TOSHIBA
Leading Innovation >>>

Owner's Manual

32W23**
32/39/50L23**
DIGITAL Series

This standard owner's manual is designed to show you how to connect and tune in your Toshiba TV and to operate the most commonly used functions.

During the life of your TV firmware updates will be made available to ensure that your TV maintains optimum performance:

If your TV is connected to the internet, firmware will be automatically made available.

If your TV is not connected to the internet, you can download the latest version of firmware from

www.toshiba-om.net/firmware.php

If you want to view advanced functions for your TV you can do so by visiting

www.toshiba-om.net

Toshiba estimates that the initiative of making the advanced functions available online will save over 100,000 trees per year (6.5 Million Kg CO_2).

If you wish to view the advanced functions but do not have access to a computer or the internet then please contact your local owner's manual Helpline number.
Contact details are shown at the back of this book.

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Safety Precautions

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken to obtain the best results and for safety to be assured.

Please read the points below for your own safety. They are of a general nature, intended to help with all electronic consumer products and some points may not apply to the goods you have just purchased.

Air Circulation

Leave more than 10cm clearance around the television to allow adequate ventilation. This will prevent overheating and possible damage to the television. Dusty places should also be avoided.

Heat Damage

Damage may occur if the television is left in direct sunlight or near a heater. Avoid places subject to extremely high temperatures or humidity. Place in a location where the temperature remains between 5°C (41°F) min. and 35°C (94°F) max.

Mains Supply

The mains supply required for this equipment is 220-240v AC 50Hz. Never connect to a DC supply or any other power source. DO ensure that the television is not standing on the mains lead. Use only the supplied lead.

DO NOT cut off the mains plug from this equipment, this incorporates a special Radio Interference Filter, the removal of which will impair its performance. In the UK, the fuse fitted in this plug is approved by ASTA or BSI to BS1362.

It should only be replaced by a correctly rated and approved type and the fuse cover must be refitted.

IF IN DOUBT PLEASE CONSULT A COMPETENT ELECTRICIAN.

Do

DO read the operating instructions before you attempt to use the equipment.

DO ensure that all electrical connections (including the mains plug, extension leads and inter-connections between pieces of equipment) are properly made and in accordance with the manufacturers' instructions. Switch off and withdraw the mains plug before making or changing connections.

DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

DO be careful with glass panels on equipment.

WARNING: To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions. See page 5.

DO NOT REMOVE ANY FIXED COVERS AS THIS WILL EXPOSE DANGEROUS AND 'LIVE' PARTS.

THE MAINS PLUG IS USED AS A DISCONNECTING DEVICE AND THEREFORE SHOULD BE READILY OPERABLE.

Do Not

DO NOT obstruct the ventilation openings of the equipment with items such as newspapers, tablecloths, curtains, etc. Overheating will cause damage and shorten the life of the equipment.

DO NOT allow electrical equipment to be exposed to dripping or splashing or objects filled with liquids, such as vases, to be placed on the equipment.

DO NOT place hot objects or naked flame sources, such as lighted candles or nightlights on, or close to equipment. High temperatures can melt plastic and lead to fires.

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

DO NOT use makeshift stands and NEVER fix legs with wood screws. To ensure complete safety, always fit the manufacturers' approved stand, bracket or legs with the fixings provided according to the instructions.

DO NOT leave equipment switched on when it is unattended, unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off by withdrawing the plug, make sure your family know how to do this. Special arrangements may need to be made for people with disabilities.

DO NOT continue to operate the equipment if you are in any doubt about it working normally, or it is damaged in any way – switch off, withdraw the mains plug and consult your dealer.

WARNING – excessive sound pressure from earphones or headphones can cause hearing loss.

ABOVE ALL – NEVER let anyone, especially children, push or hit the screen, push anything into holes, slots or any other openings in the case.

These actions will damage screen or internal parts.

NEVER guess or take chances with electrical equipment of any kind – it is better to be safe than sorry.

Installation and important information

Where to install

Locate the television away from direct sunlight and strong lights, soft, indirect lighting is recommended for comfortable viewing. Use curtains or blinds to prevent direct sunlight falling on the screen.

Place the TV set on a stable, level surface that can support the weight of the TV. As an additional safety measure you must secure the TV to the level surface using the mounting screw, as shown in the illustration.

The LCD display panels are manufactured using an extremely high level of precision technology,

Screw (supplied)

9 mm
20 mm
4 mm

• Place the stand on a stable, level surface and secure the TV set by using a single screw (supplied) through the fall prevention screw hole.
• Make sure to secure your TV set to a firm and substantial surface.

*Stand style is dependent on model

however sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a sign of a malfunction.

Make sure the television is located in a position it cannot be pushed or hit by objects, as pressure will break or damage the screen. Also, please be certain that small items cannot be inserted into slots or openings in the case.

Avoid using chemicals (such as air refreshers, cleaning agents, etc.) on or near the TV pedestal. Studies indicate that plastics may weaken and crack over time from the combination effects of chemical agents and mechanical stress (such as weight of TV). Failure to follow these instructions could result in serious injury and/or permanent damaged to TV and TV pedestal.

Cleaning the screen and cabinet...

Turn off the power, and clean the screen and cabinet with a soft, dry cloth. We recommend that you do not use any proprietary polishes or solvents on the screen or cabinet as this may cause damage.

When using a Wall Bracket

Please use a wall bracket appropriate for the size and weight of the LCD TV.
• Two people are required for installation.
• To install a wall-mount from another manufacturer.

1. Unplug and remove any cables and/or other connections from the rear of the TV.
2. Carefully lay the front of the unit face down on a flat, cushioned surface such as a quilt or blanket.
3. Follow the instructions provided with your wall bracket. Before proceeding, make sure the appropriate bracket(s) are attached to the wall and the back of the TV as described in the instructions provided with the wall bracket.
4. Always use the screws supplied or recommended by the wall mount manufacturer.

Removing the Pedestal Stand:

1. Carefully lay the front of the unit face down on a flat, cushioned surface with the stand hanging over the edge.
2. Remove the screws.
3. After the screws are removed, hold the pedestal stand in place, then remove it from the TV by sliding away from the bottom of the TV.

NOTE: Extreme care should always be used when removing the pedestal stand to avoid damage to the LCD panel.

32W23** | 32/39L23** x 2   50L23** x 4
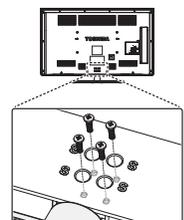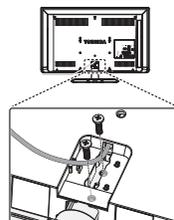
When using MHL (Mobile High-definition Link)

- Interoperability with MHL devices of other manufacturers is not guaranteed.
- Toshiba does not provide any guarantee, therefore, against operational failure such as that described below when an MHL source is connected to the TV.
  - No picture or sound
  - Some of the functions do not work be remote operation from the TV
- If the MHL does not work properly, also contact the manufacturer of the source device for advice on its use.
- Do not disconnect the power plug when the TV is active and the MHL device is being connected.
- Do not disconnect the power plug when the TV is in standby mode and the MHL device is being connected.

Please take note

EXCLUSION CLAUSE

Toshiba shall under no circumstances be liable for loss and/or damage to the product caused by:

  i) fire;

  ii) earthquake;

  iii) accidental damage;

  iv) intentional misuse of the product;

  v) use of the product in improper conditions;

  vi) loss and/or damage caused to the product while in the possession of a third party;

  vii) any damage or loss caused as a result of the owner's failure and/or neglect to follow the instructions set out in the owner's manual;

  viii) any loss or damage caused directly as a result of misuse or malfunction of the product when used simultaneously with associated equipment;

Furthermore, under no circumstances shall Toshiba be liable for any consequential loss and/or damage including but not limited to the following, loss of profit, interruption of business, the loss of recorded data whether caused during normal operation or misuse of the product.

- The digital reception function of this television is only effective in the countries listed in the **Country** section of the **SETUP** menu. Depending on country/area, some of this television's functions may not be available. Reception of future additional or modified services can not be guaranteed with this television.
- If stationary images generated by 4:3 broadcasts, text services, channel identification logos, computer displays, video games, on-screen menus, etc. are left on the television-screen for any length of time they could become conspicuous, it is always advisable to reduce both the brightness and contrast settings.
- Very long, continuous use of the 4:3 picture on a 16:9 screen may result in some retention of the image at the 4:3 outlines, this is not a defect of the LCD TV and is not covered under the manufacturers warranty. Regular use of other size modes (e.g.: Super Live) will prevent permanent retention.

NOTE: Interactive video games that involve shooting a "gun" type of joystick at an on-screen target may not work with this TV.

SYMBOL	SYMBOL DEFINITION
⚠	**INSTRUCTIONS:** The exclamation point within on equilateral triangle to alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying the appliance.
🚭	**WARNING:** To prevent the spread of fire, keep candles or other open flames away from this product at all times.

The Remote Control

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

12 In TV mode: Display on-screen information
    In Text mode: Access the index page
13 Mute the sound
14 Display the QUICK access menu
15 Exit the menu system
16 Display EPG
17 Go to the previous level of the menu
18 Display the on-screen menu
19 Menu navigation: ▲, ▼, ◄, ►:
    In Text mode: Change the page
    ⊙K   Confirm the selection
20 Colour button: Text control buttons
        🕮   Reveal concealed text
        🕮   Hold a wanted page
        🕮   Enlarge text display size
        ⊙/⊠ Select a page while viewing a normal picture

Inserting batteries and effective range of the remote
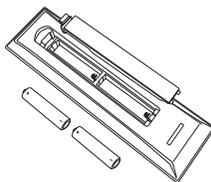
Remove the back cover to reveal the battery compartment and make sure the batteries are inserted the right way round. Suitable battery types for this remote are AAA, 1.5V.

Do not combine a used, old battery with a new one or mix battery types. Remove exhausted batteries immediately to prevent acid from leaking into the battery compartment. Dispose of them in accordance with instructions on page 65 of this manual. Warning: batteries must not be exposed to excessive heat such as sunlight or fire.

The performance of the remote control will deteriorate beyond a distance of five metres or outside an angle of 30 degrees from the centre of the television. If the operating range becomes reduced the batteries may need replacing.

1   Switch between TV ON or Standby
2   Switch between external input sources
3   Still Picture
4   To display the teletext screen
5   TEXT subtitle pages if available
6   Stereo/Bilingual transmissions
7   Number buttons
8   Audio Description
9   Switch between ATV and DTV
10 Change the volume
11 Change the channel

Connecting External Equipment

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

*a decoder could be Digital Satellite or any other compatible decoder. *Model will determine power cord position.

USB SOCKET

HDMI 2 INPUT SOCKET

POWER CORD

RGB/ PC

media recorder

decoder*

HDMI 1 INPUT SOCKET

SCART 1 (INPUT/TV OUT)

COMPONENT

For 32W23** | 32/39L23**

*a decoder could be Digital Satellite or any other compatible decoder. *Model will determine power cord position.

USB SOCKET

HDMI 2 INPUT SOCKET

POWER CORD

RGB/ PC

media recorder

decoder*

HDMI 1 INPUT SOCKET

SCART 1 (INPUT/TV OUT)

COMPONENT

For 50L23**

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Aerial cables: - - - - - - - - - - - - - - - - - - -

Connect the aerial to the ANT socket on the rear of the television.

If you use a decoder and/or media recorder, connect through the decoder and/or media recorder to the television.

SCART cables: - - - -- - - - - - - - - - - - - - -

Connect the video recorder **IN/OUT** or decoder **TV** socket to the television. Connect the media player **SAT** socket to the decoder **MEDIA REC**. socket.

Before running **Auto Tuning** put your decoder and media recorder to **Standby**.

HDMI® (High-Definition Multimedia Interface) is for use with a DVD, decoder or electrical equipment with digital audio and video output. It is designed for best performance with 1080i high-definition video signals but will also accept and display 480i, 480p, 576i, 576p, 720p and 1080p. HDMI1 also support VGA, SVGA, XGA, WXGA and SXGA.

NOTE: Although this television is able to connect to HDMI equipment it is possible that some equipment may not operate correctly.

A wide variety of external equipment can be connected to the back of the television, therefore the relevant owner's manuals for all additional equipment must be referred to.

If the television automatically switches over to monitor external equipment, return to normal television by pressing the desired channel button. To recall external equipment, press ⊕ to select.

NOTE: Due to copy protected signal in some DTV programme, non-scrambled content and scrambled content with "copy freely (CGMS-A: 00)" are available via SCART analog video and audio output.

DTV Programme	SCART Analog Output
Scrambled with CGMS-A: 00 (Copy Freely)	Output via SCART
Scrambled with CGMS-A: 01 (Copy No More)	Not output via SCART
Scrambled with CGMS-A: 10 (Copy Once)	Not output via SCART
Scrambled with CGMS-A: 11 (Copy Never)	Not output via SCART
Non- scrambled	Output via SCART

*CGMS-A (Copy Generation Management System-Analog) is a copy protection mechanism for analog television signals.

HDMI CEC Connections

The basic functions of connected audio/video equipment can be controlled using the television's remote control if an HDMI CEC compatible device is connected.

For 32W23** | 32/39L23**

For 50L23**

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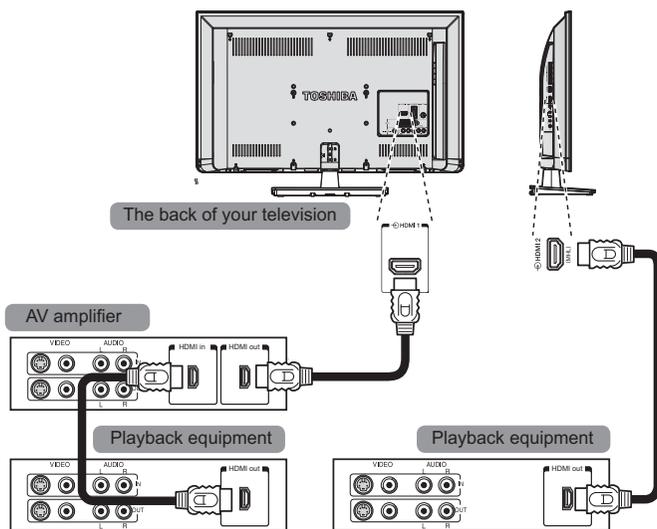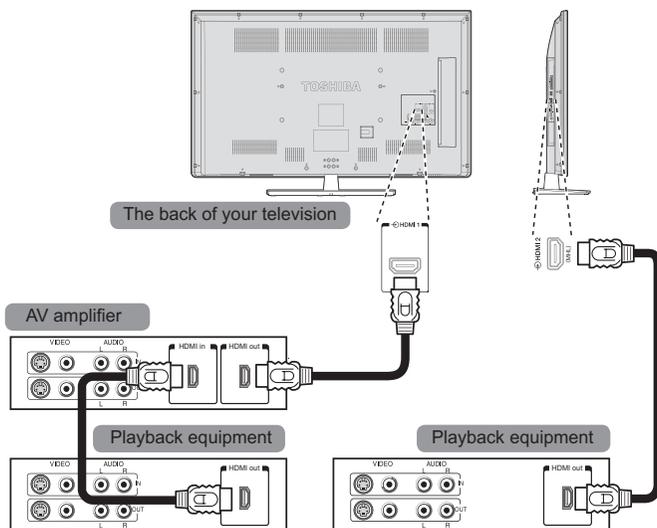
Connecting an HDMI or DVI device to the HDMI input

The HDMI input on your television receives digital audio and uncompressed digital video from an HDMI source device or uncompressed digital video from a DVI (Digital Visual Interface) source device.

