |
| **Link Settings** | VIERA Link | Sets to use VIERA Link functions [Off] / [On] (p. 61) |
| | AV1 out | Chooses the signal to be transmitted from the TV to Q-Link  
[Monitor] : Image displayed on screen  
* Component, PC and HDMI signals cannot be output. |
| | Power on Link | Sets to use Power on Link function [Off] / [On] (p. 60, 61) |
| | Power off Link | Sets to use Power off Link function [Off] / [On] (p. 60, 61) |
| | Standby Power Save | Controls the power consumption in Standby mode of the connected equipment to reduce the consumption [Off] / [On] (p. 62)  
* This function is available when [VIERA Link] is set to [On] and [Power off Link] is set to [On]. |
| | Intelligent Auto Standby | Makes non-watched or non-used connected equipment go into Standby mode to reduce the power consumption  
[Off] / [On (With reminder)] / [On (No reminder)] (p. 62)  
* This function is available when [VIERA Link] is set to [On]. |
| | Download | Downloads channel, language, country / region settings to a Q-Link or VIERA Link compatible equipment connected to the TV  
* DVB-C channel settings cannot be downloaded. |
<p>| | Child Lock | Locks a channel / AV input to prevent access to it (p. 43) |</p>
<table>
<thead>
<tr>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favourites Edit</td>
<td>Creates list of favourite DVB-C channels (p. 36)</td>
</tr>
<tr>
<td>Channel List</td>
<td>Skips the unwanted DVB-C channels or edits DVB-C channels (p. 37)</td>
</tr>
<tr>
<td>Auto Setup</td>
<td>Automatically sets the DVB-C channels supplied (p. 34)</td>
</tr>
<tr>
<td>Manual Tuning</td>
<td>Sets the DVB-C channels manually (p. 38)</td>
</tr>
<tr>
<td>Update Channel List</td>
<td>Updates DVB-C Channel List while keeping your settings (p. 38)</td>
</tr>
<tr>
<td>Favourite Network</td>
<td>Selects your favourite network for each broadcasters (only available in some countries)</td>
</tr>
<tr>
<td>New Channel Message</td>
<td>Selects whether to give a notification message when a new DVB-C channel is found [Off] / [On] (p. 38)</td>
</tr>
<tr>
<td>Service Replacement</td>
<td>Set to [On] to enable a message to switch to the available service (only available in some countries) [Off] / [On]</td>
</tr>
<tr>
<td>Signal Condition</td>
<td>Checks the DVB-C signal condition (p. 38)</td>
</tr>
<tr>
<td>Attenuator</td>
<td>Automatically reduces the DVB-C signal to avoid the interference [Off] / [On] (p. 38)</td>
</tr>
<tr>
<td>Add TV Signal</td>
<td>Adds the TV mode</td>
</tr>
<tr>
<td></td>
<td>• This function is available if you skip any modes to tune in [Auto Setup] for first using the TV.</td>
</tr>
<tr>
<td></td>
<td>• To operate, refer to the “Auto Setup” operations for first using the TV (p. 12, 13).</td>
</tr>
<tr>
<td>Favourites Edit</td>
<td>Creates list of favourite DVB-T channels (p. 36)</td>
</tr>
<tr>
<td>Channel List</td>
<td>Skips the unwanted DVB-T channels or edits DVB-T channels (p. 37)</td>
</tr>
<tr>
<td>Auto Setup</td>
<td>Automatically sets the DVB-T channels received in the area (p. 35)</td>
</tr>
<tr>
<td>Manual Tuning</td>
<td>Sets the DVB-T channels manually (p. 38)</td>
</tr>
<tr>
<td>Update Channel List</td>
<td>Updates DVB-T Channel List while keeping your settings (p. 38)</td>
</tr>
<tr>
<td>Favourite Network</td>
<td>Selects your favourite network for each broadcasters (only available in some countries)</td>
</tr>
<tr>
<td>New Channel Message</td>
<td>Selects whether to give a notification message when a new DVB-T channel is found [Off] / [On] (p. 38)</td>
</tr>
<tr>
<td>Signal Condition</td>
<td>Checks the DVB-T signal condition (p. 38)</td>
</tr>
<tr>
<td>Add TV Signal</td>
<td>Adds the TV mode</td>
</tr>
<tr>
<td></td>
<td>• This function is available if you skip any modes to tune in [Auto Setup] for first using the TV.</td>
</tr>
<tr>
<td></td>
<td>• To operate, refer to the “Auto Setup” operations for first using the TV (p. 12, 13).</td>
</tr>
<tr>
<td>Menu</td>
<td>Item</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Analogue Tuning</td>
<td>Channel List</td>
</tr>
<tr>
<td></td>
<td>Auto Setup</td>
</tr>
<tr>
<td></td>
<td>Manual Tuning</td>
</tr>
<tr>
<td></td>
<td>Add TV Signal</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Setup</td>
<td>OSD Language</td>
</tr>
<tr>
<td></td>
<td>Preferred Audio 1 / 2</td>
</tr>
<tr>
<td></td>
<td>Preferred Subtitles 1 / 2</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preferred Teletext</td>
</tr>
<tr>
<td></td>
<td>Preferred Subtitle Type</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teletext</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Guide</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Input Labels</td>
</tr>
<tr>
<td></td>
<td>Banner Display Timeout</td>
</tr>
<tr>
<td></td>
<td>Playing Time Display</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Radio Mode</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Menu</td>
<td>Item</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Common Interface</td>
<td>Uses include to watch encrypted channels (p. 46)</td>
</tr>
<tr>
<td>System Menu</td>
<td><strong>Shipping Condition</strong></td>
</tr>
<tr>
<td></td>
<td><strong>System Update</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Software Licence</strong></td>
</tr>
<tr>
<td></td>
<td><strong>System Information</strong></td>
</tr>
<tr>
<td>Setup</td>
<td><strong>GUIDE Plus+ Settings</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Update</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Postcode</strong></td>
</tr>
<tr>
<td></td>
<td><strong>System Information</strong></td>
</tr>
</tbody>
</table>
| Other Settings | **Power on Preference** | Automatically selects the input when the TV is turned on [TV] / [AV]  
Set to [TV] to view picture from TV tuner.  
Set to [AV] to view input from an external equipment connected to the AV1 or HDMI1 terminal, e.g. set top box.  
☆ The external equipment must be switched on and sending a control signal for automatic switching at power on to occur. |
| | **Auto Standby** | Sets the time the TV automatically goes to Standby mode when no operation is performed for the selected times [Off] / [2] / [4] (hours)  
☆ Starting Timer Programming automatically does not affect this function.  
☆ Automatic input switching with the connected equipment affects this function and time-count will be reset.  
☆ The notification message will appear 3 minutes before going to Standby mode. |
| | **Power Save** | Reduces brightness of picture to economise on power consumption [Off] / [On] |
| | **Time Zone** | Adjusts the time data  
☆ The time data will be corrected based on GMT.  
☆ Set to [Auto] to adjust the time automatically according to your area. |

☆ A different menu will be displayed in the mode of PC input or Media Player. (p. 49 - 57)  
☆ Only available items can be selected.
Retuning from Setup Menu

Automatically retune the channels received in the area.

- This function is available if channel tuning is already performed.
- Only the selected mode is retuned.
- All the previous tuning settings are erased.
- If Child Lock PIN number (p. 44) has been set, the PIN number is required.
- If tuning has not been done completely ⇒ [Manual Tuning] (p. 38, 40)

DVB-C channels

1. Select DVB-C ⇒ (p. 14)
   - TV

2. Display the menu
   - MENU

3. Select [Setup]
   - VIEFA Main Menu
     - Picture
     - Sound
     - Setup

4. Select [DVB-C Tuning Menu]
   - Setup Menu
     - DVB-C Tuning Menu
       - Access

5. Select [Auto Setup]
   - DVB-C Tuning Menu
     - Auto Setup
       - Access

6. Set the Auto Setup settings
   - DVB-C Auto Setup Settings
     - Search Mode: Free Channels
     - Scan Mode: Quick
     - Frequency: Auto
     - Symbol Rate: Auto
     - Network ID: Auto

   - [Scan Mode]
     - [Full]: scans the whole frequency range
     - [Quick]: scans the suitable frequency in your country
   - Normally set [Frequency], [Symbol Rate] and [Network ID] to [Auto].
   - If [Auto] is not displayed or if necessary, enter [Frequency], [Symbol Rate] and [Network ID] specified by your cable provider with numeric buttons.

7. Start Auto Setup (Settings are made automatically)
   - All DVB-C tuning data will be erased

When the operation is completed, the channel at the lowest position will be displayed.
DVB-T or Analogue channels

1 Select DVB-T or Analogue
   ➤ (p. 14)

2 Display the menu

3 Select [Setup]

4 Select [DVB-T Tuning Menu] or [Analogue Tuning Menu]

5 Select [Auto Setup]
   Example :

6 Start Auto Setup (Settings are made automatically)

For Auto Setup, using the buttons on the side panel of the TV (p. 9)
1 Press repeatedly until [Auto Setup] appears
2 Access [Auto Setup]
3 Start [Auto Setup]

To return to TV

- The channel, language, country / region settings are downloaded to a Q-Link or VIERA Link compatible equipment connected to the TV.
- When the operation is completed, the channel at the lowest position will be displayed.
Tuning and Editing Channels (DVB)

You can retune channels or make your favourite channel lists, skip unwanted channels, etc.

1. Select DVB-C or DVB-T  ➔ (p. 14)

2. Display the menu

3. Select [Setup]

4. Select [DVB-C Tuning Menu] or [DVB-T Tuning Menu]

5. Select one of the following functions

List favourite DVB channels [Favourites Edit]

Create your favourite channel lists from various broadcasters (up to 4: [Favourites]1 to 4).
The DVB Favourites lists are available from “Category” in the Information banner (p. 15) and the TV Guide screen (p. 18).

