

TOSHIBA

Leading Innovation >>>

OWNER'S MANUAL

Integrated Digital LCD TV



22AV600A

26AV600A

32AV600A

37AV600A

Owner's Record

You will find the model number and serial number on the back of the TV. Record these numbers in the spaces provided below.

Refer to them whenever you call upon your TOSHIBA dealer regarding this product.

Model number:

Serial number:

DVB registration identification reference number:

6683 (22AV600A), 6684 (26AV600A), 6685 (32AV600A), 6686 (37AV600A)

Trademark of the DVB - Digital Video Broadcasting Project

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Introduction

Welcome to Toshiba

- Thank you for purchasing this Toshiba LCD Colour television. This manual will help you use the exciting features of your new TV.
- Instructions in this manual are based on using the remote control.
- Please read all safety and operating instructions in this manual carefully, and keep this manual for future reference.

Important Safety Instructions

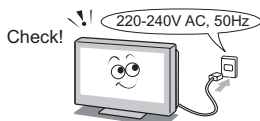
Be sure to observe the following instructions and precautions to ensure safe use of this TV.

Installation

- 1) **Always connect the power plug to an appropriate electrical outlet equipped with 220-240V, AC 50Hz.**

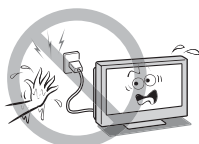
Never use the TV outside the specified voltage range. It may cause a fire or an electric shock.

NOTE: Please use the power plug (included) with an earthing pin and two flat current-carrying pins. Do not use other plugs with different forms.



- 2) **Never insert or remove the power plug with wet hands.**

This may cause an electric shock.



- 3) **Never place the TV in an unstable location such as on a shaky table, incline or location subject to vibration.**

The TV may drop or fall off which may cause injury or damage.



- 4) **Never block or cover the slots and openings in the cabinet.**

- Never place the TV so that it is facing upward or on its side.
- Never place the TV in a closet, bookcase or other similar area where the ventilation is poor.
- Never drape a newspaper, tablecloth or curtain on the TV.
- When installing the TV against a wall, always keep the TV at least 10 cm away from the wall.
- Never place the TV on a soft unstable surface, such as a carpet, or a cushion.
- The inside of this TV will overheat if the ventilation holes are covered, blocked or sealed, which may result in a fire.



- 5) **Never place the TV near a heater or in direct sunlight.**

The surface of the cabinet or power cord may melt and result in a fire or an electric shock.



- 6) **Never place the TV in an area exposed to high humidity levels, such as in a bathroom or close to a humidifier.**

This may cause a fire or an electric shock.



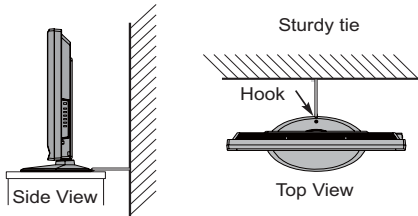
- 7) **Never place the TV next to a stove where it will be exposed to oil, smoke, or steam, or in a location where there is a large quantity of dust.**

This may cause a fire or an electric shock.



- 8) **Always place the TV on the floor or a sturdy, level, stable surface that can support the weight of the unit.**

For 26"/32"/37" model: To secure the TV, use a sturdy strap from the hooks on the rear of the TV to a wall stud, pillar, or other immovable structure. Make sure the strap is tight, secure, and parallel to the floor.

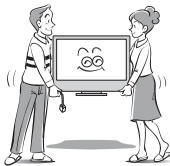


Wall mounting of the TV should only be performed by qualified servicing personnel. Use only with the wall mount bracket specified by the manufacturer.

- 9) **Precautions for moving the TV**

When moving the TV, be sure to remove the plug from the wall outlet and disconnect the antenna cable and audio/video cables, any steady ties. Fire or electric shock may result if the power cord is damaged.

When carrying the TV, at least two people are needed. Be sure to carry it upright. Never carry the TV with the screen facing up or down.



- 10) **Precautions for installing on outdoor antenna**

An outside antenna system should not be located in the vicinity of overhead power lines, or other electric light or power circuits.

If the antenna falls down or drops, it may cause injury or electric shock.



Use

- 1) **Never place hot objects or open flame sources, such as lighted candles or nightlights, on or close to the TV.**
High temperatures can melt plastic and lead to fires.



- 2) **The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.**

When liquids are spilled or small items are dropped inside the TV, this may cause a fire or an electric shock. If small objects drop inside the TV, turn off the TV and remove the power plug from the outlet immediately and contact a service technician.



- 3) **Never insert objects (metal or paper) or pour water inside the TV through ventilation holes and other openings.**

These items may cause a fire or an electric shock. If these objects are inserted inside the TV, turn off the TV and remove the power plug from the outlet immediately and contact a service technician. Be especially careful that children do not insert objects into the TV.



- 4) **Never stand or climb on the TV.**

Be especially careful in households with children to prevent them from climbing on top of the TV. It may move, fall over, break, become damaged or cause an injury.



- 5) When the TV will not be used for a long period of time, such as during vacation or travel, remove the power plug from the wall outlet for safety.

- The TV is not completely disconnected from the power supply line, as minute current is consumed even when the ⏻ / Power switch is turned off.
- The Mains plug or an appliance coupler is used as the disconnect device, therefore the disconnect device shall remain readily operable.



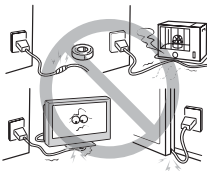
- 6) Never pull on the power cord when removing the plug from the wall outlet.

Always hold the plug firmly when removing it. If the power cord is yanked, the cord may become damaged and a fire or an electric shock may occur.



- 7) Never cut, break, modify, twist, bunch up or bend the cord or apply excessive force or tension to it.

Never place heavy objects on the cord or allow it to overheat as this may cause damage, a fire or an electric shock. Contact a service technician if the power cord is damaged.



- 8) If there is thunder or lightning, never touch the antenna cable or other connected cables.

You may suffer an electric shock.



Service

- 1) Never repair, modify or disassemble the TV by yourself.

It may cause a fire or an electric shock. Consult a service technician for inspection and repairs.



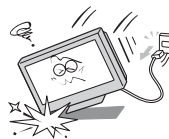
- 2) When a malfunction occurs, or if smoke or an unusual odour comes from the TV, turn off the TV and remove the power plug from the outlet immediately.

Make sure that the smoke or smell has stopped, then contact a service technician. If the TV is still used in this condition, it may cause a fire or an electric shock.



- 3) If the TV is dropped or the cabinet is broken, turn off the TV and remove the power plug from the outlet immediately.

If the TV is still power used in this condition, it may cause a fire or an electric shock. If the cabinet is broken, be careful when handling the TV to prevent an injury. Contact a service technician for inspection and repair.



- 4) When the TV reaches the end of its useful life, ask a qualified service technician to properly dispose of the TV.

NOTE:

The lamp unit contains a small amount of mercury. Disposal of mercury may be regulated due to environmental considerations.

Dispose of the used lamp unit by the approved method for your area. For disposal or recycling information, please contact your local authorities.



Cleaning

1) Remove the power plug before cleaning.

Never use solvents such as benzene or thinner to clean the TV.

- These solvents may distort the cabinet or damage its finish.
- If rubber or vinyl products remain in contact with the TV for a long time, a stain may result.

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

When cleaning the surface of the LCD display, wipe the panel surface gently with a soft, dry cloth.



2) Periodically disconnect the power plug from the outlet and check it.

If dust has collected on the power plug connectors, clean off the dust with dry cloth.

This dust may cause a fire due to reduced insulation on the plug.



Important information

If a television is not positioned in a sufficiently stable location, it can be potentially hazardous due to falling. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- Only using furniture that can safely support the television.
- Ensuring the television is not overhanging the edge of the supporting furniture.
- Not placing the television on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the television to a suitable support.
- Not standing the televisions on cloth or other materials placed between the television and supporting furniture.
- Educating children about the dangers of climbing on furniture to reach the television or its controls.

1) About LCD screen

- If you have the LCD screen facing to the sun, the LCD screen will be damaged.
- Be aware of locating the TV in the place such as window side or outside of the room.

2) About cabinet and LCD screen

Never spray volatile compounds such as insecticide on the cabinet and LCD screen.

This may cause a discolouration or damage the cabinet and LCD screen.

3) Some pixels of the screen do not light up

The LCD display panel is manufactured using an extremely high level of precision technology, however sometimes some pixels of the screen may be missing picture elements or have luminous spots. This is not a sign of a malfunction.

4) About Interference

The LCD display may cause interference in image, sound, etc. of other electronic equipment that receives electromagnetic waves (e.g. AM radios and video equipment).

5) About using under the low temperature places

If you use the TV in the room of 0°C or less, the picture brightness may vary until the LCD monitor warms up. This is not a sign of a malfunction.

6) About afterimage

If a still picture is displayed, an afterimage may remain on the screen, however it will disappear. This is not a sign of malfunction.

Exemptions

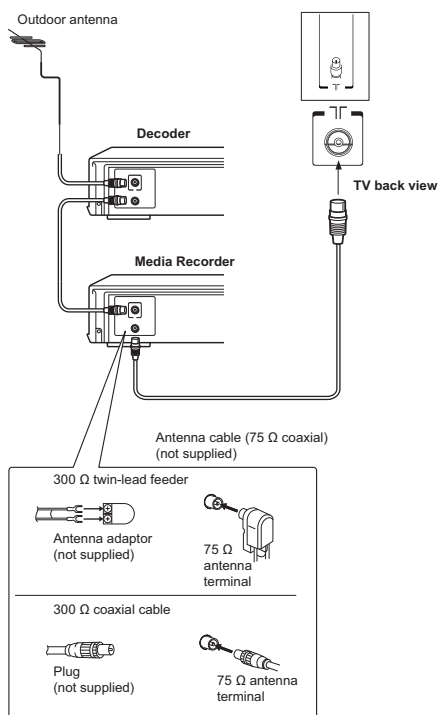
- Toshiba is not liable for any damage caused by fires, natural disaster (such as thunder, earthquake, etc.), acts by third parties, accidents, owner's misuse, or uses in other improper conditions.
- Toshiba is not liable for incidental damages (such as profit loss or interruption in business, modification or erasure of record data, etc.) caused by use or inability to use of product.
- Toshiba is not liable for any damage caused by neglect of the instructions described in the owner's manual.
- Toshiba is not liable for any damage caused by misuse or malfunction through simultaneous use of this product and the connected equipment.

