

PLASMA TV OWNER'S MANUAL

PLASMA TV MODELS

42PQ10**42PQ60**50PQ10**50PQ60**42PQ11**50PS20**50PQ11**50PS30**42PQ20**50PS60**50PQ20**60PS40**42PQ30**50PQ30**

Please read this manual carefully before operating your TV.

Retain it for future reference.

Record the model number and serial number of the TV.

Refer to the label on the back cover and quote this information.

To your dealer when requiring any service.

Model : Serial No. :



This product qualifies for ENERGY STAR in the "factory default (Home Use mode)" setting and this is the setting in which power savings will be achieved.

Changing the factory default picture setting or enabling other features will increase power consumption that could exceed the limits necessary to qualify for Energy Star rating.

Digital Video Broadcasting

Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996)

ID Number(s): 6551 : 42PQ1000-ZA 6549 : 50PQ1000-ZA 6630:42PO1000-ZD 6631 : 50PQ1000-ZD 6632:42PQ1100-ZE 6633 : 50PQ1100-ZE 6023: 42PQ2000-ZA 6320: 42PQ2010-ZB 6024: 50PO2000-ZA 6319 : 50PQ2010-ZB 6025: 42PQ3000-ZA 6020: 50PQ3000-ZA 6026: 42PQ6000-ZA 6875:42PQ6010-ZB 6029: 50PO6000-ZA 6884 : 50PS2000-ZB 6322 : 50PS3000-ZB 6341: 50PS6000-ZC 6609 : 60PS4000-ZA



HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

ACCESSORIES

ACCESSORIES

Ensure that the following accessories are included with your TV. If an accessory is missing, please contact the dealer where you purchased the TV.

Image shown may differ from your TV.



The closer the location of the ferrite core to the power plug, the better it is.

CONTENTS

PREPARATION

EXTERNAL EQUIPMENT SETUP

HD Receiver Setup 11
DVD Setup 13
VCR Setup 16
Insertion of CI Module 19
Digital Audio Out Setup 19
Other A/V Source Setup
Usb Setup
PC Setup
- Screen Setup for PC Mode24

WATCHING TV / PROGRAMME CONTROL

Remote Control Key Functions
Turning on the TV $\hdots 12$
Initializing setup
Programme Selection
Volume Adjustment
Quick Menu
On-Screen Menus Selection and Adjustment34
Auto Programme Tuning
Manual Programme Tuning (In Digital Mode)36
Manual Programme Tuning (In Analogue Mode) 37
Programme Edit 39
Software Update
Diagnostics
CI[COMMON INTERFACE] INFORMATION 44

Selecting the Programme Table
Input List
Ś) мрцпк
Data Service49
Input Label
AV Mode
Simple manual
Initializing (Reset to original factory settings)52

TO USE A USB DEVICE

When connecting a USB device	53
Photo List	54
Music List	58
Movie List	61
DivX Registration Code	.65
Deactivation	.66

EPG (ELECTRONIC PROGRAMME GUIDE) (IN DIGITAL MODE)

- Switch on/off EPG 67
- Select Programme 67
- Button Function in NOW/NEXT Guide Mode . 68
- Button Function in 8 Day Guide Mode 68
- Button Function in Date Change Mode 69
- Button Function in Extended Description Box 69
- Button Function in Record/Remind Setting Mode . 70

- Button Function in Schedule List Mode 70

PICTURE CONTROL

Picture Size (Aspect Ratio) Control
Preset Picture Settings
- Picture Mode-Preset
Manual Picture Adjustment
- Picture Mode-User option75
Picture Improvement Technology
Expert Picture Control78

Picture Reset	
Image Sticking Minimization (ISM) Method 82) -
Demo Mode83	;
Mode Setting84	ŀ

SOUND & LANGUAGE CONTROL

Auto Volume Leveler85
Preset Sound Settings - Sound Mode
Sound Setting Adjustment -User Mode 87
SRS TruSurround XT87
Clear Voice II
Balance
TV Speakers On/ Off Setup
Selecting Digital Audio Out
Audio Reset
Audio description92
1/11
- Stereo/Dual Reception (In Analogue Mode Only) 93
- NICAM Reception (In Analogue Mode Only)94
- Speaker Sound Output Selection94
On-Screen Menu Language/Country Selection95

TIME SETTING

Clock Setup	97
Auto On/ Off Timer Setting	98
Sleep Timer Setting	99

Language Selection (In Digital Mode only) 96

PARENTAL CONTROL /34

RATINGS

Set Password & Lock System	100
Block Programme	101
Parental Control	102
Input Block	103
Key Lock	104

TELETEXT

Switch on/off	105
SIMPLE Text	105
ГОР Техt	105
ASTEXT	106
Special Teletext Functions	106

DIGITAL TELETEXT

Teletext within Digital Service	107
Teletext in Digital Service	107

APPENDIX

Troubleshooting	108
Maintenance	110
Product Specifications	111
R Codes	113
External Control Device Setup	114

PREPARATION

FRONT PANEL CONTROLS

Image shown may differ from your TV.

A CAUTION

▶ When the TV cannot be turned on with the remote control, press the main power button on the TV (When the power is turned off with the main power button on the TV, it will not be turned on with the remote control.)

42/50PQ11**, 42/50PQ30**, 50PS30**



42/50PQ10**, 42/50PQ20**, 50PS20**



42/50PQ60**, 50PS60**



60PS40**



PREPARATION

BACK PANEL INFORMATION

■ Image shown may differ from your TV.

42/50PQ10**, 42/50PQ11**



- Power Cord Socket This TV operates on an AC power. The voltage is
 - indicated on the Specifications page. Never attempt to operate the TV on DC power.
- OPTICAL DIGITAL AUDIO OUT Connect digital audio to various types of equipment. Connect to a Digital Audio Component. Use an Optical audio cable.
- Seuro Scart Socket (AV1/AV2) Connect scart socket input or output from an external device to these jacks.
- HDMI Input
 Connect an HDMI signal to HDMI IN.

SRS-232C IN (CONTROL & SERVICE) PORT Connect to the RS-232C port on a PC. This port is used for Service or Hotel mode.

 Antenna Input Connect RF antenna to this jack.

- PCMCIA (Personal Computer Memory Card International Association) Card Slot Insert the CI Module to PCMCIA CARD SLOT. (This feature is not available in all countries.)
- **8** SERVICE ONLY PORT

42/50PQ20**, 42/50PQ30**, 42/50PQ60**, 50PS20**, 50PS30**, 50PS60**, 60PS40**



Power Cord Socket
This TV aparatas on an A

This TV operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the TV on DC power.

- 2 RGB/DVI Audio Input Connect the audio from a PC or DTV.
- OPTICAL DIGITAL AUDIO OUT Connect digital audio to various types of equipment. Connect to a Digital Audio Component. Use an Optical audio cable.
- Euro Scart Socket (AV1/AV2)
 Connect scart socket input or output from an external device to these jacks.
- HDMI Input Connect an HDMI signal to HDMI IN. Or DVI (VIDEO) signal to HDMI/DVI port with DVI to HDMI cable.
- 6 RGB Input Connect the output from a PC.

- RS-232C IN (CONTROL & SERVICE) PORT Connect to the RS-232C port on a PC. This port is used for Service or Hotel mode.
- Component Input Connect a component video/audio device to these jacks.
- Antenna Input Connect RF antenna to this jack.
- PCMCIA (Personal Computer Memory Card International Association) Card Slot Insert the CI Module to PCMCIA CARD SLOT. (This feature is not available in all countries.)
- USB Input Connect USB storage device to this jack.
- Audio/Video Input
 Connect audio/video output from an external device to these jacks.
 S-Video Input

Connect S-Video out from an S-VIDEO device.

PREPARATION

STAND INSTALLATION

(Except for 60PS40**)

- Image shown may differ from your TV.
- When assembling the desk type stand, check whether the bolt is fully tightened. (If not tightened fully, the product can tilt forward after the product installation.) If you tighten the bolt with excessive force, the bolt can deviate from abrasion of the tightening part of the bolt.

Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



Assemble the TV as shown.





Fix the 4 bolts securely using the holes in the back of the TV.



NOTE
 When assembling the stand, make sure to distinguish and assemble the front and rear side of the stand correctly.

DESKTOP PEDESTAL INSTALLATION

For adequate ventilation allow a clearance of 4" (10cm) all around the TV.



BACK COVER FOR WIRE ARRANGEMENT

Image shown may differ from your TV.
 After Connecting the cables as necessary, install
 CABLE HOLDER as shown and bundle the cables.



Only 60PS40**

Install the CABLE MANAGEMENT CLIP as shown.



How to remove the cable management clip

Hold the **CABLE MANAGEMENT CLIP** with both hands and pull it upward.



- ► Do not use the **CABLE MANAGEMENT CLIP** to lift the TV.
 - If the TV is dropped, you may be injured or the TV may be damaged.

NOT USING THE DESK-TYPE STAND

Image shown may differ from your TV. When installing the wall-mounted unit, use the protection cover. Insert the **PROTECTION COVER** into the TV until clicking sound.



protection cover

CAREFUL INSTALLATION ADVICE

- You should purchase necessary components to fix the TV safety and secure to the wall from the market.
- Position the TV close to the wall from the market.
 Position the TV close to the wall to avoid the possibility of it falling when pushed.
 The instructions shown below are a safer way to set up the TV, by fixing it to the wall, avoiding the possibility of it falling forwards if pulled. This will prevent the TV from falling forward and causing injury. This will also prevent the TV from damage. Ensure that children do not climb or hang from the TV.



Use the eye-bolts or TV brackets/bolts to fix the product to the wall as shown in the picture. (If your TV has bolts in the eyebolts, loosen then bolts.) Insert the eye-bolts or TV brackets/bolts and tighten them securely in the upper holes.

Secure the wall brackets with the bolts on the wall. Match the height of the bracket that is mounted on the wall.



Use a sturdy rope to tie the product for alignment. It is safer to tie the rope so it becomes horizontal between the wall and the product.

NOTE

- When moving the TV undo the cords first.
- Use a platform or cabinet strong and large enough to support the size and weight of the TV. To use the TV safely make sure that the height of the bracket on the wall and on the TV is the same.

EARTHING

Ensure that you connect the earth wire to prevent possible electric shock. If grounding methods are not possible, have a qualified electrician install a separate circuit breaker.

Do not try to earth the TV by connecting it to telephone wires, lightening rods or gas pipes.



The TV can be installed in various ways such as on a wall, or on a desktop etc.

The TV is designed to be mounted horizontally. WALL MOUNT: HORIZONTAL INSTAL

- We recommend the use of a LG Brand wall mounting bracket when mounting the TV to a wall.
- We recommend that you purchase a wall mounting bracket which supports VESA standard.
- LG recommends that wall mounting be performed by a qualified professional installer.

- Should Install wall mount on a solid wall perpendicular to the floor.
- Should use a special wall mount, if you want to install it to ceiling or slanted wall.
- The surface that wall mount is to be mounted on should be of sufficient strength to support the weight of TV set; e.g. concrete, natural rock, brick and hollow block.
- Installing screw type and length depends on the wall mount used. Further information, refer to the instructions included with the mount.
- LG is not liable for any accidents or damage to property or TV due to incorrect installation:
- Where a non-compliant VESA wall mount is used. Incorrect fastening of screws to surface which may cause TV to fall and cause personal injury.
- Not following the recommended Installation method.





Model	VESA (A * B)	Standard Screw	Quantity
42PQ10**	400 * 400	M6	4
50PQ10**	400 * 400	M6	4
42PQ11 **	400 * 400	M6	4
50PQ11**	400 * 400	M6	4
42PQ20**	400 * 400	M6	4
50PQ20**	400 * 400	M6	4
42PQ30**	400 * 400	M6	4
50PQ30**	400 * 400	M6	4
42PQ60**	400 * 400	M6	4
50PQ60**	400 * 400	M6	4
50PS20**	400 * 400	M6	4
50PS30**	400 * 400	M6	4
50PS60**	400 * 400	M6	4
60PS40**	600 * 400	M8	4

PREPARATION

To prevent damage do not connect to the mains outlet until all connections are made between the devices.

ANTENNA CONNECTION

For optimum picture quality, adjust antenna direction.

An antenna cable and converter are not supplied.



- In poor signal areas, to achieve better picture quality it may be necessary to install a signal amplifier to the antenna as shown above.
- If signal needs to be split for two TVs, use an antenna signal splitter for connection.

SWIVEL STAND

After installing the TV, you can adjust the TV manually to the left or right direction by 20 degrees to suit your viewing position.



- To avoid damaging any equipment, never plug in any power cords until you have finished connecting all equipment.
- This section on EXTERNAL EQUIPMENT SETUP mainly uses diagrams for the 42PQ30** models.
- Image shown may differ from your TV.

HD RECEIVER SETUP

This TV can receive Digital RF/Cable signals without an external digital set-top box. However, if you do receive Digital signals from a digital set-top box or other digital external device, refer to the diagram as shown below.

Connecting with a component cable

(Except for 42/50PQ10**, 42/50PQ11**)

- Connect the video outputs (Y, PB, PR) of the digital set top box to the **COMPONENT IN VIDEO** jacks on the TV.
 - Connect the audio output of the digital set-top box to the **COMPONENT IN AUDIO** jacks on the TV.



Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)



Select **Component** input source using the **INPUT** button on the remote control.

Signal	Component	HDMI
480i/576i	0	Х
480p/576p	О	0
720p/1080i	О	0
1080p	0 (50/60Hz only)	0 (24Hz/30Hz/50Hz/60Hz)



Connecting a set-top box with an HDMI cable

1

3

Connect the digital set-top box to HDMI/DVI IN 1, HDMI IN, HDMI IN 2 or HDMI IN 3 jack on the TV.



Select HDMI1, HDMI2 or HDMI3 input source using the INPUT button on the remote control.

NOTE

Check that your HDMI cable is version 1.3 or higher. If the HDMI cables don't support HDMI version 1.3, flickering or no screen display can result. Please use the latest cables that support at least HDMI version 1.3.



(Except for 42/50PQ10**, 42/50PQ11**)

Connect the digital set-top box to **HDMI/DVI IN 1** jack on the TV.



Connect the audio output of the digital set-top box to the AUDIO IN (RGB/DVI) jack on the TV.



Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)

Select **HDMI1** input source using the **INPUT** button on the remote control.



HDMI-DVD OUTPUT

2





DVD SETUP

Connecting with a component cable

(Except for 42/50PQ10**, 42/50PQ11**)





Component Input ports

To achieve better picture quality, connect a DVD player to the component input ports as shown below.

Component ports on the TV	Y	Рв	PR
Video output ports on DVD player	Y Y Y Y	PB B-Y Cb	P _R R-Y Cr

Connecting with a Euro Scart cable



Connect the Euro scart socket of the DVD to the **AV1** Euro scart socket on the TV.

2

3

Turn on the DVD player, insert a DVD.

Select **AV1** input source using the **INPUT** button on the remote control.

If connected to $AV2\,$ Euro scart socket, select $AV2\,$ input source.

4

Refer to the DVD player's manual for operating instructions.



Scort		Input			Output	
Start	Video	Audio	RGB		Video, Audio	
AV1	0	0	0	ATV only		
AV2	0	0	Х	ATV, DTV,	AV1/2/3 output is available.	
Output Type Current input mode		AV1 (TV Out	t) (Moni	AV2 itor Out)	AV2 (When DTV scheduled record progress using recording equ	ding is in ipment.) ► TV
Digital TV		X		0	0	I v
Analogue TV		0		0	O (The input mode is conver DTV automatically.)	ted to Cult
AV1/2/3		0		0	0	Exc
Component/RGB/HDMI		0		Х	0	42

- TV Out : Outputs analog TV video signals.
 Monitor Out: Outputs the current screen image.
- AV3, Component, RGB : Except for 42/50PQ10**, 42/50PQ11**.

NOTE

► Any Euro scart cable used must be signal shielded.

Connecting with a S-Video cable

(Except for 42/50PQ10**, 42/50PQ11**)

 Connect the S-VIDEO output of the DVD to the S-VIDEO input on the TV.
 Connect the audio outputs of the DVD to the AUDIO input jacks on the TV.
 Turn on the DVD player, insert a DVD.
 Select AV3 input source using the INPUT button on the remote control.
 Refer to the DVD player's manual for operating instruc-



Connecting the HDMI cable

tions.



Select HDMI1, HDMI2 or HDMI3 input source using the INPUT button on the remote control.

Refer to the DVD player's manual for operating instructions.

NOTE

2)

- ► The TV can receive video and audio signals simultaneously when using a HDMI cable.
- ► If the DVD does not support Auto HDMI, you must set the output resolution appropriately.
- Check that your HDMI cable is version 1.3 or higher. If the HDMI cables don't support HDMI version 1.3, flickering or no screen display can result. Please use the latest cables that support at least HDMI version 1.3.



VCR SETUP

To avoid picture noise (interference), allow adequate distance between the VCR and TV.

Connecting with a RF Cable



Connect the ANT OUT socket of the VCR to the ANTENNA IN socket on the TV.

Connect the antenna cable to the ANT IN socket of the VCR.

Press the **PLAY** button on the VCR and match the appropriate channel between the TV and VCR for viewing.

2

3

Connecting with a Euro Scart cable

0	Connect the Euro scart socket of the VCR to the AV1 Euro scart socket on the TV.
2	Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
3	Select AV1 input source using the INPUT button on the remote control.
	If connected to AV2 Euro scart socket, select AV2

input source.



Scort			Input			Output		
	SCart	Video	Audio	RGB		Video, Audio		
	AV1	0	0	0		ATV only		
	AV2	0	0	Х	ATV, DTV,	AV1/2/3 output is available.		
	Current input mode	Urrent Output Type		ے (Moni) (AV2 tor Out)	AV2 (When DTV scheduled record progress using recording equi	ling is in ipment.)	► TV Out : Outputs analog
Digital		al TV	X		0	0		I V VIDEO SIGNAIS. Monitor Oute Outputs th
	Analog	logue TV O			0	O (The input mode is conver DTV automatically.)	ted to	 current screen image. AV3, Component, RGB :
	AV1/	/2/3	0		0	0		Except for 42/50PQ10**
	Component/	/RGB/HDMI	0		Х	0		42/50PQ11**.

NOTE

► Any Euro Scart cable used must be signal shielded.

Connecting with a RCA cable

(Except for 42/50PQ10**, 42/50PQ11**)



Connect the **AUDIO/VIDEO** jacks between TV and VCR. Match the jack colours (Video = yellow, Audio Left = white, and Audio Right = red)



Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)



Select **AV3** input source using the **INPUT** button on the remote control.

If you have a mono VCR, connect the audio cable from the VCR to the AUDIO L/MONO jack of the TV.



Connecting with a S-Video cable

(Except for 42/50PQ10**, 42/50PQ11**)



Connect the S-VIDEO output of the VCR to the S - VIDEO input on the TV set. The picture quality is improved; compared to normal composite (RCA cable) input.



Connect the audio outputs of the VCR to the **AUDIO** input jacks on the TV.



Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)



Select **AV3** input source with using the **INPUT** button on the remote control.



 If both S-VIDEO and VIDEO sockets have been connected to the S-VHS VCR simultaneously, only the S-VIDEO can be received.

INSERTION OF CI MODULE

- To view the encrypted (pay) services in digital TV mode.
- This item is not included for all countries.

1

Insert the CI Module to **PCMCIA** (Personal Computer Memory Card International Association) **CARD SLOT** of TV as shown.

For further information, see p.44.

NOTE

Check if the CI module is inserted into the PCMCIA card slot in the right direction. If the module is not inserted properly, this can cause damage to the TV and the PCMCIA card slot.

DIGITAL AUDIO OUT SETUP

Sending the TV's audio signal to external audio equipment via the Digital Audio Output (Optical) port. If you want to enjoy digital broadcasting through 5.1-channel speakers, connect the OPTICAL DIGITAL AUDIO OUT terminal on the back of TV to a DVD Home Theater (or amp).

Connect one end of an optical cable to the TV Digital Audio (Optical) Output port.

2 Connect the other end of the optical cable to the digital audio (Optical) input on the audio equipment.



1

Set the "TV Speaker option - Off " in the AUDIO menu. (**>p.89**). Refer to the external audio equipment instruction manual for operation.



CAUTION

► Do not look into the optical output port. Looking at the laser beam may damage your vision.





OTHER A/V SOURCE SETUP

(Except for 42/50PQ10**, 42/50PQ11**)



Connect the **AUDIO/VIDEO** jacks between TV and external equipment. Match the jack colours. (Video = yellow, Audio Left = white, and Audio Right = red)



3

Select **AV3** input source using the **INPUT** button on the remote control.



Operate the corresponding external equipment. Refer to external equipment operating guide.



USB SETUP

(Except for 42/50PQ10**, 42/50PQ11**)



Connect the USB device to the **USB IN** jacks on the side of TV.



After connecting the **USB IN** jacks, you use the **USB** function. (> p.53)



PC SETUP(Except for 42/50PQ10**, 42/50PQ11**)

This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings.

Connecting with a D-sub 15 pin cable Connect the RGB output of the PC to the RGB IN (PC) jack on the TV. Connect the PC audio output to the AUDIO IN (RGB/DVI) jack on the TV. Turn on the PC and the TV Select RGB input source using the INPUT button on the remote control.



Connecting with a HDMI to DVI cable

 Connect the DVI output of the PC to the HDMI/DVI IN1 jack on the TV.
 Connect the PC audio output to the AUDIO IN (RGB/DVI) jack on the TV.
 Turn on the PC and the TV.
 Select HDMI1 input source using the INPUT button on the remote control.



Supported Display Resolution

RGB-PC, HDMI/DVI-PC mode

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x400	31.468	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1280x768	47.78	59.87
1360x768	47.72	59.8
1920x1080 (RGB-PC)	66.587	59.93
1920x1080 (HDMI-PC)	67.50	60.00

HDMI/DVI-DTV mode

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
640x480	31.469	59.94
	31.469	60
720x480	31.47	59.94
	31.50	60
720x576	31.25	50.00
1280x720	37.50	50.00
	44.96	59.94
	45.00	60
1920x1080	28.125	50.00
	33.72	59.94
	33.75	60
	27.00	24.00
	33.75	30
	56.25	50.00
	67.433	59.94
	67.50	60

NOTE

- Avoid keeping a fixed image on the set's screen for prolonged periods of time. The fixed image may become permanently imprinted on the screen; use a screen saver when possible.
- There may be interference relating to resolution, vertical pattern, contrast or brightness in PC mode. Change the PC mode to another resolution or change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.
- The synchronization input waveform for Horizontal and Vertical frequencies are separate.
- We recommend using 1024x768, 60Hz (42PQ20**, 42PQ30**, 42PQ60**) / 1360x768, 60Hz (50PQ20**, 50PQ30**, 50PQ60**) / 1920x1080, 60Hz(50PS20**, 50PS30**, 50PS60**, 60PS40**) for the PC mode, they provide the best picture quality.
- Connect the signal cable from the monitor output port of the PC to the RGB (PC) port of the TV or the signal cable from the HDMI output port of the PC to the HDMI IN (or HDMI/DVI IN) port on the TV.

- Connect the audio cable from the PC to the Audio input on the TV. (Audio cables are not included with the TV).
- If using a sound card, adjust PC sound as required.
- If the graphic card on the PC does not output analogue and digital RGB simultaneously, connect only one of either RGB or HDMI IN (or HDMI/DVI IN) to display the PC output on the TV.
- If the graphic card on the PC does output analog and digital RGB simultaneously, set the TV to either RGB or HDMI; (the other mode is set to Plug and Play automatically by the TV.)
- DOS mode may not work depending on the video card if you use an HDMI to DVI cable.
- If you use an RGB-PC cable that is too long, there may be interference on the screen. We recommend using under 5m of cable. This provides the best picture quality.

Screen Setup for PC mode (Except for 42/50PQ10**, 42/50PQ11**)

Screen Reset

Returns Position, Size and Phase to the factory default settings.

This function works in the following mode : RGB[PC].





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

Auto Configure (RGB [PC] mode only)

Automatically adjust the picture position and minimizes image instability. After adjustment, if the image is still not correct, your TV is functioning properly but needs further adjustment.

Auto configure

This function is for automatic adjustment of the screen position, size, and phase The displayed image will be unstable for a few seconds while the auto configuration is in progress.



- Press the MENU button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

Selecting Resolution

To view a normal picture, match the resolution of RGB mode and selection of PC mode.

This function works in the following mode: RGB[PC]





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

Adjustment for screen Position, Size, Phase

If the picture is not clear after auto adjustment and especially if characters are still trembling, adjust the picture phase manually.

This function works in the following mode : RGB[PC].





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

WATCHING TV / PROGRAMME CONTROL

REMOTE CONTROL KEY FUNCTIONS

(Only 42/50PQ10**, 42/50PQ11**, 42/50PQ20**, 42/50PQ30**)

When using the remote control, aim it at the remote control sensor on the TV.





	VOLUME UP /DOWN	Adjusts the volume.					
	MUTE	Switches the sound on or off.					
	Programme UP/DOWN	Selects a programme.					
	PAGE UP/DOWN	Move from one full set of screen information to the next one.					
	SIMPLINK / USB Menu control buttons	Controls SIMPLINK or USB menu(Photo List and Music List or Movie List(Only 42/50PQ60**, 50PS60**)).					
`							
	Q. MENU	Select the desired quick menu source. (Aspect Ratio, Picture Mode, Sound Mode, Audio, Sleep Timer, USB Eject.) (> p.33)					
	INFO (j	Shows the present screen information.					
	GUIDE	Shows programme schedule.(> p.67)					
	FAV	Displays the selected favourite programme.					
	MARK	Check and un-check programmes in the USB menu. (Except for 42/50PQ10** _, 42/50PQ11**)					
	Installing	Batteries					
		R					
	Open the b batteries ma	attery compartment cover on the back and install the atching correct polarity (+with +,-with -).					
	Install two 1.5V AAA batteries. Do not mix old or used batteries						

Close cover.

with new ones.

To remove the batteries, perform the installation actions in reverse.

WATCHING TV / PROGRAMME CONTROL

(Except for 42/50PQ10**, 42/50PQ11**, 42/50PQ20**, 42/50PQ30**)





VOLUME UP /DOWN	Adjusts the volume.
MARK	Check and un-check programmes in the USB menu.
FAV	Displays the selected favourite programme.
MUTE	Switches the sound on or off.
Programme UP/DOWN	Selects a programme.
PAGE UP/DOWN	Move from one full set of screen information to the next one.
0~9 number button	Selects a programme. Selects numbered items in a menu.
LIST	Displays the programme table. (> p.45)
Q.VIEW	Returns to the previously viewed programme.
SIMPLINK /	Controls SIMPLINK or USB menu(Photo List and Music
USB Menu	List or Movie List(Only 42/50PQ60**, 50PS60**)).
control buttons	

Installing Batteries



- Open the battery compartment cover on the back and install the batteries matching correct polarity (+with +,-with -).
- Install two 1.5V AAA batteries. Do not mix old or used batteries with new ones.
- Close cover.
- To remove the batteries, perform the installation actions in reverse.

WATCHING TV / PROGRAMME CONTROL

TURNING ON THE TV

- When your TV is turned on, you will be able to use its features.



Firstly, connect the power cord correctly and check the main power(\odot / I) on the TV.

Set ID : Off

In standby mode to turn TV on, press the INPUT or $P \blacktriangle \nabla$ button on the TV or press the POWER button on the remote control and the TV will switch on.

Set ID : On

In standby mode to turn TV on, press the **INPUT** or $P \blacktriangle \nabla$ button on the TV or press the POWER, INPUT, $P \land \lor$ or NUMBER button on the remote control and the TV will switch on.

INITIALIZING SETUP

If the OSD (On Screen Display) is displayed on the screen after turning on the TV, you can adjust the Language, Mode Setting, Country, Auto tuning.

Note:

- a. If you close without completing the initial setting, the Initial Setting menu can be displayed again.
- b. Press the RETURN button to change the current OSD to the previous OSD.
- c. For those countries without confirmed DTV broadcasting standards, some DTV features might not work, depending on the DTV broadcasting environment.
- d "Home Use" mode is the optimal setting for home environments, and is the TV's default mode.
- e. "Store Demo" mode is the optimal setting for store environments. If a user modifies image quality data, "Store Demo" mode initializes the product to the image quality set by us after a certain period of time.
- f. The mode (Home Use, Store Demo) can be changed by executing Mode Setting in the OPTION menu.