1. Select a channel to list (]): Encrypted channel)

- To sort channel names in alphabetical order
  - (red)
- To display other Favourites
  - (green)
- To change the category
  - (blue)
Add it to the Favourites list

To edit Favourites list

While the cursor is in the Favourites field to edit
- To move the channel
  - (green) Select the new position or
  - (green) Store
- To name the Favourites
  - (red) Set characters (maximum: ten characters)
  - (green) Store
- To use numeric buttons
  - “Characters table for numeric buttons” (p. 72)

Store

Sort channel list

To sort channel names in alphabetical order
- (red)

Edit channels

You can also edit each channel in Channel List.
- To swap the channel position (if available)
  - (green) Enter the new position number or
  - (green) Store
- To move the channel position (if available)
  - (green) Select the new position or
  - (green) Store

Channel position
Set DVB channel manually [Manual Tuning]

Normally use [Auto Setup] or [Update Channel List] to retune DVB channels.
If tuning has not been done completely or for adjusting the direction of the aerial, use this function.
* All channels found will be added to the Channel List.

DVB-C:

1 Enter the frequency
   
<table>
<thead>
<tr>
<th>Frequency</th>
<th>Symbol Rate</th>
<th>Service ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVB-C Manual Tuning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Channel Name</td>
<td>New</td>
</tr>
<tr>
<td>Free TV: 0</td>
<td>Pay TV: 0</td>
<td>Radio: 0</td>
</tr>
<tr>
<td>Stopped</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   ![Diagram](image)

2 Search

- Normally set [Symbol Rate] and [Service ID] to [Auto].

DVB-T:

1 Adjust frequency for each channel

DVB-T Manual Tuning

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Signal Quality</th>
<th>Signal Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVB-T Manual Tuning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Channel Name</td>
<td>Type</td>
</tr>
<tr>
<td>Free TV: 0</td>
<td>Pay TV: 0</td>
<td>Radio: 0</td>
</tr>
<tr>
<td>Stopped</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2 Search

① select channel
② adjust frequency

- Set where the level of [Signal Quality] becomes the maximum.

Update DVB channel automatically [Update Channel List]

You can add new channels, delete removed channels, update channel name and position automatically to Channel List.

- Channel List is updated while keeping your settings in [Favourites Edit], [Channel List], [Child Lock], etc.
- Depending on the signal condition, the update may not work properly.

Display a notification message [New Channel Message]

Selects whether to give a notification message when a new DVB channel is found. [Off] / [On]

- Selecting OK will perform [Update Channel List].

Check DVB signal [Signal Condition]

Selects a channel and checks the DVB signal condition.
A good Signal Strength is not an indication of suitable signal for DVB reception.
Please use the Signal Quality indicator as follows:

[Signal Quality]:
- Green bar ➔ Good
- Yellow bar ➔ Poor
- Red bar ➔ Bad (Check the Terrestrial aerial or cable)

![Diagram](image)

- To change the channel

Reduce the DVB-C signal [Attenuator]

If the DVB-C signal is too strong, the interference may occur. In this case set to [On] to reduce the signal automatically.
* This function is available only for DVB-C signal.
Tuning and Editing Channels (Analogue)

You can retune channels or skip unwanted channels, edit channels etc.

1. Select Analogue
   - (p. 14)

2. Display the menu
   - MENU

3. Select [Setup]

4. Select [Analogue Tuning Menu]

5. Select one of the following functions
   - The function items vary depending on the country you select (p. 12).
   - [Auto Setup] ⇒ “Retuning from Setup Menu” (p. 35)

---

Skip unwanted Analogue channels, Edit Analogue channels [Channel List]

You can hide unwanted Analogue channels.
The hidden channels cannot be displayed except in this function. Use this function to skip unwanted channels.

Select a channel and reveal / hide

<table>
<thead>
<tr>
<th>Analogue Channel List</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BBC1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>*****</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>*****</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>*****</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>*****</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>*****</td>
</tr>
</tbody>
</table>

- To reveal all channels
  - [Reveal] (yellow)
### To edit channels

You can also edit each channel in Channel List.

- To retune each channel ([Manual Tuning])
  - (red) (see below)
- To move the channel position
  - (green)
- To rename the channel name
  - (blue)
- To use numeric buttons
  - “Characters table for numeric buttons” (p. 72)

<table>
<thead>
<tr>
<th>Channel position</th>
<th>Channel name</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC1</td>
<td>Auto</td>
</tr>
<tr>
<td>27 8 1 4 1</td>
<td>CH331 BBC1</td>
</tr>
<tr>
<td></td>
<td>Manual Tuning</td>
</tr>
<tr>
<td></td>
<td>Fine Tuning</td>
</tr>
<tr>
<td></td>
<td>Analogue Manual Tuning</td>
</tr>
</tbody>
</table>

#### Note
- If a VCR is connected only with the RF cable, edit [VCR].

---

### Set Analogue channel 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 Analogue channel manually after Auto Setup.

- 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 channel position [0].

1. Select the channel position
2. Select the channel
3. Search and store

**SC1**: PAL B, G, H / SECAM B, G
**SC2**: PAL I
**SC3**: PAL D, K / SECAM D, K
**F**: SECAM L, L’
Timer Programming

Timer Programming from Menu

The Timer Programming menu allows you to choose programmes that you wish to remind watching or record to the external recorder. At the correct time, the TV will tune to the correct channel even if the TV is in Standby mode. TV Guide may also be used to set timer programming event (p. 20).

- This function is not available in Analogue mode.
- Timer Programming can store up to 15 events.
- Timer Programming only works reliably if correct time information is received via the signal from the broadcaster or service provider.
- For recording using Timer Programming, the TV must be either On or in standby. For reminders to be displayed, the TV must be On.
- No other channel can be selected while the recording of Timer Programming is in progress.
- It may not be possible to record an encrypted programme (which is copy-protected).
- When recording programmes to the external recorder, be sure to make the proper settings on the recorder connected to the TV.
- If a compatible recorder with Q-Link, VIERA Link or similar technologies is connected to the TV (p. 60, 61) and the [Link Settings] (p. 30) are completed, no setting of the recorder is required. Also read the manual of the recorder.
- Recordings are always in standard definition composite video via SCART, even if the original programme is in high definition.
- 2 minutes before the starting time, a reminder message appears if you are watching TV.

- To remove the message and start the programming
- To cancel the programming

1. Select the mode you want to set (DVB-C or DVB-T) (p. 14)

2. Display the menu

3. Select [Setup]

4. Select [Timer Programming]
Set timer programming event details [Timer Programming]

1. Start making the settings

2. Select the function ([Ext Rec.] or [Reminder])

   - select

   **[Ext Rec.]**:
   - to record the programme to the external recorder
   - When the start time comes, the channel will be switched automatically and the video and audio signals will be output. 2 minutes before the starting time, a reminder message appears if you are watching TV.

   **[Reminder]**:
   - to remind watching the programme
   - When you are watching TV, a reminder message appears 2 minutes before the start time.
   - Press the OK button to switch to the programmed channel.

3. Set the channel, date and time (repeat the operations as below)

   - Set items in the order of 1 to 4.

   - 1, 3 and 4 can also be entered with numeric buttons.

   - : Displayed if the timer programming events are overlapped

   - Records with subtitles (if available)
   - To indicate this (yellow)
   - (Press again to remove subtitles)

<table>
<thead>
<tr>
<th>No.</th>
<th>Channel Name</th>
<th>Date</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BBC1</td>
<td>Wed 27.10.2010</td>
<td>17:00</td>
<td>18:30</td>
</tr>
<tr>
<td>2</td>
<td>DVB-T</td>
<td>Thu 28.10.2010</td>
<td>18:00</td>
<td>19:30</td>
</tr>
<tr>
<td>3</td>
<td>ITV1</td>
<td>Thu 28.10.2010</td>
<td>21:00</td>
<td>22:30</td>
</tr>
</tbody>
</table>

   - You cannot change the mode within the menu.

   - 1 Channel number
   - 2 Date
     - one day ahead
     - daily or weekly (press repeatedly)
   - 3 Starting time
   - 4 Ending time
     - [Weekly Sat/Fri/Thu/Wed/Tue/Mon/Sun]: Same time on the same day every week

4. Store
To change a timer programming event
Select the programme to be changed
① select ② access  Correct as necessary (p. 42)

To cancel a timer programming event
Select the programme to be deleted
① select ② access (red)

To record with subtitles (if available)
Select the programme to record with subtitles
① access ② select (yellow)
• Each time pressed: auto off

To cancel a timer programming event temporarily
Select the programme to be cancelled
① access ② select (blue)
• Each time pressed: cancel stop cancelling

Note
• Check that the LED is orange. If not, timer programmes are not active or not stored.
• Timer Programming reminder messages will remain displayed until one of the following occurs:
  • You press the OK button to view the programme or the EXIT button to cancel the reminder.
  • The timer programming event that the reminder is set for ends.
• "!" identifies that any timer programming events have overlapped. [Ext Rec.] is given priority over [Reminder]. As for the overlapped two or more [Ext Rec.], the first timer programming event starts and finishes as programmed. The next timer programming event can then start.
• The recording of Timer Programming will automatically change to the programmed channel 10 seconds before the start time.
• To stop recording the timer programming event directly prior to the start time, it may be necessary to stop the recorder manually.
• The recording of Timer Programming will be performed even if the TV is in Pause Live TV recording (p. 63). In this case, Pause Live TV recording will be cancelled.

Child Lock
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]

3 Select [Child Lock]

To return to TV
EXIT
Child Lock

Control channel audience [Child Lock]

1 Enter the PIN number (4 digits)

- Enter the PIN number twice at first setting.
- Make a note of the PIN number in case you forget it.
- “0000” may be stored as the default PIN number which depends on the country you select (p. 12).