Getting started

Connecting an antenna

Optimum reception of colour requires a good signal and will generally mean that an outdoor antenna must be used. The exact type and positioning of the antenna will depend upon your particular area. Your Toshiba dealer or service personnel can best advise you on which antenna to use in your area. Before connecting the antenna cable, turn off all main power switches.

NOTE: The antenna input use for both analogue and digital cables.

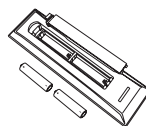


Exploring your new TV

Installing the remote control batteries

Remove the battery cover.

Insert two R03 (AAA) batteries matching the $-/+$ polarities of the battery to the $-/+$ marks inside the battery compartment.



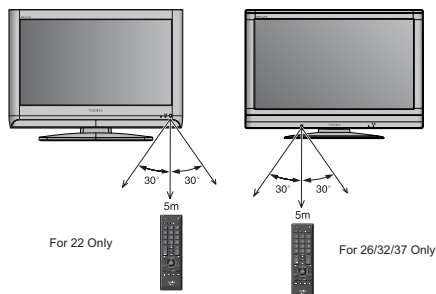
Cautions:

- Dispose of batteries in a designated disposal area. Never throw batteries into a fire.
- Attention should be drawn to the environmental aspects of battery disposal.
- Never mix battery types or combine used batteries with new ones.

NOTE:

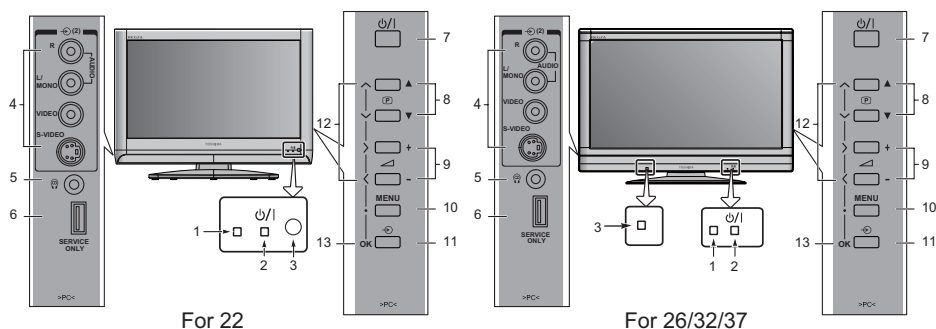
- If the remote control does not operate correctly, or if the operating range becomes reduced, replace both batteries with new ones.
- If the batteries are dead or if you will not use the remote control for a long time, remove the batteries to prevent battery acid from leaking into the battery compartment.

Effective range



TV front, control and side panel

- You can operate your TV using the buttons on the TV control panel or the remote control. The back and side of the panel provide the terminal connections to connect other equipment to your TV (- "Connecting your TV" page 27).



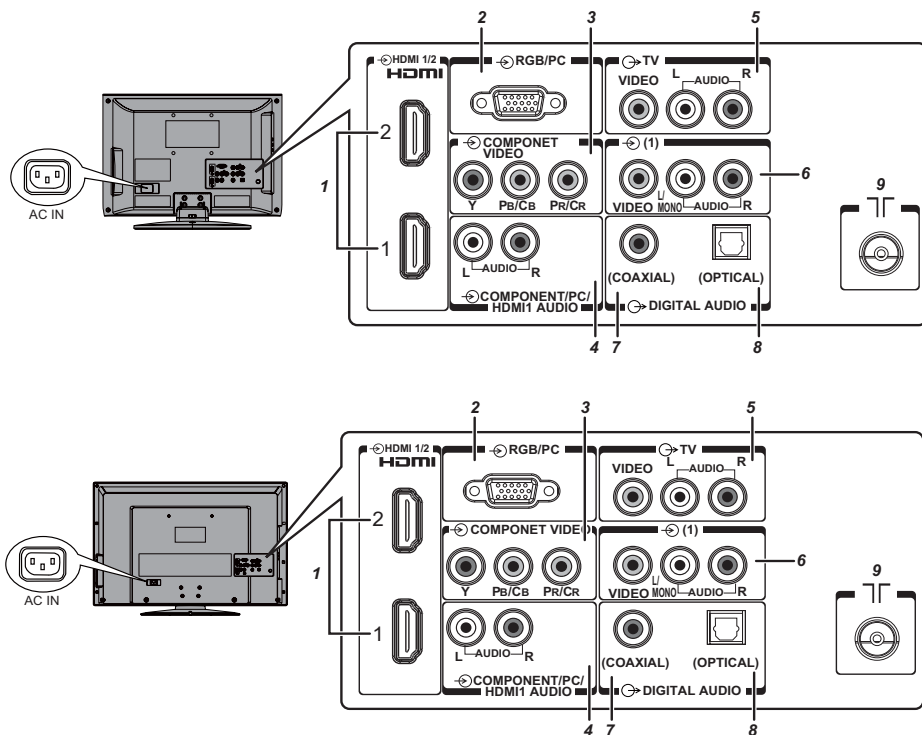
- Timer LED** — Green LED: On Timer/EPG Timer On.
- Power LED** — Red LED: Standby; Green LED: Power On.
- Input** — Point the remote control toward this remote sensor (see page 6).
- AV terminal** — Standard (composite) video and standard audio inputs.
- Headphone jack** — For use with headphones.
NOTE: When the Headphone jack is being used, the sound from all speakers will be muted, and normal sound will be output to the headphones only.
- Service Only** — For service use only.
- Power** — Press to turn the TV on/standby. (see page 11).
- P ▲▼ (Programme position)** — When no menu is on-screen, these buttons select the programme position.
- ◀ - + (Volume)** — When no menu is on-screen, these buttons adjust the volume level.
- Menu** — Press to access the TV on-screen menu.
- Input source selection** — When no menu is on-screen, this button selects the input source.
- ▲▼◀▶ (Arrows)** — When a TV menu is on-screen, these buttons function as up/down/left/right menu navigation buttons or adjust settings.
- OK** — When a TV menu is on-screen, this button functions as the next menu navigation button.

TV back panel connections

Before connecting any external equipment, turn off all main power switches. If there is no switch, remove the mains plug from the wall socket.

Connect the power cord into the AC IN socket found at the back of the TV.

NOTE: Please use the power plug (included) with an earthing pin and two flat current-carrying pins. Do not use other plugs with different forms.

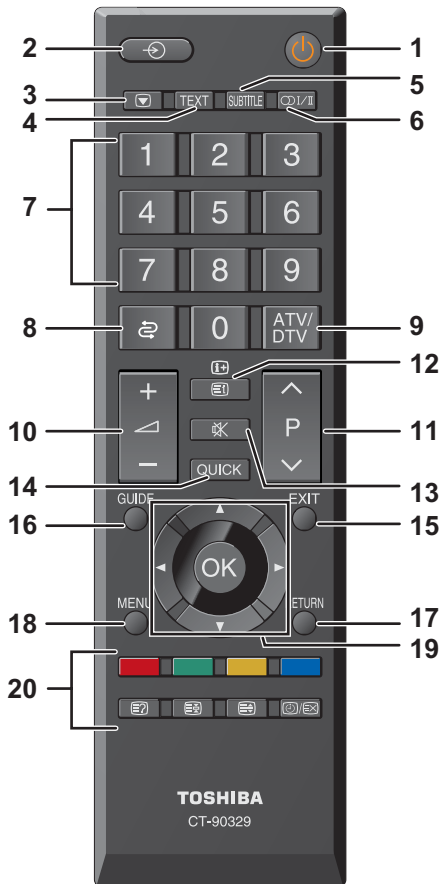


- 1 **HDMI1,2 (input terminals)** — High-Definition Multimedia Interface input receives digital audio and uncompressed digital video from an HDMI device or uncompressed digital video from a DVI device (page 29-30).
- 2 **PC input terminal** — For use when connecting a personal computer (PC) (page 31).
- 3 **Component input terminal** — For use when connecting a high-definition component video device with standard audio output. (page 27).
- 4 **Audio input terminal** — For use when PC, Component or DVI device with standard audio output.
- 5 **TV output terminals** — For use when connecting an ATV/DTV video recorder with standard video and standard audio input.
- 6 **Composite input terminals** — For use when connecting a composite video device.
- 7 **Digital Audio (coaxial) output terminals** — For use when connecting an amplifier with coaxial type digital audio input (page 28-29).
- 8 **Digital Audio (optical) output terminals** — For use when connecting an amplifier with optical type digital audio input (page 28-29).
- 9 **(Antenna input terminal)** — Analogue TV/ Digital DVB-T antenna signal input (page 6).

Learning about the remote control

Location of controls

Simple at-a-glance reference of your remote control.



1. For On/Standby mode
2. To select input from external sources
3. Still Picture
4. To call up text services in analogue mode and interactive services in digital mode
5. To turn the subtitle On/Off
6. Stereo/Bilingual transmissions
7. Number buttons
8. To return to the previous programme
9. No Function
10. To alter the volume
11. To change programme
12. In TV mode: To display on screen information
In Text mode: To access index page
13. To mute the sound
14. To display Quick access menu
15. To exit menus
16. To display the programme guide
17. To return to the previous level of the on-screen menu
18. To display the on-screen menu
19. ▲, ▼, ◀, ▶: To move Up, down, left or right in the on-screen menu
OK: To confirm the selection
20. Colour button: Text control buttons
 - ◻ To reveal concealed text
 - ◻ To hold a wanted page
 - ◻ To enlarge text display size
 - ◻ ◻ In normal picture mode: To display clock on TV screen.
In Teletext mode: To toggle between Teletext and normal picture mode

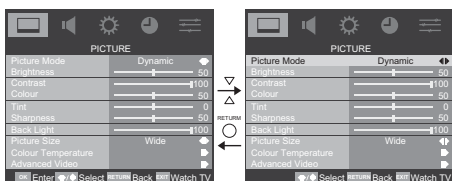
Learning about the menu system

We suggest you familiarize yourself with the display charts before using the menu system:

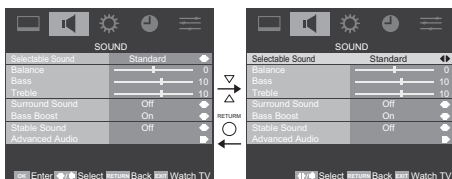
- Press **VIEW** to display menu, then press **◀** or **▶** to select main menu headings.
- Press **▲** or **▼** to select sub menu headings.
- Press **OK**, **◀** or **▶** to select the required choice.
- Follow the on-screen instructions. (The functions of each menu are described in detail throughout the manual).
- Press **RETURN** to return the previous level of the on-screen menu.
- If you want to close the menu, press **EXIT**.

