



Operating Instructions Wide LCD TV

Model No.

TX-23LX60F TX-26LX60F

TX-32LX60F













Please read these instructions before operating your set and retain them for future reference.





Dear Panasonic Customer,

We hope that you have many years of enjoyment from your new TV. The **Quick Start Guide** section at the beginning of this instruction book will allow you to use the TV as quickly as possible. We recommend that you then read the complete instruction book, and keep it to refer to as you explore the range of advanced features that this LCD TV offers.

Contents

Accessories	2
Warnings and Precautions	3
Fitting remote control batteries	
Installation	
How to use the LCD stand	
Maintenance	
Quick Start Guide	5
Basic controls: control panel and remote control	7
Using the On Screen Displays	
Programme guide	
Picture menu	9
Sound menu	10
Setup menu	11
Tuning menu – overview	12
Tuning menu – Programme edit	
Adding / deleting a programme channel	13
Moving a programme channel	13
Tuning a programme channel	13
Renaming a programme channel	14
Locking a programme channel	14
Changing the sound system for a channel	14
Copying programme information	
to a recording device	14
- -	

Accessories

Check that you have the accessories and items shown	
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Panasoi

Operating

Instructions

Remote Control

(EUR7651030A)

Transmitter

- Batteries for the Remote Control Transmitter (2 × R6 (UM3) size)
- Clamper (TX-26LX60F, TX-32LX60F only)
- Pan European
 Guarantee Card







Warnings and Precautions

- This TV set is designed to operate on AC 220-240 V, 50 Hz.
- To prevent damage which might result in electric shock or fire, do not expose this TV set to rain or excessive moisture. This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.
- Keep unneeded small parts and other objects out of the reach of small children. These objects can be accidentally swallowed. Also, be careful about packaging materials and plastic sheets.
- Use only the accessories appropriate to handling with fragile products.
- To prevent injury, this apparaturs must be securely attached to the floor/wall in accordance with installation instructions (mounting bracket is not supplied).
- WARNING: HIGH VOLTAGE!!!

Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside.

Ensure that the mains plug is easily accessible.

• TV Games / Home Computers

Extended use of TV games or home computers with any television set can cause a 'shadow' on the screen. This type of LCD panel phenomenon, can be limited by observing the following points:

- Reduce the brightness and contrast levels to a minimum viewing level.
- Do not operate the television set for a continuous period of time while using TV games or home computers.
- Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the LCD TV screen.
- Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.

- This type of LCD panel damage, is not an operating defect, and as such is not covered by the Panasonic warranty.
- The On / Off switch on this model does not fully disconnect the TV from the mains supply. Remove the mains plug from the wall socket before connecting or disconnecting any leads, or if the TV set is not used for a prolonged period of time.

Sleep feature:

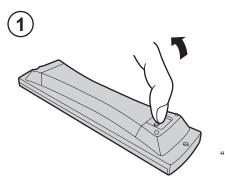
If the set is not switched off when the TV station stops transmitting, it will automatically go to Standby mode after 30 minutes. This function will not operate when the TV is in AV mode.

Cabinet and LCD panel care

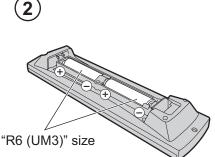
Remove the mains plug from the wall socket. The cabinet and LCD panel can be cleaned with a soft cloth moistened with mild detergent and water. Do not use solutions containing benzol or petroleum.

- When ambient temperature is cool, the picture may take a short time to reach normal brightness, but this is not a malfunction. (After brief moment, the picture will have normal brightness.)
- Adequate ventilation is essential to prevent failure of electrical components, we recommend that a gap of at least 10 cm is left all around this television receiver even when it is placed inside a cabinet or between shelves.
- Avoid exposing the TV set to direct sunlight and other sources of heat. To prevent fire, never place any type of candle or naked flame on top or near the TV set.
- Ventilation should not be impleded by covering the ventilation openings with items such as newspapers, table cloths and curtains.

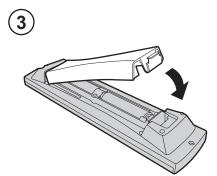
Fitting remote control batteries



Pull and hold the hook, then open the battery cover.



Insert batteries - note correct polarity (+ and –).



Replace the cover.

- Make sure that the batteries are fitted the correct way round.
- Do not mix old batteries with new batteries. Remove old, exhausted batteries immediately.
- Do not mix different battery types, i.e. Alkaline and Manganese or use rechargeable (Ni-Cd, Ni-MH) batteries.

Installation

Please use the apparatus only with the stands supplied or with appropriate wall mount kits.

Receiver Location

Locate for comfortable viewing. Avoid placing where sunlight or other bright light (including reflections) will fall on the

Use of some types of fluorescent lighting can reduce remote control transmitter range.

Adequate ventilation is essential to prevent internal component failure. Keep away from areas of excessive heat or moisture.

Optional External Equipment

The Video/Audio connection between components can be made with shielded video and audio cables. For best performance, Antenna cables should utilize 75 Ohm coaxial shielded wire. Cables are available from your dealer or electronic supply store.

Before you purchase any cables, be sure you know what type of output and input connectors your various components require. Also determine the lenght of cable you 'll need.

For optimum quality picture

When the LCD is exposed to light from outdoors or lighting fixtures, high-contrast pictures may not be displayed clearly. Turn off fluorescent lamps near the LCD and place in location not exposed to outdoor light.

How to use the LCD stand

Adjust the LCD panel to your desired angle.

The LCD panel can be adjusted the following direction:

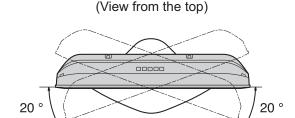
20° Right

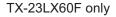
20° Left

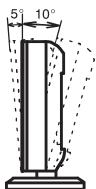
5° Front (TX-23LX60F only)

10° Back (TX-23LX60F only)









Neutral

detergent

Maintenance

To clean this set, wipe with a soft, dry cloth.

If the surfaces are extremely dirty, use a soft cloth dipped in soap-and-water solution or a weak detergent solution.

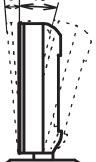
- Use eyeglass cleaner to remove stubborn dirt from the LCD.
- Never use alcohol, paint thinner or benzine to clean this set.
- · Before using chemically treated cloth, read the instructions that came with the cloth carefully.
- · Do not wipe the LCD with water.

Wipe the cabinet with a soft cloth.

If the cabinet is heavily soiled, wipe with a well-wrung soft cloth dipped in neutral cleanser diluted with water.

CAUTION:

If water or similar substances get inside the monitor via the liquid crystal panel surface, a malfunction may result.

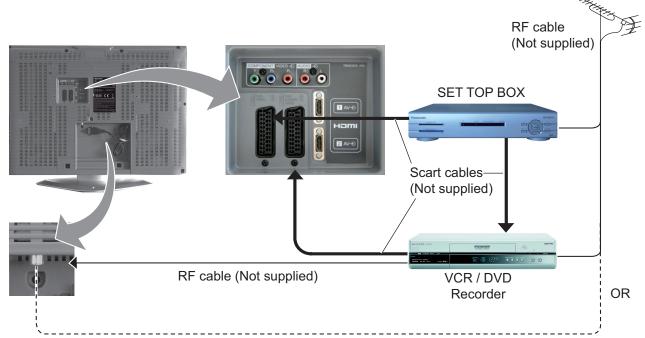


Quick Start Guide

(1)

Connection and setting up options

Please ensure that the unit is disconnected from the mains before attaching or disconnecting any leads.