2 Select [Child Lock List]

3 Select the channel / input to be locked

- To cancel
  Select the locked channel / input

- To sort channel names in alphabetical order
  (red)

- To cancel all locks
  (yellow)

4 To change the PIN number

1. Select [Change PIN]

2. Enter a new PIN number twice

5 To set Parental Rating

- The availability of this function depends on the country you select (p. 12).
- If the DVB programme has the rated information for over the selected age, you have to enter the PIN number to watch (depending on the broadcaster).
- Select [Parental Rating] and set an age for the restriction of programmes.

Note

- Setting [Shipping Condition] (p. 47) erases the PIN number and all settings.
Input Labels

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

* To select the input mode ➔ (p. 23)

1 Display the menu

2 Select [Setup]

3 Select [Display Settings]

4 Select [Input Labels]

5 Select an input terminal

The labels you set will be displayed in [Input Selection] menu (p. 23), [TV Selection] menu (p. 14) or banner.

* If [Skip] is selected, you cannot select the mode.

User input

You can name each input mode freely.

1 Select [User input]

2 Set characters (maximum : ten characters)

3 Store

* To use numeric buttons

➔ “Characters table for numeric buttons” (p. 72)
Using Common Interface

The Common Interface Module menu provides access to software contained on Common Interface (CI) Modules.

- This function may not be available in some countries or regions.
- Video and audio signals may not be output depending on broadcasts or services.
- Although CI module may enable you to view some services, this TV does not guarantee all services (e.g. pay-TV).
- Please use only the approved CI module by the broadcaster.
- Consult your local Panasonic dealer or broadcasters for more information and conditions of the services.

**Caution**

- Turn Off Mains power On / Off switch whenever inserting or removing the CI module.
- If a view card and a card reader come as a set, first insert the card reader, then insert the view card into the card reader.
- Insert the module in the correct direction.

**Insert the CI module (optional)**

- The features that appear on screen are dependent on the contents of the selected CI module.
- Normally encrypted channels will appear. Follow the on screen operation guide. If encrypted channel does not appear, perform below.
- For more details, see the manual of the CI module, or check with the broadcaster.

1. **Select DVB-C or DVB-T**
   (p. 14)

2. **Display the menu**

3. **Select [Setup]**

4. **Select [Common Interface]**

5. **Access Common Interface**

**How to operate services**

Follow the on screen operation guide

Example :

- Select, go
- Symbol :  
- Coloured characters
- Coloured button

* On screen operation guide may not correspond to the remote control buttons.
Shipping Condition

Resets the TV to its original condition, i.e. no channels tuned in.
All settings are reset (channels, picture, sound settings, etc.).
* To retune TV channels only, e.g. after moving house ⇒ “Retuning from Setup Menu” (p. 34, 35)

1 Display the menu

MENU

2 Select [Setup]

Select [System Menu]

3 Select [System Menu]

4 Select [Shipping Condition]

Restore Settings [Shipping Condition]

1 Check the message and initialise

Shipping Condition

All tuning data will be erased
Are you sure?
Are you sure?

2 Follow the on screen instructions

Reset to Factory Shipping Condition
Completed.
Please switch off TV.

[Auto Setup] will automatically start when Mains power On / Off switch is next turned On. (p. 12)
Updating the TV Software

From time to time, a new version of software may become available for download to enhance the performance or operations of the TV. If there is an update available, a notification banner is displayed when the channel has the update information.

To download

If you choose not to download

You can update any new software automatically or update manually.

1 Display the menu

2 Select [Setup]

3 Select [System Menu]

4 Select [System Update]

Update TV’s software system [System Update]

To update automatically

Select [Auto Update Search in Standby]

Every time you set, the TV automatically performs a search in standby and downloads an update, if any software updates are available.

The automatic updating is performed under the following conditions:

- Standby (TV turned Off with the remote control)
- Recording of Timer Programming or Direct TV Recording is not in progress.

If System Update is performed, the software will be updated (it may change TV functions).
If you do not wish to do so, set [Auto Update Search in Standby] to [Off].

To update immediately

1 Select [System Update Search Now]

2 Searches for an update (for several minutes) and displays a corresponding message if any

3 Download

Note

- Download may take for about 60 minutes.
- During software download and update, DO NOT switch Off the TV.
- The message might be the notification beforehand. In this case, the schedule information (the date that the new version can be used) will appear. You can set the reservation for update. The update will not start when the TV is set to Off.
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. 68

1. **Select the external input**
   - AV

2. **Select [PC]**
   - Input Selection
     - AV1
     - AV2
     - COMPONENT
     - PC
     - HDMI1
     - HDMI2
     - HDMI3
     - TV
     - SD Card

- To return to TV
  - TV

■ PC menu setting (changed as desired)
  - To make settings  “How to Use Menu Functions” (p. 26)

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Balance</td>
<td>R-Gain</td>
<td>Adjusts the white balance for red areas</td>
</tr>
<tr>
<td></td>
<td>G-Gain</td>
<td>Adjusts the white balance for green areas</td>
</tr>
<tr>
<td></td>
<td>B-Gain</td>
<td>Adjusts the white balance for blue areas</td>
</tr>
<tr>
<td></td>
<td>R-Cutoff</td>
<td>Adjusts the white balance for red areas</td>
</tr>
<tr>
<td></td>
<td>G-Cutoff</td>
<td>Adjusts the white balance for green areas</td>
</tr>
<tr>
<td></td>
<td>B-Cutoff</td>
<td>Adjusts the white balance for blue areas</td>
</tr>
<tr>
<td></td>
<td>Reset to Defaults</td>
<td>Press the OK button to reset to the default White Balance</td>
</tr>
<tr>
<td></td>
<td>Gamma</td>
<td>Please note the numerical values are reference for the adjustment</td>
</tr>
<tr>
<td></td>
<td>Reset to Defaults</td>
<td>Press the OK button to reset to the default Gamma</td>
</tr>
<tr>
<td>Input Resolution</td>
<td></td>
<td>Switches to a wide view</td>
</tr>
<tr>
<td></td>
<td>VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,280 × 768 pixels, 1,366 × 768 pixels)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Options change depending on signals</td>
<td></td>
</tr>
<tr>
<td>Clock</td>
<td>Set to the minimum level if noise occurs</td>
<td></td>
</tr>
<tr>
<td>H-pos</td>
<td>Adjusts horizontal position</td>
<td></td>
</tr>
<tr>
<td>V-pos</td>
<td>Adjusts vertical position</td>
<td></td>
</tr>
<tr>
<td>Clock Phase</td>
<td>Eliminates flicker and distortion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adjust after Clock adjustment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Set to the minimum level if noise occurs</td>
<td></td>
</tr>
<tr>
<td>Sync</td>
<td>Chooses another synchronous signal if the image is distorted [H &amp; V] / [On Green]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[H &amp; V] : by the horizontal and vertical signals from your PC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[On Green] : by the green signal from your PC (if available)</td>
<td></td>
</tr>
<tr>
<td>Reset to Defaults</td>
<td>Press the OK button to reset to the default PC Setup settings</td>
<td></td>
</tr>
</tbody>
</table>

Note
- Other items  p. 27 - 33
- For HDMI-compatible PC, possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3) by using HDMI cable (p. 72).
Using Media Player

Media Player allows you to enjoy photo, video or music recorded on an SD Card.

VIERA IMAGE VIEWER is the function of the easy viewing for photos or videos recorded on an SD Card on the TV screen by simply inserting into the SD Card slot.

Photo mode: Still pictures recorded by digital cameras will be displayed.

Video mode: Moving pictures recorded by digital video cameras will be played back.

Music mode: Digital music data will be played back.

During the operation, audio signal is output from AV1, AUDIO OUT, DIGITAL AUDIO OUT and HDMI2 (ARC function) terminals. But no video signals are output. AV1 can output audio signal if [AV1 out] is set to [Monitor] in the Setup Menu (p. 30). To use HDMI2 with ARC function, connect an amplifier that has ARC function (p. 59) and set to use theatre speakers (p. 66).

[Date] shows the date on which the recording was made by the recording equipment. The file without record of the date is shown “**/**/****”.

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.

Partly degraded files might be displayed at a reduced resolution.

The folder and file names may be different depending on the digital camera or digital video camera used.

To insert or remove the SD Card

1. Insert the SD Card to the TV (see above)

2. Start Media Player

   Media Player

   Signal output from all AV terminals will be disabled during Media Player view.
   Press OK to proceed.
   Press EXIT to return to TV viewing.

   Also possible by pressing following buttons.

   SD CARD
   AV ➔ “Watching External Inputs” (P. 23)

3. Select the content

   Media Player

   [Photo] ➔ “Photo mode” (p. 51)
   [Video] ➔ “Video mode” (p. 54)
   [Music] ➔ “Music mode” (p. 56)

   You can also access each mode directly by using VIERA TOOLS.
   ➔ “How to Use VIERA TOOLS” (p. 25)
**Photo mode**

Photo mode will read all "jpg" extension files in the SD Card.

The thumbnail of all the photos in the SD Card will be displayed.

**Example: Thumbnail - [All photos]**

- To return to TV
  - EXIT
  - or
  - SD CARD

- To return to the previous screen
  - RETURN

- To sort by folder, recorded date or recorded month
  1. Display the view selection
     - (green)
  2. Select the sort type
     - [Folder view]:
       - Displays the thumbnail grouped by folder
       - The files which are not into a folder will be collected to the folder named "/".
     - [Sort by Date]:
       - Displays the thumbnail grouped by the same date
       - The group of the photos without recorded date is shown as [Unknown].
     - [Sort by Month]:
       - Displays the thumbnail grouped by the same month
       - The group of the photos without recorded date is shown as [Unknown].

- Select one of the sorted groups to display the thumbnail of the selected group

- To return to the thumbnail of all photos
  - (green)

- To display the information of the highlighted group
  - Folder name, date or month
  - Group number / Total group number
  - Number of files
**[Single view]** - Photos are displayed one at a time. Select the file from the thumbnail of photos to be viewed

Example:

- To display / hide the operation guide
- To return to thumbnail

**[Slideshow]** - Slideshow will complete when all photos have been viewed within the present thumbnail.

1. Select the file from the thumbnail of photos for the first view
2. Start Slideshow

- To display / hide the operation guide
- To pause (return to Single view)
- To return to thumbnail

**Photo Settings**

Setup the settings for Photo mode.