PROGRAMME SELECTION

Press the **P** \land \checkmark or **NUMBER** buttons to select a programme number.

VOLUME ADJUSTMENT

Press the \checkmark + or - button to adjust the volume.

If you wish to switch the sound off, press the MUTE button.

You can cancel this function by pressing the MUTE, + or -, AV Mode button.

¹

QUICK MENU

Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual. Q.Menu (Quick Menu) is a menu of features which users might use frequently.

- Aspect Ratio: Selects your desired picture format. For Zoom Setting, select 14:9, Zoom and Cinema Zoom in Ratio Menu. After completing Zoom Setting, the display goes back to Q.Menu.
- Picture Mode : Selects your desired Picture Mode.
- **Sound Mode** : It is a feature to automatically set the sound combination which it deems the best for the images being watched. Selects your desired Sound Mode.
- Audio : Selects the sound output.
- Sleep Timer : Sets the sleep timer.
- USB Eject : Selects "USB Eject" in order to eject USB device. (Except for 42/50PQ10**. 42/50PQ11**)





- Press the Q.MENU button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

WATCHING TV / PROGRAMME CONTROL

ON-SCREEN MENUS SELECTION AND ADJUSTMENT

Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.


AUTO PROGRAMME TUNING

Use this to automatically find and store all available programmes.

When you start auto programming, all previously stored service information will be deleted.

The maximum number of programmes that can be stored is 500. But the number may differ slightly depending on broadcasting signals.



- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

MANUAL PROGRAMME TUNING (IN DIGITAL MODE)

Manual Tuning lets you manually add a programme to your programme list.



- Press the MENU button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

MANUAL PROGRAMME TUNING (IN ANALOGUE MODE)

Manual Tuning lets you manually tune and arrange the stations in whatever order you desire.



• Press the **RETURN** button to move to the previous menu screen.

- Use NUMBER buttons to input a 4-digit password in Lock System 'On'.
- L : SECAM L/L' (France)
 BG : PAL B/G, SECAM B/G (Europe / East Europe / Asia / New Zealand / M.East / Africa / Australia)
 I : PAL I/II (U.K. / Ireland / Hong Kong / South Africa)
 DK : PAL D/K, SECAM D/K (East Europe / China / Africa / CIS)
- To store another channel, repeat steps 4 to 9.



■ Assigning a station name

You can assign a station name with five characters to each programme number.



- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

PROGRAMME EDIT

When a programme number is skipped, it means that you will be unable to select it using P $\,\wedge\,\,^{\vee}\,$ button during TV viewing.

If you wish to select the skipped programme, directly enter the programme number with the NUMBER buttons or select it in the Programme edit menu.

This function enables you to skip the stored programmes.

In some countries it is possible to move a programme number by using the YELLOW button only.





• Use NUMBER buttons to input a 4-digit password in Lock System 'On'.

- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

(IN DTV/RADIO MODE)

Skipping a programme number



Select a programme number to be skipped.

BLUE Turn the skipped programme number to blue.

BLUE Release the skipped programme.

- When programmes are to be skipped, the skipped programme shows in blue and these programmes will not be selected by the **P** \land \checkmark buttons during TV viewing.
- If you wish to select a skipped programme, directly enter the programme number with the NUMBER buttons or select it in the programme edit or EPG.

■ Selecting favourite programme



Select your favourite programme number.

• This will automatically include the selected programme into your favourite programme list.

IN TV MODE

This function enables you to delete or skip the stored programmes. You can also move some channels and use other programme numbers.



41

SOFTWARE UPDATE

Software Update means software can be downloaded through the digital terrestrial broadcasting system.





* When setting "Software Update"

Occasionally, a transmission of updated digital software information will result in the following menu on the TV screen.



Simple Update :for current update stream



Schedule Update : for scheduled update stream

When the Software Update menu is "**Off**", the message to change it to "**On**" appears.

Select the **YES** using the < > button and you will see the follow-ing picture.

■ Turning on the TV will stop the update. Do you want stop? Updating software (Ver. 02.33.00) (Ver. 02.54.00) 7 % Yes No complete, the System restarts.

After the Software Update is



When the power is turned off, downloading starts.

When the power is turned on while updating, the progress status is displayed.

- During Progress of a Software Update, please note the following:
- Power to the TV must not be interrupted.
- The TV must not be switched off.
- The antenna must not be disconnected.
- After Software Update, you can confirm the updated software version in Diagnostics menu.
- It may take an hour to download the software, so make sure that the power stays on during the download.

DIAGNOSTICS

This function enables you to view information on the Manufacturer, Model/Type, Serial Number and Software Version.

This displays the information and signal strength of the tuned *MUX. This displays the signal information and service name of the selected MUX. (*MUX: A higher directory of channels in digital broadcasting (a single MUX contains multiple channels.))





[•] Press the **MENU** button to return to normal TV viewing.

[•] Press the **RETURN** button to move to the previous menu screen.

CI [COMMON INTERFACE] INFORMATION

This function enables you to watch some encrypted services (pay services). If you remove the CI Module, you cannot watch pay services.

When the module is inserted into the CI slot, you can access the module menu.

To purchase a module and smart card, contact your dealer. Do not repeatedly insert or remove a CI module from the TV. This may cause a malfunction. When the TV is turned on after inserting a CI Module, you may not have any sound output.

This may be incompatible with the CI module and smart card.

CI (Common Interface) functions may not be possible depending upon the country broadcasting circumstances.





• Press the MENU button to return to normal TV viewing.

• Press the **RETURN** button to move to the previous menu screen.

SELECTING THE PROGRAMME TABLE

You can check which programmes are stored in the memory by displaying the programme table



■ Displaying programme LIST



Display the Programme List.

- You may find some blue programmes. These have been set up to be skipped by auto programming or in the programme edit mode.
- Some programmes with the channel number shown in the programme LIST indicate there is no station name assigned.

Selecting a programme in the programme list





From the programme you are currently watching, the mode will change from TV to DTV to Radio.

■ Paging through a programme list



MARK

FAV



Return to normal TV viewing.

Displaying the favourite programme table

Display the Favourite Programme table.

INPUT LIST

HDMI and AV1, 2 (SCART) can be recognized by a detect pin and thus enabled only when an external device approves voltage.

By using **TV/RAD** button, you can move from External Input to RF Input and to the last watched programme in DTV/RADIO/TV mode.



(Except for 42/50PQ10**, 42/50PQ11**)

- Select the input source.
- You can also adjust INPUT menu.

-	INPUT	<⊕ Move	⊛ OK
	Antenna		0
	AV1		
\odot	AV2		
۲	AV3		
Ē	Component		
(a)	RGB		
	HDMI1		
<u> </u>	HDMI2	•	

- **Antenna** : Select it when watching the DTV/TV.
- AV1, AV2, AV3 : Select it when watching the VCR or external equipment.
- **Component** : Select it when using the DVD or the Digital set-top box depends on connector.
- **RGB** :Select it when using PC depends on connector.
- HDMI1, HDMI2, HDMI 3 : Select it when using DVD, PC or Digital set-top box depend on connector.

SIMPLINK (Except for 42/50PQ10**, 42/50PQ11**)

This function operates only with devices with the SIMPLINK logo. Please check the SIMPLINK logo.

This TV might not function properly when using it with other products with HDMI-CEC function.

This allows you to control and play other AV devices connected to the display through HDMI cable without additional cables and settings.

If you do not want SIMPLINK menu, select "Off".

SIMPLINK function is not supported by HDMI IN 3 input.



• Press the **RETURN** button to move to the previous menu screen.

SIMPLINK Functions

Disc playback

Control connected AV devices by pressing the $\land \lor \lt \lor$, OK, \blacktriangleright , \blacksquare , II, $\blacktriangleleft \blacklozenge$ and $\triangleright \triangleright$ buttons.

Direct Play

After connecting AV devices to the TV, you can directly control the devices and play media without additional settings.

Select AV device

Enables you to select one of the AV devices connected to the TV and operate it.

Power off all devices

When you switch off the TV, all connected devices are turned off.

Switch audio-out

Offers an easy way to switch audio-out.

Sync Power on

When the equipment with Simplink function connected HDMI terminal starts to play, The TV will change automatically to turn on mode.

* A device, which is connected to the TV through a HDMI cable but does not support SIMPLINK, does not provide this function. Note: To operate SIMPLINK, an HDMI cable over Version 1.3 with *CEC function should be used. (*CEC: Consumer Electronics Control).

Connecting to Home Theater with the SIMPLINK logo.



Connect the **HDMI/DVI IN 1** or **HDMI IN 2** terminal on the back of the TV and the HDMI output terminal of the Home Theater using HDMI cables.



Connect the Digital Audio output terminal on the back of the TV and the Digital Audio input terminal of the Home Theater using optical cables.



Select Home Theater in the Speaker menu by pushing the **SIMPLINK** button.

When you select or operate a media device with home theater function, the speaker automatically switches to home theater speaker (HT speaker).



- Connect the HDMI/DVI IN or HDMI IN terminal of the TV to the rear terminal (HDMI terminal) of the SIMPLINK device with the HDMI cable.
- When you switch the Input source using the INPUT button on the remote control, you can stop the operation of a device controlled by SIMPLINK.

SIMPLINK Menu

Press the $\land \lor \lt \Rightarrow$ button and then **OK** button to select the desired SIMPLINK source.

- **TV viewing :** Switch to the previous TV programme regardless of the current mode.
- OISC playback : Select and play connected discs. When multiple discs are available, the titles of discs are conveniently displayed at the bottom of the screen.
- **WCR playback :** Play and control the connected VCR.
- HDD Recordings playback : Play and control recordings stored in HDD.
- Select Home theater or TV speaker for Audio Out.
- Simplink
 TV
 DISC1
 Selected Device
 When device is not connected (displayed in gray)
 HDD Recorder
 Speaker
 Speaker
 Change Device
- Home theater: Only one supported at a time
- DVD, Recorder: Up to two supported at a time
- VCR: Only one supported at a time

DATA SERVICE

(This menu is enabled only in Ireland.)

This function allow users to choose between **MHEG(Digital Teletext)** and **Teletext** if both exist at the same time.

If only one of them exists, either MHEG or Teletext is enabled regardless of which option you selected.



- Press the MENU button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

INPUT LABEL

Selects a label for each input source.



- Press the MENU button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

AV MODE

You can select the optimal images and sounds when connecting AV devices to external input.

Off	Disables the AV MODE.
Cinema	Optimizes video and audio for watching movies.
Sport	Optimizes video and audio for watching sports events.
Game	Optimizes video and audio for playing games.



Press the **AV MODE** button repeatedly to select the desired source.

- If you select **Cinema** in AV mode, **Cinema** will be selected both for **Picture Mode** and **Sound Mode** in **PICTURE** menu and **AUDIO** menu respectively.
- If you select "**Off**" in AV mode, the picture and image which you initially set will be selected.

AV MODE

SIMPLE MANUAL

You can easily and effetively access the TV information by viewing a simple manual on the TV. During the Simple Manual opreration, audio will be muted.





• Press the **RETURN** button to return to normal TV viewing.

Initializing (Reset to original factory settings)

This function initializes all settings.

But the settings of **Day** and **Night** of the **Picture Mode** cannot be initialized. It is useful to initialize the product or when you move to other city or country. When the Factory Reset is completed, you must restart the Initializing setup.

When the Lock System menu is "On", the message to enter the password appears.





• In Lock System "On", if you forget your password, press '7', '7', '7' on the remote control handset.

- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

▶ It is not possible to use USB function in 42/50PQ10**, 42/50PQ11** models.

When connecting a USB device

When you connect a USB device, this pop up menu is displayed, automatically. If the Pop Up menu does not appear, you can select Music List or Photo List or Movie List(Only 42/50PQ60**, 50PS60**) in the USB menu.

"POP UP MENU" will not be displayed while the OSD including Menu, EPG or Schedule list is activated. In USB device, you can not add a new folder or delete the existing folder.



Precautions when using the USB device

- ► Only a USB storage device is recognizable.
- ▶ If the USB storage device is connected through a USB hub, the device is not recognizable.
- ► A USB storage device using an automatic recognition programme may not be recognized.
- ► A USB storage device which uses its own driver may not be recognized.
- ▶ The recognition speed of a USB storage device may depend on each device.
- Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal music files or image files.
- Please use only a USB storage device which was formatted as a FAT16, FAT32, NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility programme which is not supported by Windows, it may not be recognized.
- Data in a USB storage device cannot be deleted in the NTFS file system.
- Please connect power to a USB storage device which requires an external power supply. If not, the device may not be recognized.
- Please connect a USB storage device with cable is offered by USB maker. If connected with cable is not offered by USB maker or an excessively long cable, the device may not be recognized.
- Some USB storage devices may not be supported or operated smoothly.
- Maximum of 999 files and folders can be recognized.
- ▶ Data in a USB storage device cannot be aligned.
 - Up to 128 English characters can be recognized as a file name.
- Please back up the important file because a data of USB device may be damaged. Data management is consumer's responsibility and in consequence the manufactures does not cover the product bearing data damage.
- ► If the USB is connected in Standby Mode, specific hard disk will automatically be loaded when the TV is turned on.
- ▶ The recommended capacity is 1TB or less for a USB external hard disk and 32GB or less for USB memory.
- ▶ Any device with more than the recommended capacity may not work properly.
- If a USB external hard disk with a "Energy Saving" function does not work, turn the hard disk off and on again to make it work properly.

- Image shown may differ from your TV.
- In order to avoid losing the USB memory stick, use the USB connector(sold separately) to fix the USB memory stick to the USB connector holder of the TV.



PHOTO LIST

The On Screen Display may be different from your TV. Images are an example to assist with the TV operation.

PHOTO(*.JPEG) supporting file

Baseline: 15360 × 8640

Progressive format : 1024 × 768

- You can play JPEG files only.
- Only baseline scan is supported among JPEG (SOF0, SOF1 only).
- Non-supported files are displayed in the form of bitmap.