This input is designed to accept HDCP (High-Bandwidth Digital-Content Protection) programme material in digital form from EIA/CEA-861-D–compliant [1] consumer electronic devices (such as a set-top box or DVD player with HDMI or DVI output). For acceptable video signal formats, see page 17.

NOTE:

- Some early HDMI equipment may not work properly with your latest HDMI TV, due to the adoption of a new standard.
- Supported Audio format: Linear PCM and Dolby Digital, sampling rate 32/44.1/48kHz.

To connect an HDMI device

Connect an HDMI cable (type A connector) from the device to the HDMI terminal.

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

- If your HDMI connection is capable of 1080p and/or your television is capable of refresh rates greater than 50Hz, you will need a Category 2 cable. Conventional HDMI/DVI cable may not work properly with this mode.
- HDMI cable transfers both video and audio. Separate analogue audio cables are not required (see illustration).
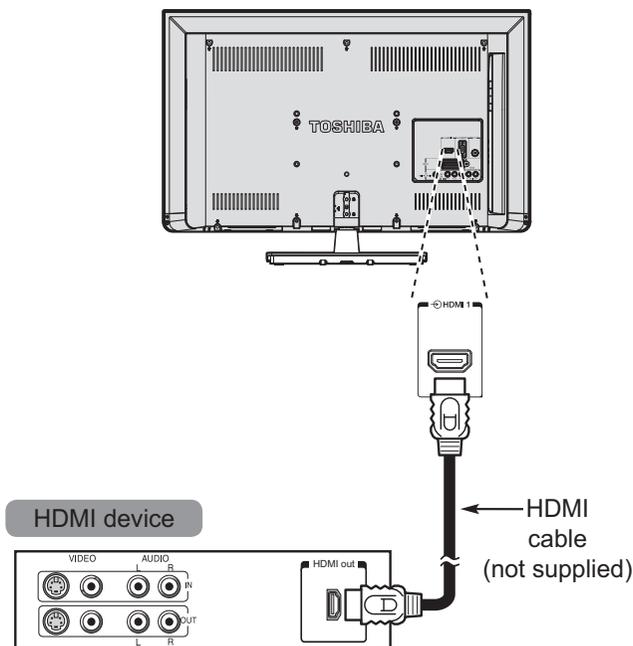
For 32W23** | 32/39L23**
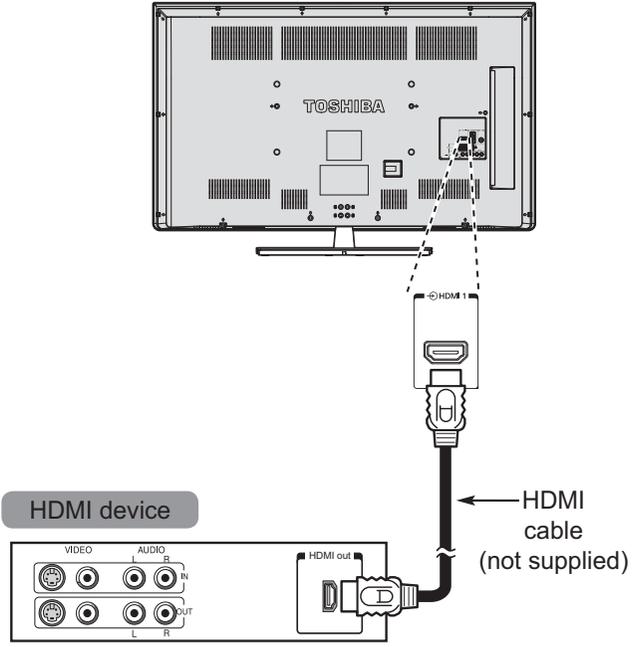
For 50L23**

To view the HDMI device video, press the ⊕ button to select HDMI 1 or HDMI 2 mode.

To connect a DVI device

Connect an HDMI-to-DVI adapter cable (HDMI type A connector) to the HDMI 1.

• The maximum recommended HDMT – DVI cable length is 6.6ft (2m).
• An HDMI-to-DVI adapter cable transfers video only.
• Separate analogue audio connection is not supported for audio receivers.

HDMI-to-DVI adapter cable
(not supplied)
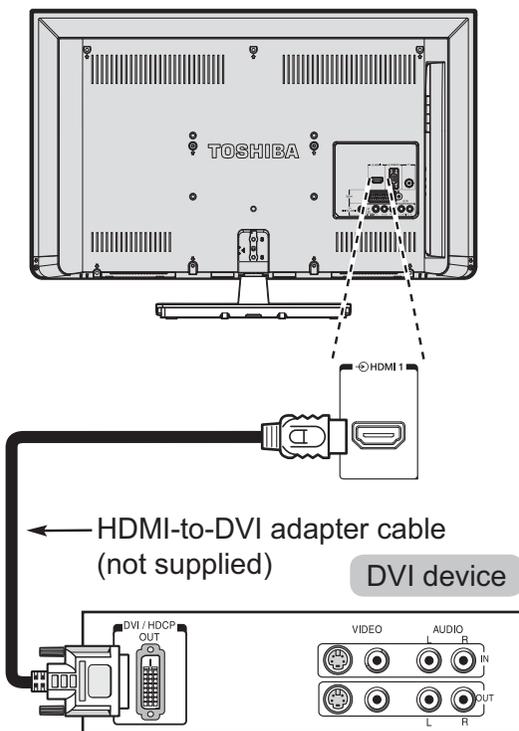
DVI device

For 32W23** | 32/39L23**

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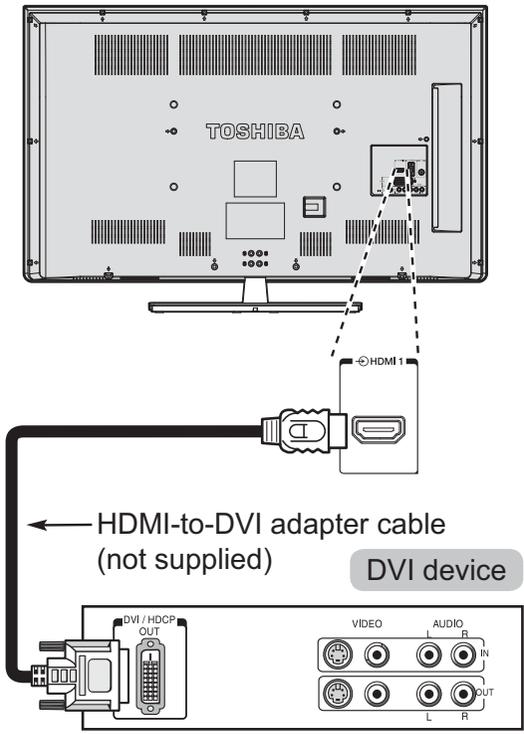
For 50L23**

To ensure that the HDMI or DVI device is reset properly, it is recommended that you follow these procedures:
• When turning on your electronic components, turn on the television 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 television.

[1] EIA/CEA-861-D 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 television.
HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

Connecting a Computer

With either an RGB/PC or an HDMI connection, you can watch your computer's display on the television.

To connect a PC to the HDMI terminal

When connecting a PC to the HDMI terminal on the television, use an HDMI-to-DVI cable.

If connecting a PC with an HDMI terminal, use an HDMI cable (type A connector). A separate analogue cable is not necessary.
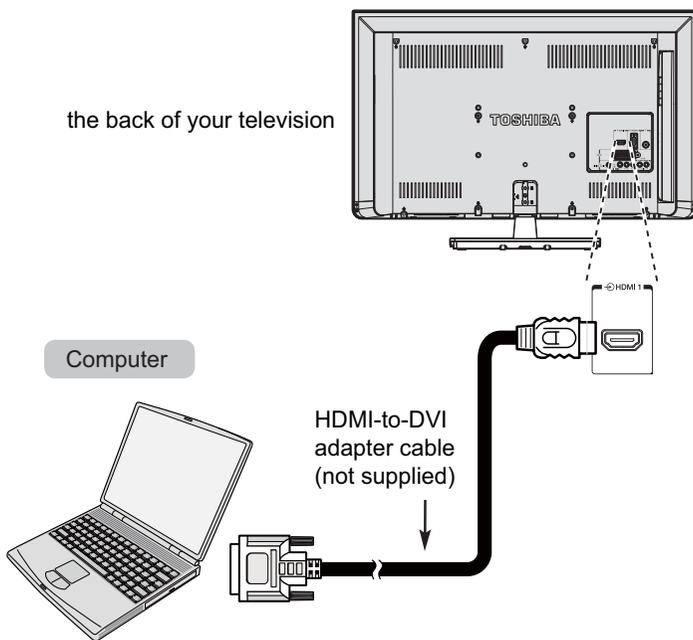
the back of your television

Computer

HDMI-to-DVI adapter cable (not supplied)

For 32W23** | 32/39L23**

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the back of your television
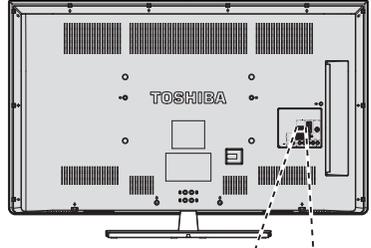
Computer
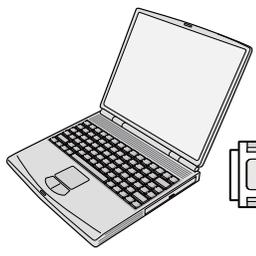
HDMI-to-DVI
adapter cable
(not supplied)
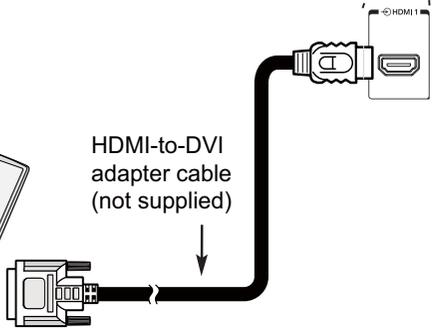
For 50L23**

For acceptable PC and video signal formats, see page 17.

NOTE:
- The edges of the images may be hidden.
- If connecting a certain PC model with a unique PC signal, the PC signal may not be detected correctly.

Acceptable Video signals through HDMI terminals

Resolution	H. Frequency (KHz)	V. Frequency (Hz)
480i	15.750	60.000
480p	31.500	60.000
576i	15.625	50.000
576p	31.250	50.000
720p	37.500	50.000
720p	45.000	60.000
1080i	28.125	50.000
1080i	33.750	60.000
1080p	27.000	24.000
1080p	28.125	25.000
1080p	33.750	30.000
1080p	56.250	50.000
1080p	67.500	60.000

Acceptable PC signals through HDMI terminals

Resolution	H (KHz)	V(Hz)	Pixel Clock (MHz)	H-Polarity	V-Polarity	H-Total	V-Total
640 x 480	31.469	59.940	25.175	Negative	Negative	800	525
640 x 480	37.861	72.809	31.500	Negative	Negative	832	520
640 x 480	37.500	75.000	31.500	Negative	Negative	840	500
800 x 600	35.160	56.250	36.000	Positive	Positive	1024	625
800 x 600	37.879	60.317	40.000	Positive	Positive	1056	628
800 x 600	48.077	72.188	50.000	Positive	Positive	1040	666
800 x 600	46.875	75.000	49.500	Positive	Positive	1056	625
1024 x 768	48.363	60.004	65.000	Negative	Negative	1344	806
1024 x 768	60.023	75.029	78.750	Positive	Positive	1312	800
1280 x 768	47.776	59.870	79.500	Negative	Positive	1664	798
1360 x 768	47.712	60.015	85.500	Positive	Positive	1792	795
1280 x 1024	63.981	60.020	108.000	Positive	Positive	1688	1066
1280 x 1024	79.976	75.025	135.000	Positive	Positive	1688	1066
1920 x 1080	67.500	60.000	148.500	Positive	Positive	2200	1125

Using the Controls

While all the necessary adjustments and controls for the television are made using the remote control, the buttons on the television may be used control some functions.

Common Interface

USB

HDMI 2 INPUT SOCKET

Power

Up / down (Volume or channel)

Programme / Volume / Source

Headphone

IR LIGHT SENSOR

RED LED − Standby
GREEN LED − Power on

For 32W23** | 32/39L23**

Common Interface

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Up / down (Volume or channel)

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IR LIGHT SENSOR
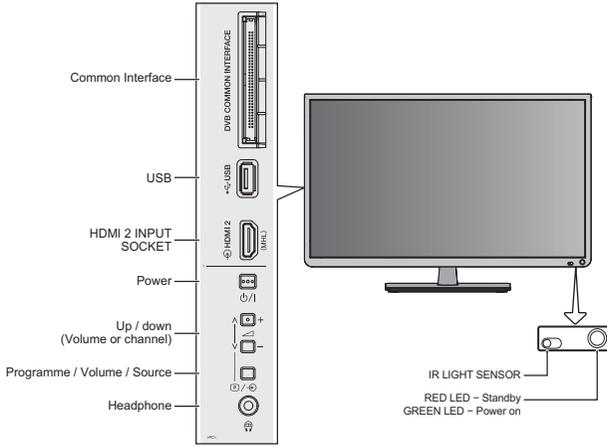
RED LED − Standby
GREEN LED − Power on
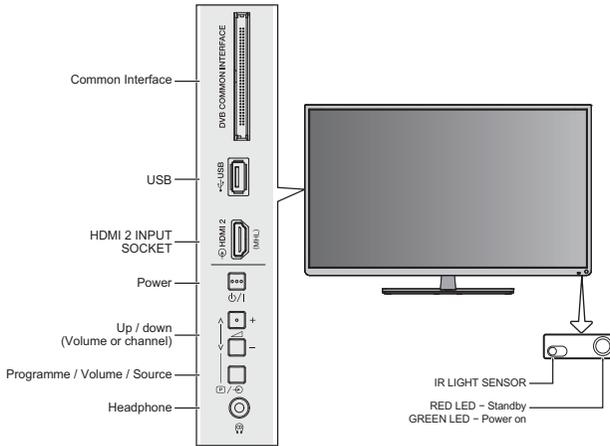
For 50L23**

Switching On

If the RED Standby LED is unlit, check that the plug is connected to the power supply. If the picture does not appear press ⏻ on the remote control, it may take a few moments.

To put the television into Standby press ⏻ on the remote control. To view the television press ⏻ again. The picture may take a few seconds to appear.

For energy saving:

We recommend that you use the television with factory settings. These settings are designed for energy saving. Unplugging the mains plug will reduce energy use to zero. This is recommended when the television is not being used for long periods, e.g. when on holiday. Reducing the brightness of the screen will reduce energy use. Energy efficiency reduces energy consumption and can save money by reducing electricity bills.