1. Display the option menu
2. Select [Slideshow Settings]
3. Select the items and set

### Menu | Item | Adjustments / Configurations (alternatives)
--- | --- | ---
**Slideshow Settings** | Frame | Selects the indication frame of the slideshow
[Multi]: 9 division display like tiled design
[Collage]: A photo is displayed at random position and random scale.
[Drift (+ calendar) / Drift]: Photos are displayed like flow images.
- You can select to display the calendar or not. The month of calendar is turned by pressing left or right cursor button.
[Gallery (+ calendar) / Gallery]: The various size of photos in the frame are displayed.
- You can select to display the calendar or not. The month of calendar is turned by pressing left or right cursor button.
[Cinema]: Photos are displayed like old films (sepia tone)
### Adjustments / Configurations (alternatives)

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Colour Effect** | Selects the colour effect of photos on Single view and Slideshow [Off] / [Sepia] / [Gray scale]  
* This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema]. |
| **Transition Effect** | Selects the transition effect for switching the photo during the slideshow [Off] / [Fade] / [Slide] / [Dissolve] / [Motion] / [Random]  
[Fade]: The next photo fades in gradually.  
[Slide]: The next photo slides and appears from the left side.  
[Dissolve]: Each photo is dissolved when switching to the next photo.  
[Motion]: Each photo is displayed with an effect of enlarging, reducing, moving up or moving down.  
[Random]: Each transition is selected at random.  
* This function is available when [Frame] is set to [Off]. |
| **Screen Mode** | Selects whether enlarged or normal viewing on Single view and Slideshow [Normal] / [Zoom]  
* This function is not available when [Frame] is set to [Collage], [Drift], [Gallery] or [Cinema].  
* This function is not available when [Transition Effect] is set to [Motion].  
* Depending on the photo size, it may not be fully enlarged. |
| **Burst Playback** | Selects whether to display burst photos in a fast-paced slideshow mode [Off] / [On]  
* This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema].  
* This function is not available when [Transition Effect] is set to [Motion]. |
* This function is not available when [Frame] is set to [Drift], [Gallery] or [Cinema].  
* This function is not available when [Transition Effect] is set to [Motion]. |
| **Repeat** | Slideshow repeat [Off] / [On] |
* [Type1], [Type2] and [Type3] are the fixed music each installed in this TV.  
* [User]: Music data in the SD Card registered by yourself will be played back.  
To register the music  
1 Select the music file  
2 Select [File] or [Folder]  
 Depending on the conditions of the SD Card, select folders until you reach the desired music file.  
[Register Slideshow BGM?]  
[File]: The selected music file will be registered as background music.  
[Folder]: All the music in the folder which contains the selected music file will be registered as background music.  
* If no music has been registered or the SD Card which has the registered music is removed, no sound will be produced.  
* [Type1]: Music data stored in the root folder of the SD Card will be played back randomly.  
* If there is no available music data, no sound will be produced. |
Change the contents

You can switch to the other mode of Media Player from the thumbnail view.

1 While the thumbnail is displayed, display the contents selection

2 Select the contents

[Photo] ⇒ “Photo mode” (p. 51)
[Video] ⇒ “Video mode” (p. 54)
[Music] ⇒ “Music mode” (p. 56)

Video mode

- Supported file formats ⇒ (p. 71)

The thumbnail of video titles in the SD Card will be displayed.
Example: Thumbnail - [Title view]

The preview will start when the title is highlighted if it supports a preview.
- To turn off the preview ⇒ “Video Setup” (p. 55)
- To display the information of the highlighted title

File format

Title number / Total title number

To view the scenes of the title

Select the title

Example: Thumbnail - [Scene view]

The preview will start when the scene is highlighted if it supports a preview.
- To turn off the preview ⇒ “Video Setup” (p. 55)
- To display the information of the highlighted scene

File format

Scene number / Total scene number

Playback from Title view

Playback of the selected title will start.
- To repeat playback ⇒ “Video Setup” (p. 55)

1 Select the title

2 Start playback

Playback from the selected scene in the title (SD-Video or AVCHD)

Playback will start from the selected scene to the end of the title.
- To repeat playback ⇒ “Video Setup” (p. 55)

1 Select the title

2 Select the scene

3 Start playback
How to operate in the playback

Example: Playback

- To display / hide the operation guide and information banner
- To operate the playback
  - Rewind
  - Pause / Playback
  - Fast forward
  - Stop
- To change aspect
  - ASP\textsc{ECT}
- To the previous title / scene
  - (red)
- To the next title / scene
  - (green)
- To return to thumbnail
  - RETURN

To change the content ⇒ "Change the contents" (p. 54)

Video Setup

Setup the settings for Video mode.

1 Display the option menu in the thumbnail view

2 Select [Video Setup]

3 Select the items and set

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Setup</td>
<td>Video Preview</td>
<td>Sets to start the preview of the title or scene in the thumbnail view [Off] / [On]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Image may not be displayed for an instant in the thumbnail view. Set the preview [Off] to resolve this.</td>
</tr>
<tr>
<td></td>
<td>Repeat</td>
<td>Playback repeat within the title [Off] / [On]</td>
</tr>
</tbody>
</table>

Confirm or change the current status

You can confirm or change the current status of the content.
- Menu items and selectable options vary depending on the content.

1 Display the option menu during playback

2 Select [Video Setup]

3 Select the items and set

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Setup</td>
<td>Multi Audio</td>
<td>Allows you to select between selectable sound tracks (if available)</td>
</tr>
<tr>
<td></td>
<td>Aspect Change</td>
<td>[Aspect1]: Displays the content full-screen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Aspect2]: Displays the content square</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Original]: Displays the content original size</td>
</tr>
<tr>
<td></td>
<td></td>
<td>You can also change the aspect using the ASP\textsc{ECT} button.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aspect change may not work depending on the content.</td>
</tr>
</tbody>
</table>
Audio output 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 ⇒ “Confirm or change the current status” (p. 55)

1 Display the menu

2 Select [Sound]

3 Select [SPDIF Selection] and set

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
</table>
| Sound | SPDIF Selection | SPDIF : A standard audio transfer file format
Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT and HDMI2 [ARC function] terminals [Auto] / [PCM]
[Auto] : Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM.
[PCM] : Digital output signal is fixed to PCM. |

Music mode

- Supported file formats ⇒ (p. 71)

The thumbnail of music folders in the SD Card will be displayed.

Example : Thumbnail - [Folder view]

To display the information of the highlighted folder

Folder name / Folder number / Total folder number

Playback from Folder view

All the files in the selected folder will be played back.

1 Select the folder

2 Start playback
### Playback from File view
Selected file will be played back.

1. **Select the folder**
   - ① select
   - ② access

2. **Select the file**
   Example: Thumbnail - File view
   - Media Player
   - Music Folder view > My Music_1
   - My Song_1
   - My Song_2
   - My Song_3
   - My Song_4
   - My Song_5
   - My Song_6
   - My Song_7
   - My Song_8
   - My Song_9
   - My Song_10
   - SD Card
   - EXIT
   - Select RETURN
   - Contents Select
   - Info Play
   - Play Folder
   - Option Menu

3. **Start playback**
   - (red)

- To display the information of the highlighted file
- File number / Total file number

### How to operate in the playback
Example: Playback

- To display / hide the operation guide
- To operate the playback
  - Rewind
  - Pause / Playback
  - Fast forward
  - Stop
- To return to thumbnail
  - RETURN
- To the previous track
  - (red)
- To the next track
  - (green)

### To change the content
  ➔ “Change the contents” (p. 54)

### Music Setup
Setup the setting for Music mode (only available in the thumbnail view).

1. **Display the option menu**
   - OPTION

2. **Select [Music Setup]**
   - Option Menu
   - Music Setup
   - [Folder] : Playback repeat within the selected folder
   - [One] : Playback repeat of the selected one file

3. **Set**
   - Music Setup Menu
   - Repeat : One
Link Functions (Q-Link / VIERA Link)

Q-Link connects the TV and DVD Recorder / VCR, and enables easy recording, playback, etc. \(\text{(p. 60)}\)

VIERA Link (HDAVI Control™) connects the TV and the equipment with VIERA Link function, and enables easy control, convenient recording, playback, energy saving, creating home theatre, etc., without complicated setting. \(\text{(p. 61 - 66)}\)

You can use Q-Link and VIERA Link functions together.

- This TV supports “HDAVI Control 5” function. But available features are depending on the connected equipment’s version of HDAVI Control. Please refer to the manual of the equipment to confirm the version.
- VIERA Link features may be available even with other manufacturers’ equipment supporting HDMI CEC.

### Summary of Q-Link and VIERA Link features

#### Q-Link (SCART connection)

<table>
<thead>
<tr>
<th>Features</th>
<th>DVD Recorder / VCR with Q-Link function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preset download</td>
<td>☐</td>
</tr>
<tr>
<td>Easy playback</td>
<td>☐</td>
</tr>
<tr>
<td>Power on link</td>
<td>☐</td>
</tr>
<tr>
<td>Power off link</td>
<td>☐</td>
</tr>
<tr>
<td>Direct TV Recording</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Connection**

- Use fully wired SCART cable.
- Connect the DVD Recorder / VCR supporting Q-Link to the TV’s AV1 terminal via a SCART cable.