Screen Components



Photo Selection and PopUp Menu

Photo List	Page 2/3 🗹 No Marked		VSB Device Free Space 150MB
it Drive1	Up Folder	KR103	
	KR101	KR104	
	KR102	KR105	
2-65	JMJ001	IMJ005	
1366V769 13EVP	JMJ002	IMJ006	
1500×708, 125KB	= JMJ003	IMJ007	
Up Folder	JMJ004	B001ML	
↔ Navigation Op1	tion 🤉 🗘 Page Change	MARK Mark	RETURN Exit

 \mathbb{V}

Photo List	Page 2/3 🗹 No Marke	E USB Device Free Space 150MB
🖏 Drive1	Up Folder	KR103
1366×768, 125KB	KR101 KR102 JMJ001 JMJ002 JMJ003	1366x768, 125KB //ew Aark All Delete Iose
Up Folder	= JMJ004	8υστινιτ

► View : Display the selected item.	
-------------------------------------	--

- ► Mark All : Mark all photos on the screen.
- ► Unmark All : Deselect all marked photos.
- ► **Delete** : Delete the selected photo item.
- ► Close : Close the pop-up menu.



- Use the **P** $\land \lor$ button to navigation in the photo page.
- Use the **MARK** button to mark or unmark a photo. When one or more photos are marked, you can view individual photos or a slide show of the marked photos. If no photos are marked, you can view all photos individually or all photos in the folder in a slide show.

• Press the **RETURN** button to return to normal TV viewing.

Set up the menu in Full-Sized Screen

You can change the settings to display photos stored on a USB device, on a full-sized screen. Detailed operations are available on full-sized photo view screen.

 \gg

Photo List	Page 2/3 🗹 No Marked		USB Device Free Space 150MB
🖏 Drive1	Up Folder	KR103	
-	KR101	KR104	
	KR102	KR105	
2-15	JMJ001	IMJ005	
1200×700 125KD	JMJ002	IMJ006	
1366×768, 125KB	= JMJ003	IMJ007	
Up Folder	JMJ004	■ JMJ008	
↔ Navigation	tion P 🗘 Page Change	MARK Mark	RETURN Exit



 \mathbb{V}



The aspect ratio of a photo may change the size of the photo displayed on the screen in full size. Press the **RETURN** button to move to the previous menu screen.



• Use the **P** \land \checkmark button to navigation in the photo page.



Select the Slideshow , BGM, U (Rotate), Delete , Option or Hide.

- Use < > button to select the previous or next photo.
- Use < > button to select and control the menu on the full-sized screen.
- Slideshow : When no picture is selected, all photos in the current folder are displayed during slide show. When selected, the selected photos are displayed during slide show.
 - Set the time interval of the slide show in **Option**.
- BGM : Listen to music while viewing photos in full size.
 Set the BGM device and album in Option .
- Contaction (Rotate) : Rotate photos.
 Rotates the photo 90°, 180°, 270°, 360°clockwise.
- ► **Delete** : Delete photos.
- OPTION : Set values for Slide Speed and Music Folder.
 Use < > ^ < button and OK button to set values. Then go to
 OK and press OK to save the settings.
 - You cannot change **Music Folder** while BGM is playing.
- ► **Hide** : Hide the menu on the full-sized screen.
 - To see the menu again on the full-sized screen, press OK button to display.



• Press the **RETURN** button to move to the previous menu screen.

MUSIC LIST

Purchased music files(*.MP3) may contain copyright restrictions. Playback of these files may not be supported by this model.

Music file on your USB device can be played by this unit.

The On Screen Display may be different from your TV. Images are an example to assist with the TV operation.

MUSIC (*.MP3) supporting file Bit rate 32 ~ 320kbps • Sampling rate MPEG1 layer 3: 32 kHz, 44.1 kHz, 48 kHz.

Screen Components



Music Selection and PopUp Menu

As shown, up to 6 music titles are listed per page.



• Press the RETURN button to return to normal TV viewing.

- If you don't press any button for a while during the playing, the play information box (as shown in the below) will float as a screen saver.
- The 'Screen Saver'?

Screen saver is to prevent screen pixel damage due to an fixed image remaining on the screen for a extended period of time.



NOTE

- \blacktriangleright When music is playing, \square is displayed in back of the music title.
- ► A damaged or corrupted music does not play but displays 00:00 in playtime.
- ► A music downloaded from a paid service with copyright protection does not start but displays inappropriate information in playtime.
- ▶ If you press OK, buttons, screen saver is stopped.
- ► The PLAY(►) Pause(II) ►► < buttons on the remote control are also available in this mode.
- ▶ You can use the ▶▶ button to select the next music and the ◄◄ button to select the previous music.

MOVIE LIST (Only 42/50PQ60**, 50PS60**)

The movie list is activated once USB is detected. It is used when playing movie files on TV. Displays the movies in the USB folder and supports Play. Allows playback of all movies in the folder and user desired files. Video editing is not supported but files can be deleted. It is a movie list that displays folder information and Divx file. Supports up to four drives.

MOVIE(*.avi/*.Divx) supporting file Video format : MPEG1 , MPEG2, MPEG4 (Doesn't support Microsoft MPEG4-V2, V3), DivX 3.xx , DivX 4.xx, DivX 5.xx , DivX VOD (DRM), XviD, DivX 6.xx(Playback) Audio format : Mpeg, Mp3, PCM, Dolby Digital Sampling frequency : within 8~48 khz Bit rate : within 8~320 kbp

Subtitle format : *.smi/ *.srt/ *.sub(MicroDVD, SubViewer 2.0)/ *.ass/ *.ssa/*.txt(DVD Subtitle System)

- DivX may not be played depending on its types or recording methods.
- If the video and audio structure of recorded file is not interleaved, either video or audio is outputted.
- Max bitrate of playable DivX is 4 Mbps.
- Maximum FPS (Frame Per Second) can be reached only at SD level. FPS is 25 FPS (720*576) or 30 FPS (720*480) depending on Resolution.
- Files of 25 FPS or 30 FPS of higher may not be played properly.
- Files encoded with GMC(Global Motion Compensation) may not be played.
- When you're watching the movie by using **Movie List** and **Photo List** function, an image mode setup doesn't operate.

Extension name	Video Codec	Audio Codec	Resolution
mpg, mpeg, mpe, vob, dat	MPEG1, MPEG2	AC3, MPEG, MP3, PCM	
Avi, divx, m4v	MPEG4-SP, MPEG4-ASP, DivX 3.xx, DivX 4.xx, DivX 5.xx, DivX 6.xx(Playback), Xvid	AC3, MPEG, MP3, PCM	720x576@25p 720x480@30p

Screen Components



NOTE

- A DivX movie file and its subtitle file must be located in the same folder.
- ► A video file name and its subtitle file name must be identical for it to be displayed.
- Use the left/right (< />) keys to move to a specific frame forward or backward while playing a movie. (The left/right (< />) keys may not work properly for some files while playing a movie.)

Movie Selection and PopUp Menu

As shown , up to 6 movie titles are listed per page.

viovie List	Page 2/3 No Marked	Free Space 1.8GB	
📼 movie	Title	Duration	
	Up Folder		
	M001		
	M002		
704 400 24840	M003	01:34:45	
704 x 400, 34MB	M004	01:15:30	
Up Folder	M005	01:30:20	
_	\forall		
Movie List movie	Page 2/3 No Marked Title	USB Device Free Space 1.8GB Duration	► Play : Play the selected movie titles. Divx Play is executed while screen changes.
Aovie List movie	Page 2/3 No Marked Title	USB Device Free Space 1.86B Duration	 Play : Play the selected movie titles. Divx Play is executed while screen changes. Mark All : Mark all movie titles in the folder.
Novie List movie	Page 2/3 No Marked Title Up Folder M001	USB Device Free Space 1.86B Duration 704x400, 34MB	 Play : Play the selected movie titles. Divx Play is executed while screen changes. Mark All : Mark all movie titles in the folder.
Novie List movie	Page 2/3 No Marked Title Up Folder M001 M002	USB Device Free Space 1.86B Duration 704x400, 34MB Play	 Play : Play the selected movie titles. Divx Play is executed while screen changes. Mark All : Mark all movie titles in the folder. Unmark All : Deselect all marked movie titles
Movie List movie	Page 2/3 No Marked Title Up Folder M001 M002 M003	USB Device Free Space 1.86B Duration 704x400, 34MB Play Mark All	 Play : Play the selected movie titles. Divx Play is executed while screen changes. Mark All : Mark all movie titles in the folder. Unmark All : Deselect all marked movie titles Close : Close the pop-up menu.
Movie List movie	Page 2/3 No Marked Title Up Folder M001 M002 M003 M004	USB Device Free Space 1.86B Duration 704x400, 34MB Play Mark All Delete	 Play : Play the selected movie titles. Divx Play is executed while screen changes. Mark All : Mark all movie titles in the folder. Unmark All : Deselect all marked movie titles Close : Close the pop-up menu.



• Press the **RETURN** button to return to normal TV viewing.

DivX Audio Language & Subtitle Language

Picture Size	◄ Full Screen ►		
Subtitle Language	e 0		
Audio Language	1/1		
Subtitle File	0		
· Language	Latin 1		
· Sync 0			
· Position	0		
0	К		

Select the desired option.

Select Picture Size, Subtitle Language, Audio Language, Subtitle File, Language, Sync or Position.

- Press the MENU button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

• When DivX is playing, if you press the **RED** button, this message is displayed.

Using the remote control

	When playing,
	repeatedly, press the REW(<<) button to speed up << -> <<< -> <<<< ->
44 / PP	repeatedly, press the $FF(PP)$ button to speed up $PP \rightarrow PPP \rightarrow PPPP \rightarrow PPPPP$.
	Pressing these buttons repeatedly increases the fast forward/reverse speed.
П	During playback, press the Pause(11) button. Still screen is displayed.
< >	When using the < or > button during playback a cursor indicating the position can be viewed on the screen.
PLAY(►)	Press the PLAY() button to return to normal playback.

DIVX REGISTRATION CODE (Only 42/50PQ60**, 50PS60**)

Confirm the DivX registration code number of the TV. Using the registration number, movies can be rented or purchased at www.divx.com/vod.

With a DivX registration code from other TV, playback of rented or purchased DivX file is not allowed. (Only DivX files matched with the registration code of the purchased TV are playable.)



"DivX Certified to play DivX video, including premium content"



ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX,Inc. This is an official DivX Certified device that plays DivX video. Visit www.divx.com for more information and software tools to convert your files into DivX video.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play DivX Video-on-Demand (VOD) content. To generate the registration code, locate the DivX VOD section in the device setup menu. Go to vod.divx.com with this code to complete the registration process and learn more about DivX VOD.

NOTE

Supported movie file

Resolution : under 720x576 WxH pixels.

- Frame rate : under 30 frames/sec
- ▶ Video Codec : MPEG1 , MPEG2, MPEG4 (Doesn't support Microsoft MPEG4-V2, V3), DivX 3.xx , DivX 4.xx, DivX 5.xx , DivX VOD (DRM), XviD, DivX 6.xx(Playback).
- ▶ When loading, some buttons may not work.

DEACTIVATION (Only 42/50PQ60**, 50PS60**)

Delete the existing authentication information to receive a new DivX user authentication for TV. Once this function is executed, a DivX user authentication is required again to see DivX DRM files.





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

EPG (ELECTRONIC PROGRAMME GUIDE) (IN DIGITAL MODE)

This system has an Electronic Programme Guide (EPG) to help your navigation through all the possible viewing options.

The EPG supplies information such as programme listings, start and end times for all available services. In addition, detailed information about the programme is often available in the EPG (the availability and amount of these programme details will vary, depending on the particular broadcaster).

This function can be used only when the EPG information is broadcast by broadcasting companies

The EPG displays the programme details for next 8 days.



Switch on/off EPG



Select a programme



Display the selected programme.

🛎 1 YLE TV1			6/ Ma	r 2006 15:09
A11	6/Mar(Mon)			
ALL	14:00		15:00	
🗂 1 YLE TV1	No Inf	formation		Kungskonsumente
🗀 2 YLE TV2	No Informa	tion	TV2: Farmer	No Information
🛎 4 TV		No Infor	nation	
📛 5 YLE FST	No Information			
🗀 6 CNN	No Information			
📛 8 YLE24			Tänään	otsikoissa
TV/RAD Radio	FAV Favourite	INFO (i) In	formation	Pr. Change
Mode	Date	Scheck	lule	Schedule List

Programme Guide

EPG (ELECTRONIC PROGRAMME GUIDE) (IN DIGITAL MODE)

EPG (ELECTRONIC PROGRAMME GUIDE)

Button Function in NOW/NEXT Guide Mode

You can view a program being broadcasted and one scheduled to follow.



Button Function in 8 Day Guide Mode



🛎 1 YLE TV1			6/ Mar	2006 15:09
A11		6/Mar	(Mon)	
ALL	14:00		15:00	
🖾 1 YLE TV1	No Info	ormatior	1	Kungskonsumente
🗰 2 YLE TV2	No Informat	ion	TV2: Farmen	No Information
Ӫ 4 TV		No Info	rmation	
📛 5 YLE FST		No Info	rmation	
Ӫ 6 CNN		No Info	rmation	
Ӫ 8 YLE24			Tänään	otsikoissa
TV/BAD_ Badio	FAV Eavourite	INEO (i) I	nformation	Pr Change
TUNIDED RUGIO	national interview		monnation	C II. chunge



Button Function in Date Change Mode



🛎 1 YLE TV1	▲ 6/ Mar 2006 15:09					
A11	6/Mar(Mon)					
ALL	14:00 15:00					
🖾 1 YLE TV1	No Information	No Information				
📁 2 YLE TV2	No Information	TV2: Farmen	No Information			
Ӫ 4 TV	No Information					
Ӫ 5 YLE FST	No Information					
Ӫ 6 CNN	No Information					
Ӫ 8 YLE24		Tänään	otsikoissa			
\mathbf{V}						

Button Function in Extended Description Box



EPG (ELECTRONIC PROGRAMME GUIDE)

Button Function in Record/Remind Setting Mode

Sets a start or end time for recording, and sets a reminder only for a start time, with the end time grayed out.

- This function is available only when recording equipment that use pin8 recording signalling has been connected to the DTV-OUT(AV2) terminal, using a SCART cable.