NOTE: Putting the television into standby mode will reduce energy consumption, but will still draw some power.

Using the Remote Control

To set up the television you will now need to use the on screen menus. Press **MENU** on the remote control to see the menus.

The on-screen menu appears as a list of five topics. As each symbol is selected by pressing ◄ or ► on the navigation ring on the remote control.

To use the options, press ⊙⃝ to enter the sub menu. Then press ▲ or ▼ on the navigation ring to move up and down through the menu and use ⊙⃝ to select the required choice. Follow the on-screen instructions. The functions of each menu are described in detail throughout this manual.

Using the Controls on the TV

Press – ◢+ to adjust volume.

Press Ⓟ / ⊖ to change programme selection, then press – ◢+ to adjust programme selection.

Press and hold Ⓟ / ⊖ until Source List is displayed, then press Ⓟ / ⊖ to scroll through the list until desired input source is located.

Please always refer to the owner's manual of the equipment to be connected for full details.

NOTE: Inserting the headphone plug will mute the sound from all speakers.

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Tuning the Television

Before switching on the television put your decoder and media recorder to Standby if they are connected.

To set up the television use the buttons on the remote control as detailed on page 7.

First Time Using

1 For first time use, plug in the television and press the ⏻ button.

The **Language** menu will appear.

Language		
English	Français	Deutsch
Español	Italiano	Português
Nederlands	Svenska	Dansk
Norsk	Suomi	Polski
slovenščina	Magyar	Slovensky
Česky	Русский	Română
български	Srpski	Ελληνικά
Hrvatski	Türkçe	Українське
Gaeilge		

Select   OK Enter

NOTE: This function is accessed in the **SETUP → Quick Setup** menu.

2 Press ▲, ▼, ◄ or ► to select your language.

Press ⊙K to enter **Quick Setup** menu.

3 Press ▲ or ▼ to select **Country** and then press ◄ or ► to select your country.

Quick Setup		
Country	◄	Germany ►
Digital Subtitle Language		German
Digital Subtitle Language 2nd		Turkish
Audio Language		German
Audio Language 2nd		Turkish

Select   OK Tuner Mode   RETURN Back

4 Press ▲ or ▼ to select **Digital Subtitle Language**, **Digital Subtitle Language 2nd**, **Audio Language** and **Audio Language 2nd**, then press ◄ or ► to select your preferred language.

5 Press ⊙K to select **Tuner Mode**.

Tuner Mode
◄ Antenna ►

Select   OK Location   RETURN Back
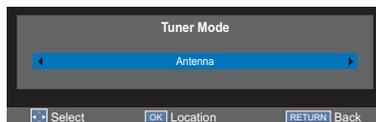
Press ◄ or ► to select **Antenna** or **Cable**.

NOTE: This function is only available in certain regions.

Press ⊙K to select **Location**.

6 Press ◄ or ► to select **Home** or **Store**. For normal home use, select **Home**.

Location
⏸ To use the TV for the display in a store showroom, please select [Store]. [Home] mode is recommended for normal use.
◄ Home ►

Select   OK Auto tuning   RETURN Back
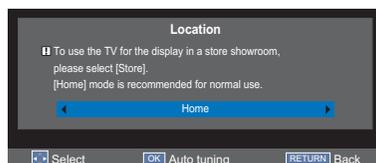
When **Store** is selected, the confirmation window appears.

Location
⏸ You have selected [Store]. This mode consumes more energy. Are you sure you want to set to this mode?
◄ NO ►

Select   OK Auto tuning   RETURN Back
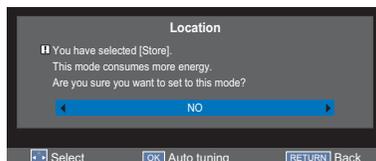
Press ◄ or ► to select **YES** or **NO**.

7 Press ⌀ to enter the **Auto tuning** menu.

> **NOTE:** Please make sure the aerial is connected to the TV before tuning.

Auto tuning		
Tuning Mode	◄ ATV and DTV ►	
Start Scan	OK	
⬩⬩ Edit	RETURN Back	
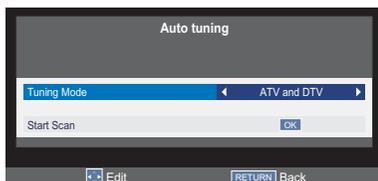
Press ▲ or ▼ to select **Tuning Mode** and then press ◄ or ► to select **ATV**, **DTV** or **ATV and DTV**.

Press ▲ or ▼ to select **Start Scan** and press ⌀.

Auto tuning		
	Progress	Found
ATV	6 %	0
DTV	0 %	0
Channel:	S54 Station:	
EXIT to exit ATV scan		
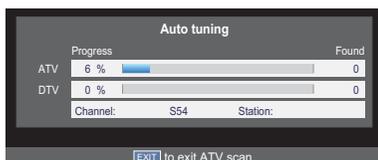
The search will begin for all available stations. The slide bar will move along the line as the search progresses.

You must allow the television to complete the search.

When the search is complete the television will automatically select channel 1. This may not be a clear picture or the signal may be weak, so the station order can be changed using **ATV/DTV Manual Tuning** in the **SETUP** menu.

Setting the Channels

NOTE: When **Parental Block** is activated, the 4-digit password is needed.

Auto Tuning

The **Auto tuning** function will completely re-tune the television and can be used to update the channel list.

NOTE: It is recommended that **Auto tuning** is run periodically to ensure that all new services are added.

NOTE: All the current channels and settings, for example, the locked channels, will be lost.

Tuner Mode - Antenna

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press ⊙ to enter the submenu.

2 Press ▲ or ▼ to select **Auto tuning**, and press ⊙ to enter the submenu.

3 Press ▲ or ▼ to select **Tuning Mode** and press ◄ or ► to select **ATV**, **DTV** or **ATV and DTV**.

Press ▲ or ▼ to select **Start Scan** and press ⊙ to start **Auto Tuning**.

Tuner Mode - Cable

Switching between tuner modes will change the features available on your television.

All the current channels and settings, for example, the locked channels, will be lost.

In the **SETUP** menu, press ▲ or ▼ to select **Tuner Mode** and press ⊙.

Press ◄ or ► to select **YES** or **NO**.

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press ⊙ to enter the submenu.

2 Press ▲ or ▼ to select **Auto tuning**, and press ⊙ to enter the submenu.

3 Press ▲ or ▼ to select **Tuning Mode** and press ◄ or ► to select **ATV**, **DTV** or **ATV and DTV**.

```
                Auto tuning
  ❚❚ Previous settings will be lost !
     Press EXIT for no change.
  Tuning Mode              ◄    ATV and DTV    ►
  Start Scan                        OK
  Operator Selection
  Scan Type                       Quick Scan
  Start Frequency (MHz)             Auto
  End Frequency                     Auto
  Modulation                        Auto
  Symbol Rate                       Auto
  Network ID                        Auto
  System                            D/K

      Edit              RETURN  Back
```

4 Press ▲ or ▼ to select **Operator Selection**, and press ◄ or ► to select **Others**, **Ziggo** or **UPC**.

   NOTE: Operator Selection can only be adjusted when **Country** is **Netherlands**.

5 Press ▲ or ▼ to select **Scan Type**, and press ◄ or ► to select **Full Scan** or **Quick Scan**.

   NOTE: Channels with a weak signal may be missed by **Quick Scan**.

6 Press ▲ or ▼ to select **Operator Selection**, **Scan Type**, **Start Frequency (MHz)**, **End Frequency**, **Modulation**, **Symbol Rate**, **Network ID** or **System**, and use number key pad on the remote to define the information or select **Auto** for tuning.

   Press ▲ or ▼ to select **Start Scan** and press OK to start tuning.

   NOTE:
   - The information should be given by your cable provider.
   - **Network ID** is only available for **Quick Scan**.

Manual Tuning

There are two TV modes: ATV and DTV that can be tuned-in manually using **Manual Tuning**.

ATV mode - Antenna/Cable

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press OK to enter the submenu.

2 Press ▲ or ▼ to select **ATV Manual Tuning** and press OK to enter the submenu.

```
              SETUP              1/2
  Language                      English
  Country                       Germany
  Tuner Mode                    Antenna
  Auto tuning                      OK
  ATV Manual Tuning                OK
  DTV Manual Tuning
  DTV Settings
  AV connection                    OK
  Picture Position                 OK
  Quick Setup                      OK

   OK  Enter          RETURN  Back
```

3 Press ▲ or ▼ to select the programme position you want to arrange and then press ►.

```
              ATV Manual Tuning
  Position  Channel      Station
     1      C69          ------
     2      C69          ------
     3      C69          ------
     4      C69          ------
     5      C69          ------
     6      C69          ------

      Sort        OK  Enter      RETURN  Back
```

4 Press ▲ or ▼ to move through the list to your preferred position. As you do so the other stations will move to make room.

   Press ◄ to store programme position.

```
              ATV Manual Tuning
  Position  Channel      Station
     1      C69          ------
     2      C69          ------
     3      C69          ------
     4      C69          ------
     5      C69          ------
     6      C69          ------

      Store            RETURN  Back
```

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5 Press ⊙ to display the breakdown menu. Press ◄ or ► to select an item, then press ▲ or ▼ to select the item as shown below.

```
                ATV Manual Tuning
                    Position
  1    DK    A    ⦿  C  69  🔍  0   - - - - - | |
  ◄► Select    ↕ Change    OK Save   RETURN Back
  A    B    C   D E  F   G   H              I
```

A Position:

The number to be pressed on the remote control.

B System:

Specific to certain areas.

C Colour system:

Factory set to Auto, should only be changed if problems are experienced, i.e. NTSC input from external source.

D Skip:

⦿ means nothing has been stored or the facility to skip the channel is **On**.

E Signal Class:

The channel classification.

F Channel:

The channel number on which a station is being broadcast.

G Searching:

Search up and down for a signal.

H Manual fine tuning:

Turn on to execute fine tune function. Turn off to execute manual fine tune function.

I Station:

Station identification. Use the ▲ or ▼ and ◄ or ► buttons to enter up to seven characters.

6 Press ⊙ to save.

DTV mode - Antenna

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press ⊙ to enter the submenu.

2 Press ▲ or ▼ to select **DTV Manual Tuning** and press ⊙ to enter the submenu.

```
            SETUP                    1/2
  Language                         English
  Country                          Germany
  Tuner Mode                       Antenna
  Auto tuning                        OK
  ATV Manual Tuning
  DTV Manual Tuning                  OK
  DTV Settings
  AV connection                      OK
  Picture Position
  Quick Setup                        OK

     OK Enter            RETURN Back
```

3 Press ▲ or ▼ to select **RF Channel** and press ◄ or ► to select or use number key pad on the remote to enter a channel.

```
              DTV Manual Tuning
                  Weak    Average    Strong
  Signal Strength
  Quality           Poor

  Tuner Mode                        DVB-T
  RF Channel                    ◄    5    ►
  Frequency                     177.500 MHz
  Start Scan                        OK

   0-9 Input       Edit       RETURN Back
```

4 Press ▲ or ▼ to select **Start Scan** and press ⊙ to start tuning.

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DTV mode - Cable

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press ⊙ to enter the sub-menu.

2 Press ▲ or ▼ to select **DTV Manual Tuning** and press ⊙ to enter the sub-menu.

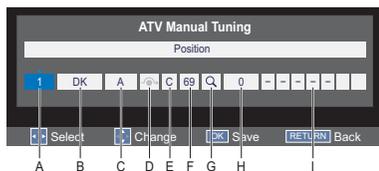| SETUP	1/2
Language	English
Country	Germany
Tuner Mode	Cable
Auto tuning	OK
ATV Manual Tuning	
DTV Manual Tuning	OK
DTV Settings	
AV connection	OK
Picture Position	
Quick Setup	OK

OK Enter   RETURN Back
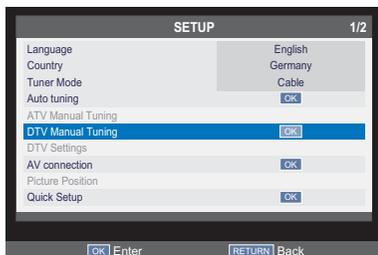
3 Press ▲ or ▼ to select **Frequency, Modulation** or **Symbol Rate**, and use number key pad on the remote to define the information or select **Auto** for tuning.

DTV Manual Tuning			
	Weak	Average	Strong
Signal Strength			
Quality	Poor		
Frequency		113.000 MHz	
Modulation		Qam 16	
Symbol Rate		6900 KS/s	
Start Scan		OK	

0~9 Input   ◄► Edit   RETURN Back

Press ▲ or ▼ to select **Start Scan** and press ⊙ to start tuning.

Automatic Power Down

The TV will automatically turn itself off (standby) within 4 hours, if you do not touch the control buttons on the remote control or on the TV control panel. It will also automatically turn off if no input signal is detected after approximately 15 minutes.

1 In the **SETUP** menu, press ▲ or ▼ to select **Automatic Power Down**.

2 Press ◄ or ► to select **Off**, **4h**, **6h** or **8h**.

SETUP	2/2
Automatic Power Down	◄ 4h ►
Location	Home
Software Upgrade	OK
System Information	OK
Reset TV	OK

◄► Edit   RETURN Back

Reset TV

Selecting **Reset TV** will reset all TV settings to their original factory values.

1 In the **SETUP** menu, press ▲ or ▼ to select **Reset TV** and press ⊙.

2 Press ◄ or ► to select **YES** to confirm or select **NO** to exit and press ⊙.

Reset TV	
⏸ Previous settings will be lost !	
Press EXIT for no change.	
◄ NO ►	

◄► Select   OK Enter   RETURN Back

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DTV Settings

Channels

The channel order may be changed to suit your personal preference.

NOTE: This function is only available in DTV mode.

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press ⊛ to enter the submenu.

PICTURE	SOUND	SETUP	APPLICATIONS	PREFERENCES

2 Press ▲ or ▼ to select **DTV Settings** and press ⊛ to enter the submenu.

3 Press ▲ or ▼ to select **Channels** and press ⊛.

DTV Settings

Channels	OK
Subtitle and Audio	OK
Password	OK
Parental	OK
Local Time Setting	22:17
Standby Update Control	Enable
Standby Channel Update	Off
Channel Grouping	On
Common Interface	OK

OK Enter   RETURN Back

4 Press ▲ or ▼ to select **Channels**.

Re-number

5 Press the ▬ button on the remote to renumber the highlighted channel.

6 Edit the channel number using the number keys on the remote and press ⊛.
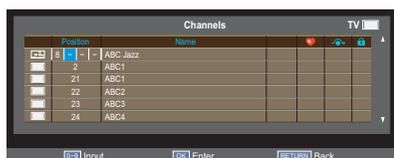
Favorite

7 Press the ▬ button on the remote. A ♥ icon appears.

Press ⊛ to show the **Channel List** and press ◄ or ► to **Favorite**. The desired channel is displayed on the list.
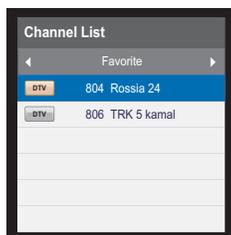
Skip

8 Press the ▬ button on the remote. A ⟿ icon appears.

Lock

9 Press the ▬ button on the remote. A 🔒 icon appears.

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Sort

10 Press ▲ or ▼ to select the desired channel and then press ⊙. A tick icon appears.

Position	Name		🔔	👁	🔒
803	Rossia 1	✓			
804	Rossia 24				
805	NTV				
806	TRK 5 kanal				
807	Bibigon				
273	Service Information Radio Three				

Channels TV

OK Store   RETURN Back

Press ▲ or ▼ to select the channel you wish to swap with the one selected in Step 8 and then press ⊙.