#### VIERA Link (HDMI connection)

<table>
<thead>
<tr>
<th>Features</th>
<th>DIGA Recorder with VIERA Link function</th>
<th>DVD Player / Blu-ray Disc Player with VIERA Link function</th>
<th>HD Video Camera / LUMIX Camera with VIERA Link function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preset download</td>
<td>☐*2 ☐*5</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Easy playback</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Power on link</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Power off link</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Reduce unnecessary power consumption in standby</td>
<td>☐*3</td>
<td>☐*3</td>
<td>–</td>
</tr>
<tr>
<td>Auto standby for unnecessary equipment</td>
<td>☐*3</td>
<td>☐*3</td>
<td>–</td>
</tr>
<tr>
<td>Pause Live TV programme</td>
<td>☐*2 ☐*4</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Direct TV Recording</td>
<td>☐*2</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Control the menu of the connected equipment by VIERA remote control</td>
<td>☐*1</td>
<td>☐*1</td>
<td>☐*1</td>
</tr>
<tr>
<td>Speaker control</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

**Connection**

- Use fully wired HDMI compliant cable.
- Connect the equipment supporting VIERA Link to the TV’s HDMI1, HDMI2 or HDMI3 terminal via an HDMI cable.
- About HDMI cable for connecting Panasonic HD Video Camera or LUMIX Camera, read the manual of the equipment.
VIERA Link (HDMI and Audio out connections)

<table>
<thead>
<tr>
<th>Features</th>
<th>Connected equipment</th>
<th>Player theatre with VIERA Link function</th>
<th>Blu-ray Disc theatre with VIERA Link function</th>
<th>Amplifier with VIERA Link function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preset download</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Easy playback</td>
<td>–</td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td>Power on link</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Power off link</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Reducuneccessary power consumption in standby</td>
<td>–</td>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
<tr>
<td>Auto standby for unnecessary equipment</td>
<td>–</td>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
<td><img src="image9.png" alt="Image" /></td>
</tr>
<tr>
<td>Pause Live TV programme</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Direct TV Recording</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Control the menu of the connected equipment by VIERA remote control</td>
<td>–</td>
<td><img src="image10.png" alt="Image" /></td>
<td><img src="image11.png" alt="Image" /></td>
<td><img src="image12.png" alt="Image" /></td>
</tr>
<tr>
<td>Speaker control</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

**Connection**

- To use Player theatre / Blu-ray Disc theatre:
  - Use fully wired HDMI compliant cable.
  - Connect the equipment supporting VIERA Link to the TV’s HDMI2 or HDMI3 terminal via an HDMI cable.
  - Use fully wired SCART cable.
  - If you use a SCART cable for audio output, connect the equipment supporting VIERA Link to the TV’s AV1 terminal and set [AV1 out] to [Monitor] in the Setup Menu (p. 30).
  - Use any one of the optical digital audio cable, RCA cable and SCART cable for audio output from the TV.

*1: Available with the equipment which has “HDAVI Control 2 or later” function.
*2: Available with the equipment which has “HDAVI Control 3 or later” function.
*3: Available with the equipment which has “HDAVI Control 4 or later” function.
*4: Available with DIGA Recorder which has HDD.
*5: This function is available regardless of the version of HDAVI Control when the recorder supports Q-Link and is connected via SCART cable.

VIERA Link Control of compatible equipment ([VIERA Link Control] p. 64)

- Table below displays maximum number of compatible equipment that can be controlled by VIERA Link Control.
  This includes connections to equipment already connected to the TV.
  For example, DIGA Recorder connected to Amplifier which is connected to the TV via an HDMI cable.

<table>
<thead>
<tr>
<th>Type of the equipment</th>
<th>Maximum number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorder (DIGA Recorder, etc.)</td>
<td>3</td>
</tr>
<tr>
<td>Player (DVD Player, Blu-ray Disc Player, HD Video Camera, LUMIX Camera, Digital Camera, Player theatre, Blu-ray Disc theatre, etc.)</td>
<td>3</td>
</tr>
<tr>
<td>Audio system (Player theatre, Blu-ray Disc theatre, Amplifier, etc.)</td>
<td>1</td>
</tr>
<tr>
<td>Tuner (Set top box, etc.)</td>
<td>4</td>
</tr>
</tbody>
</table>
Q-Link

Preparations
- Connect the DVD Recorder / VCR with the following logos:
  “Q-Link,” “NEXTVIEWLINK,” “DATA LOGIC (a trademark of Metz Corporation),” “Easy Link (a trademark of Philips Corporation),” “Megalogic (a trademark of Grundig Corporation),” “SMARTLINK (a trademark of Sony Corporation)”
- Q-Link connection (p. 58)
- Use fully wired SCART cable.
- Set up the DVD Recorder / VCR. Read the manual of the recorder.
- Q-Link terminal setup in the Setup Menu (AV1 out) (p. 30)
- Download preset - channel, language, country settings ➔ “Preset download” (see below)

Features available
Preset download
Channel, language, country settings can be downloaded to the recorder.
- DVB-C channel settings cannot be downloaded.
- To download settings ➔ [Download] (p. 30) or [Auto Setup] (p. 35) or “Auto Setup” - when first using the TV (p. 12, 13)

Direct TV Recording • What you see is What you record
Recording the current programme in DVD Recorder / VCR immediately.

<table>
<thead>
<tr>
<th>Picture source</th>
<th>Mode</th>
<th>Recording from</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analogue</td>
<td>TV</td>
<td>TV monitor out</td>
</tr>
<tr>
<td></td>
<td>AV</td>
<td>Recorder’s tuner</td>
</tr>
<tr>
<td>DVB</td>
<td>TV</td>
<td>TV monitor out</td>
</tr>
<tr>
<td>AV (watching recorder’s tuner)</td>
<td>AV</td>
<td>Recorder’s tuner</td>
</tr>
<tr>
<td>AV (watching recorder’s external input)</td>
<td>AV</td>
<td>Recorder’s external input</td>
</tr>
<tr>
<td>AV (watching TV’s external input)</td>
<td>AV</td>
<td>TV monitor out</td>
</tr>
</tbody>
</table>

- When Direct TV Recording is performed, the recorder is automatically turned on if it is in Standby mode.
- Changing channel or turning off the TV is available while the recorder is recording from its own tuner.
- Changing channel is not available while the recorder is recording from the TV tuner.

To stop recording
Unlock the tuner

Power on link and Easy playback
Set Power on Link [On] in the Setup Menu to use this function ➔ [Power on Link] (p. 30)
When DVD Recorder / VCR starts playback or direct navigator / function menu for the equipment are activated, the TV is turned on and input mode is switched automatically so that you can view the content. (Only when the TV is in Standby mode.)

Power off link
Set Power off Link [On] in the Setup Menu to use this function ➔ [Power off Link] (p. 30)
When TV is set to Standby mode, the recorder is also automatically set to Standby. (Only when the videocassette or disc is not active.)
- This function will work even if the TV enters Standby mode automatically by auto power standby function.

Note
- Some recorders are not applicable. Read the manual of the recorder.
This TV supports “HDAVI Control 5” function.
Connections to the equipment (DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI and SCART cables allow you to interface them automatically (p. 58, 59).

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 other manufacturers’ equipment supporting VIERA Link function.
- About applicable Panasonic equipment, consult your local Panasonic dealer.

Preparations
- Connect the equipment supporting VIERA Link.
- VIERA Link connection  (p. 58, 59)
- Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilized.

Recommended Panasonic’s HDMI cable part number:
- RP-CDHS15 (1.5 m)
- RP-CDHS30 (3.0 m)
- RP-CDHS50 (5.0 m)
- Use fully wired SCART cable.
- Set up the connected equipment. Read the manual of the equipment.
- For optimal recording, the settings of the recorder may need to be changed. For details, read the manual of the recorder.
- Download preset - channel, language, country / region settings  “Preset download” (see below)
- Set [VIERA Link] [On] in the Setup Menu  [VIERA Link] (p. 30)
- Set up the TV
  - After connection, turn the equipment on and then switch the TV on.
  - Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 23), 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

Preset download
Channel, language, country / region settings can be downloaded to the recorder.
- DVB-C channel settings cannot be downloaded.
- To download settings
  - [Download] (p. 30) or [Auto Setup] (p. 35) or “Auto Setup” - when first using the TV (p. 12, 13)

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

Power on link
Set Power on Link [On] in the Setup Menu to use this function  [Power on Link] (p. 30)
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 the Setup Menu to use this function  [Power off Link] (p. 30)
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 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. 30)
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 minimised.
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.
  * This function will work when [Power off Link] is set to [On].

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. 30)
When the TV is On, non-watched or non-used connected equipment goes into Standby mode automatically to reduce the power consumption. For example, when the input mode is switched from HDMI, when Speaker Selection is changed to [TV] (except for watching a disc).
  * If you select [On (With reminder)], the on screen message will be displayed to be noticed before working this function.
  * This function may not work properly depending on the connected equipment. If required, set to [Off].

Direct TV Recording - What you see is What you record [Direct TV Rec]

Recording the current programme in DIGA Recorder immediately.
  * If you connect a variety of recorders including other manufacturers’ recorders at the same time, please connect DIGA Recorder to the TV’s lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder to HDMI1.
  * If you cannot operate, check the settings and the equipment ⇒ “Summary of Q-Link and VIERA Link features” (p. 58, 59), “Preparations” (p. 61)
  * If you wish to record the programme which DIGA Recorder does not support, SCART connection is required and the programme is recorded by Q-Link function (p. 60).
  * Depending on the programme, SCART connection may be required to record.
  * Changing channel or turning off the TV is available while the recorder is recording from its own tuner.
  * Changing channel is not available while the recorder is recording from the TV tuner.

Display [VIERA Link Menu]

Select [Direct TV Rec] and start recording

To stop recording
Select [Stop] in [Direct TV Rec]

Unlock the tuner

Press EXIT to unlock and stop recording
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 a variety of recorders including other manufacturers’ recorders at the same time, please connect DIGA Recorder which has HDD to the TV’s lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder which has HDD to HDMI1.
- If you cannot operate, check the settings and the equipment
  “Summary of Q-Link and VIERA Link features” (p. 58, 59), “Preparations” (p. 61)

1. Display [VIERA Link Menu]

2. Select [Pause Live TV] and pause

   The TV picture will be paused.