Schedule		6/ Mar 2006 15:09			
Туре	Programme	Date	Start Time	End Time	
Record	6CNN	10 Mar.	17:00	17 : 30	
	•				
		Save	•	Cancel	

Button Function in Schedule List Mode

If you've created a schedule list, a scheduled program is displayed at the scheduled time even when you are watching a different program at the time.

GREEN Enter Schedule List editing mode.

RED Delete the selected item.

BLUE Change to Guide mode.

Select Schedule List.

Schedule List			
₩ DTV 20 Bloomberg 11:05~11:50	Record		6/ Mar 2006 12:09
Title	Time	Date	Programme
 Battlestar Galactica 	23:15	6/ Mar	DTV 06 BBC ONE
Criminal Minds	12:45	6/ Mar	DTV 11 Discovery
 Grey's Anaotmy 2 	11:05	6/ Mar	DTV 20 Bloom berg
 2007 Europe Football 	15:08	6/ Mar	DTV 43 Cartoon
G Friends	13:30	6/ Mar	DTV 13 NBC
O C.S.I. MAIAMI	21:00	6/ Mar	DTV 42 ESPN
Delete	lit (New	Guide
PICTURE CONTROL

PICTURE SIZE (ASPECT RATIO) CONTROL

You can watch the screen in various picture formats; 16:9, Just Scan, Original, 4:3, 14:9, Zoom, Cinema Zoom and Full Wide.

If a fixed image is displayed on the screen for a long time, that fixed image may become imprinted on the screen and remain visible.

You can adjust the enlarge proportion using $\land \lor$ button.

This function works in the following signal.



• 16:9

The following selection will allow you to adjust the picture horizontally, in linear proportion, to fill the entire screen(useful for viewing 4:3 formatted DVDs)



• Just Scan

Following Selection will lead to you view the picture of best quality without loss of original picture in high resolution image.

Note : If there is noise in original Picture, You can see the noise at the edge.



- You can also adjust Aspect Ratio in the PIC-TURE menu.
- For Zoom Setting, select 14:9, Zoom and Cinema Zoom in Ratio Menu. After completing Zoom Setting, the display goes back to Q.Menu.

• Original

When your TV receives a wide screen signal it will automatically change to the picture format broadcast.



• 4:3

The following selection will allow you to view a picture with an original 4:3 aspect ration, gray bars will appear on both the left and right of the screen.



•14:9

You can view a picture format of 14:9 or a general TV programme in the 14:9 mode. The 14:9 screen is viewed in the same way as in 4:3, but is magnified to the left and right.



• Zoom

The following selection will allow you to view the picture without any alteration, while filling the entire screen. However, the top and bottom of the picture will be cropped.



• Cinema Zoom

Choose Cinema Zoom when you wish the picture to be altered, both horizontally extended and vertically cropped. The picture adopting a compromise between alteration and screen coverage.

The adjustment range is 1-16.



• Full Wide

When TV receives the wide screen signal, it will lead you to adjust the picture horizontally or vertically, in a linear proportion, to fill the entire screen fully.



- You can only select 4:3, 16:9 (Wide), 14:9, Zoom, Cinema Zoom in Component (under 720p), HDMI mode.
- ▶ You can only select 4:3, 16:9 (Wide) in RGB/HDMI[PC] mode only.
- ▶ In DTV/HDMI/Component (over 720p) mode, Just Scan is available.

C∅**ENERGY SAVING / POWER SAVING**

It reduces the plasma display's power consumption.

The default factory setting complies with the Energy Star requirements and is adjusted to the comfortable level to be viewed at home.

You can increase the brightness of your screen by adjusting the Energy Saving level or by setting the Picture Mode.

In Picture Mode - Cinema, You cannot adjust Energy Saving or Power Saving.

Only 42/50PQ20**, 42/50PQ30** Only 42/50PQ10**, 42/50PQ11** 42/50PQ60**, 50PS20**, 50PS30**, 50PS60**, 60PS40** PICTURE PICTURE ↔ Move ⊙ OK Aspect Ratio : 16:9 Aspect Ratio : 16:9 wer Saving eø Energy Saving : Intelligent Senso : Off Picture Mode : Vivid Picture Mode : Vivid Intelligent Sensor 🔺 Low 🕨 Off \bigcirc Contrast Contrast ۲ ٢ Off Minimum Brightness Brightness Minimum Medium • Sharpness • Sharpness Medium Maximum Colour Colour -0--0-Maximum 0 R • Tint • Tint *******



When the Intelligent Sensor is selected, (Except for 42/50PQ10** 42/50PQ11**)



- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

PRESET PICTURE SETTINGS

Picture Mode-Preset

Vivid	Enhances contrast, colour and resolution.
Standard	Displays the standard-quality screen.
Cinema	Optimizes video for watching movies.
Sport	Optimizes video for watching sports events.
Game	Optimizes video for playing games.

	PICTURE	Ę	-		• • ОК
	Aspect Ratio : 16:9			Aspect Ratio : 16:9	
	⊖Ø Energy Saving : Intelligent Sensor			⊖∅ Energy Saving : Intelligent Sensor	Vivid 💿
\odot	Picture Mode : Vivid 💿		\odot	Picture Mode : Vivid	Standard
۲	• Contrast 100		٢	Contrast 100	Cinema
臣	Brightness 50	-	Ē	• Brightness 50	Sport
(Ê)	Sharpness 70		â	Sharpness 70	Game
-C-1	• Colour 70	4	õ	• Colour 70	Expert1
2	• Tint 0 Rumming	t	**	• Tint 0 T	Expert2



- Press the MENU button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

MANUAL PICTURE ADJUSTMENT

Picture Mode-User option

• Contrast

Adjusts the difference between light and dark levels in the picture.

• Brightness

Increases or decreases the amount of white in the picture.

• Sharpness

Adjusts the level of crispness in the edges between the light and dark areas of the picture.

- The lower the level, the softer the image.
- Colour

Adjusts intensity of all colours.

• Tint

Adjusts the balance between red and green levels.





NOTE

- ► You cannot adjust colour, sharpness and tint in the RGB/HDMI[PC] mode.
- When the Expert 1/2 is selected, you can select Contrast, Brightness, H Sharpness, V Sharpness, Colour or Tint.

PICTURE IMPROVEMENT TECHNOLOGY

You can calibrate the screen for each Picture Mode or set the video value according to the special video screen.

You can set the video value differently for each input.

To reset to the factory default screen after making adjustment to each video mode, execute the "Picture Reset" function for each Picture Mode.





• Press the **MENU** button to return to normal TV viewing.

Colour Temperature (Cool/Medium/Warm)	Choose one of three automatic colour adjustments. Set to warm to enhance hotter colours such as red, or set to cool to see less intense colours with more blue.
Dynamic Contrast (Off/Low/High)	Adjusts the contrast to keep it at the best level according to the brightness of the screen. The resolution of gradation is improved by making bright parts brighter and dark parts darker. This feature refers to dynamic contrast, and enhances the feeling of presence that contrast controls are intended to give by using dimming and other input signals.
Dynamic Colour (Off/Low/High)	Adjusts screen colours so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue, green and white look more vivid.
Noise Reduction (Off/Low/Medium/High)	Reduces screen noise without compromising video quality. This feature is also used to reduce recursive noise and MPEG noise (Mosquito/Block).
Gamma (Low/Medium/High)	 You can adjust brightness of dark area and middle gray level area of the picture. Low : Make dark and middle gray level area of the picture brighten. Medium: Express original picture gradation. High: Make dark and middle gray level area of the picture darken.
Black Level (Low/High)	 Low :The picture of the screen gets darker. High: The picture of the screen gets brighter. Auto : Realizing the black level of the screen and set it to High or Low automatically. Makes dark parts on the screen look darker. Set black level of the screen to proper level. This function works in the following mode: AV (NTSC-M), HDMI or Component . This function enables to select "Low" or "High" in the following mode : AV(NTSC-M), HDMI or Component. Otherwise, "Black level" is set to "Auto".
Film Mode (On/Off)	Makes video clips recorded in film look more natural. This feature operates only in TV, AV and Component 480i/576i/1080i mode.
Colour Gamut (Wide/Standard)	 Change the colour gamut of the output image. Wide: Express rich colour tones using the maximum colour gamut available in the TV regardless of the input image. Standard: Express accurate colour tones by changing the colour gamut to meet international standards based on the input image data (resolution/format).
Edge Enhancer (Off/On)	Show clearer and distinctive yet natural corners of the video. Emphasizes the frames of the video without over peaking.

Expert Picture Control

By segmenting categories, Expert1 and Expert2 provide more categories which users can set as they see fit, offering the optimal picture quality for users.

As the detail item for video quality experts to fine tune the video using specific videos, this may not be effective for general videos.





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

Dynamic Contrast (Off/Low/High)	Adjusts the contrast to keep it at the best level according to the brightness of the screen. The resolution of gradation is improved by making bright parts brighter and dark parts darker. This feature refers to dynamic contrast, and enhances the feeling of presence that contrast controls are intended to give by using dimming and other input signals.
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Black Level (Low/High)	 Low :The picture of the screen gets darker. High: The picture of the screen gets brighter. Auto : Realizing the black level of the screen and set it to High or Low automatically. Makes dark parts on the screen look darker. Set black level of the screen to proper level. This function works in the following mode: AV (NTSC-M), HDMI or Component . This function enables to select "Low" or "High" in the following mode : AV(NTSC-M), HDMI or Component. Otherwise, "Black level" is set to "Auto".
Film Mode (On/Off)	Makes video clips recorded in film look more natural. This feature operates only in TV, AV and Component 480i/576i/1080i mode.
Colour Standard (SD/HD)	 Select the international standard for the colour gamut that will be applied when the colour gamut is set to Standard. SD: Increase colour accuracy by adjusting the output image to meet the EBU (European Broadcasting Union) Colour Coordinate Standard. HD: Increase colour accuracy by adjusting the output image to meet ITU.BT-709 (High Definition Signal International Colour Coordinate Standard).
Colour Gamut (Wide/Standard)	 Change the colour gamut of the output image. Wide: Express rich colour tones using the maximum colour gamut available in the TV regardless of the input image. Standard: Express accurate colour tones by changing the colour gamut to meet international standards based on the input image data (resolution/format).
Edge Enhancer (Off/On)	Show clearer and distinctive yet natural corners of the video. Emphasizes the frames of the video without over peaking.

White Balance (Medium/Warm/Cool)	 White Balance (Medium/Warm/Cool) Adjust white balance. Pattern (Inner/Outer) Decide whether to use the Internal Pattern or External Pattern when adjusting white balance. Red Gain/Green Gain/Blue Gain Adjust high-level white balance. Red Offset/Green Offset/Blue Offset Adjust low-level white balance.
Colour Management System	 Colour (Red/Green/Blue/Yellow/Cyan/Magenta) Adjust colour saturation by area. Tint (Red/Green/Blue/Yellow/Cyan/Magenta) Adjust colour tint by area.

PICTURE RESET

Settings of the selected picture modes return to the default factory settings.





• Press the **MENU** button to return to normal TV viewing.

IMAGE STICKING MINIMIZATION (ISM) METHOD

A frozen or still picture displayed on the screen for prolonged periods will result in a ghost image remaining even when you change the image. Avoid allowing a fixed image to remain on the screen for prolonged periods.

Orbiter

Orbiter may help prevent ghost images. However, it is best not to allow any fixed image to remain on the screen. To avoid a permanent image on the screen, the screen will move every 2 minutes.

Colour Wash

The colour block with the screen moved a little and the white pattern are alternately displayed. It is difficult to sense the afterimage occurred while the temporary afterimage is removed and the colour pattern is operating.

White Wash

White wash removes permanent images from the screen. Note: An excessive permanent image may be impossible to clear entirely with White Wash.





Press the MENU button to return to normal TV viewing.

DEMO MODE

Use it to see the difference between XD Demo on and XD Demo off.





• Press the **MENU** button to return to normal TV viewing.

MODE SETTING

We recommend setting the TV to "Home Use" mode for the best picture in your home environment. "Store Demo" mode is an optimal setting for displaying at stores.





• Press the **MENU** button to return to normal TV viewing.

AUTO VOLUME LEVELER

AVL automatically remains on the same level of volume if you change programmes.

Because each broadcasting station has its own signal conditions, volume adjustment may be needed every time the channel is changed. This feature allows users to enjoy stable volume levels by making automatic adjustments for each programme.





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

PRESET SOUND SETTINGS-SOUND MODE

You can select your preferred sound setting; Standard, Music, Cinema, Sport or Game and you can also adjust Treble, Bass.

Sound Mode lets you enjoy the best sound without any Special adjustment as the TV sets the appropriate sound options based on the programme content.

Standard, Music, Cinema, Sport and Game are preset for optimum sound quality at the factory.

Standard	Offers standard-quality sound.
Music	Optimizes sound for listening to music.
Cinema	Optimizes sound for watching movies.
Sport	Optimizes sound for watching sports events.
Game	Optimizes sound for playing games.





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

SOUND SETTING ADJUSTMENT -USER MODE



- ► SIS© is a trademark of SRS Labs, Inc.
- ▶ TruSurround XT technology is incorporated under license from SRS Labs, Inc.

CLEAR VOICE II

By differentiating the human sound range from others, it helps users listen to human voices better.

AUDIO		<.p>← Move	⊛ OK	\bigcirc	AUDIO		💠 Move 💿 OK	
Auto Volume	: Off				Auto Volume	: Off	Off	-
Clear Voice I	I : On				Clear Voice I I	: On	On	
	• Level	3 🖃		۲		• Level	3 •	Γ
Balance		0 💷	R	۲	Balance		0 LR	L
Sound Mode	: Standard			国	Sound Mode	: Standard		L
3	 SRS TruSurrour 	nd XT : On		 		SRS TruSurround	IXT : On	L
>	• Treble	50 🔳		-		• Treble	50	L
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	• Bass	50				• Bass	50	
	•					•		L.





When the Clear Voice II is selected On,



- Press the MENU button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

#### BALANCE

You can adjust the sound balance of the speakers to preferred levels.