Position	Name		🔔	👁	🔒
803	Rossia 1	✓			
804	Rossia 24				
805	NTV				
806	TRK 5 kanal				
807	Bibigon				
273	Service Information Radio Three				

Channels TV

OK Store   RETURN Back

The name of the two channels are swapped.

Position	Name	🔔	👁	🔒
804	Rossia 1			
805	NTV			
806	TRK 5 kanal			
807	Bibigon			
273	Service Information Radio Three			
274	CNN CO/B EIT text			

Channels TV

🔴 Re−number   🟢 Favorite   🟡 Skip   🔵 Lock   OK Sort

Subtitle and Audio

You can choose the **Subtitle Type** or **Audio Type** from **Normal** or **Hearing Impaired**. If the **Hearing Impaired** is selected, it provides subtitle services to deaf and hard of hearing viewers with additional descriptions.

Subtitle Language or **Audio Language** allow a programme or film to be viewed with a choice of soundtrack language, provided they are currently being broadcast.

1 In the **DTV Settings** menu, press ▲ or ▼ to select **Subtitle And Audio**, and press ⊙ to enter the submenu.

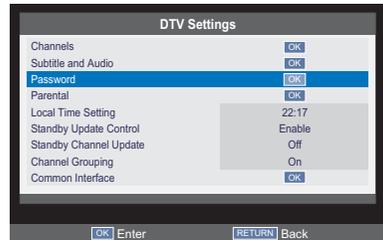**2** Press ▲ or ▼ to select **Subtitle Display** and press ◄ or ► to select **On** or **Off**.

3 Press ▲ or ▼ to select **Subtitle Type** or **Audio Type** and press ◄ or ► to select **Normal** or **Hearing Impaired**.

4 Press ▲ or ▼ to select **Digital Subtitle Language**, **Digital Subtitle Language 2nd**, **Audio Language** or **Audio Language 2nd** and press ◄ or ► to select your preferred language.

Password

Change the 4-digit parental control password.
The factory default password is "0000".

1 In the **DTV Settings** menu, press ▲ or ▼ to select **Password**, and press ⊙ to enter the submenu.

DTV Settings	
Channels	OK
Subtitle and Audio	OK
Password	OK
Parental	OK
Local Time Setting	22:17
Standby Update Control	Enable
Standby Channel Update	Off
Channel Grouping	On
Common Interface	OK

OK Enter   RETURN Back

2 Enter a new 4-digit password, and re-enter the new password again to confirm.

Password	
New Password	
Confirm Password	

0−9 Input   RETURN Back
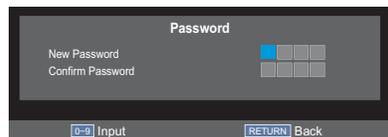
NOTE: "0000" cannot be used.

Parental

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 access this function.

The factory default password is "0000".

NOTE: When **Parental Control** is activated, you will need to enter the 4-digit password before you enter the **DTV Settings** submenu under the **SETUP** menu. After auto tuning, all the channel blocks will be cleared.

1 In the **DTV Settings** menu, press ▲ or ▼ to select **Parental**, and press ⊙ to enter the submenu.

2 Enter the 4-digit password.

3 Press ◄ or ► to set the age rating from age 4~18 or select **None** to turn this function off or **Block All**.

NOTE: This function is available for programmes with Age Rating information.

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Standby Update Control

1 In the **DTV Settings** menu, press ▲ or ▼ to select **Standby Update Control**.

2 Press ◄ or ► to select **Enable** or **Disable**.

Standby Channel Update

If the **Standby Channel Update** is set to **On**, when the TV is in standby mode, Digital Tuning is automatically executed and any new channels are saved.
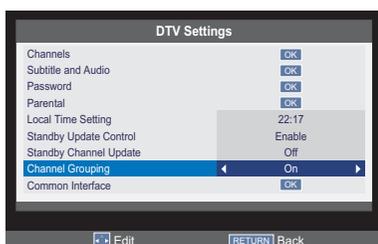
1 In the **DTV Settings** menu, press ▲ or ▼ to select **Standby Channel Update**.

2 Press ◄ or ► to select **On** or **Off**.

NOTE: **Standby Channel Update** is only available when **Standby Update Control** is **Enable**.

Channel Grouping

There are Video, Radio and Text services combined in a channel list for DTV services, The function provides the selection of channel change with one service group or among all services by pressing **P ∧** and **P ∨**.

1 In the **DTV Settings** menu, press ▲ or ▼ to select **Channel Grouping**.

2 Press ◄ or ► to select **On** or **Off**.

DTV Settings	
Channels	OK
Subtitle and Audio	OK
Password	OK
Parental	OK
Local Time Setting	22:17
Standby Update Control	Enable
Standby Channel Update	Off
Channel Grouping	◄ On ►
Common Interface	OK

◄► Edit   RETURN Back

3 When **Channel Grouping** is **On**, the channel change by **P ∧** and **P ∨** will be within a single service group, press **ATV/DTV** on the remote control can be still used for change services among ATV, DTV Video, DTV Radio and DTV Text.

Common Interface

The Common Interface Slot, situated on the side of the television, enables the insertion of a CAM (Conditional Access Module) and card. These are purchased from a service provider and allow additional subscription broadcasts to be viewed. For information, see a service provider.

1 Insert the CAM and card into the Common Interface Slot, following the instructions provided with the CAM. A box will appear on the screen to confirm that the CAM has been inserted.

2 In the **DTV Settings** menu, press ▲ or ▼ to select **Common Interface**, and press ⊙ to enter the submenu.

3 Details of the CAM should now be available.

NOTE: The software updating of CI Plus CAM may be automatically executed. At this time, any Recording/Reminder programme timer will be cancelled.

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Digital On-Screen Information and Programme Guide

When viewing in digital mode, the on-screen information and programme guide provide access to programme details for all available channels.

Information

1 Press ⓘ+, and the information screen will appear giving details of the channel and programme currently being viewed.

3	BBC Parliament	10:18 Sun, 17/10/2012
	English	

Now	Westminster Hall	07:00 – 11:30
Next	Prime Minister's Questions	11:30 – 12:00

SD 16 : 9 AD 3   72 Minutes Left

Recorded coverage of questions in the House of Commons to Prime Minister Gordon Brown from Wednesday 26 November.

Change   RETURN Exit

2 Press ▲ or ▼ to choose from **Now** or **Next** information guide.

On-Screen Information Icons

Icons will appear on the Information screen giving details about the programmes being broadcast. Details of these icons are listed below:

	Icon	Description
Service info		Service type (TV, Radio, TEXT)
	Skip	Skip
Audio info		Mono
		Stereo
		Dual mono
		Multichannel
	D	Dolby Digital
	D+	Dolby Digital+
Audio/ Subtitle info		Hearing Impaired
Event info	HD, SD	Video format (HD, SD)
	16:9, 4:3	Video Aspect
		Teletext
		Subtitle (Single, Multi)
		Multi-audio track
	AD	Audio Description
	4 - 18	Parental rating
		Encrypted

Guide

1 Select the on-screen guide by pressing **GUIDE**. The guide screen will appear highlighting details of the channel and programme currently being viewed. This may take a few moments to appear.

2 Press ◄ or ► for information on other programmes scheduled for the channel selected.

3 For details of other programmes currently available, press ▲ and ▼ to scroll up and down the channel 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.

General Controls

The General Functions allow you to select channels and information, adjust sound features, personalise the picture style and select any connected external equipment.

Selecting Channels

To select a channel use the numbered buttons on the remote control.

Channels can also be selected using **P ∧** and **P ∨**.
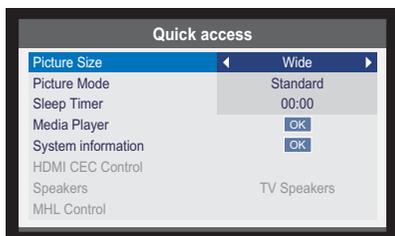
Stereo and Bilingual Transmissions

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

Stereo: Press ⟳I/II to select **Stereo** or **Mono**.

Bilingual: If a bilingual programme is offered, the word Dual will display on screen. To change between languages, press ⟳I/II to switch between **Dual 1** and **Dual 2**.

Quick Access Menu

Quick access helps you access some options quickly such as **Picture Size**, **Picture Mode**, **Sleep Timer**, **Media Player**, **System Information**, **HDMI CEC Control**, **Speakers** and **MHL Control**. Press the **QUICK** button to display the **Quick access** menu and use ▲ or ▼ to select the option you would like to change.

Quick access		
Picture Size	◄	Wide ►
Picture Mode		Standard
Sleep Timer		00:00
Media Player		OK
System information		OK
HDMI CEC Control		
Speakers		TV Speakers
MHL Control		

NOTE: Quick access items are different depending on the current mode.

Subtitles

If Subtitles are available for your current programme, pressing the **SUBTITLE** button will toggle Subtitles on or off.

Picture Still

This feature is used to hold a still image on the screen. Press ▼ to hold an image on the screen, press ▼ again to cancel.

Input Selection

Use the **Input Selection** feature if the television does not switch over automatically when using an external device.

Pressing ⤺, a list will appear on-screen showing all external equipment.

Use ▲ or ▼ to highlight and ⊙ to select.

Inputs
TV
⊕ 1
⊕ 2
⊕ 3C
HDMI1
HDMI2
MEDIA
PC
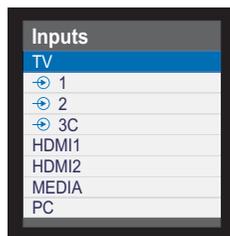
HDMI® displays equipment connected to Input HDMI on the back of the television. It is designed for best performance with 1080i/1080p high definition signals.

Sound Controls

Volume Controls and Mute Sound

Volume
Press ⊿ or ⊿ to adjust the volume.

Sound Mute
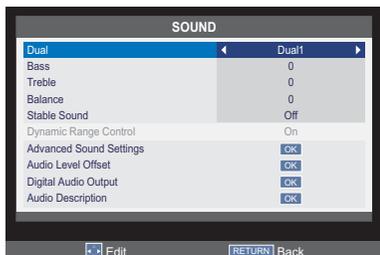Press ⊠ on the remote once to turn the sound off and again to cancel.

Dual

If a programme or film is being broadcast with a soundtrack in more than one language, the **DUAL** feature allows selection between them.

1 Press **MENU**. Press ◄ or ► to select **SOUND** and press ⊙ to enter the submenu.

| PICTURE | SOUND | SETUP | APPLICATIONS | PREFERENCES |

2 Press ▲ or ▼ to select **Dual**, and press ◄ or ► to choose between **Dual1** or **Dual2**.

SOUND	
Dual	◄ Dual1 ►
Bass	0
Treble	0
Balance	0
Stable Sound	Off
Dynamic Range Control	On
Advanced Sound Settings	OK
Audio Level Offset	OK
Digital Audio Output	OK
Audio Description	OK

Edit   RETURN Back

Bass, Treble and Balance

The sound controls are accessible in digital and analogue modes.

1 Press **MENU**. Press ◄ or ► to select **SOUND** and press ⊙ to enter the submenu.

2 Press ▲ or ▼ to select **Bass**, **Treble** or **Balance** and press ◄ or ► to change the setting.

Stable Sound

The **Stable Sound** feature limits high volume levels in order to prevent the extreme changes in volume that can occur when channels are changed or a programme switches to a commercial.

1 Press **MENU**. Press ◄ or ► to select **SOUND** and press ⊙ to enter the submenu.

2 Press ▲ or ▼ to select **Stable Sound**, and press ◄ or ► to select **On** or **Off**.

Dynamic Range Control

This feature allows control of audio compression for some digital TV programmes (MPEG-1 and MPEG-2 audio programmes are not supported).

1 Press **MENU**. Press ◄ or ► to select **SOUND** and press ⊙ to enter the submenu.

2 Press ▲ or ▼ to select **Dynamic Range Control**, and press ◄ or ► to select **On** or **Off**.

Voice Enhancement

Voice Enhancement emphasises the frequency range of the speaker's voice, making it easier to catch what they are saying.

1 Press **MENU**. Press ◄ or ► to select **SOUND** and press ⊙ to enter the submenu.

2 Press ▲ or ▼ to select **Advanced Sound Settings** and press ⊙ to enter the submenu.

3 Press ▲ or ▼ to select **Voice Enhancement**, and press ◄ or ► to select **On** or **Off**.

Advanced Sound Settings	
Voice Enhancement	◄ Off ►
Bass Boost	Low

Edit   RETURN Back

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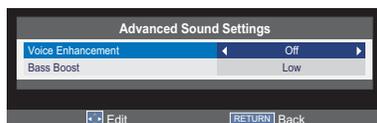
Bass Boost

Bass Boost enhances depth of the sound.

1 Press **MENU**. Press ◄ or ► to select **SOUND** and press ⊛ to enter the submenu.

2 Press ▲ or ▼ to select **Advanced Sound Settings** and press ⊛ to enter the submenu.

3 Press ▲ or ▼ to select **Bass Boost**, and press ◄ or ► to change the setting.

Audio Level Offset

Sometimes there can be large changes in volume when switching from a DTV 5.1ch to a DTV 2ch, an ATV channel, or an external input. Using the **Audio Level Offset** feature reduces these volume differences.

1 Press **MENU**. Press ◄ or ► to select **SOUND** and press ⊛ to enter the submenu.

2 Press ▲ or ▼ to select **Audio Level Offset** and press ⊛ to enter the submenu.

3 Press ▲ or ▼ to select an option, and press ◄ or ► to adjust the volume level.

Audio Level Offset		
DTV 2ch	◄	0 ►
ATV		0
External Input		0

⬚ Edit   RETURN Back

NOTE:

• The available item changes depending on the current input source. For example, while watching a DTV 2ch programme, only **DTV 2ch** is available and the other two items are grayed out in the menu. This allows you to easily adjust according to each condition.
• When watching a DTV 5.1ch programme, this feature is not available.

Digital Audio Output

1 Press **MENU**. Press ◄ or ► to select **SOUND** and press ⊛ to enter the submenu.

2 Press ▲ or ▼ to select **Digital Audio Output** and press ⊛ to enter the submenu.

3 Press ▲ or ▼ to select **Audio Format**, and press ◄ or ► to select **PCM** or **Auto**.

| Digital Audio Output		
Audio Format	◄	Auto ►
Audio Delay		Manual
Audio Delay Time (ms)		0

⬚ Edit   RETURN Back

4 Press ▲ or ▼ to select **Audio Delay**, and press ◄ or ► to select **Auto** or **Manual**.

5 Press ▲ or ▼ to select **Audio Delay Time (ms)**, and press ◄ or ► to change the setting.

NOTE: **Audio Delay Time (ms)** is only available when **Audio Delay** is **Manual**.