TV SETUP menu chart

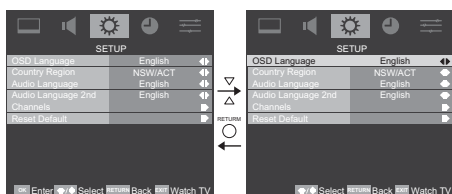
PICTRUE menu



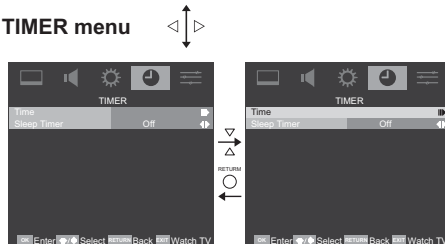
SOUND menu



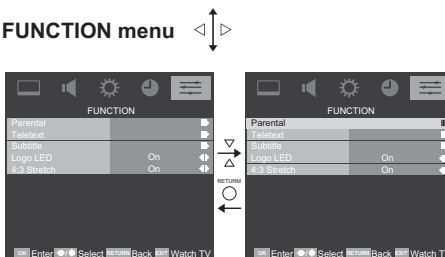
SETUP menu



TIMER menu



FUNCTION menu



Notes for menu system:

- If you do not make a selection for a while, the menu display disappears automatically.

Turning the TV on

Switching on the TV

Connect the power cord to a wall outlet, the $\phi/|$ power indicator lights in red (standby mode).

- Press \odot on the remote control or $\phi/|$ on the TV control panel, the $\phi/|$ power indicator lights in green.

Switching off the TV

- Press \odot on the remote control or $\phi/|$ on the TV control panel to switch to the standby mode.

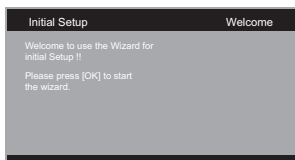
NOTE:

- This TV is not fully disconnected from the main supply, as minute current is consumed even when $\phi/|$ is turned off. When the TV will not be used for a long period of time, such as during vacation or travel, remove the power plug from the wall outlet.
- If power is cut off while you are viewing the TV, the Last Mode Memory function turns on the TV automatically when power is applied again. If power is going to be off for a long time and you are going to be away from your TV, unplug the power cord to prevent the TV from turning on in your absence.

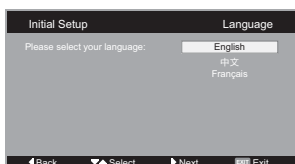
Initial Setup

Before switching on the TV, put your decoder and media recorder to **Standby** if they are connected and ensure the antenna is connected. To setup the TV use the buttons on the remote control as detailed on page 9.

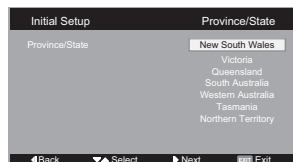
- Connect the television to the main power and press the POWER \odot button. The Initial Setup screen will appear at the first use. Press \odot to start the initial setup.



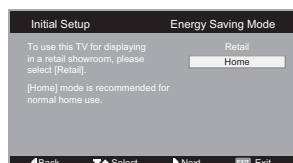
- Using \blacktriangle or \blacktriangledown to select your language and then press \blacktriangleright .



- Using \blacktriangle or \blacktriangledown to select the **Province/State** and then press \blacktriangleright .



- Press \blacktriangle or \blacktriangledown to select the **Mode** and press \blacktriangleright to the next step.



NOTE:

To ensure your television is operating at optimal energy efficiency, select **Home** mode during initial activation.

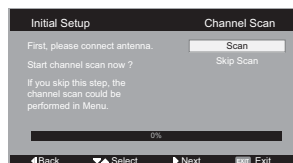
Home mode is recommended for normal home use.

The factory default settings of this television meet **ENERGY SAVING** requirements. Changing Picture Settings may increase energy consumption, possibly beyond the limits required for ENERGY SAVING qualification.

To return to **Home** mode settings, select **Standard** picture mode.

Standard picture mode is used to achieve published average power values, and this mode is recommended for normal home use.

- To start channel scan press \blacktriangleright .



The search will begin for all available stations. The slide bar will move along the line as the search progresses.

NOTE: If you skip this step, the channel scan can be performed in the TV Menu.

Setting the programmes

NOTE: When Channel Block is activated, the 4-digit password is needed to enter the **Channels** submenu under **SETUP** menu.

Auto scan

Auto scan will completely re-tune the television and can be used to update the channel list.

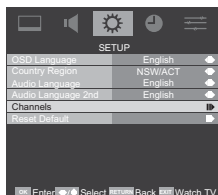
It is recommended that Auto Scan is run periodically to ensure that all new services are added.

NOTE: All current programmes and settings, i.e. favourites and locked programmes, will be lost.

- 1 Press and use or to select **SETUP**.



- 2 Use or to highlight **OSD Language** and press or to select.
- 3 Use or to highlight **Country Region** and press or to select.
- 4 Press or to highlight **Channels** and press or .



- 5 Select **Auto Scan** and press or .



- 6 Press **Cancel** for no change or press to start Auto scan.



Update scan

Search the new channels that are not in the programme list.

- 1 Press and use or to select **SETUP**.
- 2 Press or to highlight **Channels** and press or .
- 3 Select **Update Scan** and press to start scan.

Digital Channel Range Scan

Scan channels from certain range. You can set the range before you scan the channels.

- 1 Select **Channels** from the **SETUP** menu.
- 2 Highlight **Digital Channel Range Scan** and press or to select.
- 3 Using , , and to set the range, then press to scan.



Manual scan

The television can be tuned-in manually using **Manual scan**.

- 1 Press and using or to select **SETUP**.
- 2 Press or to highlight **Channels** and press or .
- 3 Select **Analogue Manual Scan** and press or to confirm it.



- 4 Using number buttons 0-9 to enter the Start Frequency. Use or to select Scan Up or Scan Down and press or to start scan. Press to stop scanning.

Channel Skip

To prevent certain programmes from being viewed, the programme position can be skipped. The remote control must be removed as the channels will still be available using the number buttons. Programmes can then be watched as normal using the controls on the television, but the television will not show the skipped programme position.

- 1 In the **SETUP** menu press **▼** to highlight **Channels** and press **►** or **OK** to select.
- 2 Press **▲** or **▼** to highlight **Channel Skip** and press **►** or **OK** to select.



- 3 Use **▲** or **▼** to select the channels you want to skip, then press **OK** to set.



Skipped programme positions **cannot** be selected by **P~** and **P^** or by the controls on the television, but **can** still be accessed by the number buttons on the remote control.

Channel Sort

Change the order of the programme list.

- 1 Select **Channels** from the **SETUP** menu.
- 2 Highlight **Channel Sort** and press **►** or **OK** to select.
- 3 Pressing **OK** to check two channels to swap the positions.

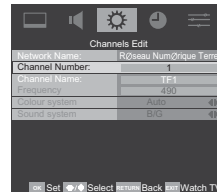


Channel Edit

Edit the channel number and channel name.

- 1 Select **Channels** from the **SETUP** menu.
- 2 Highlight **Channel Edit** and press **►** or **OK** to select.
- 3 Using **▲** or **▼** to highlight the channel and press **OK** to select.
- 4 Change the **Channel Number** by using the number buttons 0-9. Change the **Channel Name** by pressing the number buttons 0-9 to enter numbers and letters.

NOTE: Colour System/Sound System can be changed only in Analogue TV.



Analogue Channel Fine Tune

When the reception is poor, you can use this function to do the fine tuning.

- 1 In the **SETUP** menu press **▲** or **▼** to highlight **Channels** and press **►** or **OK** to select.
- 2 Press **▲** or **▼** to highlight **Analogue Channel Fine Tune** and press **OK** to select.
- 3 Highlight and press **OK** to select the channel.
- 4 Use **◀** or **▶** to adjust the frequency. Press **◀** to decrease and **▶** to increase the frequency.

Reset Default

Selecting **Reset Default** will reset all TV settings to their original factory values, excludes OSD Language and Channels.

- 1 In the **SETUP** menu press **▲** or **▼** to highlight **Reset Default** and press **►** or **OK** to select.
- 2 Select **OK** to confirm or select **Cancel** to exit.

General Control

Selecting programme positions

After you have tuned the TV, you have several ways to navigate through all programmes:

- Press the Number buttons (a channel number has 3-digits) and you may omit the leading zeroes, which will be appended automatically; (Please note that if you have channels with different frequencies but the same channel number, the TV will always tune to the first channel that has been stored into the channel database. To view the other duplicating channels, you can select the channels by using **P^** / **Pv** buttons.)
- Press **P^** / **Pv** to view the previous and next programme. The channels are arranged in ascending order according to the channel number.

Switching between two programme positions

You can switch two programme positions without entering actual position number each time.

- Select the first programme position you want to view.
- Select the second programme position with the Number buttons (0-9).
- Press **↔**, The previous channel will be displayed.

Each time you press **↔**, the TV will switch back and forth between the two programme positions.

Stereo and Bilingual transmissions

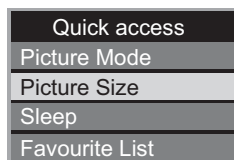
*If stereo or dual language broadcasts are transmitted the word **Stereo** or **Dual** will appear on the screen each time programme positions are changed, disappearing after a few seconds. If the broadcast is not in stereo the word **Mono** will appear.*

Stereo... **⓪** I/II Press to select **Stereo** or **Mono**.

Bilingual... Bilingual transmissions are rare. If they are transmitted the word **Dual** will display. Choose the required programme number and if the word **Dual** appears press **⓪** I/II to select **Dual 1**, **Dual 2** or **Mono**.