Plug in aerial and connect ancillary equipment.

Connect the mains plug to the wall socket.

Press the [U] switch on the TV set to turn the set on.

To switch the TV set to Standby mode, press the button on the remote control.

The TV set can be switched on by pressing the button again if it was in Standby mode.

This TV will still consume some power as long as the mains plug is still inserted into the wall socket.

Remote control signal sensor

Power Indicator Standby: Red On: No Light

Red light indicates Standby mode. When using remote control, this indicates the TV has received a command.

123

4 5 6

789 C0i

■ II/**▶ ▶**

(II)

Quick Start Guide

(3)

Select your country.

For Belgium, Switzerland and E.Eu, select the desired language.

If you wish to perform manual tuning, press the **Green** button.

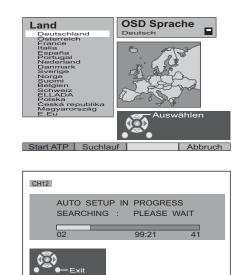
See page 16.

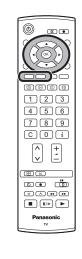
Press the **Red** button to start **Auto Setup**.

Auto setup will begin, your stations will be located and stored.

If a compatible recording device is connected to the correct Scart terminal, programme data will be downloaded to the device via Q-Link.

See page 17.







TV to VCR or DVD Recorder Download

If a "Q-Link", "NEXTVIEWLINK" or compatible recording device has been connected to a Scart terminal before starting Step 2, programme information will be downloaded to that device.

DOWNLOAD IN PROGRESS
PLEASE WAIT
Programme: 63
Remote control unavailable

The programme positions will be downloaded to the recording device, in the same order as stored in the TV. See page 17.

Not all VCRs / DVD Recorders support this download of programme information, some may require to be started manually.

Refer to the recording device's operating instruction book.

If a recording device other than those described above has been connected, then there will be no download operation.

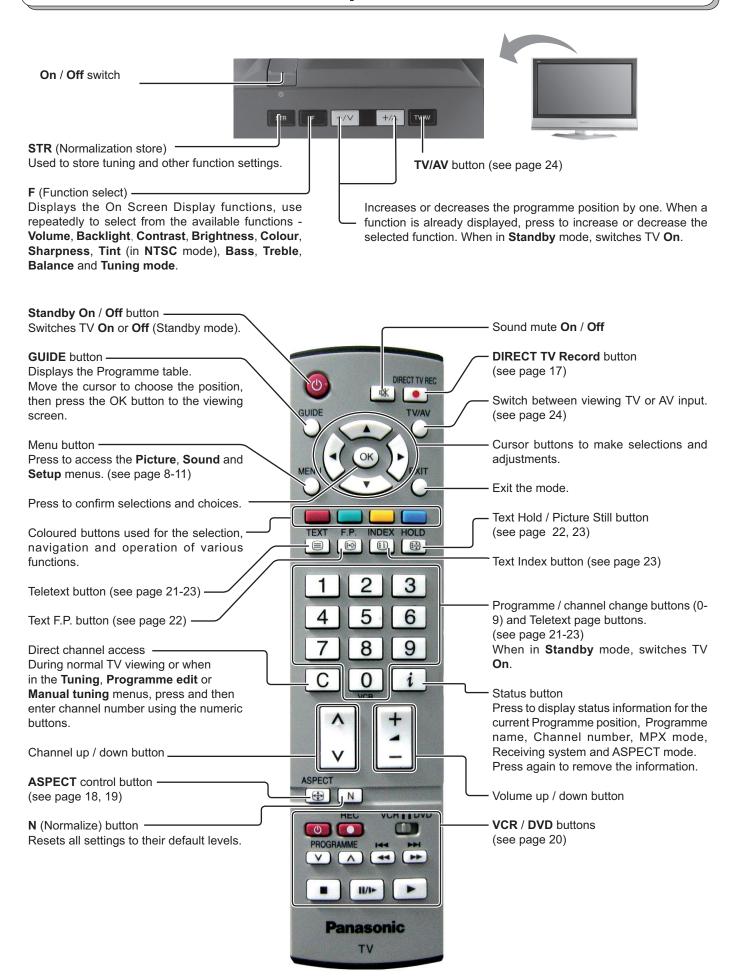
Notes:

- If the recording device has not accepted download data from the TV, you may need to select the Download option from the device's menu system. Refer to the recording device's operating instruction book.
- If Q-Link is not operating correctly, check the following:
 The Scart cable is connected to the TV's Scart terminal, AV1 or AV2, and correctly setup in the menu.
 The Scart cable is connected to the recording device's compatible (Q-Link, NEXTVIEWLINK or similar technology) Scart terminal.

The Scart cable is a "fully wired" type.

• For further information on Q-Link and connecting equipment, see page 17, 25, 28.

Basic controls: control panel and remote control



Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu system. Use the remote control as shown below to access and adjust features as desired.

The **MENU** button is used to open the main menus and also to return to the previous menu.

The up and down cursor buttons are used to move the cursor and select menus.

The left and right cursor buttons are used to access menus, adjust levels or to select from a range of options.

The **OK** button is used with a number of features to store settings after adjustments have been made or options have been set.

The **EXIT** button is used to exit the menu system and return to the normal viewing screen.







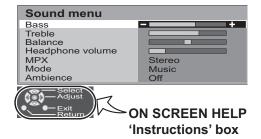






An On Screen Help box is displayed whenever a menu is displayed on the TV. This Help box indicates which buttons on the remote control are used to navigate the menu shown, see above for descriptions of button functions.

The Help box is not shown in the menu pictures in this instruction book due to space limitations.



Programme guide

The programme guide shows programme list

To view a list of the stations that have been found, press the GUIDE button on the remote control.





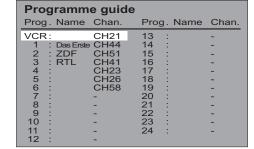
In this guide, use the cursor buttons to move the cursor bar around the list.





Use the programme change button to step through the guide page by page.





Pres the OK button to view the selected programme.



Note:

The Guide can be cleared from the screen using the EXIT or GUIDE button.





Picture menu

Press the **MENU** button.

Move to choose Picture menu.

Access Picture menu.

Move to choose menu option.

Adjust chosen option or access chosen menu.

Press the **EXIT** button at any time to go back to watching TV.













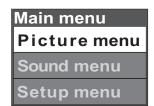


Viewing mode

Tint

The Viewing mode menu allows you to select three different screen settings - Dynamic, Normal and Cinema. In each Viewing mode setting, Backlight, Contrast, Brightness, Colour, Sharpness, Tint (in NTSC only), Colour balance, P-NR, can be adjusted and stored to suit your particular viewing requirement. (e.g., you may require different settings for viewing sports, films, news etc.)