Audio Description

Audio Description is an additional narration describing on-screen action, body language, expressions and movements for people with visual disabilities while watching the TV. This function enables you to choose the type of narrations.

1. Press **MENU**. Press ◄ or ► to select **SOUND** and press ⊚ to enter the submenu.

2. Press ▲ or ▼ to select **Audio Description** and press ⊚ to enter the submenu.

3. Press ▲ or ▼ to select **Audio Description**, and press ◄ or ► to select **On** or **Off**.

Audio Description		
Audio Description	◄	On ►
Mixing Level		80

‹·› Edit   RETURN Back
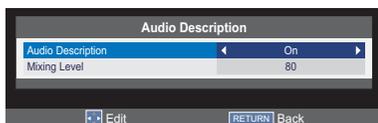
4. Press ▲ or ▼ to select **Mixing Level**, and press ◄ or ► to change the setting.

   NOTE: Mixing Level can only be adjusted when **Audio Description** is **On**.

NOTE: Press the **AD** button on the remote control to switch the **Audio Description On** or **Off**.

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Widescreen Viewing

Depending on the type of broadcast being transmitted, programmes can be viewed in a number of formats.

Wide (Expect PC)

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.
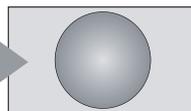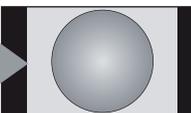
Wide (PC only)

This setting will show the picture without over scan and side panel when watching a PC signal source via HDMI or PC terminal.
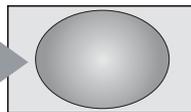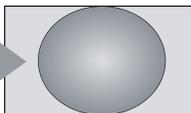
4:3

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

Super Live

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.

Cinema

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.
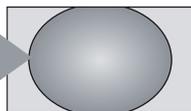
Subtitle

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

Subtitle
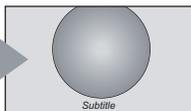
14:9

Use this setting when watching a 14:9 broadcast.

Native

The setting will show the picture without over scan, i.e. WYSIWYG. This option is available when watching video signal source via HDMI or watching DTV (HD signal).

Normal	This setting will show the picture without over scan, i.e. WYSIWYG. This option is only available when watching a PC signal source via HDMI or PC terminal.

Dot by Dot	"Dot by Dot" is a non-scaling display. Depending on the input signal format, the setting will display the picture with side panels and/or bars at the top and bottom (i.e. VGA input source).

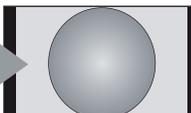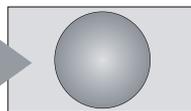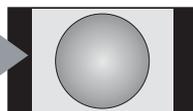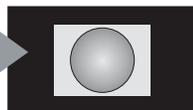Press **QUICK** to display the **Quick access** menu. Use ▲ or ▼ to select the **Picture Size**, and press ◄ or ► to select the option.

Quick access	
Picture Size	◄ Wide ►
Picture Mode	Standard
Sleep Timer	00:00
Media Player	OK
System information	OK
HDMI CEC Control	
Speakers	TV Speakers
MHL Control	

You can choose the picture size from Wide, 4:3, Super Live, Cinema, Subtitle, 14:9, Native, Normal or Dot by Dot.

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 and Position Control

		Wide	4:3	Super Live	Cinema	Subtitle	14:9	Native	Normal	Dot by Dot
ATV		o	o	o	o	o	o	x	x	x
DTV	SD	o	o	o	o	o	o	x	x	x
	HD	o	o	o	o	x	o	o	x	x
Scart		o	o	o	o	o	o	x	x	x
CVBS		o	o	o	o	o	o	x	x	x
YPbPr	SD	o	o	o	o	o	o	x	x	x
	HD	o	o	o	o	x	x	x	x	x
HDMI	SD	o	o	o	o	o	o	o	x	x
	HD	o	o	o	o	x	x	o	x	x
D-SUB		o	x	x	x	x	x	x	o	o
DVI		o	x	x	x	x	x	x	o	o

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Picture Controls

Most of the picture controls and functions are available in both **digital** and **analogue** modes.

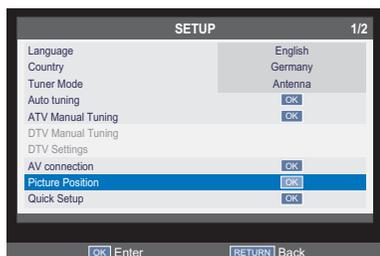**NOTE:** Features not available will be greyed out.

Picture Position

The Picture Position may now be adjusted to suit personal preference.

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press ⊚ to enter the sub-menu.

🖥	◎	🗂	🕐	🖾
PICTURE	SOUND	SETUP	APPLICATIONS	PREFERENCES

2 Press ▲ or ▼ to select **Picture Position** and press ⊚ to enter the submenu.

| SETUP	1/2
Language	English
Country	Germany
Tuner Mode	Antenna
Auto tuning	OK
ATV Manual Tuning	OK
DTV Manual Tuning	
DTV Settings	
AV connection	OK
Picture Position	OK
Quick Setup	OK

OK Enter   RETURN Back

3 Press ▲ or ▼ to select an option you want to adjust, and press ◄ or ► to adjust the settings as required.

Picture Position	
Horizontal position	◄ 0 ►
Vertical position	0
Reset	OK

Edit   RETURN Back

Picture Mode

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

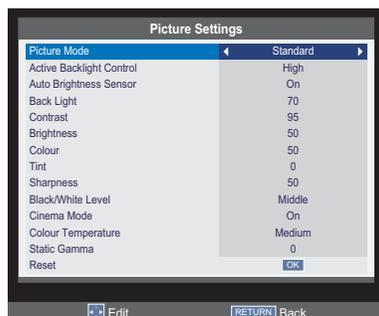**1** Press **MENU**. Press ◄ or ► to select **PICTURE** and press ⊚ to enter the submenu.

🖵	◎	🗂	🕐	🖾
PICTURE	SOUND	SETUP	APPLICATIONS	PREFERENCES
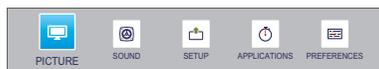
2 Press ▲ or ▼ to select **Picture Settings** and press ⊚ to enter the submenu.

3 Press ▲ or ▼ to select **Picture Mode** and press◄ or ► to select **Dynamic**, **Standard**, **Mild**, **Movie**, **Game** or **User**.

NOTE: Game is not available for the TV input mode.

Picture Settings	
Picture Mode	◄ Standard ►
Active Backlight Control	High
Auto Brightness Sensor	On
Back Light	70
Contrast	95
Brightness	50
Colour	50
Tint	0
Sharpness	50
Black/White Level	Middle
Cinema Mode	On
Colour Temperature	Medium
Static Gamma	0
Reset	OK

Edit   RETURN Back

Picture Preferences

You can customise current picture mode settings while selecting **User**.

1 In the **Picture Settings** menu, press ▲ or ▼ to select **Back Light**, **Contrast**, **Brightness**, **Colour**, **Tint**, **Sharpness**.

2 Press ◄ or ► to suit your preference.

Black/White Level

This function increases the strength of dark areas of the picture, which improves picture definition.

1 In the **Picture Settings** menu, press ▲ or ▼ to select **Black/White Level**.

2 Press ◄ or ► to adjust the level from **Off**, **Low**, **Middle** or **High**. The effect depends on the broadcast and is most noticeable on dark colours.

Cinema Mode

A movie film's picture runs at 24 frames a second, whereas movie software such as DVD, etc., that you enjoy watching on television at home runs at 30 (NTSC) or 25 (PAL) frames a second. To convert this signal to reproduce a smooth motion and picture quality, select the **Cinema Mode**.

1 In the **Picture Settings** menu, press ▲ or ▼ to select **Cinema Mode**.

2 Press ◄ or ► to select **On** or **Off**.

Colour Temperature

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

1 In the **Picture Settings** menu, press ▲ or ▼ to select **Colour Temperature** and press ►.

2 Press ▲ or ▼ to select **Colour Temperature** and press ◄ or ► to select **Medium**, **Warm** or **Cool** to suit your preference.

Colour Temperature		
Colour Temperature	◄ Medium	►
Red Level	0	
Green Level	0	
Blue Level	0	
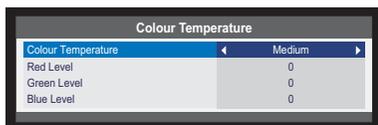
3 Press ▲ or ▼ to select **Red Level**, **Blue Level** or **Green Level** and press ◄ or ► to adjust the settings as required.

Static Gamma

The static gamma feature allows you to adjust the levels of black in the picture.

1 In the **Picture Settings** menu, press ▲ or ▼ to select **Static Gamma**.

2 Press ◄ or ► to select the number of **Static Gamma** (-5~+5).

Reset

This feature resets all picture settings to the factory settings.

In the **Picture Settings** menu, press ▲ or ▼ to select **Reset** and press ⊛ to reset settings.

NOTE: If any picture settings have not been changed, **Reset** is not available.

Active Backlight Control

When the **Active Backlight Control** feature is activated, **High** mode will control the backlighting levels depending on various scenes such as picture motion, bright scene or dark scene. **Low** mode will control the backlighting level on dark scene.

1 In the **Picture Settings** menu, press ▲ or ▼ to select **Active Backlight Control**.

2 Press ◄ or ► to select **Off**, **Low** or **High**.

Auto Brightness Sensor

When the **Auto Brightness Sensor** is activated, it will automatically optimise the backlighting levels to suit ambient light conditions.

1 In the **Picture Settings** menu, press ▲ or ▼ to select **Auto Brightness Sensor**.

2 Press ◄ or ► to select **On** or **Off**.

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3D Colour Management

When **3D Colour Management** is set to **On**, it allows the **Base Colour Adjustment** feature to become available.

You can adjust the picture colour quality by selecting from 6 base colour adjustments : **Red**, **Green**, **Blue**, **Yellow**, **Magenta** or **Cyan**.

1 In the **PICTURE** menu, press ▲ or ▼ to select **3D Colour Management**.

2 Press ◄ or ► to select **On** or **Off**.

NOTE: When a DVD movie with subtitle is playing back, this mode may not work correctly.

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 **3D Colour Management** is set to **On**.

1 In the **PICTURE** menu, press ▲ or ▼ to select **Base Colour Adjustment** and press ⊛ to enter the submenu.

2 Press ▲ or ▼ to select an item you want to adjust and press ⊛.

Base Colour Adjustment			
	Hue	Saturation	Brightness
Red	0	0	0
Green	0	0	0
Blue	0	0	0
Yellow	0	0	0
Magenta	0	0	0
Cyan	0	0	0
Reset			OK

OK Edit   RETURN Back

3 Press ◄ or ► to select **Hue**, **Saturation** or **Brightness**.

Base Colour Adjustment			
	Hue	Saturation	Brightness
Red	0	0	0

4 Press ▲ or ▼ to adjust the settings as required.

NOTE: In the PC Input mode, this function is not available.

Digital Noise Reduction

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 select **DNR**.

2 Press ◄ or ► to select **Off**, **Low**, **Middle** or **High**.

NOTE: This function is not available for HDMI input.

MPEG NR – Noise Reduction

When watching a DVD, the compression may cause some words or picture elements to become distorted or pixelated.

Using the **MPEG NR** feature reduces this effect by smoothing out the edges.

1 In the **PICTURE** menu, press ▲ or ▼ to select **MPEG NR**.

**2** Press ◄ or ► to select **Off**, **Low**, **Middle** or **High**.

Enjoy Photos through USB Port

The Photo Viewer allows you to playback image files from a USB storage device.

Image	Photo	Resolution
JPEG	Base-line	15360x8704 (1920x8 x 1088x8)
	Progressive	1024x768
PNG	non-interface	9600x6400
	interface	1200x800
BMP		9600x6400

View Photo Files

1 Insert a USB storage device and press ⊖ on the remote.

Use ▲ or ▼ to select **MEDIA** and press (OK).

Inputs
TV
⊕ 1
⊕ 2
⊕ 3C
HDMI1
HDMI2
MEDIA
PC
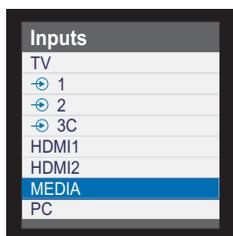
2 Press ◄ or ► to select **Photo** and press (OK) to enter the submenu.

3 Press ▲, ▼, ◄ or ► to select the folder you wish to view and press (OK) to enter.

Press **P** ∧ or **P** ∨ to page up or down.
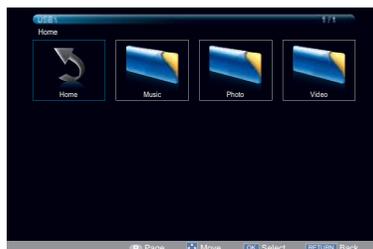
4 Press ▲, ▼, ◄ or ► to select the desired photo and press (OK) to view.

5 Press **MENU** to change the settings when viewing a photo.
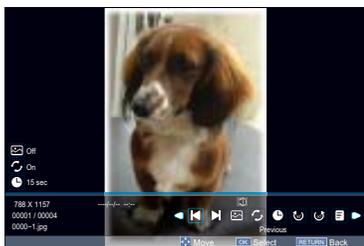
Press ◄ or ► to:
- ◄: Go to the previous photo
- ►: Go to the next photo
- : Select slide show mode
- : Select repeat mode
- : Select the desired interval time
- : Clockwise rotation 90°
- : Counterclockwise rotation 90°
- : Show play list
- : Set the background music
- : Photo information

and press ⊙ to confirm the setting.

Using Slide Show

This view allows you to watch a slide show of the photos. In this view mode, the only content that locates on the same directory shall be played.

1 Press **MENU** to change the settings when viewing a photo.

2 Press ◄ or ► to select and press ⊙ to turn **On** or **Off**.

NOTE: If **Repeat** is **On**, slide show starts photo viewing from the first photo in the folder after reaching the final photo.

Repeat Settings for Slideshow

1 Press **MENU** to change the settings when viewing a photo.

2 Press ◄ or ► to select and press ⊙ to turn **On** or **Off**.

Set Interval Time

1 Press **MENU** to change the settings when viewing a photo.

2 Press ◄ or ► to select and press ⊙ to select the desired interval time (3/5/10/15/30/60/90 Sec).

Using the Play List

1 Press **MENU** to change the settings when viewing a photo.

2 Press ◄ or ► to select and press ⊙.

3 Press ▲ or ▼ to select a photo and press ⊙ to show the photo.

Press **RETURN** on the remote to collapse the list.
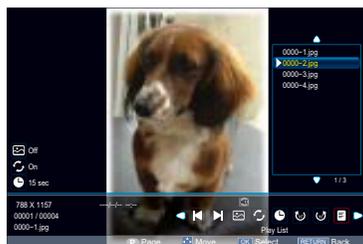
Background Music

Set the background music when viewing photo.