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

- Live TV programme is recorded on HDD from where it was paused.
- If the paused TV picture disappears after a few minutes.
  OPTION
  (The paused picture will be restored)
- Follow the operation guide to operate Pause Live TV function.

To operate Pause Live TV

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

  - If you stop playback, the recorded programme will be deleted from HDD.

  Operations may be different depending on the recorder. In this case, follow the operation guide or read the manual of the recorder.

To return to Live TV

(Stop playback of Pause Live TV / cancel pause)

Select [Yes]

Pause Live TV

Stop Pause Live TV!

Yes No

- If you stop playback or cancel pause, the recorded programme will be deleted from HDD.
Control the menu of the connected equipment by VIERA remote control
[VIERA Link Control]

You can control some functions of the connected equipment with this TV remote control (point the remote control at the TV’s signal receiver).

- If you cannot operate, check the settings and the equipment
  ⇒ “Summary of Q-Link and VIERA Link features” (p. 58, 59), “Preparations” (p. 61)
- For details of the operations for the connected equipment, read the manual of the equipment.

1 Display [VIERA Link Menu]

2 Select [VIERA Link Control]

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

- You can also access directly by using VIERA TOOLS
  ⇒ “How to Use VIERA TOOLS” (p. 25)
- The displayed item may vary depending on the connected equipment.
  [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 menu of the equipment

Available VIERA remote control buttons:
(Depending on the connected equipment)

1 Set the code of the remote control to “73”
   ➨ “How to change the code for the type of the equipment” (p. 24)

2 Follow the operation guide
   • To display the operation guide
     OPTION

If other manufacturers’ equipment is accessed, Setup / Contents Selection menu may be displayed.

• When the key words are displayed on colour bar
  ■ (red) ■ (green) ■ (yellow) ■ (blue)

Note
• Some operations may not be available depending on the equipment. In this case use its own remote control to operate the equipment.

■ If multiple recorders or players are connected

The number is given from the TV’s lower HDMI terminal number connected to the same type equipment. For example, two recorders to HDMI2 and HDMI3, in this case the recorder connected to HDMI2 is displayed as [Recorder1], and the recorder connected to HDMI3 is displayed as [Recorder2].

■ If you access non-VIERA Link equipment

The type of the connected equipment is displayed. You can access the menu of the equipment. But you cannot operate it. Use its own remote control to operate the equipment.
Speaker control [Speaker Selection]

You can control the theatre speaker with this TV remote control (point the remote control at the TV’s signal receiver).

* If you cannot operate, check the settings and the equipment

“Summary of Q-Link and VIERA Link features” (p. 58, 59), “Preparations” (p. 61)

1. Display [VIERA Link Menu]

2. Select [Speaker Selection]

<table>
<thead>
<tr>
<th>VIERA Link Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pause Live TV</td>
</tr>
<tr>
<td>Direct TV Rec</td>
</tr>
<tr>
<td>VIERA Link Control</td>
</tr>
<tr>
<td>Speaker selection</td>
</tr>
</tbody>
</table>

3. Set to [Home Cinema] or [TV]

   [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

   * Mute

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

   [TV]
   TV speakers are active.

Multi-channel sound

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. 59), and then select [Home Cinema]. If your Amplifier has “HDAVI Control 5” function, you can connect only with HDMI cable. In this case, connect your Amplifier to the TV’s HDMI2 terminal.

To enjoy the sound from the DIGA Recorder in multi-channel sound, connect an HDMI cable from the DIGA Recorder to the Amplifier (p. 59).

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.
* 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.
* “HDAVI Control 5” is the newest standard (current as of December, 2010) 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. 33)
External Equipment

These diagrams show our recommendations for connection of your TV to various pieces of equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 77, 78).

Types of connectable equipment to each terminal

<table>
<thead>
<tr>
<th>Recording / Playback (equipment)</th>
<th>AV1</th>
<th>AV2</th>
<th>COMPONENT</th>
<th>AUDIO OUT</th>
<th>DIGITAL AUDIO OUT</th>
<th>HDMI 1 - 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>To record / playback videocassettes / DVDs (VCR / DVD Recorder)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To watch satellite broadcasts (Set top box)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To watch DVDs (DVD Player)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To watch camcorder images (Video camera)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To play games (Game equipment)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To use amplifier with speaker system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q-Link</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIERA Link (with HDMI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct TV Recording</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

○ : Recommended Connection
*1 : Use HDMI1 for automatic input switching.
*2 : Use HDMI2 for connecting an amplifier. This connection is applicable when using an amplifier that has ARC (Audio Return Channel) function.

To record / playback

To watch satellite broadcasts

Rear of the TV

Terrestrial aerial

Fully wired SCART cable

DVD Recorder / VCR

Set top box

Fully wired SCART cable

Fully wired HDMI compliant cable
To watch DVDs

- HDMI connection (p. 72)

HDMI equipment

- Fully wired HDMI compliant cable

To listen with speakers

- Optical digital audio cable
- RCA cable

To enjoy the sound from the external equipment in multi-channel sound (e.g. Dolby Digital 5.1ch), connect the equipment to the amplifier. For the connections, read the manuals of the equipment and amplifier.

PC

- Conversion adapter (if necessary)

- PC connection (p. 74)
External Equipment

Rear of the TV

Side panel of the TV

Camcorder / Game equipment

Camcorder

Game equipment

Headphones

(M3 stereo mini plug)

- To adjust volume
  - [Headphone Volume] (p. 28)
Technical Information

Auto Aspect

The optimum size and aspect can be chosen automatically, and you can enjoy finer images. (p. 17)

Aspect Control Signal

[WIDE] will appear in the top left of the screen if a Widescreen signal (WSS) or a Control signal through SCART / HDMI terminal is found.

The aspect will switch to the appropriate 16:9 or 14:9 widescreen ratio.

This function will work in any aspect mode.

<table>
<thead>
<tr>
<th>Input terminal</th>
<th>Input signal format</th>
<th>Aspect Control Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVB-C</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>DVB-T</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>PAL B, G, H, I</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>PAL D, K</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>SECAM B, G</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>SECAM L, L’</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>SECAM D, K</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>PAL 525/60 6.5 MHz</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>PAL 525/60 6.0 MHz</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>PAL 525/60 5.5 MHz</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>M.NTSC 6.5 MHz</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>M.NTSC 6.0 MHz</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>M.NTSC 5.5 MHz</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>PAL</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>SECAM</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>PAL 525/60</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>M.NTSC</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>NTSC</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>525 (480) / 60i, 60p</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>625 (576) / 50i, 50p</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>750 (720) / 60p, 50p</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>1,125 (1,080) / 60i, 50i</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>525 (480) / 60i, 60p</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>625 (576) / 50i, 50p</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>750 (720) / 60p, 50p</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>1,125 (1,080) / 60i, 50i</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>1,125 (1,080) / 60p, 50p, 24p</td>
<td></td>
<td>[ ]</td>
</tr>
</tbody>
</table>

Auto mode

Auto mode determines the best aspect ratio to fill the screen. It does this using a four step process (WSS, Control signal through SCART / HDMI terminal, Letterbox detection, or Justify to fill the screen) to determine.

This process may take several minutes, depending on the darkness of the image.

Letterbox detection:
If black bands at the top and bottom of the screen are detected, Auto mode chooses the best ratio and expands the image to fill the screen.
If no aspect signals are detected, Auto mode enhances the image for optimum viewing pleasure.

Note

- The ratio varies depending on the programme, etc. If the ratio is out of the standard 16:9, black bands at the top and bottom of the screen may appear.
- If the screen size looks unusual when a widescreen-recorded programme is played back on a VCR, adjust the tracking of the VCR. Read the manual of the VCR.
**SD Card**

Card format: SDXC Card - exFAT  
SDHC Card / SD Card - FAT16 or FAT32

Compliant card type (maximum capacity): SDXC Card (64 GB), SDHC Card (32 GB), SD Card (2 GB), miniSD Card (2 GB) (requiring miniSD adaptor)

- If miniSD Card is used, insert / remove it together with the adaptor.
- Check the latest information on the card type at the following website. (English only)  
  http://panasonic.jp/support/global/cs/tv/
- Use an SD Card which meets SD standards. If not, it may cause the TV to malfunction.
- 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.)

**Supported file format in Media Player**

### Photo

<table>
<thead>
<tr>
<th>Format</th>
<th>File extension</th>
<th>Image resolution (pixel)</th>
<th>Details / Restrictions</th>
</tr>
</thead>
</table>
| JPEG     | .jpg           | 8 × 8 to 30,719 × 17,279  | DCF*¹ and EXIF*² standards  
            |                 |                          | Sub-sampling: 4:4:4, 4:2:2, 4:2:0  
            |                 |                          | Progressive JPEG is not supported. |

*¹: Design rule for Camera File system - unified standard established by Japan Electronics and Information Technology Industries Association (JEITA)  
*²: Exchangeable Image File - image file format used by digital cameras

### Video

<table>
<thead>
<tr>
<th>Container</th>
<th>File extension</th>
<th>Video codec</th>
<th>Audio codec</th>
<th>Details / Restrictions</th>
</tr>
</thead>
</table>
| SD-Video   | .mod           | MPEG1       | MPEG        | SD-Video Standard Ver. 1.3 (Entertainment Video Profile)  
            |                | MPEG2       | Dolby Digital          | The data may not be available if a folder structure on the SD Card is modified. |
| AVCHD      | .mts           | H.264       | Dolby Digital | AVCHD Standard  
            |                |             |                          | The data may not be available if a folder structure on the SD Card is modified. |
| MP4        | .mp4           | H.264 BP / MP / HP | AAC | This TV supports this container recorded by Panasonic products. For details, read the manual of the products. |
| MOV        | .mov           | MotionJPEG  | Linear PCM (RAW / TWOS / SOWT) AAC | This TV supports Motion JPEG recorded by Panasonic LUMIX Camera*³. |
|            |                | H.264 BP / MP / HP | MP3  | Dolby Digital          |

*³: Some products of before the year 2004 may not be available. The compatibility with future products is not guaranteed.