	$\odot$	AUDIO		-∢)- Mo	we 💿 OK		$\odot$	AUDIO		↔ Move ⊚ OK	
		Auto Volume	: Off					Auto Volume	: Off		
		Clear Voice I I	: On					Clear Voice I I	: On		
	۲		• Level	3	•		۲		• Level	3	
ĺ	٢	Balance		0	L	>	۲	Balance		Balance 0	
Ī	Ē	Sound Mode	: Standard					Sound Mode	: Standard		
Î	\$		SRS TruSurroun	nd XT:O	n		\$		SRS TruSurroun		Close
	-0->		• Treble	50			-		• Treble	50	
			• Bass	50					• Bass	50	•
Ц	<u> </u>		•			]			•		
MENU		Select A	UDIO.								
ОК		Select B	alance.								
						<ul> <li>Press</li> </ul>	s the <b>ME</b>	NU button	to return t	o normal TV	viewing.
	(D)										-
<u>ок</u> )(		))Make de	esired ad	justn	ient.	<ul> <li>Press</li> </ul>	s the <b>RET</b>	URN butto	on to move	to the previo	us menu screen.

## TV SPEAKERS ON/ OFF SETUP

You can adjust the TV internal speaker status.

In AV1, AV2, AV3 (Except for 42/50PQ10**, 42/50PQ11**), COMPONENT (Except for 42/50PQ10**, 42/50PQ11**), RGB (Except for 42/50PQ10**, 42/50PQ11**) and HDMI1 with HDMI to DVI cable, the TV speaker can be operational even when there is no video signal.

If you wish to use an external Hi-Fi system, turn off the TV internal speakers.

0 AUDIO 0 AUDIO ↔ Move ⊙ OK Balance 0 Balance 0 L Sound Mode : Standard Sound Mode : Standard • SRS TruSurround XT : On 0 • SRS TruSurround XT : On  $\gg$  Treble 50 • Treble 50 • Bass 50 • Bass 50 Reset • Reset Digital Audio Out : Auto Digital Audio Out : Auto --Off TV Speaker : On TV Speaker : On *** ******* On

Select AUDIO. Select TV Speaker. Select On or Off.

#### 

▶ When the TV speaker is turned off while the Simplink home theater is operating, the sound output automatically switches to the Home theater speaker, but when the TV speaker is turned on, the sound output the TV speaker.

• Press the **MENU** button to return to normal TV viewing.

#### SELECTING DIGITAL AUDIO OUT

This function allows you to select your preferred Digital Audio Output.

The TV can only output DOLBY Digital if a channel is broadcast with Dolby Digital audio.

When Dolby digital is available, selecting Auto in the Digital Audio Out menu will set SPDIF(Sony Philips Digital InterFace) output to Dolby Digital.

If Auto is selected in the digital audio out menu when dolby digital is not available, SPDIF output will be PCM(Pulse-code modulation).

Even if both Auto and Audio language have been set in a channel which broadcast Dolby Digital Audio, only Dolby Digital will be played.

If the sample rate converter on this chip does not support 44.1 to 48kHz, this content should always produce stereo PCM at digital output.





[•] Press the **MENU** button to return to normal TV viewing.

#### AUDIO RESET

Settings of the selected Sound Mode return to the default factory settings.





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

#### AUDIO DESCRIPTION (IN DIGITAL MODE ONLY)

This function is for the blind, and provides explanatory audio describing the current situation in a TV programme in addition to the basic audio.

When Audio Description On is selected, basic audio and Audio Description are provided only for those programmes that have Audio Description included.

When Main Audio is AAC or Dolby Digital Plus Audio, Audio Description is not supported.





When the Audio Description is selected On,



- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

#### Stereo/Dual Reception (In Analogue Mode Only)

When a programme is selected, the sound information for the station appears with the programme number and station name.



Broadcast	On Screen Display
Mono	MONO
Stereo	STEREO
Dual	DUAL I, DUAL II, DUAL I+II

#### Mono sound selection

If the stereo signal is weak in stereo reception, you can switch to mono. In mono reception, the clarity of sound is improved.

#### ■ Language selection for dual language broadcast

If a programme can be received in two languages (dual language), you can switch to DUAL I, DUAL II or DUAL I+II.

- DUAL I Sends the primary broadcast language to the loudspeakers.
- DUAL II Sends the secondary broadcast language to the loudspeakers.
- DUAL I+II Sends a separate language to each loudspeaker.

#### NICAM Reception (In Analogue Mode Only)

If the TV is equipped with a receiver for NICAM reception, high quality NICAM (Near Instantaneous Companding Audio Multiplex) digital sound can be received.

Sound output can be selected according to the type of broadcast received.



2

When NICAM mono is received, you can select NICAM MONO or FM MONO.

When **NICAM stereo** is received, you can select **NICAM STEREO** or **FM MONO**. If the stereo signal is weak, switch to **FM MONO**.



When NICAM dual is received, you can select NICAM DUAL I, NICAM DUAL II or NICAM DUAL I+II or FM MONO.

#### **Speaker Sound Output Selection**

In AV, Component, RGB and HDMI mode, you can select output sound for the left and right loud-speakers.

Select the sound output.

- L+R: Audio signal from audio L input is sent to the left loudspeaker and audio signal from audio R input is sent to the right loudspeaker.
- L+L: Audio signal from audio L input is sent to left and right loudspeakers. R+R: Audio signal from audio R input is sent to left and right loudspeakers.

# ON-SCREEN MENU LANGUAGE / COUNTRY SELECTION

The installation guide menu appears on the TV screen when it is switched on for the first time.



#### * If you want to change Language/ Country selection



• Press the **MENU** button to return to normal TV viewing.

• Press the **RETURN** button to move to the previous menu screen.

#### NOTE

- ► If you do not finish the set-up Installation Guide by pressing RETURN or if you time out on the OSD (On Screen Display) the installation menu will continuously appear until the set up is completed whenever the TV is switched on
- If you select the wrong local country, teletext may not appear correctly on the screen and some problems may occur during teletext operation.
- ▶ The CI (Common Interface) function may not be applied based on country broadcasting circumstances.
- ▶ DTV mode control buttons may not function based on country broadcasting circumstances.
- In country that Digital broadcasting regulation isn't fixed, some DTV function may not work depending on digital broadcasting circumstances.
- ▶ The Country Setting "UK" should only be activated in UK.
- ▶ If the country setting is set to "--", European terrestrial digital standard broadcasting programmes are available, but some DTV functions may not work properly.

#### LANGUAGE SELECTION (IN DIGITAL MODE ONLY)

The Audio function allows selection of a preferred language. If audio data in a selected language is not broadcast, the default language audio will be played.

Use the Subtitle function when two or more subtitle languages are broadcast. If subtitle data in a selected language is not broadcast, the default language subtitle will be displayed.

When the languages you selected as the primary for Audio Language and Subtitle Language are not supported, you can select language in secondary category.



• Press the **RETURN** button to move to the previous menu screen.

< Audio Language Selection >

- ▶ When two or more audio languages are broadcast, you can select the audio language.
- ▶ When AAC, Dolby Digital or Dolby Digital PLUS received, you cannot select the L+R, L+L or R+R.



Audio Language OSD Information					
Display	Status				
N.A	Not Available				
MPEG	MPEG Audio				
	Dolby Digital Audio				
2.0	Audio for "Visual Impaired"				
ABC	Audio for "Hearing Impaired"				
DD+	Dolby Digital Plus Audio				
AAC	AAC Audio				

Select L+R, L+L or R+R.

- < Subtitle Language Selection >
- When two or more subtitle languages are broadcast, you can select the subtitle language with the SUBTITLE button on the remote control.

	0.0.0
Display	Status
N.A	Not Available
	Teletext Subtitle
ABC	Subtitle for "Hard of Hearing"

Subtitle Language OSD Information

• Press the  $\land \lor$  button to select a subtitle language.

- The audio/subtitles can be displayed in a simpler form with 1 to 3 characters broadcast by the service provider.

- When you select supplementary Audio (Audio for "Visual/Hearing Impaired") the TV may output a part of the Main audio.

# TIME SETTING

## **CLOCK SETUP**

The clock is set automatically when receiving a digital signal. (You can set the clock manually only if the TV has no DTV signal.)

You must set the time correctly before using on/off timer function.

When you select a Time Zone city, the TV time is set by the time offset information based on Time Zone and GMT (Greenwich Mean Time) which is received with the broadcast signal and the time is set automatically by a digital signal.

Once Clock is set in DTV mode, you cannot change time, but if the city name in Time Zone is changed into offset, you can change time by 1 hour.





• Press the **MENU** button to return to normal TV viewing.

## TIME SETTING

## AUTO ON/OFF TIMER SETTING

The Off time function automatically switches the TV to standby at a preset time. Two hours after the TV is switched on by the on time function it will automatically switch back to standby mode unless a button has been pressed.

The Off time function overrides the On timer function if both are set to the same time. The TV must be in standby mode for the On timer to work.

 $\gg$ 







## SLEEP TIMER SETTING

You do not have to remember to switch the TV off before you go to sleep. The sleep timer automatically switches the TV to standby after the preset time has elapsed.



- When you switch the TV off, the preset sleep timer is cancelled.
- You can also adjust **Sleep Timer** in the **TIME** menu.

## SET PASSWORD & LOCK SYSTEM

Enter the password, press '0', '0', '0', '0' on the remote control handset.

Revitalize Block Programme, Parental Guidance and Input Block function.



#### **BLOCK PROGRAMME**

Blocks any programmes that you do not want to watch or that you do not want your children to watch.

It is available to use this function in Lock System "On".

Enter a password to watch a blocked programme.





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

#### PARENTAL CONTROL (IN DIGITAL MODE ONLY)

This function operates according to information from the broadcasting station. Therefore if the signal has incorrect information, this function does not operate.

A password is required to gain access to this menu.

This TV is programmed to remember which option it was last set to even if you switch the TV off.

Prevents children from watching certain adult's TV programmes, according to the ratings limit set

Enter a password to watch a rated programme.





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

PARENTAL CONTROL / RATINGS

#### **INPUT BLOCK**

Enables you to block an input.





- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

## **KEY LOCK**

The TV can be set so that the remote control is required to control it. This feature can be used to prevent unauthorized viewing.

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• Press the **MENU** button to return to normal TV viewing.

# TELETEXT

#### This feature is not available in all countries.

Teletext is a free service broadcast by most TV stations which gives up-to-the-minute information on news, weather, television programmes, share prices and many other topics.

The teletext decoder of this TV can support the SIMPLE, TOP and FASTEXT systems. SIMPLE (standard teletext) consists of a number of pages which are selected by directly entering the corresponding page number. TOP and FASTEXT are more modern methods allowing quick and easy selection of teletext information.

#### SWITCH ON/OFF

Press the **TEXT** button to switch to teletext. The initial page or last page viewed appears on the screen.

Two page numbers, TV station name, date and time are displayed on the screen headline. The first page number indicates your selection, while the second shows the current page displayed.

Press the **TEXT** button to switch off teletext. The previous mode reappears.

#### **SIMPLE TEXT**

#### Page selection

Enter the desired page number as a three digit number with the NUMBER buttons. If during selection you press a wrong number, you must complete the three digit number and then re-enter the correct page number.
 The P ^ v button can be used to select the preceding or following page.

### TOP TEXT

The user guide displays four fields-red, green, yellow and blue at the bottom of the screen. The yellow field denotes the next group and the blue field indicates the next block.

#### ■ Block / group / page selection

- **1** With the blue button you can progress from block to block.
- **2** Use the yellow button to proceed to the next group with automatic overflow to the next block.
- With the green button you can proceed to the next existing page with automatic overflow to the next group. Alternatively the P button can be used.
- The red button returns to the previous selection. Alternatively the P  $\vee$  button can be used.

#### Direct page selection

As with SIMPLE teletext mode, you can select a page by entering it as a three digit number using the NUMBER buttons in TOP mode.



## TELETEXT

## FASTEXT

The teletext pages are colour coded along the bottom of the screen and are selected by pressing the corresponding coloured button.

Page selection

- **①** Press the **T.OPT** button and then use  $\land \lor$  button to select  $\exists i$  menu. Display the index page.
- **2** You can select the pages which are colour coded along the bottom line with corresponding coloured buttons.
- AS with SIMPLE teletext mode, you can select a page by entering its three digit page number with the NUM-BER buttons in FASTEXT mode.
- **③** The P  $\land$   $\checkmark$  button can be used to select the preceding or following page.

## **SPECIAL TELETEXT FUNCTIONS**

**Press the T. OPT** button and then use  $\land \lor$  button to select the **Text Option** menu.



#### Index

Select the each index page.



#### Time

When viewing a TV programme, select this menu to display the time at the top right hand corner of the screen.

In the teletext mode, press this button to select a sub page number. The sub page number is displayed at the bottom of the screen. To hold or change the sub page, press the RED/GREEN, < > or NUMBER buttons.



#### Ē≚] ∎ Hold

Stops the automatic page change which will occur if a teletext page consists of 2 or more sub pages. The number of sub pages and the sub page displayed is, usually, shown on the screen below the time. When this menu is selected the stop symbol is displayed at the top left-hand corner of the screen and the automatic page change is inactive.



#### Reveal

Select this menu to display concealed information, such as solutions to riddles or puzzles.



#### Update

Displays the TV picture on the screen while waiting for a new teletext page. The display will appear at the top left hand corner of the screen. When the updated page is available then display will change to the page number. Select this menu again to view the updated teletext page.
# DIGITAL TELETEXT

#### *This function works in UK/ Ireland only.

The TV gives you access to digital teletext which is greatly improved in various aspects such as text, graphics etc. This digital teletext can access special digital teletext services and specific services which broadcast digital teletext.

You should select off in the subtitle language menu to display teletext by pressing the SUBTITLE button.

## **TELETEXT WITHIN DIGITAL SERVICE**



Press the numeric or  $P \land \lor$  button to select a digital service which broadcasts digital teletext. To know which are digital teletext services, refer to the EPG service list.

- Follow the indications on digital teletext and move onto the next step by pressing TEXT, OK,  $\land \lor < \rangle$ , RED, GREEN, YELLOW, BLUE or NUMBER buttons and etc..
  - To change digital teletext service, select a different service by the numeric or  $\mathbf{P} \land \lor$  button.



## **TELETEXT IN DIGITAL SERVICE**

- Press the numeric or  $P \land \lor$  button to select a certain service which broadcasts digital teletext.
  - Press the TEXT or coloured button to switch on teletext.
- Follow the indications on digital teletext and move onto the next step by pressing OK,  $\land \lor < >$ , RED, GREEN, YELLOW, BLUE or NUMBER buttons and so on.
- 4 Press the TEXT or colour button to switch off digital teletext and return to TV viewing.