1 Press **MENU** to change the settings when viewing a photo.

2 Press ◄ or ► to select and press ⊙.

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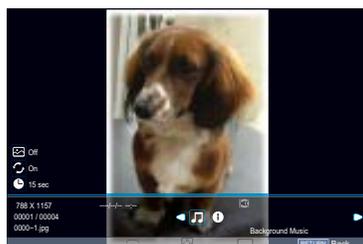
3 Press ◄ or ► to select 🔲 and press ⊚.
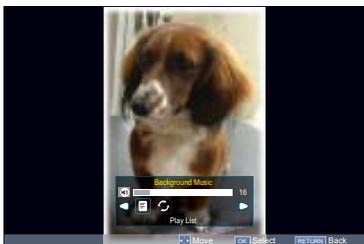
Press ▲ or ▼ to select music and press ⊚ to play music.

Press **RETURN** on the remote to collapse the list.
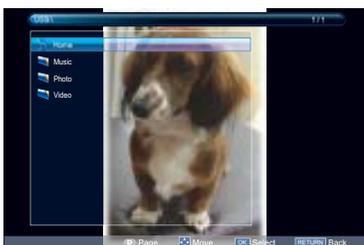
4 Press ◄ or ► to select 🔄 and press ⊚ to select **One** or **Folder**.
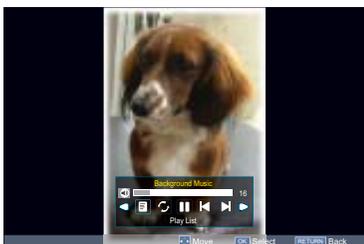
Photo Info

Info displays the file status information (content number, photo title, shooting date and time, resolution etc.).

1 Press **MENU** to change the settings when viewing a photo.

2 Press ◄ or ► to select 🅾 and press ⊚.

3 The information will be removed by timeout (about 15 sec) or press ⊚ to exit.

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Enjoy Music through USB Port

The MP3 Player allows you to playback music files from a USB storage device.

Audio Codec	File Extension	Bit Rate
MPEG1 Layer2	MP3	Bit Rate: 8Kbps ~ 384Kbps Sampling rate: 16KHz ~ 48KHz
MPEG1 Layer3	MP3	Bit Rate : 8Kbps ~ 320Kbps Sampling rate : 16KHz ~ 48KHz

Play Music Files

1 Insert a USB storage device and press ⏻ on the remote.
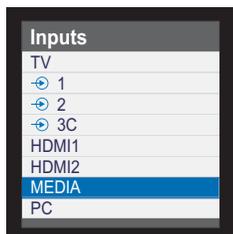
Use ▲ or ▼ to select **MEDIA** and press ⓞⓚ.

Inputs
TV
⏻ 1
⏻ 2
⏻ 3C
HDMI1
HDMI2
MEDIA
PC

2 Press ◄ or ► to select **Music** and press ⓞⓚ to enter the submenu.

USB 2.0

◄ Photo Music Movie ►

Move   Select   Exit

3 Press ▲ or ▼ to select the folder you wish to play and press ⓞⓚ to enter.

Press **P** ∧ or **P** ∨ to page up or down.

USB Music   1/1
Home
Up Folder
001.MP3
002.wma
003.avi

Page   Move   Select   Back

4 Press ▲ or ▼ to select the desired music and press ⓞⓚ to play.

Play ►

Folder

00001 / 00003   00:00:02 / 00:02:42   16
001.MP3   ◄ ❚❚ ► ◄◄ ►► ❚◄ ►❚ ■ ⟳ ▤ ►
                          Pause
Move   Select   Back
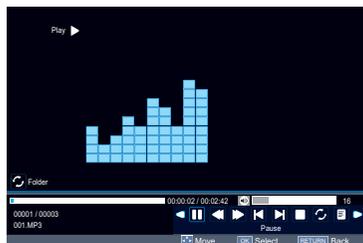
When listening music, press ◄ or ► to:
- ► ❚❚ : Play or pause the selected music
- ◄ : Rewind the selected music
- ► : Fast forward the selected music
- ❚◄ : Go to the previous music
- ►❚ : Go to the next music
- ■ : Stop play
- ⟳ : Select the desired repeat interval:
  - Repeat Off
  - Repeat One: Repeat the selected music once
  - Repeat Folder: Repeat all music files in the selected folder
- ▤ : Show play list
- ⓘ : Music information

and press ⓞⓚ to confirm the setting.

Repeat Settings

1 Press ◄ or ► to select ⟳.

2 Press (OK) to select **Off**, **One** or **Folder**.

Using the Play List

1 Press ◄ or ► to select ▤ and press (OK).

2 Press ▲ or ▼ to select music and press (OK) to play music.

Press **EXIT** on the remote to collapse the list.
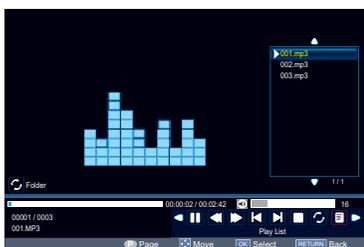
Music Info

Info display file status information (content number, music title, Bit Rate, Artist, Sampling, Year, and size).

1 Press ◄ or ► to select ⓘ and press (OK).

2 The information will be removed by time-out (about 15 sec) or press (OK) to exit.

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Enjoy Videos through USB Port

The Video Viewer allows you to playback video files from a USB storage device.

NOTE: USB 2.0 or above is recommended for best media performance.

File Extension	Container	Video Codec	SPEC	Bit Rate (Mbit/sec)	Profile	Remark
dat, mpg, mpeg	MPEG	MPEG1 MPEG2	1080P@ 30fps	40	MPEG2: Main Profile@ High Level	
ts, trp, tp	MPEG2-TS H.264-TS	H.264 MPEG2	H.264: 1080P@50fps Others: 1080P@30fps	40	H.264: Main Profile and High Profile@Level 4.1 MPEG2: Main Profile@ High Level	
vob	MPEG2-PS	MPEG2	1080P@ 30fps	40	MPEG2: Main Profile@ High Level	
mp4, m4v	MP4	H.264 MPEG4	H.264: 1080P@50fps Others: 1080P@30fps	40	H.264: Main Profile and High Profile@Level 4.1 MPEG4: Simple Profile and Advanced Simple Profile@Level 5	
mkv	MKV	H.264 MPEG1 MPEG2 MPEG4	H.264: 1080P@50fps Others: 1080P@30fps	40	H.264: Main Profile and High Profile@Level 4.1 MPEG2: Main Profile@ High Level MPEG4: Simple Profile and Advanced Simple Profile@Level 5	MP4: GMC is not supported * Some files may not be played.
divx, div	AVI (1.0, 2.0) DMF0, 1, 2	DivX 3.11 DivX 4.12 DivX 5.x DivX 6	1080P@ 30fps	40	MPEG4: Simple Profile and Advanced Simple Profile@Level 5	
avi	AVI (1.0, 2.0) DMF0, 1, 2	H.264 MPEG1 MPEG2 MPEG4 DivX 3.11 DivX 4.12 DivX 5.x DivX 6	H.264: 1080P@50fps Others: 1080P@30fps	40	H.264: Main Profile and High Profile@Level 4.1 MPEG2: Main Profile@ High Profile MPEG4: Simple Profile and Advanced Simple Profile@Level 5	
	AVI (1.0, 2.0)	MJPG (Motion JPEG)	640x480@ 30fps	10		
flv	flash formats	H.264 Sorenson H.263	H.264: 1080P@50fps Others: 1080P@30fps	40	H.264: Main Profile and High Profile@Level 4.1	

Play Video Files

1 Insert a USB storage device and press ⏻ on the remote.

Use ▲ or ▼ to select **MEDIA** and press ⊙.

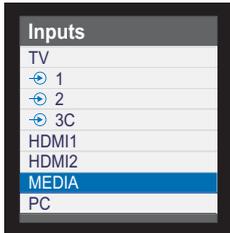| Inputs |
|---|
| TV |
| ⊕ 1 |
| ⊕ 2 |
| ⊕ 3C |
| HDMI1 |
| HDMI2 |
| MEDIA |
| PC |

2 Press ◄ or ► to select **Movie** and press ⊙ to enter the submenu.

USB 2.0

Photo   Music   Movie

Move   Select   Exit   Exit

3 Press ▲ or ▼ to select the folder you wish to view and press ⊙ to enter.

Press **P** ∧ or **P** ∨ to page up or down.

Home
Up Folder
001.avi
002.avi
003.avi

Page   Move   Select   RETURN Back
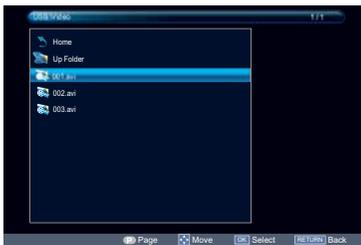
4 Press ▲ or ▼ to select the desired video and press ⊙ to play.

5 Press **MENU** to change the settings when viewing a video.

Resolution
Native
Folder

00:00:08 / 00:02:28   16
00001 / 0003
001.avi
Pause
Move   Select   RETURN Back
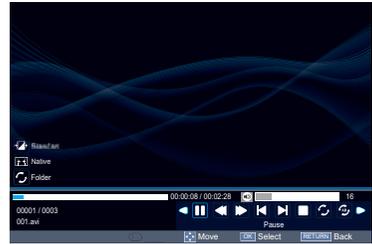
Press ◄ or ► to:

- ▶/⏸: Play or pause the selected video
- ◄◄: Fast back the selected video
- ►►: Fast forward the selected video
- ⏮: Go to the previous video
- ⏭: Go to the next video
- ⏹: Stop play
- ↻: Select the desired repeat interval:
  - Repeat Off
  - Repeat One: Repeat the selected video once
  - Repeat Folder: Repeat all video files in the selected folder
- ↺: Repeat from A to B
  - Set A: A-Set Repeat and Start
  - Set B: B-Set Repeat and repeat from A to B
- ▤: Show play list
- ⓘ: Video information
- ▶: Slow forward the selected video
- ⏭: Step forward the selected video
- ▣: Aspect Ratio
- ▨: Picture Mode
- 🕒: Allows you to input a search time

and press ⊙ to confirm the setting.

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Repeat Settings

1 Press **MENU** to change the settings when viewing a video.

2 Press ◄ or ► to select 🔁 and press ⓄⓀ to select **Off**, **One** or **Folder**.

Set

1 Press **MENU** to change the settings when viewing a video.

2 Press ◄ or ► to select 🔁 and press ⓄⓀ to select **Set A**, **Set B** or **None**.

Using the Play List

1 Press **MENU** to change the settings when viewing a video.

2 Press ◄ or ► to select 🔳 and press ⓄⓀ.

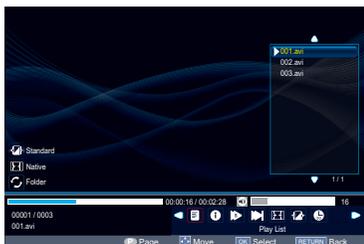**3** Press ▲ or ▼ to select a video and press ⓄⓀ to play the video.

Press **RETURN** on the remote to collapse the list.

Slow Forward

The feature changes forward speeds.

1 Press **MENU** to change the settings when viewing a video.

2 Press ◄ or ► to select ◄◄ and press ⓄⓀ to select **SF2X**, **SF4X**, **SF8X**, **SF16X** or **Play**.

Step Forward

The feature allows you to view a video one frame at a time.

1 Press **MENU** to change the settings when viewing a video.

2 Press ◄ or ► to select 🔳 and press ⓄⓀ to play step by step.

Video Info

Info display file status information (content number, video title, audio track, subtitle, program, size, etc.).

1 Press **MENU** to change the settings when viewing a video.

2 Press ◄ or ► to select ⓘ and press ⓄⓀ.
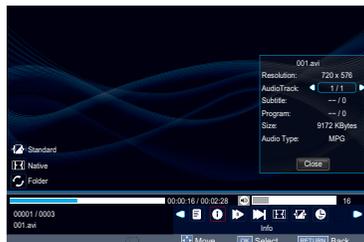
3 The information will be removed by time-out (about 15 sec) or press ⓄⓀ to exit.

Aspect Ratio

1 Press **MENU** to change the settings when viewing a video.

2 Press ◄ or ► to select 🔲 and press ⓄⓀ to select **Native**, **4:3** or **16:9**.

Picture Mode

1 Press **MENU** to change the settings when viewing a video.

2 Press ◄ or ► to select 🖼 and press ⓄⓀ to select **Standard**, **Mild**, **Movie** or **Dynamic**.

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Goto Time

The feature allows you to view a selected time during the video.

1 Press **MENU** to change the settings when viewing a video.

2 Press ◄ or ► to select 🕒 and press ⊙K.

3 Use the number key pad on the remote to enter time. Press ⊙K to go to the input time.

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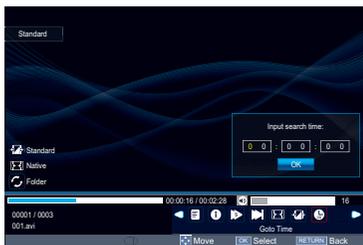
HDMI CEC Control

This feature uses CEC (Consumer Electronics Control) technology, and allows the control of Toshiba **HDMI CEC** compatible equipment from the television's remote control.

NOTE: Not all Toshiba products currently support **HDMI CEC**.

Equipment Control

The **HDMI CEC** mode on the television's remote control allows the control of connected **HDMI CEC** equipment being watched.

To control the **HDMI CEC** input source, first select the equipment with **HDMI CEC** input source selection, then switch the mode on the remote control to **HDMI CEC** and press any buttons.

The available functions are dependent on the equipment connected. Not all the remote control keys may be available. Please refer to the operation manual for each piece of equipment connected.

Select HDMI CEC Device

1 Press ⊕. A list appears on screen showing modes and all stored external equipment.

2 The **HDMI-LINK** icon appears automatically after detected with **HDMI CEC** compatible equipment. Press ▲ or ▼ to highlight the input source shown with the **HDMI-LINK** icon.

Inputs	
TV	
⊕ 1	
⊕ 2	
⊕ 3C	
HDMI1	HDMI-LINK ▶
HDMI2	
MEDIA	
PC	
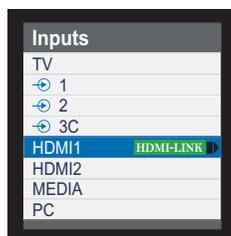
3 Press ►. and the device selection menu appears showing all connected **HDMI CEC** equipment.

4 Press ▲ or ▼ to highlight the desired **HDMI CEC** equipment, and then press ⊛ to select.

Inputs		HDMI1
TV		Disc Player
⊕ 1		
⊕ 2		
⊕ 3C		
HDMI1	HDMI-LINK	
HDMI2		
MEDIA		
PC		

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HDMI CEC Menus

By activating the Enable HDMI-LINK feature in the **HDMI CEC Control** menu, individual **HDMI-LINK** features can then be activated.

One Touch Play

The function of **HDMI CEC** will automatically power on the television that was in standby mode and switch the television's input source to the port connected with the audio/video equipment by powering-on or playing from the audio/video equipment.

NOTE: This feature is dependent on the connected equipment and television setting.

System Standby

This feature automatically switches the connected equipment into standby when the television goes into standby and conversely for the television to switch into standby when connected equipment goes into standby. It is selected in the **HDMI CEC Control** menu.