### Music

<table>
<thead>
<tr>
<th>Codec</th>
<th>File extension</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP3</td>
<td>.mp3</td>
<td>–</td>
</tr>
<tr>
<td>AAC</td>
<td>.m4a</td>
<td>Copy-protected files cannot be played back.</td>
</tr>
</tbody>
</table>

**Note**

- Some files may not be played back even if they fulfill these conditions.
- Do not use two-byte characters or other special codes for data.
- The card may become unusable with this TV if the file or folder names are changed.
Characters table for numeric buttons

You can enter characters by using numeric buttons for free input items.

User input

Name

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>P</td>
<td>Q</td>
<td>R</td>
<td>S</td>
<td>T</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>_</td>
<td>*</td>
<td>+</td>
<td>-</td>
<td>.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Press the numeric button repeatedly until you reach the desired character.

- The character is set automatically if you leave for 1 second.
- You can also set the character by pressing the OK button or other numeric buttons within 1 second.

Characters table:

<table>
<thead>
<tr>
<th>Numeric buttons</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>!</td>
<td>:</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>a</td>
<td>b</td>
<td>c</td>
<td>d</td>
<td>e</td>
<td>f</td>
<td>g</td>
<td>h</td>
<td>i</td>
<td>j</td>
<td>k</td>
</tr>
<tr>
<td>3</td>
<td>m</td>
<td>n</td>
<td>o</td>
<td>p</td>
<td>q</td>
<td>r</td>
<td>t</td>
<td>u</td>
<td>v</td>
<td>w</td>
<td>x</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HDMI connection

HDMI (high-definition multimedia interface) is the world’s first complete digital consumer AV interface complying with a non-compression standard.

HDMI allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment. HDMI-compatible equipment* with an HDMI or DVI output terminal, such as a DVD player, a set top box or a game equipment, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable.

About connections, see “External Equipment” (p. 67).

Applicable HDMI features

- **Input audio signal:**
  2ch Linear PCM (sampling frequencies - 48 kHz, 44.1 kHz, 32 kHz)

- **Input video signal:**
  480i, 480p, 576i, 576p, 720p, 1080i and 1080p

- **Input signal that can be displayed** (p. 73)
  Match the output setting of the digital equipment.

- **Input PC signal:**
  **Input signal that can be displayed** (p. 73)
  Match the output setting of the PC.

DVI connection

If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adaptor cable*. When the DVI to HDMI adaptor cable is used, connect the audio cable to the audio input terminal (use AV2 audio terminals).

Note

- Audio settings can be made on the [HDMI1 / 2 / 3 Input] in the Sound Menu. (p. 30)
- 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.
- Equipment having no digital output terminal may be connected to the input terminal of “COMPONENT” or “VIDEO” to receive analogue signals.
- This TV incorporates HDMI™ technology.

*1: The HDMI logo is displayed on HDMI-compliant equipment.
*2: Audio Return Channel (ARC) is a function to be able to send digital sound signals via an HDMI cable.
*3: Enquire at your local digital equipment retailer shop.
Input signal that can be displayed

**COMPONENT (Y, Pr, Pr), HDMI**

<table>
<thead>
<tr>
<th>Signal name</th>
<th>COMPONENT</th>
<th>HDMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>525 (480) / 60i, 60p</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>625 (576) / 50i, 50p</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>750 (720) / 60p, 50p</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>1,125 (1,080) / 60i, 50i</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>1,125 (1,080) / 60p, 50p, 24p</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Mark : Applicable input signal

**PC (from D-sub terminal)**

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

Applicable input signal for PC is basically compatible to VESA standard timing.

**PC (from HDMI terminal)**

<table>
<thead>
<tr>
<th>Signal name</th>
<th>Horizontal frequency (kHz)</th>
<th>Vertical frequency (Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>640 × 480 @60 Hz</td>
<td>31.47</td>
<td>60.00</td>
</tr>
<tr>
<td>750 (720) / 60p</td>
<td>45.00</td>
<td>60.00</td>
</tr>
<tr>
<td>1,125 (1,080) / 60p</td>
<td>67.50</td>
<td>60.00</td>
</tr>
</tbody>
</table>

Applicable input signal for PC is basically compatible to HDMI standard timing.

**Note**

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.
### SCART and HDMI terminal information

#### AV1 SCART terminal (RGB, VIDEO, Q-Link)

- **Socket Earth**: 21
- **CVBS out (video)**: 19
- **CVBS earth**: 17
- **Red in**: 15
- **Red earth**: 13
- **Green in**: 11
- **Green earth**: 9
- **Blue in**: 7
- **Blue earth**: 5
- **Audio out (L)**: 3
- **Audio out (R)**: 1

#### HDMI terminal

- **Hot Plug Detect**: 19
- **DDC/CEC Ground**: 17
- **SCL**: 15
- **CEC**: 13
- **TMDS Clock Shield**: 11
- **TMDS Data0−**: 9
- **TMDS Data0+**: 7
- **TMDS Data1 Shield**: 5
- **TMDS Data2−**: 3
- **TMDS Data2+**: 1
- **+5V Power**: 18
- **SDA**: 16
- **Utility**: 14
- **TMDS Clock−**: 12
- **TMDS Clock+**: 10
- **TMDS Data0 Shield**: 8
- **TMDS Data1−**: 6
- **TMDS Data1+**: 4
- **TMDS Data2 Shield**: 2

#### 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 a PC, set the colour display quality of PC to the highest position.
- For details of the applicable PC signals refer to "Input signal that can be displayed" (p. 73)

**Max. display resolution**

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

**D-sub 15-pin connector signal**

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Signal Name</th>
<th>Pin No.</th>
<th>Signal Name</th>
<th>Pin No.</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>①</td>
<td>R</td>
<td>⑥</td>
<td>GND (Ground)</td>
<td>⑫</td>
<td>NC (not connected)</td>
</tr>
<tr>
<td>②</td>
<td>G</td>
<td>⑦</td>
<td>GND (Ground)</td>
<td>⑬</td>
<td>NC (not connected)</td>
</tr>
<tr>
<td>③</td>
<td>B</td>
<td>⑧</td>
<td>GND (Ground)</td>
<td>⑭</td>
<td>HD (HSYNC)</td>
</tr>
<tr>
<td>④</td>
<td>NC (not connected)</td>
<td>⑨</td>
<td>NC (not connected)</td>
<td>⑮</td>
<td>VD (VSYNC)</td>
</tr>
<tr>
<td>⑤</td>
<td>GND (Ground)</td>
<td>⑩</td>
<td>GND (Ground)</td>
<td>⑯</td>
<td>NC (not connected)</td>
</tr>
</tbody>
</table>
**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.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Resolution</th>
</tr>
</thead>
</table>
| Block noise, frozen or disappearing image occurs in DVB mode / White spots or shadow image (ghosting) occurs in Analogue mode / Some channels cannot be tuned | - Check the position, direction and connection of the aerial.  
- Check [Signal Condition] (p. 38). If [Signal Quality] is displayed in red, the DVB signal is weak.  
- Weather conditions will affect signal reception (heavy rain, snow, etc.), in particular in poor reception areas. Even during good weather, the high pressure can cause poor reception of some channels.  
- Due to the digital reception technologies involved, quality of the digital signals may be relatively low in some cases, despite good reception of analogue channels.  
- Turn the TV off with the Mains power On / Off switch, and then on again.  
- If problem persists, consult your local dealer or service provider for the availability of services. |
| No programmes shown on TV Guide                                      | - Check the digital transmitter.  
- Adjust the direction of the aerial to another transmitter installed nearby.  
- Check the analogue broadcast. If the image quality is poor, check the aerial and consult your local dealer. |
| Neither image nor sound is produced                                  | - Is the TV in AV mode?  
- Check the correct input mode is selected.  
- Check the mains lead is plugged into the socket outlet and the TV is turned on.  
- Check the Picture Menu (p. 27, 28) and volume.  
- Check all required cables and connections are firmly in place. |
| Auto aspect                                                          | - Auto aspect is designed to provide you with the best ratio to fill the screen. \( \text{⇒ (p. 70)} \)  
- Press the ASPECT button if you would like to change the aspect ratio manually. \( \text{⇒ (p. 17)} \) |
| Black and white picture                                              | - Check that the output of the external equipment matches the input of the TV.  
- When connecting with SCART, ensure the output setting of the external equipment is not S-Video. |
| Input mode, i.e. EC/AV1 remains on the screen                        | - Press the £ button to clear these.  
- Press again to redisplay. |
| Q-Link function does not work                                        | - Confirm SCART cable and connection.  
- Also set [AV1 out] in the Setup Menu. \( \text{⇒ (p. 30)} \) |
| [VIERA Link] function does not work and an error message appears    | - Confirm the connection. \( \text{⇒ (p. 58, 59)} \)  
- Turn the connected equipment on and then switch the TV on. \( \text{⇒ (p. 61)} \) |
| Recording does not start immediately                                 | - Check the settings of the recorder. For details, read the manual of the recorder. |
| There may be red spots, blue spots, green spots and black spots on the screen | - This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of red, green, blue or black.  
- Please note this does not affect the performance of your LCD. |
<table>
<thead>
<tr>
<th>Problem</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chaotic image, noisy</td>
<td>• Set [P-NR] in the Picture Menu (to remove noise). ➞ (p. 27)</td>
</tr>
<tr>
<td></td>
<td>• Check nearby electrical products (car, motorcycle, fluorescent lamp).</td>
</tr>
<tr>
<td>No image can be displayed</td>
<td>• Is [Contrast], [Brightness] or [Colour] in the Picture Menu set to the minimum? ➞ (p. 27)</td>
</tr>
<tr>
<td>Blurry or distorted image</td>
<td>• Reset channels. ➞ (p. 34, 35)</td>
</tr>
<tr>
<td>(no sound or low volume)</td>
<td></td>
</tr>
<tr>
<td>Unusual image is displayed</td>
<td>• Turn the TV Off with Mains power On / Off switch, then turn it On again.</td>
</tr>
<tr>
<td></td>
<td>• If the problem persists, initialise all settings ➞ [Shipping Condition] (p. 47)</td>
</tr>
<tr>
<td>No sound is produced</td>
<td>• Is “Sound mute” active? ➞ (p. 8)</td>
</tr>
<tr>
<td></td>
<td>• Is the volume set to the minimum?</td>
</tr>
<tr>
<td>Sound level is low or sound is distorted</td>
<td>• Sound signal reception may be deteriorated.</td>
</tr>
<tr>
<td></td>
<td>• Set [MPX] (p. 29) in the Sound Menu to [Mono]. (Analogue only)</td>
</tr>
<tr>
<td>Sound is unusual</td>
<td>• Set the sound setting of the connected equipment to “2ch LPCM”.</td>
</tr>
<tr>
<td></td>
<td>• Check the [HDMI1 / 2 / 3 Input] setting in the Sound Menu. ➞ (p. 30)</td>
</tr>
<tr>
<td></td>
<td>• If digital sound connection has a problem, select analogue sound connection. ➞ (p. 72)</td>
</tr>
<tr>
<td>Pictures from external equipment are unusual when the equipment is</td>
<td>• Check the HDMI cable is connected properly. ➞ (p. 67)</td>
</tr>
<tr>
<td>connected via HDMI</td>
<td>• Turn the TV and equipment Off, then turn them On again.</td>
</tr>
<tr>
<td></td>
<td>• Check an input signal from the equipment. ➞ (p. 73)</td>
</tr>
<tr>
<td></td>
<td>• Use equipment compliant with EIA/CEA-861/861D.</td>
</tr>
<tr>
<td>The TV does not switch On</td>
<td>• Check the mains lead is plugged into the socket outlet.</td>
</tr>
<tr>
<td>The TV goes into Standby mode</td>
<td>• Auto power standby function is activated. ➞ (p. 9)</td>
</tr>
<tr>
<td></td>
<td>• The TV enters Standby mode about 30 minutes after analogue broadcasting ends.</td>
</tr>
<tr>
<td>The remote control does not work or is intermittent</td>
<td>• Are the batteries installed correctly? ➞ (p. 6)</td>
</tr>
<tr>
<td></td>
<td>• Has the TV been switched On?</td>
</tr>
<tr>
<td></td>
<td>• The batteries may be running low. Replace them.</td>
</tr>
<tr>
<td></td>
<td>• Point the remote control directly at the front of the TV (within about 7 m and a 30 degree angle of the front of the TV).</td>
</tr>
<tr>
<td></td>
<td>• Situate the TV away from sunshine or other sources of bright light not to shine on the TV’s remote control signal receiver.</td>
</tr>
<tr>
<td>Parts of the TV become hot</td>
<td>• Even when the temperature of parts of the front, top and rear panels has risen, these temperature rises will not pose any problems</td>
</tr>
<tr>
<td></td>
<td>in terms of performance or quality.</td>
</tr>
<tr>
<td>The LCD panel moves slightly when it is pushed with a finger</td>
<td>• There is some flexibility around the panel to prevent damage to the panel.</td>
</tr>
<tr>
<td>Clattered sound might be heard</td>
<td>• The panel might move slightly when it is pushed with a finger, and clattered sound might be heard. This is not a malfunction.</td>
</tr>
<tr>
<td>An error message appears</td>
<td>• Follow the message’s instructions.</td>
</tr>
<tr>
<td></td>
<td>• If the problem persists, contact your local Panasonic dealer or the authorized Service Centre.</td>
</tr>
</tbody>
</table>
# Specifications