Some services may allow you to access text services by pressing the **RED** button.



## TROUBLESHOOTING

The TV does not operate properly.				
The remote control does not work	<ul> <li>Check to see if there is any object between the TV and the remote control causing an obstruction. Ensure you are pointing the remote control directly at the TV.</li> <li>Ensure that the batteries are installed with correct polarity (+ to +, - to -).</li> <li>Install new batteries.</li> </ul>			
Power is suddenly turned off	<ul> <li>Is the sleep timer set?</li> <li>Check the power control settings. Has the Power supply been interrupted.</li> <li>The TV goes into Standby mode automatically if no signal is received and no operation is performed for 15 minutes.</li> </ul>			

The video function doe:	The video function does not work.			
No picture & No sound	<ul> <li>Check whether the TV is switched on.</li> <li>Try another channel. The problem may be with the broadcast.</li> <li>Is the power cord inserted correctly into the mains?</li> <li>Check your antenna direction and/or location.</li> <li>Test the mains outlet by plugging another TV into the same outlet.</li> </ul>			
Picture appears slowly after switching on	This is normal, the image is muted during the TV startup process. Please contact your service centre, if the picture has not appeared after five minutes.			
No or poor colour or poor picture	<ul> <li>Adjust Colour in menu option.</li> <li>Allow a sufficient distance between the TV and the VCR.</li> <li>Try another channel. The problem may be with the broadcast.</li> <li>Are the video cables installed properly?</li> <li>Activate any function to restore the brightness of the picture.</li> </ul>			
Horizontal/vertical bars or picture shaking	Check for local interference such as an electrical appliance or power tool.			
Poor reception on some channels	<ul> <li>Station or cable channel experiencing problems, tune to another station.</li> <li>Station signal is weak, reposition the antenna to receive weaker stations.</li> <li>Check for sources of possible interference.</li> </ul>			
Lines or streaks in pictures	Check antenna (Change the position of the antenna).			
No picture when connecting HDMI	Check that your HDMI cable is version 1.3 or higher. If the HDMI cables don't support HDMI version 1.3, flickering or no screen display can result. Please use the latest cables that support at least HDMI version 1.3.			

#### The audio function does not work. Press the $\checkmark$ + or - button. Sound muted? Press **MUTE** button. Picture OK & No sound Try another channel. The problem may be with the broadcast. Are the audio cables installed properly? No output from one of the speakers Adjust **Balance** in menu option. Unusual sound from A change in ambient humidity or temperature may result in an unusual noise inside the TV when the TV is switched on or off and does not indicate a fault with the TV. Check HDMI cable over version 1.3. No sound when connecting HDMI Check USB cable over version 2.0. or USB *This feature is not available for all models.

#### There is a problem in PC mode. (Only PC mode applied)

The signal is out of range (Invalid format)	Adjust resolution, horizontal frequency, or vertical frequency.
	Check the input source.
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	Use Auto configure or adjust clock, phase, or H/V position. (Option)
Screen colour is unstable or single colour	<ul><li>Check the signal cable.</li><li>Reinstall the PC video card.</li></ul>

#### There is a problem with PICTURE settings.

When the user changes	It means that the TV is currently set to Store Demo mode.
the picture settings, the	To switch to <b>Home Use</b> mode you should do the followings:
TV automatically converts	From the TV Menu, choose OPTION -> Choose Mode Setting -> Choose
back to the initial settings	Home Use.
after a certain period of	Now, you have completed switching to the <b>Home Use</b> mode.
time.	
<b>\</b>	

APPENDIX

### MAINTENANCE

Early malfunctions can be prevented. Careful and regular cleaning can prolong the life of your new TV.

Caution: Be sure to switch the power off and unplug the power cord before you begin any cleaning.

### **Cleaning the Screen**

A good way to keep the dust off your screen for a while is to wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it is almost dry, and then use it to wipe the screen.

Ensure there is no excess water on the screen. Allow any water or dampness to evaporate before switching on.

### **Cleaning the Cabinet**

2

To remove dirt or dust, wipe the cabinet with a soft, dry, lint-free cloth.Do not to use a wet cloth.

### **Extended Absence**

### **A** CAUTION

If you expect to leave your TV dormant for prolonged periods (such as a holiday), unplug the power cord to protect against possible damage from lightning or power surges.

## PRODUCT SPECIFICATIONS

MODELS		42PQ20** 50PQ20**		42PQ30**	50PQ30**	
		42PQ2000-ZA 42PQ2010-ZB	50PQ2000-ZA 50PQ2010-ZB	42PQ3000-ZA	50PQ3000-ZA	
Dimonsions		1031.2 x 720.9 x 308.0 mm	1216.7 x 818.1 x 353.0 mm	1031.2 x 720.9 x 308.0 mm	1216.7 x 818.1 x 353.0 mm	
(Width x Height x Depth)	with stand	40.6 x 28.4 x 12.1 inches	47.9 x 32.2 x 13.9 inches	40.6 x 28.4 x 12.1 inches	47.9 x 32.2 x 13.9 inches	
	without stand	1031.2 x 656.7 x 80.8mm	1216.7 x 759.0 x 83.0 mm	1031.2 x 656.7 x 80.8mm	1216.7 x 759.0 x 83.0 mm	
	without stand	40.6 x 25.9 x 3.2 inches	47.9 x 29.9 x 3.3 inches	40.6 x 25.9 x 3.2 inches	47.9 x 29.9 x 3.3 inches	
Weight	with stand	24.8 kg / 54.7 lbs	33.7kg / 74.3 lbs	24.8 kg / 54.7 lbs	33.7kg / 74.3 lbs	
J. J	without stand	22.7 kg / 50.1 lbs	31.2 kg / 68.8 lbs	22.7 kg / 50.1 lbs	31.2 kg / 68.8 lbs	
Power requirement		AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	
Power Consumption		320W	430W	320W	430W	
		42PC	260**	50PC	260**	
MODELS		42PQ6 42PQ6	000-ZA 010-ZB	50PQ6000-ZA		
Dimensions		1040.8 x 725.8 x 308 mm		1228.8 x 824.6 x 353.0 mm		
(Width x Height x Depth)	with stand	41.0 x 28.6 x 1	41.0 x 28.6 x 12.1 inches		48.4 x 32.5 x 13.9 inches	
	without stand	1040.8 x 669.2 x 76.8 mm		1228.8 x 772.0 x 78.9 mm		
		41.0 x 26.4 x 3	.1 inches	48.4 x 30.4 x 3.1 inches		
Weight	with stand	25.3kg / 55.8 lbs		35 kg / 77.2 lbs		
	without stand	23.3 kg / 51.4 lbs		32.5 kg / 71.7 lbs		
Power requirement		AC100-240V~ 50/60Hz		AC100-240V~ 50/60Hz		
Power Consumption		320W		430W		
Television System		PAL/SECAM B/G/D/K, PAL I/II, SECAM L/L'				
Programme Coverage		VHF: E2 ~ E12, UHF: E21 ~ E69, CATV: S1 ~ S20, HYPER: S21 ~ S47				
External Antenna Impedance		75 Ω				
Operating Temperature		0 ~ 40°C / 32 ~ 104°F				
Environment condition	Operating Humidity			Less than 80%		
	Storage Temperature	-20 ~ 60°C / -4 ~ 140°F				
Storage Humidity		Less than 85%				

The specifications shown above may be changed without prior notice for quality improvement.

MODELS		42PQ10** 42PQ1000-ZD/ZA	50PQ10** A 50PQ1000-ZD/ZA		42PQ11** 42PQ1100-2	ZE	50PQ11** 50PQ1100-ZE	
Dimensions (Width x Height x Depth)	with stand	1031.2 x 720.9 x 308.0 mm 40.6 x 28.4 x 12.1 inches	1216.7 x 47.9 x 32	818.1 x 353.0 mm .2 x 13.9 inches	1031.2 x 720.9 x 308.0 40.6 x 28.4 x 12.1 ind	) mm nes	1216.7 x 818.1 x 353.0 mm 479 x 32.2 x 13.9 inches	
	without stand	1031.2 x 656.7 x 80.8mm 40.6 x 25.9 x 3.2 inches	1216.7 x 47.9 x 29	759.0 x 83.0 mm .9 x 3.3 inches	1031.2 x 656.7 x 80.8 40.6 x 25.9 x 3.2 inch	omm Nes	1216.7 x 759.0 x 83.0 mm 47.9 x 29.9 x 3.3 inches	
Weight	with stand without stand	24.3 kg / 53.6 lbs 22.2 kg / 49.0 lbs	33.7kg / 31.2 kg /	74.3 lbs 68.8 lbs	24.3 kg / 53.6 lbs 22.2 kg / 49.0 lbs		33.7kg / 74.3 lbs 31.2 kg / 68.8 lbs	
Power requirement Power Consumption		AC100-240V~ 50/60Hz 320W	AC100-2 430W	40V~ 50/60Hz	AC100-240V~ 50/0 320W	60Hz	AC100-240V~ 50/60Hz 430W	
MODELS		50PS30**/ 50PS20** 5 50PS3000-ZB 50P 50PS2000-ZB 50P		50I 50PS	PS60** 6000-ZC		60PS40** 60PS4000-ZA	
Dimensions (Width x Height x Depth)	with stand	1216.7 x 818.1 x 353.0 mm 47.9 x 32.2 x 13.9 inches		1228.8 x 824.6 x 353.0 mm 48.4 x 32.5 x 13.9 inches		14 57.	1468 x 1028.8 x 395.5 mm 577 x 40.5 x 15.5 inches	
	without stand	1216.7 x 759.0 x 83.0 mm 47.9 x 29.9 x 3.3 inches		1228.8 x 772.0 x 78.9 mm 14 48.4 x 30.4 x 3.1 inches 55		14 57.	68 x 949.5 x 88.5 mm 7 x 37.3 x 3.4 inches	
Weight	with stand without stand	35.4 kg / 78.0lbs         36.3 k           32.8 kg / 72.3 lbs         33.8 k		36.3 kg / 33.8 kg /	80.0 lbs 74.5 lbs	5: 4:	3.06 kg / 116.9 lbs 7.16 kg / 103.9 lbs	
Power requirement Power Consumption		AC100-240V~ 50/60Hz AC100-240V 490W 490W		0V~ 50/60Hz	A 5	C100-240V~ 50/60Hz 80W		
Television System		PAL/SECAM B/G/D/K, PAL I/II, SECAM L/Ľ						
Programme Coverage External Antenna Impedance		VHF: E2 ~ E12, UHF: E21 ~ E69, CATV: S1 ~ S20, HYPER: S21 ~ S47 75 $\Omega$						
Operating Temperature		0 ~ 40°C / 32 ~ 104°F						
Environment condition	Operating Humidity			Less	than 80%			
	Storage Temperature	-20 ~ 60°C / -4 ~ 140°F						
Storage Humidity		Less than 85%						

The specifications shown above may be changed without prior notice for quality improvement.

MODELS	42PQ60**	50PQ60**	50PS60**
	42PQ6000-ZA	50PQ6000-ZA	50PS6000-ZC
Supported movie files		Refer to p.61	

APPENDIX

## **IR CODES**

Code (Hexa)	Function	Note	
08	POWER	R/C BUTTON (POWER ON/OFF)	
OB	INPUT	R/C BUTTON	
fO	TV/RAD	R/C BUTTON	
45	Q.MENU	R/C BUTTON	
43	MENU	R/C BUTTON	
AB	GUIDE	R/C BUTTON	
07	Left (< )	R/C BUTTON	
06	Right (>)	R/C BUTTON	
40	Up (^)	R/C BUTTON	
41	Down (~)	R/C BUTTON	
44	OK()	R/C BUTTON	
28	RETUŔN/EXIT	R/C BUTTON	
AA	INFO ①	R/C BUTTON	
30	AV MODE	R/C BUTTON	
02	⊿+	R/C BUTTON	
03	⊿ -	R/C BUTTON	
00	P ^	R/C BUTTON	
01	P V	R/C BUTTON	
1E	FAV(MARK)	R/C BUTTON	
09	MUTE	R/C BUTTON	
10 ~19	Number Key 0~9	R/C BUTTON	
53	LIST	R/C BUTTON	
1A	Q.VIEW	R/C BUTTON	
72	RED Key	R/C BUTTON	
71	GREEN Key	R/C BUTTON	
63	YELLOW Key	R/C BUTTON	
61	BLUE Key	R/C BUTTON	
20	TEXT	R/C BUTTON	
21	T.OPT (T.Option)	R/C BUTTON	
39	SUBTITLE	R/C BUTTON	(Except
7E	SIMPLINK	R/C BUTTON	42/50
95	ENERGY SAVING or Power Saving	R/C BUTTON	42/50
65	FREEZE	R/C BUTTON	
79	RATIO	R/C BUTTON	💶 🗩 (Except

#### 42/50PQ10**, 42/50PQ11**) (Except for 42/50PQ10**, 42/50PQ10**, 42/50PQ20**, 42/50PQ30**)

### EXTERNAL CONTROL DEVICE SETUP

### RS-232C Setup

Connect the RS-232C (serial port) input jack to an external control device (such as a computer or an A/V control system) to control the product's functions externally.

Connect the serial port of the control device to the RS-232C jack on the product back panel.

Note: RS-232C connection cables are not supplied with the product.



### Type of Connector; D-Sub 9-Pin Male

No.	Pin Name
1	No connection
2	RXD (Receive data)
3	TXD (Transmit data)
4	DTR (DTE side ready)
5	GND
6	DSR (DCE side ready)
7	RTS (Ready to send)
8	CTS (Clear to send)
9	No Connection



### **RS-232C Configurations**

7-Wire Configurations (Standard RS-232C cable)				
	PC	TV		
RXD	2 👞	<b></b> 3	TXD	
TXD	3 👞	<u> </u>	RXD	
GND	5 👞	<u> </u>	GND	
DTR	4 •	• 6	DSR	
DSR	6 🏎	• 4	DTR	
RTS	7 •	• 8	CTS	
CTS	8 •	• 7	RTS	
	D-Sub 9	D-Sub 9		

3-Wire Configurations(Not standard)				
	PC	TV		
RXD	2 •	• 3	TXD	
TXD	3 •	<b>—</b> 2	RXD	
GND	5 •	• 5	GND	
DTR	4	6	DTR	
DSR	6	4	DSR	
RTS	7	7	RTS	
CTS	8	8	CTS	
	D-Sub 9	D-Sub 9		

### Set ID

Use this function to specify a set ID number. Refer to 'Real Data Mapping'. ► p.119





• Press **RETURN** button to move to the previous menu screen.