Viewing mode offers you up to a maximum of three separate settings for each signal source: RF, AV1, AV2, AV3 Component and HDMI 1,2. Changes will be stored automatically. By analysing and processing the incoming picture, all three modes feature automatic enhancement.



Picture menu	
Viewing mode	Dynamic
Backlight	
Contrast	
Brightness	
Colour	
Sharpness	
Colour balance	Normal
P-NR	Auto

Backlight, Contrast, Brightness, Colour, Sharpness

Increase or decrease the levels of these options according to your personal preference.

With an NTSC signal source connected to the TV, the

picture hue can be adjusted to suit your taste.

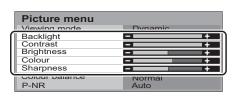
Colour balance Allows you to set the overall colour tone of the picture.

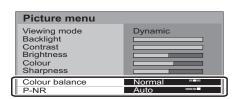
Choose from Cool, Normal and Warm.

P-NR Automatically reduces unwanted picture noise.

If receiving HD signal or in HDMI mode only two choices

are avaiable.





Sound menu

Press the **MENU** button.

Move to choose Sound menu.

Access Sound menu.

Move to choose menu option.

Adjust chosen option or access chosen menu.

Press the **EXIT** button at any time to go back to watching TV.

Press the **OK** button after having adjusted some features to store the new settings as the default (replacing the factory setting).













Bass Increase or decrease level to enhance or minimise lower,

deeper sound output.

Treble Increase or decrease level to enhance or minimise

sharper, higher sound output.

Balance The levels of sound between the left and right speakers

can be adjusted to suit your listening position.

Headphone volume Can be adjusted independently of the TV speakers so

that everyone can enjoy listening at a level comfortable

for them.

MPX Usually set to **Stereo** to provide the best reproduction,

but if reception deteriorates or if the service is not available then switch to Mono. Mono (M1) and (M2) can also be selected if a mono signal is being transmitted.

Mode Sound quality can be improved when watching music

scene or drama by selecting the appropriate Music or

Speech mode.

Ambience provides a dynamic enhancer to simulate

improved spatial effects.

Switching is also possible by pressing the Ambience

button.

Displayed during HDMI1 input mode.

Allows you to choose from Auto, Digital and

Analogue.

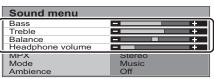
Select to fit the input signal. : Set in normal use Auto : HDMI cable connection **Digital**

Analogue: HDMI-DVI adapter cable connection

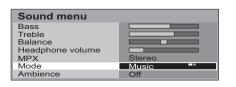
See page 26.

HDMI2 terminal is for digital signal only.











HDMI mode



Ambience

HDMI1 input

Setup menu

Press the **MENU** button.

Move to choose **Setup menu**.

Access Setup menu.

Move to choose menu option.

Adjust chosen option or access chosen menu.

Press the **EXIT** button at any time to go back to watching TV.















Q-Link Allows you to select which AV terminal is to be used for data

communication between this TV and a compatible recording device. Choose from **Off**, **AV1** and **AV2**. See page 17.

Control with HDMI

HDMI control allows for the external equipment (e.g. DVD) and television to communicate via a digital connection. Choose

from Off or On. See page 27.

AV1 out Offers a choice of signals to send to the AV1 Scart socket.

You can choose from the current TV programme position, the signal entering AV2 / AV3 or Monitor - the picture displayed

on screen.

HDMI and component signal inputs cannot be output to these

Scart terminals.

AV2 out Offers a choice of signals to send to the AV2 Scart socket.

You can choose from the current TV programme position, the signal entering AV1 / AV3 or Monitor - the picture displayed

on screen.

HDMI and component signal inputs cannot be output to these

Scart terminals.

Teletext Allows you to choose between **TOP / FLOF** or **List** mode.

See page 21-23.

Off timer Switches the TV off within a preset time which you can choose

from between 0 to 90 minutes in 15 minute intervals.

Text language Select character set, so that all characters needed are

availabe for text on teletext pages (e.g., cyrillic characters, etc.).

Mode Languages

West: English, French, German, Greek, Italian, Spanish,

Swedish, Turkish

East1: English, Estonian, Latvian, Rumanian, Russian,

Lithuanian, Ukrainian

East2: Czech, Hungarian, Latvian, Polish, Rumanian,

Lithuaniar

Tuning menu Provides access to many other features including **Programme**

edit and Auto setup. See page 12-16.

OSD language When you first install the TV, the On Screen Display language

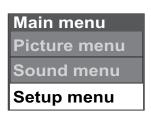
is set according to your choice of country. **OSD language** lets you change the language used for On Screen Displays.

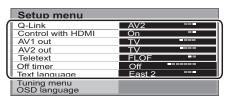
Colour system During AV mode, Colour system is displayed. See page 12.

Volume correction

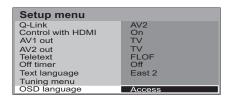
During **AV** mode, Volume correction is displayed. You can adjust volume level of **AV** mode. Volume level is

memorised.

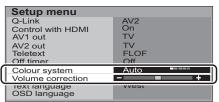








AV mode



Tuning menu – overview

Press the **MENU** button.

Move to choose Setup menu.

Access Setup menu.

Move to choose **Tuning menu**.

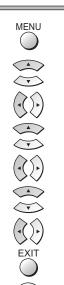
Access Tuning menu.

Move to choose menu option.

Adjust chosen option or access chosen menu.

Press the **EXIT** button at any time to go back to watching TV.

Press the **OK** button after having adjusted some features to store the new settings as the default (replacing the factory setting).





Programme edit

Access in order to customize your programme settings (e.g., adding or deleting a programme position). See page 13, 14.

Auto setup

Allows you to automatically retune the TV. Useful if you move house and wish to retune your TV to the local stations. See page 15.

Manual tuning

Allows individual programme positions to be tuned manually. See page 16.

Fine tuning

Use to make small adjustments to the tuning of an individual station (useful for example when weather conditions are affecting reception quality of a programme).

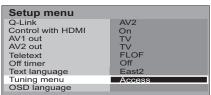
Colour system

Lets you select the correct transmission standard for the transmission signal being received.

Volume correc.

Lets you adjust the volume level of individual stations. Use this feature if the volume level varies significantly between stations. Adjusting one station's volume to bring it into line with the other stations means you can avoid having to adjust the volume each time you change channels.







P	roa	ramme	edit		
	og.		Name	Lock	Sys
1	-	CH44	ABC	Off	SC1
2	i	CH51	XYZ	Off	SC1
	:	CH41	FTP	Off	SC1
4	- :	CH47	123	Off	SC1
5	:	CH37	456	Off	SC1
Г	elet	te l	Add	Move	Do

Tuning menu	
Programme edit	
Auto setup	Access
Manual tuning	
Fine tuning	
Colour system	Auto
Volume correc.	

Tuning menu	
Programme edit	
Auto setup	
Manual tuning	Access
Fine tuning	
Colour system	Auto
Volume correc.	

Tuning menu	
Programme edit	
Auto setup	
Fine tuning	+
Colour system	Auto ====
Volume correc.	+

Tuning menu – Programme edit

Press the **MENU** button.