Quick Access Menu

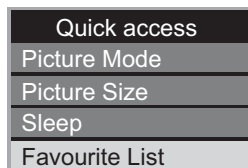
Quick access menu helps you access some options quickly, such as **Picture Mode**, **Picture Size**, **Sleep** and **Favourite List**. Press **QUICK** button to display the **Quick access** menu and use **▲** or **▼** to select the option.



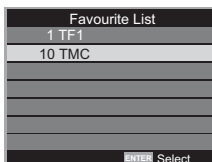
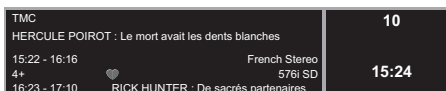
Favourite List

You can save your favourite channels in the Favourite List.

- Press **QUICK** button and use **▲** or **▼** to select **Favourite List**.



- Use **▲** or **▼** to select a space and press **OK** to add the channel to the Favourite list.
Use **▲** or **▼** to select a channel and press **OK** to erase the channel from the Favourite list.



NOTE: The stored channel limit in favourite list is 7 channels.

Information

The on-screen information will give the details of the channel programme currently being viewed.

- 1 Press **i+** the information screen will appear giving details of the programme and event currently being viewed.



1	Station
2	Current Programme and Time
3	Parental rating
4	Next Programme and Time
5	Programme description
6	Video format
7	Audio info
8	Subtitle
9	Teletext
10	Favourite

- 2 Press **i+** again to close the information screen.

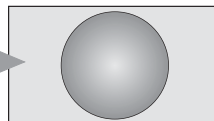
Using the TV's features (General)

Picture Control

Widescreen viewing

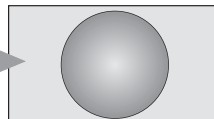
Native

This setting is available when watching video signal source via HDMI, and will show the picture without over scan

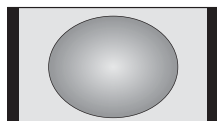


WIDE

Use this setting when watching a widescreen DVD, widescreen video tape or a 16:9 broadcast (when available). Due to the range of widescreen formats (16:9, 14:9, 20:9 etc.) black bars may be visible on the top and bottom of the screen.



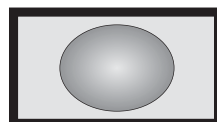
SUPER LIVE 2



If a side panel format signal is being received this setting will enlarge the image to fit the screen by stretching the image horizontally and vertically, holding better proportions at the centre of the image. Some distortion may occur.



CINEMA 2

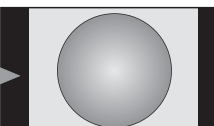


When watching all sides panel format films/video tapes, this setting will eliminate or reduce the black bars at all sides of the screen by zooming in and selecting the image without distortion.

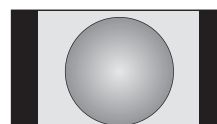


4:3

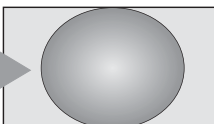
Use this setting to view a true 4:3 broadcast.



SUPER LIVE 1

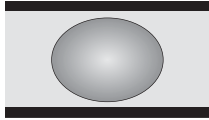


This setting will enlarge a 4:3 image to fit the screen by stretching the image horizontally and vertically, holding better proportions at the centre of the image. Some distortion may occur.

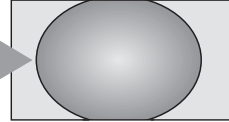


Using the TV's features (General)

CINEMA 1

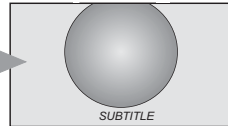


When watching letterbox format' films/ video tapes, this setting will eliminate or reduce the black bars at the top and bottom of the screen by zooming in and selecting the image without distortion.



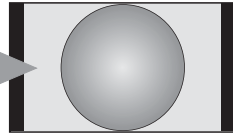
SUBTITLE

When subtitles are included on a letterbox format broadcast, this setting will raise the picture to ensure that all the text is displayed.

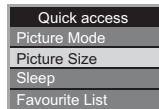


14:9

Use this setting when watching a 14:9 broadcast.



Press **QUICK** to display the **Quick access** menu and use **▲** or **▼** to select the **Picture Size** and press **OK**.



You can choose the picture size from Native, Wide, Super Live 2, Cinema 2, 4:3, Super Live 1, Cinema 1, Subtitle, 14:9 and Auto.


NOTE: If you set the Picture Size to **AUTO**, the format will be set automatically.

Using the special functions to change the size of the displayed image (i.e. changing the height/width ratio) for the purposes of public display or commercial gain may infringe on copyright laws.

Available Picture Size

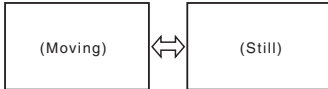
Screen Mode	SD (up to 480p)	HD (up to 1080p)	PC Mode
Super Live1	Yes	No	No
Super Live2	Yes	No	No
Cinema1	Yes	No	No
Cinema2	Yes	No	No
14:9	Yes	Yes	No
Wide	Yes	Yes	Yes
4:3	Yes	Yes	Yes
Subtitle	Yes	No	No
Auto	Yes	No	No
Native	Yes(only in HDMI)	Yes(only in HDMI)	No

Still Picture

- Press  to freeze the picture.

Even if an image is frozen on the TV screen, the pictures are running on the input source. Audio continues to be output as well.

To return to a moving picture, press  again.










NOTE:

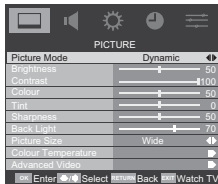
- This function only works in TV mode.
- If you use this function except for the purpose of your private viewing and listening, it may infringe the copyright protected by the copyright laws.

Picture Mode





You can adjust the best picture appearance by selecting the preset value in picture mode based on the programme category.

- Press  and use  or  to select **PICTURE**.
- Press  or  to highlight **Picture Mode** and use  or  to select from **Dynamic**, **Standard**, **Mild**, **Movie**, **Game**, **PC**, or **User**.

NOTE: In TV mode: There are no Game and PC selections. In Component and Composite mode: There is no PC selection.







Brightness, Contrast, and Colour

- In the **PICTURE** menu press  or  to select **Brightness**, **Contrast**, or **Colour**.
- Using  or  to adjust your preference.

Tint





Adjusts the picture tint.

- In the **PICTURE** menu press  or  to select **Tint**.
- Using  or  to adjust your preference.

NOTE: This function does not work in PC mode.





Sharpness

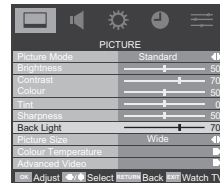
This function increase or decrease the sharpness of the picture. The picture shows the clear edge when you increase the values.

- In the **PICTURE** menu press  or  to select **Sharpness**.
- Using  or  to adjust your preference.

Back Light





Adjusting the **Back Light** can improve the clarity of the screen when viewing.

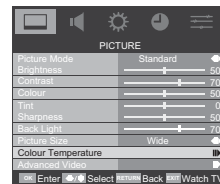
- In the **PICTURE** menu and press  or  to highlight **Back Light**.
- Using  or  to adjust your preference.





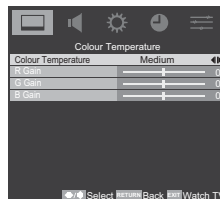
Colour Temperature

Colour Temperature increases the 'warmth' or 'coolness' of a picture by increasing the red or blue tint.

- In the **PICTURE** menu press  or  to highlight **Colour Temperature** and press  or  to select.



- Using  or  to select from **Cool**, **Medium**, **Warm** or **User** to suit your preference.



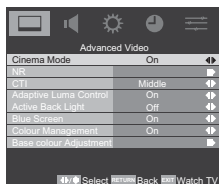
NOTE:

R/G/B Gain: Increase or decrease the red/green/blue values in the picture.

Cinema mode

The frame rate of a movie film is generally 24 frames a second whereas the movie software such as DVD, etc. that you enjoy watching on television at home is 30 or 25 frames a second. The difference in frame rate may cause flickers whilst viewing the films on television; set the **Cinema Mode** to convert the signal to reproduce a smooth motion and picture quality.

- 1 In the **PICTURE** menu press ▲ or ▼ to highlight **Advanced Video** and press ► or ⓧ to select.
- 2 Press ▲ or ▼ to highlight **Cinema Mode**, and using ◀ or ▶ select from **On** or **Off**.



MPEG NR

If the receiving signal of MPEG is a grained noise depending on the compression and conversion, the noise may be reduced when using this function.

- 1 In the **PICTURE** menu, press ▲ or ▼ to highlight **Advanced Video** and press ► or ⓧ to select.
- 2 Use ▲ or ▼ to highlight **NR** and press ► or ⓧ to select.
- 3 Select the **MPEG NR**, and using ◀ or ▶ to select **On** or **Off**.

DNR

DNR (Digital Noise Reduction) enables you to 'soften' the screen representation of a weak signal to reduce the noise effect.

- 1 In the **PICTURE** menu press ▲ or ▼ to highlight **Advanced Video** and press ► or ⓧ to select.
- 2 Use ▲ or ▼ to highlight **NR** and press ► or ⓧ to select.
- 3 Select **DNR** and using ◀ or ▶ to select from **Low**, **Middle**, **High**, **Auto**, or **Off**.

CTI

The colour transient improvement (CTI) involves the detection and sharpening of edges around colour objects on the screen.

- 1 In the **PICTURE** menu press ▲ or ▼ to highlight **Advanced Video** and press ► or ⓧ to select.
- 2 Select the **CTI**, and using ◀ or ▶ to select from **Low**, **Middle**, **High** or **Off**.

Active Back Light

When Active Back Light is activated, it will automatically optimise the backlighting levels for dark scenes.

- 1 In the **PICTURE** menu press ▲ or ▼ to highlight **Advanced Video** and press ► or ⓧ to select.
- 2 Select the **Active Back Light**, and using ◀ or ▶ to select **On** or **Off**.

Adaptive Luma Control

Automatically adjusts the brightness and contrast after analyzing the input signal. This function enriches the colours and the depth of the picture.