### **Communication Parameters**

■Baud	rate :	9600 bps	(UART)
		<b>.</b>	

- Data length : 8 bits
- Parity : None

Stop bit : 1 bitCommunication code : ASCII codeUse a crossed (reverse) cable.

#### **Command Reference List**

	COMMAND 1	COMMANE 2	) DATA (Hexadecimal)
01. Power	k	а	00 ~ 01
02. Aspect Ratio	k	c	Refer to p. 117
03. Screen Mute	k	d	Refer to p. 117
04. Volume Mute	k	е	00 ~ 01
05. Volume Control	k	f	00 ~ 64
06. Contrast	k	g	00 ~ 64
07. Brightness	k	h	00 ~ 64
08. Colour	k	i	00 ~ 64
09. Tint	k	j	00 ~ 64
10. Sharpness	k	k	00 ~ 64
11. OSD Select	k	I	00 ~ 01
12. Remote control lock m	ode k	m	00 ~ 01
13. Treble	k	r	00 ~ 64
14. Bass	k	S	00 ~ 64
15. Balance	k	t	00 ~ 64
16. Colour Temperature	k	u	00 ~ 02
17. Abnormal Status	k	Z	FF
18. ISM Method	j	р	Refer to p. 119
19. Energy Saving	j	q	Refer to p. 119
20. Auto Configuration	j	u	01
21. Tune Command	m	а	Refer to p. 119
22. Channel Add/Skip	m	b	00 ~ 01
23. Key	m	c	Sende IR-kode
24.Input select (Main)	X	b	Refer to p. 120

- $\ast$  When setting the 17  $\sim$  24, a menu does not appear on screen.
- * Note: During USB operations such as Dvix or EMF, all commands except Power (ka) and Key (mc) are not executed and treated as NG.

### Transmission / Receiving Protocol

#### Transmission

#### [Command1][Command2][ ][Set ID][ ][Data][Cr]

-			
*	[Command 1]	:	First command to control the TV.
			(j, k, m or x)
*	[Command 2]	:	Second command to control the TV.
*	[Set ID]	:	You can adjust the set ID to choose
			desired monitor ID number in option
			menu. Adjustment range is $1 \sim 99$ .
			When selecting Set ID '0', every connect
			ed set is controlled.
			Set ID is indicated as decimal (1~99) on
			menu and as Hexa decimal (0x0~0x63)
			on transmission/receiving protocol.
*	[DATA]	:	To transmit command data.
			Transmit 'FF' data to read status of com-
			mand.
*	[Cr]	:	Carriage Return
			ASCII code '0x0D'
*	[]	:	ASCII code 'space (0x20)'

#### OK Acknowledgement

#### [Command2][ ][Set ID][ ][OK][Data][x]

* The set transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

#### Error Acknowledgement

#### [Command2][ ][Set ID][ ][NG][Data][x]

* The set transmits ACK (acknowledgement) based on this format when receiving abnormal data from non-viable functions or communication errors.

#### Data 00: Illegal Code

#### 01. Power (Command: k a)

► To control Power On/Off of the set. *Transmission* 

[k][a][ ][Set ID][ ][Data][Cr]

Data 00 : Power Off 01 : Power On Ack

#### [a][ ][Set ID][ ][OK/NG][Data][x]

To show Power On/Off.

**Transmission** 

[k][a][ ][Set ID][ ][FF][Cr]

#### Ack

#### [a][ ][Set ID][ ][OK/NG][Data][x]

- * Similarly, if other functions transmit '0xFF' data based on this format, Acknowledgement data feed back presents status about each function.
- * OK Ack., Error Ack. and other message may display on the screen when TV is power On.

#### 02. Aspect Ratio (Command: k c) (Main Picture Size)

To adjust the screen format. (Main picture format) You can also adjust the screen format using the Aspect Ratio in the Q.MENU. or PICTURE menu. Transmission

### [k][c][ ][Set ID][ ][Data][Cr]

 Data
 01 : Normal screen (4:3)
 07 : 14:9

 02 : Wide screen (16:9)
 09 : Just Scan

 04 : Zoom
 0B : Full Wide

 06 : Original
 10~1F : Cinema Zom 1~16

Ack

#### [c][ ][Set ID][ ][OK/NG][Data][x]

- * Using the PC input, you select either 16:9 or 4:3 screen aspect ratio.
- * In DTV/HDMI (1080i 50Hz/60Hz, 720p 50Hz/60Hz, 1080p 24Hz/30Hz/50Hz/60Hz), Component( 720p, 1080i, 1080p 50Hz/60Hz) mode, Just Scan is available.
- * Full wide is supported only for Analogue, AV1,2,3.

#### 03. Screen Mute (Command: k d)

► To select screen mute on/off.

#### Transmission

- [k][d][ ][Set ID][ ][Data][Cr]
- Data 00 : Screen mute off (Picture on) Video mute off
  - 01 : Screen mute on (Picture off)

Ack 10 : Video mute on

#### [d][ ][Set ID][ ][OK/NG][Data][x]

* In case of video mute on only, TV will display On Screen Display(OSD). But, in case of Screen mute on, TV will not display OSD.

#### 04. Volume Mute (Command: k e)

To control volume mute on/off. You can also adjust mute using the MUTE button on remote control.

#### Transmission

- [k][e][ ][Set ID][ ][Data][Cr]
- Data 00 : Volume mute on (Volume off) 01 : Volume mute off (Volume on)

Ack

#### [e][ ][Set ID][ ][OK/NG][Data][x]

#### 05. Volume Control (Command: k f)

To adjust volume. You can also adjust volume with the VOLUME buttons on remote control.

Transmission

#### [k][f][ ][Set ID][ ][Data][Cr]

Data Min : 00 ~ Max : 64 * Refer to 'Real data mapping 1'. See page 119.

#### Ack

[f][ ][Set ID][ ][OK/NG][Data][x]

#### 06. Contrast (Command: k g)

 To adjust screen contrast. You can also adjust contrast in the PICTURE menu.

#### Transmission

#### [k][g][ ][Set ID][ ][Data][Cr]

- Data Min : 00 ~ Max : 64
- * Refer to 'Real data mapping 1'. See page 119. Ack

[g][ ][Set ID][ ][OK/NG][Data][x]

#### 07. Brightness (Command: k h)

► To adjust screen brightness. You can also adjust brightness in the PICTURE menu.

Transmission

- [k][h][ ][Set ID][ ][Data][Cr]
- Data Min : 00 ~ Max : 64 * Refer to 'Real data mapping 1'. See page 119.
- Ack

#### [h][ ][Set ID][ ][OK/NG][Data][x]

#### 08. Colour (Command: k i)

To adjust the screen colour. You can also adjust colour in the PICTURE menu. Transmission

#### [k][i][ ][Set ID][ ][Data][Cr]

- Data Min : 00 ~ Max : 64
  - * Refer to 'Real data mapping 1'. See page 119.

#### Ack

[i][ ][Set ID][ ][OK/NG][Data][x]

## **APPFNDIX**

#### 09. Tint (Command: kj)

► To adjust the screen tint.

You can also adjust tint in the PICTURE menu.

Transmission

#### [k][j][ ][Set ID][ ][Data][Cr]

Data Min: 00 ~ Max: 64 * Refer to 'Real data mapping 1'. See page 119.

Ack

#### [j][ ][Set ID][ ][OK/NG][Data][x]

#### 10. Sharpness (Command: k k)

To adjust the screen sharpness. You can also adjust sharpness in the PICTURE menu. Transmission

### [k][k][ ][Set ID][ ][Data][Cr]

Data Min: 00 ~ Max: 64

* Refer to 'Real data mapping 1'. See page 119.

#### Ack

[k][ ][Set ID][ ][OK/NG][Data][x]

#### 11. OSD Select (Command: kl)

To select OSD (On Screen Display) on/off when controlling remotely.

#### Transmission

[k][l][ ][Set ID][ ][Data][Cr]

Data 00 : OSD off

[]] ][Set ID] ][OK/NG][Data][x]

#### 12. Remote control lock mode (Command: k m)

To lock the front panel controls on the monitor and remote control.

Transmission

[k][m][ ][Set ID][ ][Data][Cr]

Data 00 : Lock off 01 : Lock on

Ack

#### [m][ ][Set ID][ ][OK/NG][Data][x]

- * If you are not using the remote control, use this mode. When main power is on/off, external control lock is released.
- * Local Power Key will work properly.

#### 13. Treble (Command: k r)

To adjust treble. You can also adjust treble in the AUDIO menu.

#### Transmission

[k][r][ ][Set ID][ ][Data][Cr]

Data Min: 00 ~ Max: 64

* Refer to 'Real data mapping 1'. See page 119.

#### Ack

#### 14. Bass (Command: k s)

To adjust bass. You can also adjust bass in the AUDIO menu.

#### Transmission

[k][s][ ][Set ID][ ][Data][Cr]

Data Min: 00 ~ Max: 64 * Refer to 'Real data mapping 1'. See page 119.

Ack

#### [s][ ][Set ID][ ][OK/NG][Data][x]

#### 15. Balance (Command: k t)

To adjust balance. You can also adjust balance in the AUDIO menu.

Transmission

[k][t][ ][Set ID][ ][Data][Cr]

Data Min: 00 ~ Max: 64 * Refer to 'Real data mapping 1'. See page 119.

Ack

[t][ ][Set ID][ ][OK/NG][Data][x]

#### 16. Colour Temperature (Command: k u)

To adjust colour temperature. You can also adjust Colour Temperature in the PICTURE menu.

Transmission

[k][u][ ][Set ID][ ][Data][Cr]

Data 00: Medium 01:Cool 02: Warm

Ack

[u][ ][Set ID][ ][OK/NG][Data][x]

#### 17. Abnormal State (Command: k z)

To recognize an abnormal state. Transmission

[k][z][][Set ID][][FF][][Cr]

Data FF : Read

#### Ack

[z][ ][Set ID][ ][OK/NG][Data][x]

Data 00: Normal (Power on and signal exist) 01: No signal (Power on)

02: Turn the TV off by remote control

03: Turn the TV off by sleep time function

04: Turn the TV off by RS-232C function

05: 5V down

06: AC down

07: Turn the TV off by Fan Alarm function

08: Turn the TV off by Off time function

09: Turn the TV off by Auto sleep function

a: Turn the TV off by AV board detection.

* This function is "read only".

118

APPENDIX

[r][ ][Set ID][ ][OK/NG][Data][x]

01 : OSD on

Ack

#### 18. ISM Method (Command: j p)

To control the ISM method. You can also adjust ISM Method in OPTION menu.

Transmission

#### [j][p][ ][Set ID][ ][Data][Cr]

Data 02: Orbiter

- 04: White wash
- 08: Normal
- 20: Colour Wash

Ack

[p][ ][Set ID][ ][OK/NG][Data][x]

#### 19.Energy Saving (Command: j q)

To reduce the power consumption of the TV. You can also adjust Energy Saving in OPTION menu.

Transmission



#### Data 00: Off

- 01: Minimum
- 02: Medium
- 03: Maximum





Ack

[q][ ][Set ID][ ][OK/NG][Data][x]

#### 20. Auto Configure (Command: j u)

► To adjust picture position and minimize image shaking automatically. It works only in RGB (PC) mode.

Transmission

[j][u][ ][Set ID][ ][Data][Cr]

#### Data 01: To set

Ack

[u][ ][Set ID][ ][OK/NG][Data][x]

#### 21.Tune Command (Command: m a)

Select channel to following physical number. *Transmission* 

[m][a][ ][Set ID][ ][Data0][ ][Data1][ ][Data2][Cr]

Data00 : High channel data Data01 : Low channel data ex. No. 47 -> 00 2F (2FH) No. 394 -> 01 88 (188H), DTV No. 0 -> Don't care Data020x00 : ATV Main 0x10 : DTV Main 0x20 : Radio

Channel data range Analogue - Min: 00 ~ Max: 63 (0~99) Digital - Min: 00 ~ Max: 3E7 (0~999)

#### Ack

[a][ ][Set ID][ ][OK/NG][Data][x]

Data Min: 00 ~ Max: FF

#### 22. Channel Add/Skip(Command: m b)

► To set skip status for the current Programme. *Transmission* 

[m][b][][Set ID][][Data][Cr] Data 00 : Skip 01 : Add

Ack

[b][ ][Set ID][ ][OK/NG][Data][x]

* Real data mapping 1	* Real data mappin	g
00 : Step 0	00:-40	
: A : Step 10 (Set ID 10)	01 :-39	
F : Step 15 (Set ID 15) 10 : Step 16 (Set ID 16)	1 28 :0	
64: Step 100	4E : +38	
6E: Step 110	4F : +39 50 : +40	
73: Step 115 74: Step 116		_
C7: Step 199		
FE : Step 254 FF : Step 255		

2

#### 23. Key(Command: m c)

► To send IR remote key code. Transmission

[m][c][ ][Set ID][ ][Data][Cr]

Data Key code - Refer to page 113.

Ack

[c][ ][Set ID][ ][OK/NG][Data][x]

#### 24. Input select (Command: x b) (Main Picture Input)

► To select input source for main picture. Transmission

[x][b][ ][Set ID][ ][Data][Cr]

Data Structure

MSB							LSB
0	0	0	0	0	0	0	0
	xterna	al Inpu	ut 🔟	L _{Ir}	put N	lumbe	er 🔟

External Input		ıt	Data	
0	0	0	0	DTV
0	0	0	1	Analogue
0	0	1	0	AV
0	1	0	0	Component
0	1	0	1	RGB
1	0	0	1	HDMI

	Data	Input Number			
	Input1	0	0	0	0
	Input2	1	0	0	0
	Input3	0	1	0	0
Γ					

(Except for 42/50PQ10** 42/50PQ11**)

Ack

APPENDIX

[b][ ][Set ID][ ][OK/NG][Data][x]

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