Move to choose Setup menu.

Access Setup menu.

Move to choose **Tuning menu**.

Access Tuning menu.

Move to choose Programme edit.

Access Programme edit.

Move to choose programme position (e.g., Prog. 3).

Make required change, e.g., moving a programme channel (see the relevant procedure below).

Press the **EXIT** button at any time to go back to watching TV.

Press the **OK** button after having adjusted some features to store the new settings.















Adding / deleting a programme channel

Move the cursor to the programme to be deleted or added.

Press the **Green** button to add a programme channel to the programme position, or the **Red** button to delete one.



Pro		ramme Chan.	edit Name	Lock	Sys
1	:	CH44	ABC	Off	SC1
2 3		CH51	XYZ	Off	SC1
3	:	CH41	FTP	Off	SC1
4	:	CH47	123	Off	SC1
5	:	CH37	456	Off	SC1
			Add		C

Press the same button again to confirm your decision.

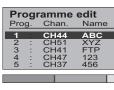
Moving a programme channel

Move the cursor to the programme to be moved.

Press the Yellow button.

Choose the new position for the programme channel.

Press the Yellow button again to confirm your decision.



Pro	g	ramme	edit			
Prog	g	Chan.	Name	Lock	Sys	
1	:	CH44	ABC	Off	SC1	
2	:	CH51	XYZ	Off	SC1	
3	:	CH41	FTP	Off	SC1	
4	:	CH47	123	Off	SC1	
5	:	CH37	456	Off	SC1	
				Confirm	1 C	ance

Tuning a programme channel

Move to the Chan. column.

Increase or decrease the programme channel number (you will see the TV retune to the new number as you change it) or use the **C** button for Direct Channel Access. See page 7.

Press the **OK** button to store this change.







Programme edit					
Pro	g.	Chan.	Name	Lock	Sys
1	:	CH44	ABC	Off	SC1
2	- :	CH51	XYZ	Off	SC1
3		CH41	FTP	Off	SC1
4	:	CH47	123	Off	SC1
5		CH37	456	Off	SC1

Tuning menu – Programme edit

Renaming a programme channel

Move to the Name column.

Choose the new character. The box at the bottom of the screen shows the character currently selected.



Programme edit

Programme edit Prog. Chan. Nar

Move to the next character position.

Continue until renaming is done.

Press the **OK** button to store the new name.



Locking a programme channel

You may wish to lock a programme channel to prevent access to it.

Move to the Lock column.



Choose between Lock On or Lock Off.

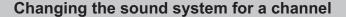


Press the **OK** button to store the new setting.



Note:

When a programme position is locked, Direct Channel Access using the C and numeric buttons on the remote control is not available.



You can change the sound system used for a programme channel.

Move to the Sys column.



(ok)

Choose the required sound system:

SC1: PALB, G/SECAMB, G

SC2: PALI

SC3: PAL D, K / SECAM D, K

SECAM L / L'

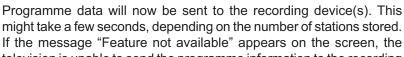
Press the **OK** button to store the new setting.





Copying programme information to a recording device

You can copy programme information to a compatible recording device connected to AV1 / AV2. See page 25 for connection information. Press the **Blue** button.



If the message "Feature not available" appears on the screen, the television is unable to send the programme information to the recording device(s). See the device's instruction book for further information.



DOWNLOAD IN PROGRESS PLEASE WAIT Programme: 63 Remote control unavailable

This is not available when you choose Q-Link Off in Setup menu.

Tuning menu – Auto setup

Auto setup automatically retunes your TV. This feature is useful if, e.g., you move house and wish to retune your TV to receive the local stations.

→ Press the **MENU** button.

Move to choose **Setup menu**.

Access Setup menu.

Move to choose **Tuning menu**.

Access Tuning menu.

Move to choose Auto setup.

Access Auto setup.

Press to confirm start.

Notes:

- If you proceed with the next step all tuning data will be erased (all stations and their programme positions stored in your TV's memory will be wiped out so the new settings can be stored).
- If you exit the procedure after this point and before Auto setup is complete, no station information will be stored. Restart and complete the Auto setup procedure so that the TV is retuned.

Select your country.

Press to start Auto setup.

The TV will search for, locate, store and then sort into order your local stations.

If compatible recording device is connected via the AV1 / AV2 terminal, programme data will be sent to the device via Q-Link. See page 17.

Once this operation is completed the TV will display the programme now stored on programme position 1.

Press the **EXIT** button at any time to go back to watching TV (please read the **Notes** in the above procedure).













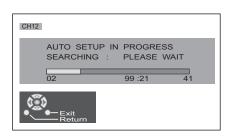












Tuning menu – Manual tuning

It is possible to retune individual programme positions:

Press the **MENU** button.

Move to choose **Setup menu**.

Access Setup menu.

Move to choose **Tuning menu**.

Access **Tuning menu**.

Move to choose Manual tuning.

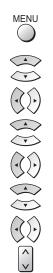
Access Manual tuning.

Select the programme position to be tuned.

Press repeatedly until required station is found.

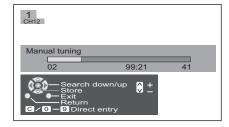
When the desired station is found, press the **OK** button to store. The programme position will flash.

Press the **EXIT** button at any time to go back to watching TV.



EXIT





Note:

If your VCR is connected to this TV by an RF cable only, choose programme position "0" to tune to the VCR signals.

Manual tuning (via control panel)

It is also possible to use the control panel buttons on the top of your TV to tune individual programme positions:

Press the **F** button until **Tuning mode** is reached.

Press the -/V or $+/\Lambda$ button to access **Tuning mode**.

Press the TV/AV button to move between Change programme, Search and Change TV system.

Press the –/V or +/ \wedge button to change programme position or start search.

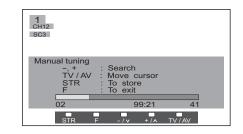
When the desired station is found, press the STR button to store

The programme position will flash.

Repeat above procedure to tune additional programme positions.

Press the **F** button at any time to go back to watching TV.





Q-Link

Q-Link allows the television to communicate with a compatible VCR or DVD Recorder.

For Q-Link communication to work, the TV must be connected to a recording device with the "Q-Link", "NEXTVIEWLINK", "DATA LOGIC", "Easy Link", "Megalogic" or "SMARTLINK" logo using a "fully wired" Scart cable between the AV1 / AV2 terminal of the television and the appropriate terminal on your VCR or DVD Recorder.

For connection to the appropriate Scart terminal on the recording device, refer to the device's instruction book.

When using a "NEXTVIEWLINK" device the main features possible are the following:

Preset Download

This allows the programme order from the TV to be downloaded to the recording device, helping to ensure that correct recordings are made; there are several ways to perform this operation:

- 1. During installation as explained in the "Quick Start Guide" on page 5, 6.
- 2. When Auto setup is started from within the Tuning menu. See page 12.
- 3. Preset download started from the recording device, refer to the device's instruction book.

What You See Is What You Record (DIRECT TV RECORDING)

This will allow the immediate recording of the programme currently shown on the TV, by the recording device attached to the Scart terminal, which can be chosen using "Q-Link". See page 11.