<table>
<thead>
<tr>
<th>TX-L32E3E</th>
<th>TX-L37E3E</th>
<th>TX-L42E3E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Source</strong></td>
<td>AC 220-240 V, 50Hz</td>
<td></td>
</tr>
<tr>
<td><strong>Rated Power Consumption</strong></td>
<td>56 W</td>
<td>75 W</td>
</tr>
<tr>
<td><strong>Standby Power Consumption</strong></td>
<td>0.25 W</td>
<td>0.25 W</td>
</tr>
<tr>
<td></td>
<td>10.0 W (With monitor out recording)</td>
<td>10.0 W (With monitor out recording)</td>
</tr>
<tr>
<td><strong>Dimensions (W × H × D)</strong></td>
<td>769 mm × 508 mm × 230 mm (With Pedestal) 769 mm × 480 mm × 75 mm (TV only)</td>
<td>891 mm × 583 mm × 260 mm (With Pedestal) 891 mm × 548 mm × 75 mm (TV only)</td>
</tr>
<tr>
<td><strong>Mass</strong></td>
<td>12.0 kg Net (With Pedestal) 9.5 kg Net (TV only)</td>
<td>14.5 kg Net (With Pedestal) 12.0 kg Net (TV only)</td>
</tr>
<tr>
<td><strong>Aspect Ratio</strong></td>
<td>16:9</td>
<td></td>
</tr>
<tr>
<td><strong>Visible screen size</strong></td>
<td>80 cm (diagonal) 697 mm (W) × 392 mm (H)</td>
<td>94 cm (diagonal) 819 mm (W) × 460 mm (H)</td>
</tr>
<tr>
<td><strong>Number of pixels</strong></td>
<td>2,073,600 (1,920 (W) × 1,080 (H))</td>
<td></td>
</tr>
<tr>
<td><strong>Speaker</strong></td>
<td>(160 mm × 42 mm) × 2, 8 Ω</td>
<td></td>
</tr>
<tr>
<td><strong>Audio Output</strong></td>
<td>20 W (10 W + 10 W), 10% THD</td>
<td></td>
</tr>
<tr>
<td><strong>Headphones</strong></td>
<td>M3 (3.5 mm) stereo mini Jack × 1</td>
<td></td>
</tr>
<tr>
<td><strong>PC signals</strong></td>
<td>VGA, SVGA, WVGA, XGA SXGA, WXGA ...... (compressed) Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz</td>
<td></td>
</tr>
<tr>
<td><strong>Receiving Systems / Band name</strong></td>
<td>PAL B, G, H, I, SECAM B, G, SECAM L, L’ VHF E2 - E12 VHF A - H (ITALY) CATV (S01 - S05) CATV S11 - S20 (U1 - U10) PAL D, K, SECAM D, K VHF R1 - R2 VHF R3 - R5 PAL 525/60 Playback of NTSC tape from some PAL Video recorders (VCR) M.NTSC Playback from M.NTSC Video recorders (VCR) NTSC (AV input only) Playback from NTSC Video recorders (VCR) DVB-T Digital terrestrial services (MPEG2 and MPEG4-AVC(H.264)) DVB-C Digital cable services (MPEG2 and MPEG4-AVC(H.264))</td>
<td>VHF H1 - H2 (ITALY) UHF E21 - E69 CATV S1 - S10 (M1 - M10) CATV S21 - S41 (Hyperband) VHF R6 - R12 UHF E21 - E69</td>
</tr>
<tr>
<td><strong>Aerial input</strong></td>
<td>VHF / UHF</td>
<td></td>
</tr>
<tr>
<td><strong>Operating Conditions</strong></td>
<td><strong>Temperature</strong>: 0 °C - 35 °C  <strong>Humidity</strong>: 20 % - 80 % RH (non-condensing)</td>
<td></td>
</tr>
<tr>
<td>Connection Terminals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td><strong>AV1 (SCART)</strong></td>
<td>21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, Q-Link)</td>
<td></td>
</tr>
<tr>
<td>AV2 input</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VIDEO</strong></td>
<td>RCA PIN Type × 1 1.0 V[p-p] (75 Ω)</td>
<td></td>
</tr>
<tr>
<td><strong>AUDIO L - R</strong></td>
<td>RCA PIN Type × 2 0.5 V[rms]</td>
<td></td>
</tr>
<tr>
<td>COMPONENT input</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Y</strong></td>
<td>1.0 V[p-p] (including synchronization)</td>
<td></td>
</tr>
<tr>
<td><strong>PB, PR</strong></td>
<td>±0.35 V[p-p]</td>
<td></td>
</tr>
<tr>
<td>HDMI 1 / 2 / 3 input</td>
<td>TYPE A Connectors</td>
<td></td>
</tr>
<tr>
<td><strong>HDMI2</strong></td>
<td>HDMI (Version 1.4 with Audio Return Channel), This TV supports “HDAVI Control 5” function.</td>
<td></td>
</tr>
<tr>
<td>PC</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HIGH-DENSITY D-SUB 15PIN</strong></td>
<td>R,G,B/0.7 V[p-p] (75 W)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HD, VD/TTL Level 2.0 - 5.0 V[p-p] (high impedance)</td>
<td></td>
</tr>
<tr>
<td>Card slot</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SD Card slot × 1</strong></td>
<td>Common Interface slot (complies with CI Plus) × 1</td>
<td></td>
</tr>
<tr>
<td>AUDIO IN</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RCA PIN Type × 2</strong></td>
<td>0.5 V[rms]</td>
<td></td>
</tr>
<tr>
<td>AUDIO OUT</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RCA PIN Type × 2</strong></td>
<td>0.5 V[rms] (high impedance)</td>
<td></td>
</tr>
<tr>
<td>DIGITAL AUDIO OUT</td>
<td>PCM / Dolby Digital / DTS, Fiber optic</td>
<td></td>
</tr>
</tbody>
</table>

**Note**
- Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.
- This equipment complies with the EMC standards listed below.
  - EN55013, EN61000-3-2, EN61000-3-3, EN55020, EN55022, EN55024
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By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

[Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

Note for the battery symbol (bottom two symbol examples):
This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

Declaration of Conformity (DoC)
Authorized Representative:
Panasonic Testing Centre
Panasonic Marketing Europe GmbH
Winsbergring 15, 22525 Hamburg, Germany

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

Panasonic Corporation
Web Site: http://panasonic.net

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