- 1 In the **PICTURE** menu press ▲ or ▼ to highlight **Advanced Video** and press ► or ⓧ to select.
- 2 Press ▲ or ▼ to highlight **Adaptive Luma Control** and use ◀ or ▶ to select **On** or **Off**.

Blue Screen

When **Blue Screen** is selected the screen will turn blue and the sound will be muted when no signal is received.

- 1 In the **PICTURE** menu press ▲ or ▼ to highlight **Advanced Video** and press ► or ⓧ to select.
- 2 Press ▲ or ▼ to highlight **Blue Screen** and use ◀ or ▶ to select **On** or **Off**.

NOTE: The Blue Screen will be grayed out when in TV and PC mode.

Colour Management

When Colour Management is selected it allows the 'Base Colour Adjustment' feature to become available.

- 1 In the **PICTURE** menu press ▲ or ▼ to highlight **Advanced Video** and press ► or OK to select.
- 2 Press ▲ or ▼ to highlight **Colour Management**.
- 3 Press ◀ or ▶ to select **On** or **Off**.

Base Colour Adjustment

The Base Colour Adjustment feature allows the adjustment of individual colours to suit personal preference. This can be useful when using an external source. It only can be adjusted when Colour Management is set to On.

- 1 Highlight the **Advanced Video** in the **PICTURE** menu, press **▲** or **▼** to highlight **Colour Management** and press **◀** or **▶** to select **On**.
- 2 Press **▲** or **▼** to highlight **Base Colour Adjustment** and then press **▶** or **OK**.
- 3 Press **▲** or **▼** to select an option, then press **OK** to enter the adjustment setting window.
- 4 Press **◀** or **▶** to select **Hue** or **Saturation**, then press **▲** or **▼** to adjust the settings as required.

NOTE: To return to the original factory settings select **Reset** and press **OK**.

PC

This option only shows and is available in PC mode, which provides several items for the PC display fine tunings.

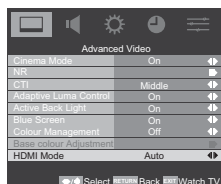
- 1 In the **PICTURE** menu, press **▲** or **▼** to select **PC** and then press **OK**.
- 2 Press **▲** or **▼** to select **Auto Adjust** for adjusting the settings automatically, or select **H. Position**, **V. Position**, **Phase** or **Clock** and use **◀** or **▶** to adjust your preference.

NOTE: For PC input, V. Position adjustment is not linear. In another words, when you adjust V. Position, the OSD value will change by 2 or greater value depending TV's calibration process.

HDMI Mode

HDMI Mode only shows and is available when HDMI device is connected.

- 1 In the **PICTURE** menu, press **▲** or **▼** to highlight **Advanced Video** and press **▶** or **OK** to select.
- 2 Press **▲** or **▼** to highlight **HDMI Mode** and use **◀** or **▶** to select **Auto**, **Video**, or **Graphic**.



NOTE:

Auto: The HDMI input timing is set to Video mode or Graphic mode automatically.

Video: HDMI input timing set to Video mode. The image is over scan.

Graphic: HDMI input timing set to Graphic mode (PC). The image is full scan.

Sound adjustment

Volume

Press **⏮** or **⏭** to adjust the volume.

Sound Mute

Press **🔇** once to turn the sound off and again to cancel.

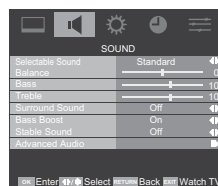
Selectable Sound

Select the sound mode to suit your preference.

1. In the **SOUND** menu press **▲** or **▼** to select **Selectable Sound**.
2. Using **◀** or **▶** to select from **Standard**, **Movie**, **Music**, or **User**.

Balance, Bass, Treble

- 1 Press **🔊** and **◀** or **▶** to select **SOUND**.



- 2 Press **▲** or **▼** to highlight **Bass**, **Treble** or **Balance** and **◀** or **▶** to change the setting.

Surround Sound

This function enriches (expanding and deepening) the sound quality.

- 1 In the **SOUND** menu press **▲** or **▼** to select **Surround Sound**.
- 2 Using **◀** or **▶** to switch function **On** or **Off**.

Bass Boost

Bass Boost enhances the depth of the sound on the TV speakers. The difference will only be noticeable on sound with a strong bass.

- 1 In the **SOUND** menu press **▲** or **▼** to highlight **Bass Boost**.
- 2 Using **◀** or **▶** to switch function **On** or **Off**.

SPDIF Type

SPDIF is a digital output format sending digital audio to an external audio system.

- 1 In the **SOUND** menu press ▲ or ▼ to highlight **Advanced Audio** and press ► or Ⓚ to select.
- 2 Press ▲ or ▼ to select **SPDIF Type** and using ◀ or ► to select from **Dolby Digital**, **PCM**, or **Off**.

Stable Sound®

Stable Sound reduces the volume level differences between channels. It automatically remains on the same volume level when you change channels.

- 1 In the **SOUND** menu press ▲ or ▼ to select **Stable Sound**.
- 2 Using ◀ or ► to switch function **On** or **Off**.

Audio Mode

- 1 In the **SOUND** menu press ▲ or ▼ to highlight **Advanced Audio** and press ► or Ⓚ to select.
- 2 Press ▲ or ▼ to select **Audio Mode** and using ◀ or ► to select from **Dolby Digital** or **MPEG**.

Dolby Digital

If you select this option, the TV will select the first Dolby Digital audio track, if available. However, if the channel does not contain any Dolby Digital audio track, then the first available MPEG audio track will be selected.

MPEG

If you select this option, the TV will select the first MPEG audio track, if available. However, if the channel does not contain any MPEG audio track, then the first available Dolby Digital audio track will be selected.

Note: Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

Input Mode

- 1 In the **SOUND** menu press ▲ or ▼ to highlight **Advanced Audio** and press ► or Ⓚ to select.
- 2 Press ▲ or ▼ to select **Input Mode** and using ◀ or ► to select from **L/R**, **R/R**, or **L/L**.

NOTE: This function only works in Component.

Selecting the stereo programmes

- 1 When a stereo programme is received, **Stereo** appears.
- 2 Press ⏮/⏭ to select the Auto/Mono mode. **Stereo** and **Mono** appear cyclically on the screen.

Selecting the bilingual programmes

- 1 When a bilingual programme is received, **Dual** appears.
- 2 Press ⏮/⏭ to select the sound to be heard. The sound differs according to the transmission system: **NICAM** or **German stereo/bilingual broadcast**.

Display	Sound to be heard	
	NICAM	German stereo / bilingual broadcast
Dual 1	Sub I sound	Main sound
Dual 2	Sub II sound	Sub sound
Mono	Main sound	---

NOTE:

These settings are not stored in the TV memory.

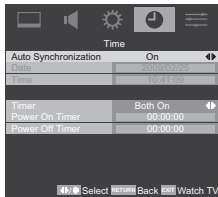
Timer control

Time

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

You must set the time correctly before using Power On/Off Timer function.

- 1 Highlight the **Time** in the **TIMER** menu and press **▶** or **OK** to select.
- 2 Use **◀** or **▶** to set the Auto Synchronization **On/Off**.



- 3 If you set the **Auto Synchronization Off**, you can set the Date and Time manually by using **▲**, **▼**, **◀** and **▶**.
- 4 Using **▲**, **▼**, **◀** and **▶** to select the Power On/Off Timer.



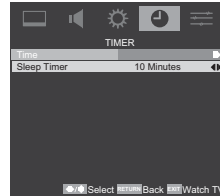
The **Power On Timer** function switches the TV on automatically at a preset time.

The **Power Off Timer** function switches the TV off automatically at a preset time.

Sleep Timer

The television can be set to turn itself **Off** after time.

1. Use **▲** or **▼** to highlight **Sleep Timer** in the **TIMER** menu.
2. Use **◀** or **▶** to set the timer from Off, 10, 20, 30, 40, 50, 60, 90 or 120 Minutes.



NOTE:

To cancel the Sleep Timer, select **Off** in above setting.

Input selection

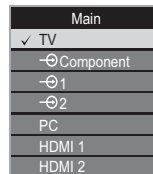
Defining the INPUT and OUTPUT sockets so that the television recognises connected equipment.

See page 8 for a clear view of the back connection recommendations.

Alternatively press the external source selection button **↻** until the picture from connected equipment is shown.

Use the Input Selection if the television does not switch over automatically.

- 1 Pressing **↻** a list will appear on screen showing all stored external equipment. Use **▲** and **▼** to highlight and **OK** to select.



HDMI™ displays equipment connected to Input HDMI on the back of the television. It is designed for best performance with 1080p high definition signals.

Function control

Analogue Subtitle

You can set the subtitle on or off whilst watching TV.

- 1 Highlight the **Subtitle** in the **FUNCTION** menu, and press ► or OK to select.
- 2 Use ▲ or ▼ to select the **Analogue Subtitle** and press ◀ or ▶ to select from **On**, **Mute**, or **Off**.



NOTE: When Analogue subtitle is selected to "Mute", the Analogue subtitle will be displayed on the screen but the speaker muted simultaneously.

Digital Subtitle

Use the **Digital 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.

- 1 Highlight the **Subtitle** in the **FUNCTION** menu, and press ► or OK to select.
- 2 Use ▲ or ▼ to select the **Digital Subtitle Language** or **Digital Subtitle Language 2nd** and use ◀ or ▶ to select the language.

NOTE: If the language in the Digital Subtitle Language is not available, the Digital Subtitle Language 2nd will be displayed.

4:3 Stretch

If the 4:3 stretch is On, the picture size will auto stretch to 4:3 aspect ratio in Widescreen format.

NOTE: 4:3 Stretch is only activated when Picture Size is set to "AUTO" mode.

Logo LED

You can set the **Logo LED** on or off on the bottom of the front panel of your TV.

- 1 In the **FUNCTION** menu press ▲ or ▼ to highlight **Logo LED**.
- 2 Use ◀ or ▶ to switch the function **On** or **Off**.

NOTE: The Logo LED is for size 32/37 only.

Parental control

This function blocks channels or programmes that you do not want to or that you do not want your children to watch.

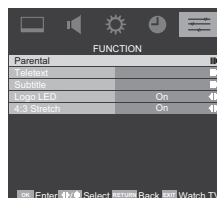
A password is required to gain access to this function. The factory default password is "0000".