Press the **DIRECT TV REC** button.



If the recording device is in Standby mode with usable recording media inserted, it will automatically switch on when you press the **DIRECT TV REC** button.

If a "Q-Link" device is connected, a message will appear on the TV screen showing what is being recorded, or if it is not possible to record. Some "Q-Link" compatible devices will only display the message when on the VCR programme position "0" or in AV mode. Refer to the device's instruction book.

Recording in progress

The recording device is recording the programme signal from its own tuner. If you wish you can switch off the TV and leave the device recording in the normal way.

No recording - Check tape or Disc

The tape or disc may have been "write protected", missing or may be damaged. The device may already be recording. Refer to the device's instruction book.

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Additionally, when using a "Q-Link" device the main features possible are the following:

The following features are only available from the device connected to the Scart terminal selected using "Q-Link". See page 11.

TV / Recording device Auto Power On

If you insert pre-recorded media into the recording device and press the Play button whilst the TV is in Standby mode, the TV will automatically switch on and select the correct AV input so that you can view the content.

Recording device Auto Power Standby

When the TV is switched into Standby mode, the recording device will also switch into Standby mode if there is no media inserted, or if there is media inserted and the device is in Rewind or Stop mode. If a VCR is rewinding a tape, it will not switch into Standby mode until rewinding has finished.

Recording device Image View On

If the TV is in Standby mode and the recording device sends a menu to be displayed on the TV screen (e.g., Main menu), the TV will automatically switch On and the menu will be displayed.

This TV will also communicate with other recording device's that bear the following logos:

- "DATA LOGIC" (a trademark of Metz Corporation)
- "Megalogic" (a trademark of Grundig Corporation)
- "Easy Link" (a trademark of Philips Corporation)
- "SMARTLINK" (a trademark of Sony Corporation)

Important Note:

Some recording devices may not support all or some of the above functions. Refer to the instruction book for the device.

If Q-Link functions do not work, check the connection and ensure that the scart lead is a fully-wired type.

To share tuning information

To ensure correct recordings are made, the television and VCR (DVD/R) should share tuning information - see page 14.

• Whenever the Auto setup (ATP) function is used, tuning data will be downloaded to the VCR (DVD/R).

To turn off Q-Link communication

If you do not wish to use the Q-Link feature, go to the Setup menu and set the Q-Link option to "Off". See page 11.

Aspect Controls

The Widescreen TV will allow you to enjoy viewing the picture at its optimum size and aspect, including widescreen cinema format pictures.

Press the **ASPECT** button repeatedly to move through the nine aspect options:

Auto aspect, 16:9, 14:9, Just, 4:3, 4:3 Full (HD signal), Zoom1, Zoom2 and Zoom3

OR

Press the **ASPECT** button. Whilst the on screen selector keys are displayed, use the **Red** or **Green** buttons to move in either direction through the nine aspect options.







Auto aspect

Auto aspect determines the best aspect ratio to use to fill your screen. It does this using a four step process to determine if the picture being viewed is a widescreen picture.

If **Auto aspect** detects a widescreen signal it switches into the appropriate widescreen mode. If **Auto aspect** does not detect a widescreen signal then this advanced TV set enhances the picture for optimum viewing pleasure.

The text shown on the screen indicates how **Auto aspect** determined which ratio to use:

Auto aspect switches to the appropriate widescreen ratio.

"Auto aspect" appears in the top left of the screen if black stripes above and below the picture are detected.

Auto aspect chooses the best ratio and expands the picture to fill the screen. This process can take several minutes, depending on the darkness of the picture.

You may prefer to manually select one of the other aspect options available to view the picture.

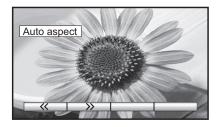
- If, in Auto aspect mode, you experience problems with the screen display size when playing back widescreen format recordings from your VCR then it is possible that the tracking control of your VCR requires adjustment (your VCR instruction book will contain adjustment details).
- The widescreen aspect ratios of different films and programmes can vary.
 If these are wider than a standard 16:9 aspect picture then a black band may be visible at the top and bottom of the screen.
- "WIDE" will appear in the top left corner of the screen and picture aspect changes accordingly in any aspect modes, if a widescreen identification signal (WSS) is detected or a control signal is found through a Scart terminal.
- Automatic aspect ratio adjustment by WSS signal is not available for progressive and high defi nition component signals input.



"WIDE" appears in the top left of the screen, **Auto aspect** switches to the appropriate 16:9 or 14:9 widescreen ratio.



"Auto aspect" appears in the top left of the screen. The best ratio is chosen and the picture expanded to fill the screen.



Press the **ASPECT** button, then use the **Red** or **Green** buttons to move in either direction through the eight aspect options.

Aspect Controls

16:9

16:9 will display a true 16:9 (anamorphic) picture with no aspect distortions.



16:9

14:9

14:9 will display a 14:9 picture at its standard 14:9 size without any stretching.



14:9

Just

Use **Just** when you wish to expand a 4:3 picture to fill the whole screen (rather than watching a programme with black stripes down the left and right sides of the picture). The 4:3 picture will be stretched horizontally so that the image fills the screen, this is done in such a way that the stretching is only obvious at the left and right edges of the screen.



Just

4:3

4:3 will display a 4:3 picture at its standard 4:3 size with no aspect distortions.



4:3

4:3 Full

4:3 will display a 4:3 picture enlarged horizontally to fit the screen.



4:3 Ful

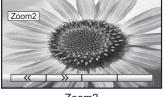
Zoom1

Zoom1 will display 16:9 letterbox or 4:3 pictures with no aspect distortions.



Zoom1

Zoom2 will display 16:9 anamorphic letterbox pictures as a full screen display with no aspect distortions.



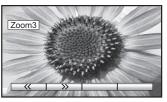
Zoom2

Zoom3

Zoom2

Zoom3 will display 21:9 letterbox pictures as a full screen display with no aspect distortions.

16:9 will display the picture at its maximum size but with slight stretching.



Zoom3

VCR / DVD operation

The Remote Control is capable of operating some functions of selected Panasonic VCRs and DVD (Digital Versatile Disc) equipment. Some VCR and DVD equipment have different functions, so to ensure compatibility please refer to the equipment's instruction book or consult your dealer for details.



O	Standby Press to switch the VCR, DVD or DVD recorder to Standby mode. Press again to switch back on.
VCR ⊪ DVD	VCR / DVD switch Use this switch to select whether controls operate the DVD equipment or VCR.
P	Play Press to playback the tape or DVD.
	Stop Press to stop the tape or DVD.
>>	Skip / Fast Forward / Cue VCR: Press to fast forward the tape. In Play mode, press to view the picture rapidly forward (Cue). DVD/R: Press to skip to the next track or title. Press and hold to search forward.
44	Skip / Rewind / Review VCR: Press to rewind the tape. In Play mode, press to view the picture rapidly in reverse (Review). DVD/R: Press to skip to the previous track or title. Press and hold to search backward.
II/I>	Pause / Still Press in Play mode, the picture will pause. Press again to restart play. DVD/R: Press and hold for slow-motion play.
PROGRAMME V A	Programme Up / Down Press to increase or decrease the programme position by one.
REC	Record Press this button to start recording.