NOTE: This feature is dependent on the connected equipment and television setting.

System Audio Control

Using the Speaker Preference feature allows the television's remote control to adjust the volume or mute the sound of the speakers connected to the television via an AV amplifier.

Ensure that the connected AV amplifier and **HDMI CEC** equipment are selected in the input source selection and that the **Speaker Preference** is set to **Amplifier** in the **HDMI CEC Control** menu.

NOTE: When the AV Amplifier is switched on, its input source changed or the volume adjusted, the sound will be output from the AV Amplifier's speakers even if TV speakers has been selected. Turn the television off then on again to output the sound from the TV's speakers.

The full function may not work and is dependent on the amplifier being used.

Enable HDMI-LINK

When the **Enable HDMI-LINK** is set to **On**, it allows the other functions to be enabled.

1 Press **MENU**. Press ◄ or ► to select **PREFERENCES** and press ⓞⓚ to enter the submenu.

PICTURE	SOUND	SETUP	APPLICATIONS	PREFERENCES

2 Press ▲ or ▼ to select **HDMI CEC Control**, and press ⓞⓚ to enter the submenu.

PREFERENCES	
HDMI CEC Control	OK
Teletext	Auto
Panel Lock	Off
Auto Format	On
4:3 Stretch	Off
Blue Screen	On
Side Panel	1
DivX Registration	OK
DivX Deregistration	

OK Enter   RETURN Back
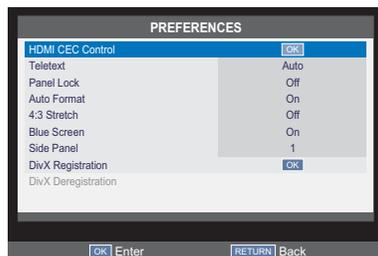
3 Press ▲ or ▼ to select **Enable HDMI-LINK**, and press ◄ or ► to select **On** or **Off**.

HDMI CEC Control	
Enable HDMI−LINK	◄ On ►
Auto Power On	On
Auto Standby	On
Amplifier Control	On
Speaker Preference	TV Speakers

Edit   RETURN Back

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Auto Power On

The **Auto Power On** setting allows the television to be automatically switched **On** if user pressed Play key on the **HDMI CEC** device.

1 In the **HDMI CEC Control** menu, press ▲ or ▼ to select **Auto Power On**.

2 Press ◄ or ► to select **On** or **Off**.

Auto Standby

When the **Auto Standby** is enabled, switching off the television will automatically switch off all connected **HDMI CEC** equipment.

1 In the **HDMI CEC Control** menu, press ▲ or ▼ to select **Auto Standby**.

2 Press ◄ or ► to select **On** or **Off**.

Amplifier Control

When **Amplifier Control** is set to **On**, it allows the **Speaker Preference** feature to become available.

1 In the **HDMI CEC Control** menu, press ▲ or ▼ to select **Amplifier Control**.

2 Press ◄ or ► to select **On** or **Off**.

Speaker Preference

This feature allows the audio output preference to be set to the TV speakers or Amplifier speakers. The Amplifier option lets the television's remote control adjust or mute the volume of the audio.

1 In the **HDMI CEC Control** menu, press ▲ or ▼ to select **Speaker Preference** when **Amplifier Control** is **On**.

2 Press ◄ or ► to select **TV Speakers** or **Amplifier**.

NOTE: This function is only available when the TV is connected to audio receivers that support CEC function.

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HDMI CEC Playback Device Control

This is a new feature that uses CEC technology and allows you to control **HDMI CEC** compatible devices from the TV remote control via HDMI connection.

When there are two or more **HDMI CEC** devices connected to the television, the device selection menu appears. Highlight the desired device, and then press ⑥ to select.

Remote Control   **Pass-Through Control Panel**

NOTE:

- Press ▲ or ▼ to select **HDMI CEC Control** in the **Quick access** menu, and then press ⑥. The **Pass-Through Control Panel** appears.
- Some functions are only available when the **Pass-Through Control Panel** is displayed on the screen. Please refer to the following procedure.
- Please refer to the **Remote Control** image and the following table for the key definitions of the **Pass-Through Control Panel**.
- **MENU** and **RETURN** functions are unavailable when the **Pass-Through Control Panel** is **on**.

No	Item	Description
When opening the **Pass-Through Control Panel**:		
1	**GUIDE**	Turn off the desired **HDMI CEC** device.
2	**EXIT**	Close the **Pass-Through Control Panel**.
3	▲	Pause.
	▼	Stop.
	◄	Rewind.
	►	Forward.
	⑥	Play.
4	**MENU**	Skip Reverse.
5	**RETURN**	Skip Forward.
6	**ROOT**	Root key.
7	**DVD**	DVD key.
8	**CONTENTS**	Contents key.
9	**TOP**	Top key.
In contents menu:		
3	▲, ▼, ◄, ►	Navigate contents menu.
	⑥	Enter contents menu, etc.

NOTE: These functions depend on the devices connected.

Using MHL TV function

You can use the following functions by connecting between the TV HDMI 2 port and micro USB port of mobile phones etc. with a MHL cable.

• Charge with mobile phone from TV
• Video/Audio output from mobile phone
• Access mobile content through TV remote controller
• Supports transfer of HD video resolution up to 1080p
• MHL functions may not perform properly as some mobile devices may not incorporate the full MHL functionality

NOTE: These functions may not be available depending on the connected equipment.

Connecting an MHL-compatible Device

Connect the device to the HDMI 2 port on the TV using an MHL cable (not supplied).

HDMI 2

micro USB
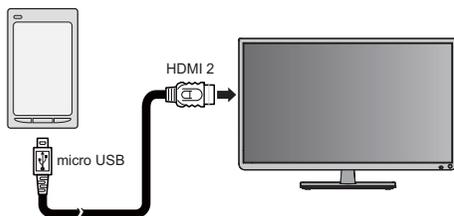
MHL cable (not supplied)

When you connect an MHL-compatible device to the HDMI 2 port on the TV with the MHL cable, charging starts automatically.

NOTE: Do not connect an MHL-compatible device to any port other than the HDMI 2 port.

MHL Control

1 Press **QUICK**. Press ▲ or ▼ to select **MHL Control** and press ⊙.

Quick access	
Picture Size	Wide
Picture Mode	Standard
Sleep Timer	00:00
Media Player	OK
System information	OK
HDMI CEC Control	
Speakers	TV Speakers
MHL Control	OK
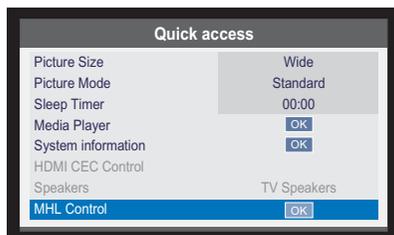
2 The **Pass-Through Control Panel** appears.

NOTE: The **Pass-Through Control Panel** is only available when viewing photo/video or listening to music.

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Operating an MHL-compatible Device

MHL is a new mobile audio video interface standard for direct connection with MHL enabled mobile devices to MHL enabled TVs, providing instant access to a wealth of mobile content with ease of control through the TV remote controller.

Remote Control

Pass-Through Control Panel

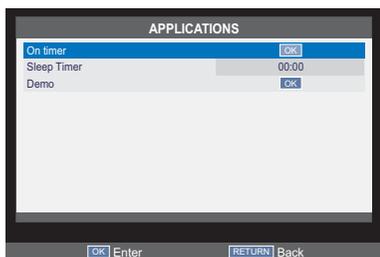| No	Item	Description
Not entry MHL Control (Remote Control)		
2	**EXIT**	Exit.
3	In contents menu:	
	▲	Up.
	▼	Down.
	◄	Left.
	►	Right.
	OK	Select.
5	**RETURN**	Exit.
Entry MHL Control (Pass-Through Control Panel)		
1	**GUIDE**	Record.
2	**EXIT**	Close the **Pass-Through Control Panel**.
3	When viewing the video or listening to music:	
	▲	Pause.
	▼	Stop.
	◄	Rewind.
	►	Forward.
	OK	Play.
4	**MENU**	Skip Reverse.
5	**RETURN**	Skip Forward.

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English

Preference Controls

On Timer

This feature allows you to set the television to turn on automatically to a preset channel at a certain time of day or after a certain length of time.
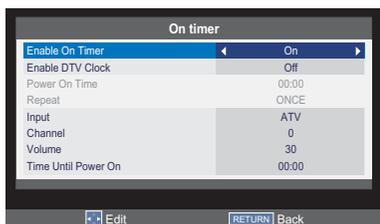
1 Press **MENU**. Press ◄ or ► to select **APPLICATIONS** and press ⊙K to enter the submenu.

🖥	◎	📤	⏻	🖵
PICTURE	SOUND	SETUP	APPLICATIONS	PREFERENCES

2 Press ▲ or ▼ to select **On timer** and press ⊙K to enter the submenu.

APPLICATIONS	
On timer	OK
Sleep Timer	00:00
Demo	OK

OK Enter   RETURN Back

3 Press ▲ or ▼ to select **Enable On Timer** and press ◄ or ► to select **On** or **Off**.

On timer	
Enable On Timer	◄ On ►
Enable DTV Clock	Off
Power On Time	00:00
Repeat	ONCE
Input	ATV
Channel	0
Volume	30
Time Until Power On	00:00

Edit   RETURN Back

NOTE: The settings are only available when **Enable On Timer** is **On**.

4 Press ▲ or ▼ to select **Enable DTV Clock** and press ◄ or ► to select **On** or **Off**.

NOTE: **Power On Time** and **Repeat** are only available when **Enable DTV Clock** is **On**.

5 Press ▲ or ▼ to select **Power On Time** and press ◄ or ► or use the number key pad on the remote to enter the time.

6 Press ▲ or ▼ to select **Repeat** and press ◄ or ► to select **ONCE**, **DAILY**, **Mon.~Fri.**, **Mon.~Sat.** or **Sat.~Sun.**

7 Press ▲ or ▼ to select **Input** and press ◄ or ► to select **ATV**, **EXT 1**, **EXT 2**, **EXT 3**, **HDMI 1**, **HDMI 2**, **PC** or **DTV**.

8 Press ▲ or ▼ to select **Channel** and press ◄ or ► to change the channel number or use the number key pad on the remote to enter the channel number.

NOTE:
- **Channel** is only available when the **Input** is **ATV** or **DTV**.
- Blank screen will appear if not tuned.

9 Press ▲ or ▼ to select **Volume** and press ◄ or ► to modify the volume, or use the number key pad on the remote to enter the volume.

10 Press ▲ or ▼ to select **Time Until Power On** and press ◄ or ► or use the number key pad on the remote to enter the time for the TV to turn on automatically.

NOTE: Time Until Power On is only available when **Enable DTV Clock** is **Off**.

Sleep Timer

The television can be set to turn itself Off after a certain length of time.

1 Press **MENU** and press ◄ or ► to select **APPLICATIONS**.

2 Press ▲ or ▼ to select **Sleep Timer** (Turn off the TV).

3 Press ◄ or ► to modify the time the TV should turn off, or use the number key pad on the remote to enter the time.

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EPG

EPG (Electronic Programme Guide) supports 9 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 **GUIDE** on the remote to display the **Programme Guide**.

Programme Guide		4 Rossia K
27 Aug	Unclassified	08:54:17 Fri, 27 Aug
4 Rossia K	19:30~20:00	Deejay Chiama Italia
5 Radio Russia	20:00~21:00	Deejay Hits
5 NTV	21:00~22:00	The Club
6 Rossia 2	22:00~22:30	Deejay Tg
7 TRK 5 Kanal	22:30~23:00	Deejay News Beat
8 Bibigon	23:00~23:30	Deejay News Beat
9 Service Information...	23:30~00:00	Deejay News Beat
10 Service Information...		
11 SIT 5		

Genre   More Info   Timer List   OK Tune   RETURN Back

2. Press ▲ or ▼ to select the desired channel and press ⊙ to enter the programme schedule.

3. Press ▲ or ▼ to select the desired programme and press ⊙ to enter the **Tune** menu.

Programme Guide		4 Rossia K
27 Aug	Unclassified	08:54:17 Fri, 27 Aug

Programme Timers
4 Rossia K
Deejay Chiama Itali
20:00 ~ 21:00 17 Oct 2005
Repeat ◄ ONCE ►
Subtitle Off

◄► Edit   OK Save   RETURN Back

Press ▲ or ▼ to select **Repeat** or **Subtitle** and press ◄ or ► to adjust the settings as required.

Press ⊙ to save the settings.

4. Press the ▬ button on the remote to enter the **Timer List** menu.

Programme Timers			07:42:58 Fri, 27 Aug
Channel		Date	Time
1 ONE HD		Fri, 27 Aug	19:30~20:00
1 ONE HD	LIVE: Bask etball: NBA	Fri, 27 Aug	20:00~21:00
10 TEN Digital	Judge Judy	Fri, 27 Aug	21:00~22:00
11 ELEVEN	Jag	Fri, 27 Aug	22:00~22:30
12 ONE HD	AFL Premiership Season 2011	Fri, 27 Aug	22:30~23:00

Delete   OK Edit   RETURN Back

5. Press ▲ or ▼ to select the desired programme and press ⊙ to edit.

   NOTE: Press the ▬ button on the remote to delete the timer.

Programme Timers			07:42:58 Fri, 27 Aug
Channel		Date	Time

Programme Timers
1 ONE HD
Channel ◄ 1 ONE HD ►
Date 2010/08/27
Start Time 08:05 (08/27)
End Time 08:35 (08/27)
Repeat ONCE
Subtitle Off

◄► Edit   OK Save   RETURN Back

Press ▲ or ▼ to select **Channel**, **Date**, **Start Time**, **End Time**, **Repeat** or **Subtitle** and press ◄ or ► to adjust the settings as required.

Press ⊙ to save the settings.

NOTE: After adjustment, the TV clock may not match the time in the EPG Programme Guide. The EPG Programme Guide time follows the broadcast stream time which can not be adjusted.
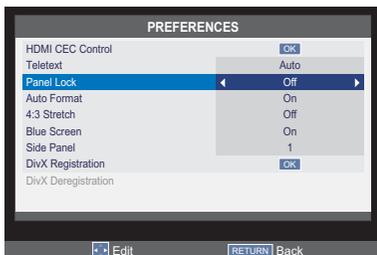
55

Panel Lock

Panel Lock disables the buttons on the television. All buttons on the remote control can still be used.

1 Press **MENU**. Press ◄ or ► to select **PREFERENCES** and press ⊙ to enter the submenu.

🖥	🔊	📤	⏱	📋
PICTURE	SOUND	SETUP	APPLICATIONS	PREFERENCES

2 Press ▲ or ▼ to select **Panel Lock** and press ◄ or ► to select **On** or **Off**.

PREFERENCES	
HDMI CEC Control	OK
Teletext	Auto
Panel Lock	◄ Off ►
Auto Format	On
4:3 Stretch	Off
Blue Screen	On
Side Panel	1
DivX Registration	OK
DivX Deregistration	

Edit   RETURN Back

When **Panel Lock** is **On**, a reminder will appear when the buttons on the television are pressed. If the standby button is pressed the television will switch off and can only be brought out of standby by using the remote control.