NOTE: When Channel Block, Programme Block and Input Block are activated, you will need to enter the 4-digit password before you enter the channels submenu under the **SETUP**. After auto scan, all the channel blocks will be cleared.

Channel Block

This function blocks channels that you do not want to or that you do not want your children to watch.

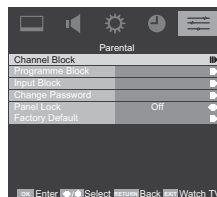
- 1 Highlight the **Parental** in the **FUNCTION** menu, and press ► or OK to select.



- 2 Enter the 4-digit password.



- 3 Use ▲ or ▼ to highlight the **Channel Block** and press ► or OK to select.



- Use ▲ or ▼ to highlight the channels you want to block, then press **OK** to set.

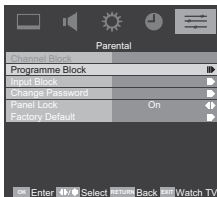


Programme Block

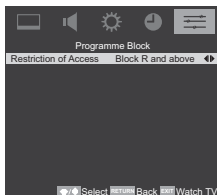
This function prevents children from watching certain TV programmes, according to the rating limit set.

This function operates according to information from the broadcasting station. Therefore if the signal has no information, this function does not operate.

- Highlight the **Parental** in the **FUNCTION** menu, and press ► or **OK** to select.
- Enter the 4-digit password.
- Use ▲ or ▼ to highlight the **Programme Block** and press ► or **OK** to select.



- Use ◀ or ▶ to set the **Restriction of Access** from **G**, **PG**, **M**, **MA**, **AV**, **R**, **All**, or select **No Block** to turn this function off.

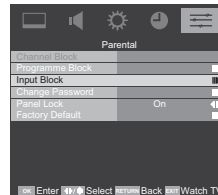


NOTE: This function is available for the programme with Rating information.

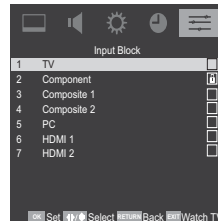
Input Block

This function can disable the specific external input signals.

- Highlight the **Parental** in the **FUNCTION** menu, and press ► or **OK** to select.
- Enter the 4-digit password.
- Use ▲ or ▼ to highlight the **Input Block** and press ► or **OK** to select.



- Use ▲ or ▼ to highlight the input that you want to disable and press **OK** to lock.



Panel Lock



You can lock the control buttons on your TV by using this **Panel Lock**. When this function enables, the TV can be controlled only by the remote control.

- Highlight the **Parental** in the **FUNCTION** menu, and press ► or **OK** to select.
- Enter the 4-digit password.
- Use ▲ or ▼ to highlight the **Panel Lock** and press ◀ or ▶ to switch the function **On** or **Off**.

NOTE: When the Panel Lock is set to "On", TV can be turned off by pressing the power keys on the TV or the remote control, but can be turned on only by the remote control.

Factory Default

Selecting **Factory Default** will reset all TV settings, including stored channels, to their original factory values.


- 1 Highlight the **Parental** in the **FUNCTION** menu, and press ► or  to select.
- 2 Enter the 4-digit password.
- 3 Use ▲ or ▼ to highlight the **Factory Default** and press ► or  to select.

NOTE: After factory default is completed, the initial setup screen will appear.

Programme Guide

The programme guide gives access to programme details for all available channels.

Guide

- 1 Select the on-screen guide by pressing , the guide screen will appear highlighting details of the programme and event currently being viewed. This may take a few moments to appear.
- 2 Press ◀ or ▶ for information on other events scheduled for the programme selected.
- 3 For details of other programmes currently available, press ▲ and ▼ to scroll up and down the programme list.

NOTE: In order for the recording operation to work properly, the media recorder must be set to the same time as the TV. Regarding the process for recording, please refer to the owner's manual of the recording equipment.

EPG Timer

EPG (Electronic Programme Guide) supports 8 sets of timers. You can set or cancel a timer for a selected programme within the guide. When the TV is on and the timer activates, a dialogue box is shown informing you that the programme is about to start. When the TV is in standby mode and the timer activates, the TV will wake up with backlight off, speaker mute on, and change to the channel selected.

You must set the time correctly before using this function. All set timers are cleared when performing a new channel scan.

- 1 Press **OK** button to set/unset Timer in the selected programme.
- 2 The indicator will be shown in the detail information area if timer function is set.
- 3 Press **BLUE** button to enter the programme timer list page.

NOTE: Time can be set manually in the Menu/Timer/Time OSD menu.

After adjustment, the TV clock will not match the time in the EPG Programme Guide. The EPG Programme Guide time follows the broadcast stream time which can not be adjusted.

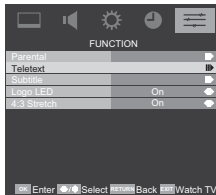
Text services

This television has a multi-page text memory, which takes a few moments to load.

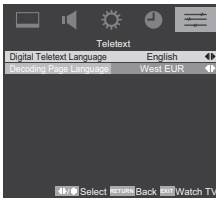
Setting the Language

You can set the teletext language.

- 1 In the **FUNCTION** menu press **▼** to highlight **Teletext**, then press **►** or **OK** to confirm.



- 2 Use **▲** and **▼** to select the options, and then use **◀** and **▶** to select the language.



Text Information

The first text page shown will be the index page.

Any text page can be accessed by entering the 3 digit page number using the numbered buttons, pressing the coloured buttons or pressing **P ▲** to advance to the next page and **P ▼** to go back to the previous page.

Control buttons

Below is a guide to the functions of the remote control text buttons.

[Index] To display the index/initial page:

Press **[Index]** to access the index/initial page. The one displayed is dependant on the broadcaster.

[Conceal] To reveal concealed text:

To discover the solutions on quiz and joke pages press the **[Conceal]** button.

[Hold] To hold a wanted page:

At times it is convenient to hold a page of text. Press **[Hold]** and **[Index]** will appear in the top of the screen. The page will be held on screen until the button is pressed again.

[Enlarge] To enlarge the text display size:

Press **[Enlarge]** once to enlarge the top half of the page, press again to enlarge the bottom half of the page. Press again to revert to normal size.

[Toggle] To toggle between Teletext and normal picture mode:

Enter the page number then press **[Toggle]**, a normal picture will be displayed. The television will indicate when the page is present by displaying the page number at the top of the screen.

Sub page will be automatically displayed.

Teletext Favourite

You can save your favourite pages to your Favourite Page List. Press **TEXT** button to enter the teletext page. Press the **QUICK** button to display the **Quick access** menu, and then select the Favourite List to display the Favourite Page List.

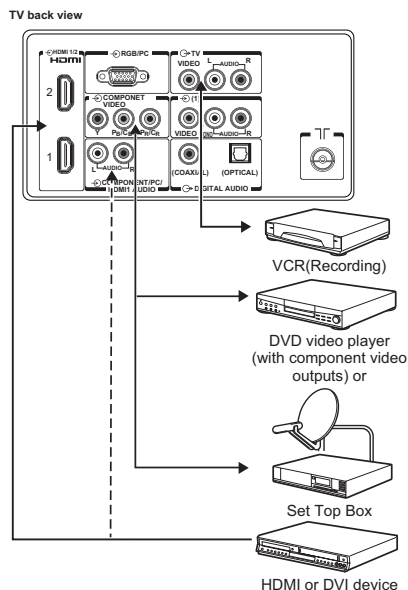
After channel is changed or TV is turned off, Favourite Page List will be lost.

Connecting your TV

Back connections

Connection example

TV back view



- Before connecting any external equipment, turn off all main power switches. If there is no switch, remove the mains plug from the wall socket.
- The unauthorized recording of television programmes, DVDs, video tapes and other materials may infringe upon the provisions of copyright law.
- The **COMPONENT VIDEO INPUT** consists of three component video signals (**Y**, **P_B/C_B**, **P_R/C_R**) and provides the best picture performance. These terminals can only be used with the component video compatible equipment e.g. DVD video player, etc.
- Additional equipment and cables shown are not supplied with this TV.
- **TV OUTPUT**
That will only support ATV/DTV signal to display out or by VCR TV signal recording use.

Connecting an audio system

You can enjoy high quality dynamic sound by connecting the TV to an audio system.

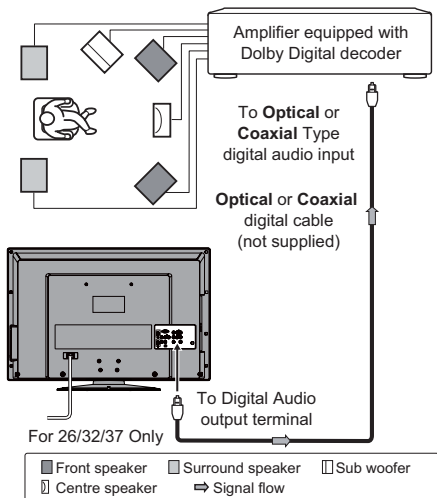
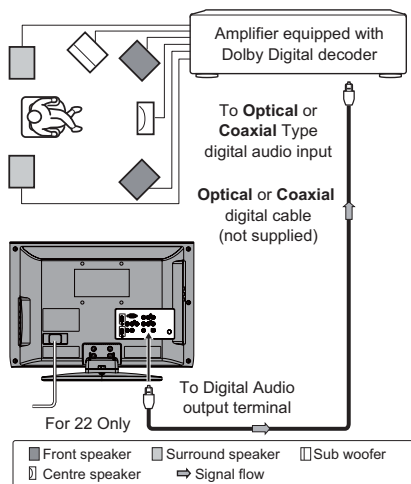
NOTE:

- **DO NOT** connect the **DIGITAL AUDIO** output terminal to the AC-3 RF input of a Dolby Digital Receiver with a built-in Dolby Digital decoder.
- Connect the **DIGITAL AUDIO** output terminal to the **Optical** or **Coaxial** input of a Receiver or Processor.
- Refer to the owner's manual of the connected equipment as well.
- When you connect the TV to other equipment, be sure to turn off the power and unplug all of the equipment from the wall outlet before making any connections.
- The output sound of the TV has a wide dynamic range. Be sure to adjust the audio amplifier's volume to a moderate listening level before turning on the power. Otherwise, the speakers and your hearing may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the TV's power cord. If you leave the amplifier power on, the speakers may be damaged.