Teletext operation

- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting Teletext.
- Pressing the **MENU** button thrice whilst in Teletext operation will display the contrast function with a cyan bar, press the left and right cursor buttons to alter the setting as required.
- Pressing the MENU button whilst in Teletext operation will display special function options at the bottom of the screen
- Pressing the **Volume up / down** button whilst in Teletext operation will display the volume function with a green bar, press the volume up / down button to alter the setting as required.

What is List mode?

In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory.

What is FLOF (FASTEXT) mode?

In TOP / FLOF mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

What is TOP Teletext?

TOP Teletext makes the task of selecting the desired Teletext pages easier and shorter. In fact page access time is almost instantaneous, just press the button and the page appears.

How does it work?

TOP Teletext uses the four coloured buttons, Red, Green, Yellow and Blue to select the following information.

- To move between subject blocks (SPORT for example) use the Blue button. Within this SPORT topic it is possible to select different groups such as Tennis, Football, Baseball etc, by using the Yellowbutton. When the last group within the block is reached, the yellowbuttonmoves to the next block.
- The Green button will select the next available page UP.
- The Red button will select the next available page DOWN.

What are the advantages?

- Page selection at the touch of a single button.
- Easy to use step by step selection of the topical subject.
- Reduction of waiting time.
- If a non existent page number is entered, a question mark will appear at the bottom of the screen.
- Page status line at the bottom of the screen so you always know which button will take you to the information required.

required.	
TEXT	TV / Teletext mode Press the TEXT button to switch between the current programme and teletext.
1 2 3 4 5 6 7 8 9	Page Selection Pages can be selected in two ways: a. Press the Up / Down cursor buttons to increase or decrease the page number by one. b. By entering the page number, using 0 - 9 on the remote control.
MENU Green	Full / Top / Bottom Press the MENU button to display special functions, followed by the Green button. Press the Green button again to expand the BOTTOM half. Press again to return to normal (FULL) size.
MENU Red	Reveal Press the MENU button to display special functions, followed by the Red button to reveal hidden words e.g., quiz page answers. Press again to hide.
	Red / Green / Yellow / Blue buttons In TOP / FLOF mode they correspond to the differently coloured subjects. In List mode they correspond to the differently coloured page numbers.
123 456 0K 789	List Store In List mode the four page numbers can be altered (programme positions 1 - 25 only). To do this, press one of the four coloured buttons and enter the new page number. Press and hold the OK button, the page numbers will change to white indicating that the page is stored.

Teletext operation

It is not possible to change the programme position when in News flash, Update or Sub Coded Page Access operation.



HOLD

To hold the Teletext page when viewing multi-page information.

Press again to return to automatic page update.



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Favourite Page (F.P.)

Stores a favourite page in memory for instant recall. To store such a page, the TV must be in List mode, and the programme position must be from 1 - 25.

Press the ${\bf Blue}$ button, select the page number, then press and hold the ${\bf OK}$ button. The page number is now stored.

Press **F.P.** to recall this page.



Press the **MENU** button to display special functions, followed by the **Yellow** button to view the TV picture whilst searching for a Teletext page (this is not necessary in Picture and text mode, as the picture is displayed on the left of the screen). When found, the screen will display the page number at the top left. Press the **Yellow** button to view the page.

Press the **TEXT** button again to return to normal TV operation.

News Flash



When a news flash page has been selected, press the **MENU**, **Yellow** buttons, to view the TV picture. When an update is received, the page number will be displayed on screen.

Press the Yellow button to display the News Flash.

Press the **TEXT** button to return to normal TV operation.

Update

Press the **MENU**, **Yellow** buttons to see the update of information on certain pages.

When an update is received, the page number will be displayed at the top left of the screen.

Press the Yellow button to view the page.

Press the **TEXT** button to return to normal TV operation.

Accessing sub pages

When Teletext information exceeds one page, it may take some time for the automatic changing of the sub pages to reach the sub page you require. As each sub page is found its number is displayed at the top of the page so that you may select it; as more sub pages are picked up, the display at the top of the page changes, so that you are always offered the most recently transmitted selection of sub pages.

In Teletext operation, use the following procedure to access sub pages:



If the sub page you want to look at is not yet available, press the **MENU** button (to display special functions) followed by the **Yellow** button to view the TV picture whilst waiting for more sub pages to be found. The sub pages found will be displayed across the top of the screen.



When the sub page you are waiting for is available press the **Yellow** button to return to viewing the Teletext pages, then use the left and right cursor buttons to select the sub page of your choice.

The maximum number for sub page that can be entered is restricted to 79 by broadcasters.





- If you do not want to display the on screen selector keys on the TV picture whilst waiting
 for a sub page to be found, press the MENU button to clear the keys from the screen.
 Press again to redisplay the keys.
- If you have cleared the special function keys from the screen and then used the left and right cursor buttons to select a sub page, whilst still viewing the TV picture, you must press the **MENU** button then the **Yellow** button to display the Teletext page again.
- If the top of the page indicates that sub pages are being transmitted but the page displayed never changes, then the 'sub page number' is there to show the page contents have been updated, there are no sub pages.

Teletext operation

Alternatively, if you know which sub page you require, press the **MENU** button (to display special functions) followed by the **Blue** button; T**** will be displayed where the page number is normally found.

Enter desired sub page number before the T**** disappears.

e.g., to select page 6 enter 0, 0, 0 and 6.

MENU

Press the **Yellow** button to view the TV picture whilst waiting for more sub pages to be found. The sub pages found will be displayed across the top of the screen.

When the page is available, press the **Yellow** button to view the page. Regardless of how many pages are found, pressing the **Yellow** button will take you to the sub page which you requested.

Press the **TEXT** button to return to normal TV operation.

INDEX



When in TOP / FLOF operation

Press the **INDEX** button to return to the main index page.

Depending on the way information is transmitted, this may have to be pressed more than once to return to the main index page.

Picture and text





Press the **MENU** button twice to display special functions, followed by the left or right cursor button to select Picture and text On or Off.

Picture and text mode lets you see the current programme and a page of teletext side by side. Whilst using this feature, the remote control affects the teletext page; if you wish to make changes to the programme viewed press the **TEXT** button to return to watching the programme on its own then make the desired changes.

Still

Press the **HOLD** button to freeze the picture. Press again to return to watching the current programme.



(Not when viewing Component and HDMI inputs.)



Connections

It is possible to connect a variety of additional equipment to this TV. The following pages detail how to connect external equipment to the side and rear of the TV.

Once your equipment is connected, use the following procedure to view the input:



Whilst the on screen selector keys are displayed, select the page by pressing the **Red** or **Blue** button and then press coloured buttons to select the AV source you wish to view.

Red button : AV1 Video, Scart terminal / Back Green button : AV2 Video, S-Video Scart terminal Yellow button : AV3 Video, S-Video terminals /

Component terminal Blue button : Next / HDMI 1/2

The on screen selector keys that appear clear after a few seconds. If you want to select an input when the keys are not shown, press the colour keys once more and the keys will reappear.

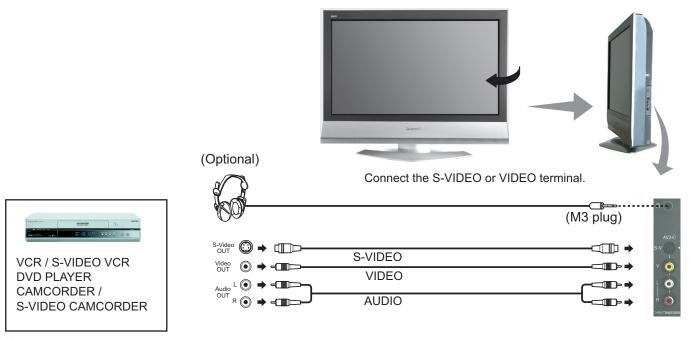
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Notes:

- You can also select an AV source using the TV/AV button on the top panel of the TV.
 Press the TV/AV button repeatedly until you reach the AV source you wish to view.
- When in **AV or HDMI mode** a reduced number of options are available in the **Picture**, **Sound** and **Setup** menus (e.g., in the Setup menu there is no **Tuning menu** option).
- This television may automatically switch over to the AV mode if the connected device sends a switch signal to the SCART cable connector. In this case, the "EC" will be displayed in the left top corner of the screen and the signal from the AV equipment (for the RGB signal the "EC/RGB" will be displayed). The picture received will remain the same when the TV programme is changed.
- You may switch back to the television by pressing button TV/AV or by disconneting the AV device.
- If the external devices have selectable aspect ratio, please choose 16:9.

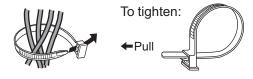
How to connect the Headphones / AV3 terminals

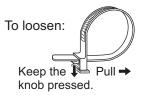


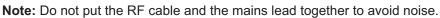
- The volume level of the headphones can be adjusted by selecting "Headphone volume" from the Sound menu.
- Additional equipment and cables shown are not supplied with this TV set.

Connections

To bundle the cables with the clamper

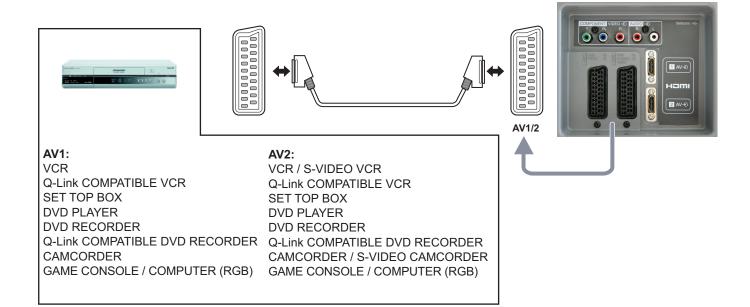






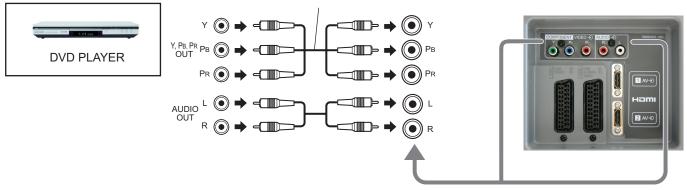


How to connect the AV1 / 2 Scart terminals



How to connect the Component Input terminals

This terminal accepts progressive or non-progressive signals format, as well as high defi nition 750(720)/50p, 750(720)/60p, 1125(1080)/50i and 1125(1080)/60i.



- Additional equipment and cables shown are not supplied with this TV set.
- Do not connect a computer with TTL output (5V) to this set.
- For Scart terminal wiring and applicable component signals information see page 28.

Connections

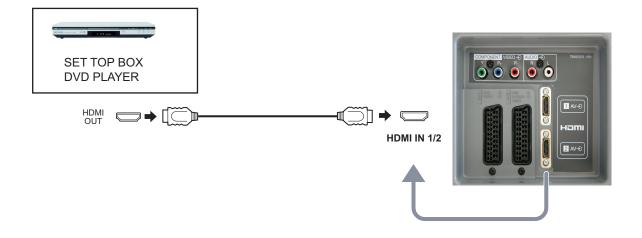
How to connect the HDMI 1/2 Input terminals

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

An HDMI-compliant device*1, such as a Set Top Box or DVD player with HDMI or DVI output terminal can be connected to the HDMI input terminals.

■ Compatible sampling frequency of AUDIO signal through HDMI: 48 kHz / 44.1 kHz / 32 kHz

- If the external device has DVI output only, use a DVI to HDMI adapter cable*2 to connect to the HDMI1 terminal.
- Connect the audio cables to the AUDIO IN terminals when using a DVI to HDMI adapter cable.
- Audio settings can be made on the "HDMI 1 input" menu screen. See page 10.
- These HDMI connectors are Type A.
- HDMI2 terminal is for digital signal only.
- An equipment having no digital output terminal may be connected to the input terminal of either "Component", "S-Video", or "Scart" to receive analogue signals.
- The HDMI input terminal can be used with only the following image signals: 480i, 480p, 576i, 576p, 720p and 1080i. Match the output setting of the digital equipment.
- This input terminal is not intended for use with computers.
- Non-HDMI-compliant cables cannot be utilized. It is recommended that you use Panasonic's HDMI cable.
- 720p/1080i signals will be re-formatted to view on your display.
- If the external devices have selectable aspect ratio, please choose 16:9.
- For applicable HDMI signals information see page 28.
- *1. HDMI-compliant device is that has the HDMI Logo on it.
- HDMI-DVI adapter cable: Consult your consumer electronics dealer for availability.



Control with HDMI "HDAVI Control"

- Enjoy additional HDMI Inter-Operability with Panasonic products which have "HDAVI Control" function. HDMI
 connections to some Panasonic equipment (Panasonic DVD Recorder DIGA) allow you to enjoy easy playback,
 power on link or power off link.
- About connections, see page 26. Read the manuals of the equipment too. About applicable equipments, consult your local Panasonic dealer.
- If HDMI 2 will be used, you have to select HDMI 2 with the blue button in AV-Mode for the first time, to make the set correct working for HDAVI control. See page 24.

Easy Playback

- Automatic Input switching. When the connected Panasonic equipment is operated, input mode is switched automatically.
- When it has stopped operating, input mode is returned.

Power On Link

• When the connected Panasonic equipment starts playback or direct navigator or function menu are activated, the TV is automatically turned on (Only when TV is in Standby mode).

Power Off Link

• When TV is set to Standby mode, the connected Panasonic equipment is also automatically set to Standby mode.

Summary of Control Functions ("o" indicates available, "-" indicates not available)

Connections Function	HDMI and SCART	SCART (Q-Link only)	HDMI only
Easy Playback	0	o	o
Direct TV Recording	• (Not when viewing HDMI input)	0	-
Power on Link	0	0	0
Power off Link	o	o	o

After connections turn the equipments on and then, switch the TV unit on.

- Setup the equipment to enable this function. Read the manual of the equipment.
- Switch the TV unit on again with the equipment on when connection or setup is changed.
- Image or sound may not be available for the first few seconds when the playback starts.
- Image or sound may not be available for the first few seconds when Input mode is switched.