Warning:

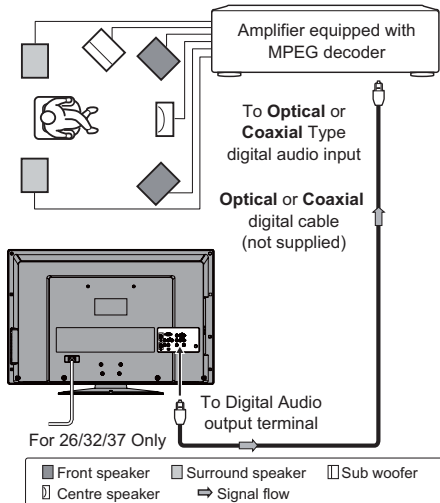
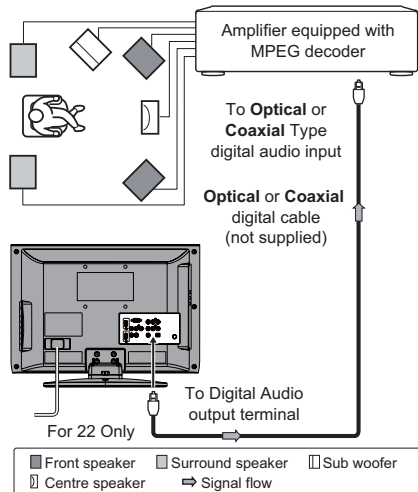
When you are connecting (via the **DIGITAL AUDIO** output terminal) an AV decoder that does not have Dolby Digital or MPEG decoding function, be sure to set **PCM** in SPDIF Type under SOUND menu. Otherwise, the speakers and your hearing may be damaged by a sudden high volume sound.

Connecting an amplifier equipped with a Dolby Digital decoder



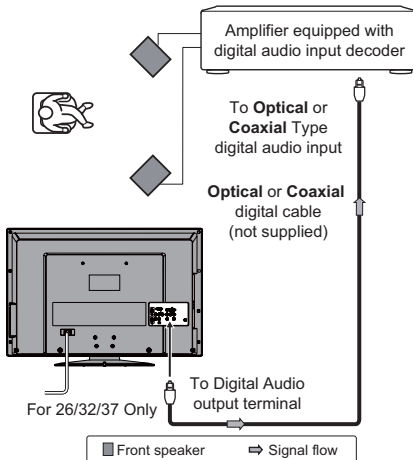
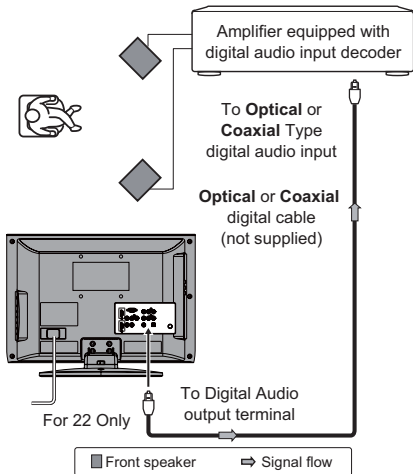
You can enjoy dynamic realistic sound by connecting the TV to an amplifier equipped with a Dolby Digital decoder or Dolby Digital processor. When using this setup, select **Dolby Digital** in Audio Mode.

Connecting an amplifier equipped with an MPEG decoder



You can enjoy motion picture with dynamic realistic sound by connecting the TV to an amplifier equipped with an MPEG audio decoder or MPEG audio processor. When using this setup, select **MPEG** in Audio Mode.

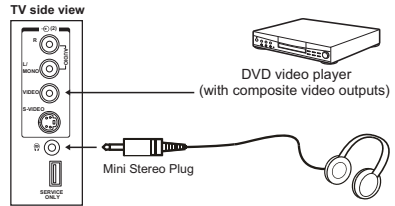
Connecting an amplifier equipped with a digital audio (optical or coaxial) input



You can enjoy dynamic sound of 2-channel digital stereo by connecting the TV to an amplifier equipped with a digital audio (optical or coaxial) input and speaker system (right and left front speakers). When using this setup, select **PCM** in SPDIF Type under **SOUND** menu.

Side connections

Connection example



- The audio from the speaker will be muted when connecting the headphone to this terminal.
- The service port is for service only.

Connecting an HDMI or a DVI device

- When turning on your electronic components, turn on the TV first, and then the HDMI or DVI device.
- When turning off your electronic components, turn off the HDMI or DVI device first, and then the TV.
- This TV may not be compatible with features and/or specifications that may be added in the future.
- Some early HDMI equipment may not work properly with your latest HDMI TV, due to the adoption of a new standard.
- This TV is only operable with L-PCM on 32/44. 1/48 kHz and 16/20/24 bits.

Connecting an HDMI or a DVI device

The HDMI input on your TV receives digital audio and uncompressed digital video from an HDMI device or uncompressed digital video from a DVI device.

This input is designed to accept HDCP programme material in digital from EIA/CEA-861/861B compliant consumer electronic devices (such as a set top box or DVD player with HDMI or DVI output).

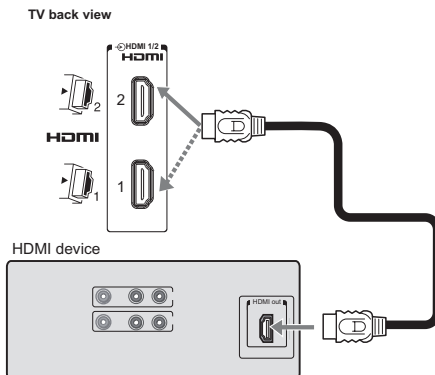
For acceptable video signal formats (see page 32).

The HDMI input is designed for best performance with 1080i high-definition video signals, but will also accept and display VGA, SVGA, XGA, WXGA, SXGA, 480i, 480p, 576i, 576p, 720p, and 1080p signals.

- **HDMI:** High-Definition Multimedia Interface
- **DVI:** Digital Video Interface
- **HDCP:** High-bandwidth Digital Content Protection
- EIA/CEA-861/861B compliance covers the transmission of uncompressed digital video with high-bandwidth digital content protection, which is being standardized for reception of high-definition video signals. Because this is an evolving technology, it is possible that some devices may not operate properly with the TV.
- **E-EDID:** Enhanced-Extended Display Identification
- **L-PCM:** Linear-Pulse Code Modulation

Connecting an HDMI device

One HDMI cable (type A connector)



For proper operation, it is recommended that you use a short HDMI cable with the HDMI Logo (**HDMI**).

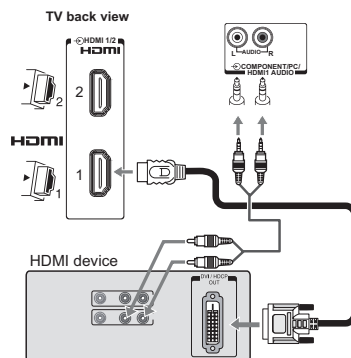
HDMI cable transfers both video and audio.

NOTE:

It is possible that some HDMI device may not operate properly with this TV.

Connecting a DVI device

One HDMI(type A connector)-to DVI adapter cable and audio cables



HDMI (type A connector)-to-DVI adapter cable

For proper operation, the length of an HDMI-to-DVI adapter cable should not exceed 3m. The recommended length is 2m.

Standard analogue audio cables

An HDMI-to-DVI adapter cable transfers only video. Separate analogue audio cables are required.

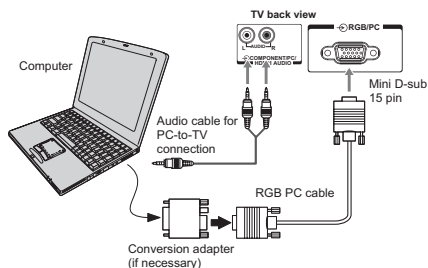
When connecting a DVI device, please connect to the HDMI 1 port only.

NOTE:

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

Connecting a computer

An analogue RGB (15 pin) computer cable can be connected.



Connect a PC cable from the computer to the RGB/PC terminal on the back of the TV.

For acceptable PC signal formats (page 32).

However, these signal formats are converted to match the number of pixels of the LCD panel.

Therefore, the TV may not display small text properly.

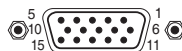
If you connect this unit to your PC, the compressed image is displayed in S-XGA mode, therefore the picture quality may deteriorate and characters may not be read.

NOTE:

- Some PC models cannot be connected to this TV.
- There is no need to use an adapter for computers with DOS/ V compatible mini D-sub 15 pin terminal.
- A bar may appear in the upper, lower, right or left side of the screen, or parts of the picture may be obscured depending on some signals. This is not the malfunction.
- If the edges of the picture are stretched, readjust the picture position adjustments in the **PC of PICTURE** menu.
- Depending on the specification of the PC you are playing the DVD-Video on, and the DVD's title, some scenes may be skipped, or you may not be able to pause during multi-angle scenes.

Signal names for mini D-sub 15 pin connector

Pin assignment for RGB/PC terminal



Pin No.	Signal name	Pin No.	Signal name
1	R	9	VGA-5V
2	G	10	Ground
3	B	11	NC (not connected)
4	NC (not connected)	12	VGA-SDA
5	NC (not connected)	13	H-sync
6	Ground	14	V-sync
7	Ground	15	VGA-SCL
8	Ground		

Using the PC setting

- First press to display the video input source list, then press or and in order to select the PC input mode (page 22).
- This function may not be available for some signal or if no signal is received.
- The optimum points of the clock phase and sampling clock adjustments may be incomprehensible according to the input signals.

Adjusting the picture settings

- Press and use or to select **PICTURE**.
- Use and to select **PC** and press or .
- Use or to select an option and press or to adjust the setting as required.

PC of the Auto Adjust

Adjust Horizontal Position, Vertical Position, Horizontal Clock, and Clock Phase automatically. Depending on the type of the signal, there is a possibility that the display may not be adjusted in its optimum condition with this function. In that case, please adjust each item manually.

- Press and use or to select **PICTURE**.
- Use and to select **PC** and press or .
- Use to highlight **Auto Adjust** and press .