Input signal that can be displayed

Applicable input signal for Component (Y, PB, PR) and HDMI (* Mark)

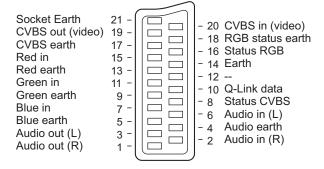
Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	Component	НДМІ
525 (480) / 60i	15.73	59.94	*	*
525 (480) / 60p	31.47	59.94	*	*
625 (576) / 50i	15.63	50.00	*	*
625 (576) / 50p	31.25	50.00	*	*
750 (720) / 60p	45.00	60.00	*	*
750 (720) / 50p	37.50	50.00	*	*
1125 (1080) / 60i	33.75	60.00	*	*
1125 (1080) / 50i	28.13	50.00	*	*

Notes:

· Signals other than above may not be displayed properly.

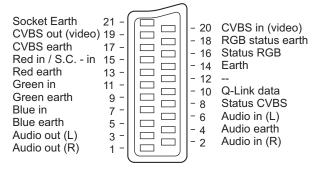
Scart, S-video and HDMI terminals information

AV1 Scart terminal (RGB, VIDEO, Q-Link)



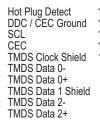
Suitable inputs for AV1 include RGB (Red / Green / Blue).

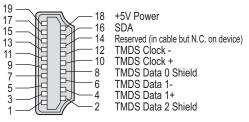
AV2 Scart terminal (RGB, VIDEO, S-VIDEO, Q-Link)



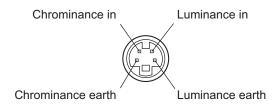
Suitable inputs for AV2 include RGB (Red / Green / Blue). AV2 - Pins 15 and 20 are dependent on AV2 S-VHS / VIDEO switching.

HDMI terminal





AV3 S-VIDEO 4 pin terminal



Troubleshooting

If there is a problem with your TV please refer to the table below to determine the symptoms, then carry out the suggested check. If this does not solve the problem, please contact your local Panasonic dealer, quoting the model number and serial number (both found on the rear of the TV).

Symptoms		toms	Checks		
	Picture Sound				
	Snowy Picture	Noisy Sound	Aerial location, direction or connection		
		Normal Sound	Aerial location, direction or connection		
	Multiple Images		Electrical appliances Cars / Motorcycles Fluorescent lights		
	Interference	Noisy Sound	Switch on P-NR in Picture menu to reduce picture noise.		
			Volume level Sound mute switched on.		
	Normal Picture	No Sound	Sound mate switched on.		
	?		TV set to AV mode. Not plugged into AC outlet. Not switched on. Picture / Sound controls set at minimum levels.		
	No Picture No Sound		Check if in Standby mode.		
		Named Saved	Colour controls set at minimum levels.		
	No Colour	Normal Sound			
P	por or Distorted Picture	Weak or No Sound	Retune Channel (s).		
	Normal Picture	Weak or Distorted Sound	Sound reception may have deteriorated. Switch MPX setting (Sound menu) to Off until reception improves.		
blu	ere may be red spots, e spots and green ots on the screen.	Normal Sound	This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green, or red. Please note this does not affect the performance of your LCD.		
Н	Poor Video. (Snow noise, no picture, picture runs, etc.)		HDMI cable is not connected securely. Turn the power supply of the TV and connected equipment off then turn on. Check compatibility of input signal from the connected equipment. The connected equipment must be EIA/CEA-861/861B compliant.		
D M I	Poor Audio.		Change the audio setting of the connected equipment to L.PCM. Check the setting of HDMI input in Sound menu. If the problem is due to the digital audio connection, change to the analogue audio connection.		
	The error message appo	ears.	Please consult an Authorized Service Center.		
	"Control with HDMI" function does not work		Switch the TV unit on again with the equipment on. Set "Control with HDMI" to "Off", then set to "On" again. (p. 11)		

Specifications

		TX-23LX60F TX-26LX60F TX-32LX60F				
Power Source	9	AC 220-240 V, 50 Hz				
Power Consu	mption	Average use : 85 W	Average use : 90 W	Average use : 143 W		
•		Standby condition : 0,8 W	Standby condition : 1 W	Standby condition : 1 W		
LCD		Wide XGA (1366 × 768 pixels)				
		16:9 aspect ratio LCD panel				
Screen Size		58 cm	66 cm	80 cm		
(Visible Diagor	nal)	30 6111	OO CIII	OU CITI		
Sound						
Audio Ou	tput	2 x 3 W RMS, 8 Ω	2 x 10 W	RMS, 8 Ω		
Headphoi	nes		M3 (3.5 mm) Jack \times 1			
Scanning form	mat	480i(60Hz), 480p(60Hz), 576i(50Hz), 576p(50Hz), 720p(50Hz), 720p(60Hz), 1080i(50Hz), 1080i(60Hz)				
		PAL B, G, SECAM B, G SECA	AM L / L'			
		VHF E2 - E12	VHF H1 - H2 (ITALY)			
		VHF A - H (ITALY)	UHF E21 - E69			
		CATV (S01 - S05)	CATV S1 - S10 (M1 - N			
Receiving Sys	stems /	CATV S11 - S20 (U1 - U10)) CATV S21 - S41 (Hype	rband)		
Band name	otomo /	PAL D, K, SECAM D, K				
		VHF R1 - R2				
		VHF R6 - R12 UHF E21 - E69 PAL F3F/60 Playback of NTSC tand from some PAL Video recorders (VCP)				
		PAL 525/60 Playback of NTSC tape from some PAL Video recorders (VCR) M.NTSC Playback from M. NTSC Video recorders (VCR)				
		NTSC (AV input only) Playback from NTSC Video recorders (VCR)				
Aerial - Rear		UHF / VHF				
	nditions	Temperature : 5 °C - 35 °C				
Operating Conditions		Humidity: 5 % - 90 % RH (non-condensing)				
Teletext Pages		500				
Connection T						
AV1 (Scart connecter)		21 Pin terminal (Audio/Video in, Audio/Video out, RGB in, Q-Link)				
	rt connecter)	21 Pin terminal (Addio/Video in, Addio/Video out, RGB in, S-Video in, Q-Link)				
AV3	VIDEO	RCA PIN Type × 1				
	S-VIDEO	Mini DIN 4-pin				
	AUDIO L - R	RCA PIN Type × 2				
COMPONENT	VIDEO	Y, PB, PR				
	AUDIO L - R RCA PIN Type × 2					
HDMI 1,2						
Dimensions (W × H × D)						
Including TV Stand TV Set Only		565 mm x 450 mm x 260 mm	657 mm × 525 mm × 301 mm	791 mm × 615 mm × 301 mm		
		565 mm x 411 mm x 115 mm	657 mm × 473 mm × 107 mm	791 mm × 563 mm × 107 mm		
Weight	,	10 kg Net	14,5 kg Net	19 kg Net		
weignt		I TO NG INCL	1 11,0 Ng 140t	10 1/9 1401		

Note

- Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.
- HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

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

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Customer's Record

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

Serial Number

Model Number