Acceptable Video signals through HDMI terminals

Format	Resolution	V. Frequency	H. Frequency	Pixel Clock Frequency
480i	720 x 480i	60.000Hz	15.734kHz	27.000MHz
480p	720 x 480p	60.000Hz	31.500kHz	27.000MHz /27.030MHz
576i	720 x 576i	50.000Hz	15.625kHz	27.000MHz
576p	720 x 576p	50.000Hz	31.250kHz	54.000MHz
720p	1280 x 720p	50.000Hz	37.500kHz	74.250MHz
720p	1280 x 720p	59.940 Hz / 60.000Hz	44.960kHz / 45.000kHz	74.170MHz /74.250MHz
1080i	1920 x 1080i	59.940 Hz / 60.000Hz	33.720kHz / 33.750kHz	74.170MHz /74.250MHz
1080i	1920 x 1080i	50.000Hz	28.125kHz	74.250MHz
1080p	1920 x 1080p	50.000Hz	56.250kHz	148.500MHz
1080p	1920 x 1080p	59.940 Hz / 60.000Hz	67.430kHz / 67.500kHz	148.350MHz /148.500MHz

Acceptable PC signals through HDMI/D-SUB terminals

Format	Resolution	V. Frequency	H. Frequency	Pixel Clock Frequency
VGA	640x480	59.940Hz	31.469kHz	25.175MHz
VGA	640x480	72.809Hz	37.861kHz	31.500MHz
VGA	640x480	75.000Hz	37.500kHz	31.500MHz
VGA	720x400	70.087Hz	31.469kHz	28.322MHz
SVGA	800x600	56.250Hz	35.156kHz	36.000MHz
SVGA	800x600	60.317Hz	37.879kHz	40.000MHz
SVGA	800x600	72.188Hz	48.077kHz	50.000MHz
SVGA	800x600	75.000Hz	46.875kHz	49.500MHz
XGA	1024x768	60.004Hz	48.363kHz	65.000MHz
XGA	1024x768	70.069Hz	56.476kHz	75.000MHz
XGA	1024x768	75.029Hz	60.023kHz	78.750MHz
WXGA	1280x720	59.855Hz	44.772kHz	74.250MHz
WXGA	1280x768	59.870Hz	47.776kHz	79.500MHz
WXGA	1360x768	60.015Hz	47.712kHz	85.500MHz
SXGA	1280x1024	60.020Hz	63.981kHz	108.000MHz

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

Note: For PC input, for only supported PC signal can show the correct resolution on TV display.

Troubleshooting

Before calling a service technician, please check the following table for a possible cause of the symptom and some solutions.

Symptom and solution

TV will not turn on

- Make sure the power cord is plugged in, then press ϕ / I .
- The remote control batteries may be dead. Replace the batteries.

No picture, no sound

- Check the antenna connections.

No sound, picture OK

- The sound may be muted. Press $\triangle +, \triangle -$ or Ⓚ .
- The station may have broadcast difficulties. Try another channel.

Poor sound, picture OK

- The station may have broadcast difficulties. Try another channel.

Poor picture, sound OK

- Check the antenna connections.
- The station may have broadcast difficulties. Try another channel.
- Adjust the **PICTURE** menu.

Poor reception of broadcast channels

- Check the antenna connections.
- The station may have broadcast difficulties. Try another channel.
- Make sure the Colour system is properly set.

Teletext problems

- Check the antenna connections.
Good performance of text depends on a good strong broadcast signal.

Multiple images

- The station may have broadcast difficulties. Try another channel.
- Antenna reception may be poor. Use a high directional outdoor antenna.
- Check if the direction of the antenna has changed.

Poor Colour or no Colour

- The station may have broadcast difficulties. Try another channel.
- Adjust the **Tint** and/or **Colour** in the **PICTURE** menu.

The remote control does not operate

- Remove all obstructions between the remote control and the remote control sensor on the TV.
- The remote control batteries may be dead. Replace them with new ones.

Some pixels of the screen do not light up

- The LCD display panel is manufactured using an extremely high level of precision technology, however, sometimes some pixels of the screen may be missing picture elements or have luminous spots. This is not a sign of a malfunction. batteries.

The picture brightness varies when you switch the TV on.

- If you switch the TV on at 0°C and under, wait until the warms up.

The brightness of the screen comes down, or flickers of the screen are caused, or some parts of the screen do not light up.

- When you just buy and start to use this TV, a flickering may be caused in the screen. In this case, switch off the TV, then switch on it again to cure the condition.
- The cold cathode fluorescent lamp used for the back light on this TV has longevity. When the brightness of the screen comes down, or the flickers of the screen are caused, or some parts of the screen do not light up, it may reach the end of its life. Contact a service technician.

Symptom and solution - digital only -

Poor picture

- Check the antenna connections. Make sure it is aligned to the correct broadcast direction.
- Check the signal level and quality in the **Manual Scan** menu.
- If you use any kind of amplifier to boost the signal level, check whether it works well, and ask for help from the antenna installer.

No picture

- Use the **Manual Scan** menu to rescan this channel.
- Try another channel.
- Reduce **RF** amplifier gain if connected to **RF** booster.

No sound from DIGITAL AUDIO

- The sound may be muted. Press $\triangle +, \triangle -$ or Ⓚ .
- Make sure the TV is adjusted to the correct Audio Track.
- Use the Manual Scan menu to rescan this channel.
- Try another channel.

Not all channels are available after using the Auto Scan when tuning the TV for the first time.

- This symptom is caused by unexpected frequency offset.
- The **Analogue channel fine tune** menu to scan for the missing channels. The TV scan receive these channels by the **Auto scan** menu most of the time, but we suggest that you use the menu when tuning the TV for the first time. Once the TV picks up the signal, all the transmission parameters will be stored in the internal memory.

Cannot lock signal by using Manual Scan

- Check the frequency that you have entered is exactly the Middle frequency of the wanted channel.
- Refer to the solutions for "Poor picture".

No Teletext, no Subtitle

- Make sure the channel that you are watching carries Teletext/Subtitle information from **ITV**.

Cannot receive channels after moving the TV between cities (e.g. from Melbourne to Sydney)

- Refer to page 12 to reset data.

Weak signal appears on one channel but not the other, but these channels have the same logical number

- Please make sure that you do not keep duplicate channels (i.e. channels with the same logical channel number but different physical numbers, see page 12). If you do, please delete the duplicate ones and keep only one channel with the best signal strength.

Programme Timer and Alarm do not operate properly.

- Check the antenna connections.
- Weak signal may cause inaccurate time information.

Specifications

Integrated Digital LCD TV

Model

22AV600A, 26AV600A, 32AV600A, 37AV600A

Power source

220 V-240 V AC, 50 Hz

Power consumption

22AV600A: 65W
26AV600A: 120W
32AV600A: 160W
37AV600A: 200W

Standby (approx.)

0.5W

Dimensions

22AV600A: 39.9cm(H) 54.3cm(W) 21.9cm(D)
26AV600A: 49.4cm(H) 66.7cm(W) 24.0cm(D)
32AV600A: 57.1cm(H) 78.6cm(W) 27.1cm(D)
37AV600A: 63.7cm(H) 90.2cm(W) 29.3cm(D)

Mass (Weight)

22AV600A: 6.5 kg
26AV600A: 10.5 kg
32AV600A: 13.8 kg
37AV600A: 17.1 kg

Analogue TV system (Antenna input)

Channel coverage:
PAL B/G (CCIR) VHF 0 - 12
UHF 27 - 69
CATV C2, C10, C31,
S2 - S44

Digital TV System

Compliant Standard DVB-T
Video Decoding MP @ ML & MP @ HL
Audio Decoding Dolby® Digital, MPEG (I & II)
Audio Sampling Rate 32, 44.1, 48 kHz

Digital TV Terrestrial Tuner / Demodulator

Frequency 51~858 MHz
Loop Through 51~858 MHz
Bandwidth 7 MHz
Demodulator COFDM
FFT Mode 8 K
Constellation QPSK, 64 QAM
Guard Interval 1/8, 1/16
Inner Coding Rate 2/3, 3/4

COMPONENT VIDEO INPUT terminals (the signal format)

480i, 480p, 576i, 576p, 720p (50/60 Hz), 1080i, 1080p (50/60 Hz) (These signal formats are converted to match the number of pixels of the LCD panel.)

Composite Colour system (analogue TV system)

PAL, SECAM, NTSC 3.58/4.43

Aspect ratio

16 : 9

Visible size (diagonal)

22AV600A: 477.41x268.41mm
26AV600A: 575.77x323.71mm
32AV600A: 697.69x392.26mm
37AV600A: 877.00x518.00mm

Number of pixels

22AV600A, 26AV600A, 32AV600A, 37AV600A:
1,366 (H) dots x 768 (V) dots

Sound output (at 10 % distortion)

22AV600A: 3W + 3W
26AV600A: 5W + 5W
32AV600A: 10W + 10W
37AV600A: 10W + 10W

Headphone socket

R3.5mm stereo.

Input/Output terminals

Ⓔ (1)	Input RCA Component Video RCA Composite Video Audio : RCA	Y, PB/CB, PR/CR CVBS L/Mono+R (shared between Component and Composite)
Ⓔ (2)	Input RCA/Mini-Din(4 pin) Composite Video(CVBS) +S-video Audio : RCA	L/Mono+R (shared between S-Video and Composite)
➡ TV	Output RCA video output Audio out RCA(L+R)	
Ⓔ RGB/PC	Input Mini D-sub 15 pin Analogue	RGB
Ⓔ PC/HDMI1 / Component	Input RCA	Audio L+R
Ⓔ HDMI1	Input(type A) 19 pin	A/V Digital
Ⓔ HDMI2	Input(type A) 19 pin	A/V Digital
➡ Digital Audio (optical + coaxial)	Output Bitstream/PCM	
Headphone jack	3.5 mm (Diameter) stereo	

Operating condition

Temperature 5 °C - 35 °C
Humidity 20 % - 80 % (No moisture condensation)

Supplied accessories

Owner's manual (1), Remote control (1), Batteries (2),
Clean Cloth (1), Power cord (1)

- Design and specifications are subject to change without notice.
- Never service or remodel the TV by yourself. It may expose you to a fire hazard or dangerous voltages.

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ICU	Exhibit B

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