Auto Format (Widescreen)

When this television receives a true Widescreen picture and Auto format is On, it will automatically be displayed in Widescreen format, irrespective of the television's previous setting.

1 In the **PREFERENCES** menu, press ▲ or ▼ to select **Auto Format**.

2 Press ◄ or ► to select **On** or **Off**.

4:3 Stretch

When **4:3 Stretch** is activated, this function will switch 4:3 format programmes into a full screen picture.

1 In the **PREFERENCES** menu, press ▲ or ▼ to select **4:3 Stretch**.

2 Press ◄ or ► to select **On** or **Off**.

NOTE: In HDMI signal format, this function is available.

Blue Screen

When **Blue Screen** is selected, the screen will turn blue when no signal is received.

1 In the **PREFERENCES** menu, press ▲ or ▼ to select **Blue Screen**.

2 Press ◄ or ► to select **On** or **Off**.

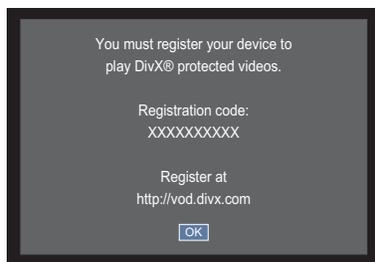**NOTE:** This function is not available in DTV mode.

Side Panel

The **Side Panel** feature lightens or darkens the band each side of the screen when in 4:3 or 14:9 format. This helps prevent image retention of the band and can also make viewing in bright or dark conditions more comfortable.

1 In the **PREFERENCES** menu, press ▲ or ▼ to select **Side Panel**.

2 Press ◄ or ► to adjust the settings as required.
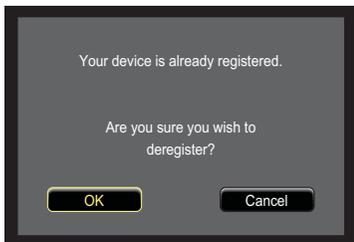
DivX Registration

View the registration code that is required to play video files that are compatible with the DivX® VOD (Video On Demand) service on the TV. DivX® VOD is a video delivery service that lets you rent or purchase video content recorded in DivX® format. To play video files that are compatible with the DivX® VOD service, the TV needs to be registered as a DivX® player.

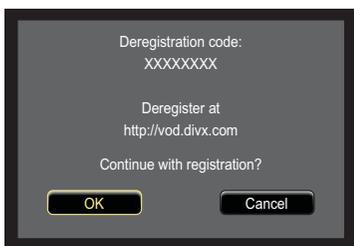In the **PREFERENCES** menu, press ▲ or ▼ to select **DivX Registration** and press ⊙.
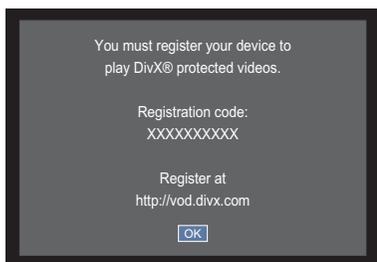
You must register your device to play DivX® protected videos.

Registration code:
XXXXXXXXXX

Register at
http://vod.divx.com

OK

DivX Deregistration

1 In the **PREFERENCES** menu, press ▲ or ▼ to select **DivX Deregistration** and press ⊛.

2 Press ◄ or ► to select **OK** to confirm or select **Cancel** to exit and press ⊛.

Your device is already registered.

Are you sure you wish to deregister?

| OK | Cancel |

3 Press ◄ or ► to select **OK** to confirm or select **Cancel** to exit and press ⊛.

Deregistration code:
XXXXXXXX

Deregister at
http://vod.divx.com

Continue with registration?

| OK | Cancel |

4 Press ⊛ to exit.

You must register your device to play DivX® protected videos.

Registration code:
XXXXXXXXXX

Register at
http://vod.divx.com

OK

System Information

In the **SETUP** menu, press ▲ or ▼ to select **System Information** and press ⊛ to display the model information and firmware version.

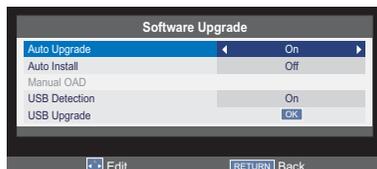**System Information**
TOSHIBA
2013
Nov 9 2012, 17:48:06, FW: v0.08 (SR)

RETURN Back

Software Upgrade

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press ⊛ to enter the submenu.

| 🖥️ | 🎵 | 🔼 | ⏲️ | 🗒️ |
| PICTURE | SOUND | SETUP | APPLICATIONS | PREFERENCES |

2 Press ▲ or ▼ to select **Software Upgrade** and press ⊛ to enter the submenu.

3 Press ▲ or ▼ to select **Auto Upgrade** and press ◄ or ► to select **On** or **Off**.

Software Upgrade

Auto Upgrade	◄ On ►
Auto Install	Off
Manual OAD	
USB Detection	On
USB Upgrade	OK

Edit   RETURN Back

4 Insert a USB storage device.

Press ▲ or ▼ to select **USB Upgrade** and press ⊛ to start upgrading the firmware.
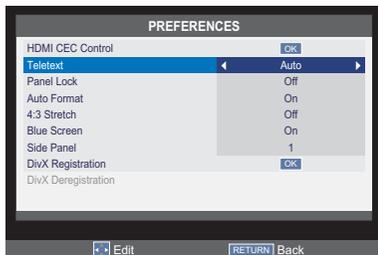
USB Upgrade
0 %

NOTE: Firmware upgrading is suggested to be done by the professional service personnel.

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Text Services and Text Information

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

Setting the Modes

1 In the **PREFERENCES** menu, press ▲ or ▼ to select **Teletext**.

PREFERENCES		
HDMI CEC Control		OK
Teletext	◄	Auto ►
Panel Lock		Off
Auto Format		On
4:3 Stretch		Off
Blue Screen		On
Side Panel		1
DivX Registration		OK
DivX Deregistration		

Edit   RETURN Back

2 Press ◄ or ► to select **Auto** or **LIST**.

Navigating Pages using Auto

If Fastext is available, four coloured titles will appear at the base of the screen.

To access one of the four given subjects, press the relevant coloured button on the remote control.

For further information on your particular text system(s), see the broadcast text index page or, consult your local Toshiba dealer.

Navigating Pages using LIST

If Fastext is available, four coloured titles with numbers 100, 200, 300 and 400 have been programmed into the television's memory.

To view these pages press the relevant coloured buttons.

To change these stored pages press the relevant coloured button and enter a new 3 digit number. This number will change in the top left of the screen and in the coloured highlight. Press ⊛ to store. The bars at the bottom of the screen will flash white. Whenever ⊛ is pressed all four page numbers showing at the bottom will be stored and the previous ones will be lost.

If ⊛ is not pressed the selection will be forgotten when text is cancelled.

Other pages may be viewed by entering the 3 digit page number – but DO NOT press ⊛ or these pages will be stored.

Control Buttons

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

▤ Displays the index/initial page:

Press ▤ to access the index/initial page. The page displayed is dependant on the broadcaster.

▨ Reveals concealed text:

To discover the solutions on quiz and joke pages press the ▨ button.

▤ Holds a wanted page:

At times it is convenient to hold a page of text.

Press ▤ and ▤ will appear in the top left of the screen. The page will be held on-screen until the button is pressed again.

▤ Enlarges the text display size:

Press ▣ 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.

⊚/⊠ Selects a page while viewing a normal picture:

Enter the page number then press ⊚/⊠, 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.

To display news flashes:

Select the news flash page for the chosen text service (see the index page of your text service).

By pressing ⊚/⊠, news flashes will be displayed as and when they are broadcast. Press ⊚/⊠ again to cancel the display.

How to change the page:

Press ▲ or ▼ to change the page.

Press ◄ or ► to change the sub page when a sub page is available.

The news flash page must be cancelled before changing channels.

PC Settings

- Most of the picture controls and functions are available. However features not available will be greyed out.
- In the PC input mode, the **Manual Setting** is not displayed.
- First press ⊕ until the video input mode list appears on the screen, then press ▲ or ▼ and ⊙ in order to select the PC input mode.
- 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.

Horizontal and Vertical Position

Connect the PC (as shown in the "Connecting a Computer" section) and ensure that a picture is showing on the television screen. The picture position may now be adjusted to suit personal preference.

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press ⊙ to enter the submenu.

🖥️	🔊	📤	🕐	🖹
PICTURE	SOUND	SETUP	APPLICATIONS	PREFERENCES

2 Press ▲ or ▼ to select **PC Setting**, and press ⊙ to enter the submenu.

SETUP	
Language	English
Country	UK
AV connection	OK
PC Setting	OK
Auto Adjust	OK
Automatic Power Down	4h
Location	Home
Software Upgrade	OK

OK Enter   RETURN Back
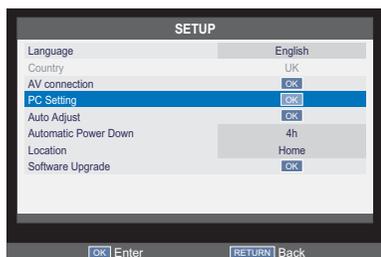
3 Press ▲ or ▼ to select **Horizontal position** or **Vertical position** and press ◄ or ► to adjust the settings as required.

PC Setting	
Horizontal position	◄ 0 ►
Vertical position	0
Horizontal width	0
Clock phase	0
Reset	OK

◄► Edit   RETURN Back
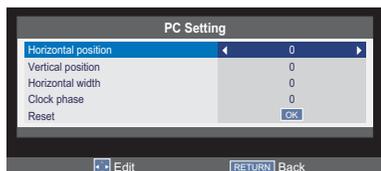
Horizontal Width

1 In the **PC Setting** menu, press ▲ or ▼ to select **Horizontal width**.

2 Press ◄ or ► to adjust the settings as required.

Clock Phase

The **Clock phase** matches the PC signal with the LCD display.

Adjusting this can clear horizontal stripes and picture blur.

1 In the **PC Setting** menu, press ▲ or ▼ to select **Clock phase**.

2 Press ◄ or ► to obtain a clear picture.

Reset

This feature resets all PC settings to the factory settings.

NOTE: If any PC settings have not been changed, **Reset** is not available.

1 In the **PC Setting** menu, press ▲ or ▼ to select **Reset**.

2 Press ⊙.

NOTE:

- When a PC is connected using HDMI none of these functions will be available.
- The screen is disrupted momentarily when adjusting PC setting. This is not a sign of malfunction.
- The default settings and adjustment ranges may vary depending on the input signal format.

Input Signal Selection

Use the Input Selection feature if the television does not switch over automatically when using an external device.

Input Signal Selection

You can select source of **AV** or **S-VIDEO** from this function.

1 Press **MENU**. Press ◄ or ► to select **SETUP** and press ⓄⓀ to enter the submenu.

🖥	🔊	📤	⏱	⌨
PICTURE	SOUND	SETUP	APPLICATIONS	PREFERENCES

2 Press ▲ or ▼ to select **AV connection**, and press ⓄⓀ to enter the submenu.

3 Press ▲ or ▼ to select **EXT1 input** and press ◄ or ► to select **AV** or **S-VIDEO**.

AV connection		
EXT1 input	◄ AV	►
⬍ Edit	RETURN Back	

60
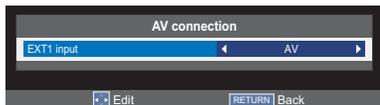
Frequently Asked Questions

Q *Why is there no sound or picture?*

A Check that the television is on and that all connections are made properly.

Q *There is a picture, but why is there little or no colour?*

*A* The colour is factory set to **Auto** to automatically display the best colour system.

When using an **external** source, if there is little or no colour, improvements may sometimes be achieved.

To manually change the colour system:

1 With the external source playing, select **Manual setting** in the **SETUP** menu.

2 Using ▲ or ▼ to choose from **Auto**, **NTSC 4.43**, **NTSC 3.58**, **SECAM** or **PAL**.

Manual setting
Colour system: Auto

EXT 1   ▲ A ▼   ▮▮▮▮▮▮▮

Select   Change   OK Save   RETURN Back
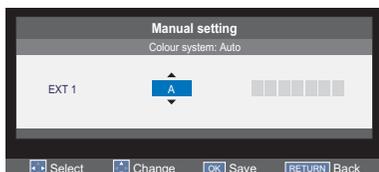
Q *Why doesn't the video/DVD being played show on-screen?*

A Make sure the Media player or DVD player is connected to the television, then select the correct input by pressing ⊕.

Q *Why is there a good picture but no sound?*

A Check all cable connections and that the volume has not been turned down or that the sound has not been muted.

Q *What else can cause a poor picture?*

A Interference or a weak signal. Try a different television station. Manual fine tuning may help:

1 Select the **ATV Manual Tuning** in the **SETUP** menu.

Highlight the station and press ⊛, then press ◄ or ► to select **Manual fine tuning**.

ATV Manual Tuning
Position

1   DK   A   👁 C 69 🔍   0   - - - - - -

Select   Change   OK Save   RETURN Back

2 Using ▲ or ▼ to adjust to get the best picture and sound. Press ⊛ and then **RETURN**.

Q *Why doesn't the remote control work?*

A Check that the batteries aren't exhausted or inserted incorrectly.

*Q* *Why are there problems with text?*

A Good performance of text depends on a strong broadcast signal. If the text is unreadable or garbled, check the aerial, satellite or cable connection. Go to the main index page of the text service and look for the User Guide. This will explain the basic operation of text in some detail.

Q *Why are the four coloured text numbers visible but no text (Analogue Only)?*

A Text has been selected while viewing an external source. No text will appear on-screen or a box may appear stating no information is available. Select a broadcasting channel and press 🗐 to access.

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Q *Why are the colours wrong when an NTSC source is played?*

A Connect the NTSC source via a SCART cable and play. Select **Manual setting** from the **SETUP** menu and set the **Colour System** to **Auto**.

Manual setting
Colour system: Auto

EXT 1   A   ▢▢▢▢▢▢

⟷ Select   ↕ Change   OK Save   RETURN Back
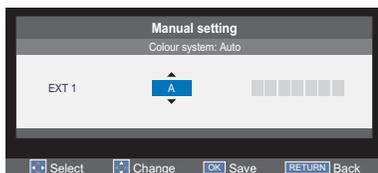
Q *What can be done if the user-defined password has been forgotten?*

A Use the universal password 1276, then change to a new number of your choice.

Q *Why don't the devices connected via HDMI operate properly?*

A Make sure to use cables with the HDMI logo (HDMI®). Some early HDMI equipment may not work properly with the latest HDMI TV products, due to adoption of new standards.

Q *Why is the Media Player/DVD picture in black and white?*

A Check the correct input has been chosen: S-VIDEO or AV.

Q *Why did TV turn off by itself?*

A After roughly 15 minutes without any input video signal at TV mode, the TV will turn off to reduce power.

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Specifications and Accessories

• This television complies with the specification listed below.

DVB-T Broadcast systems/channels

		Broadcast systems/channels	
UK	UHF 21-68	PAL-I	UHF UK21-UK69
France	VHF 05-10	PAL-B/G	UHF E21-E69
	(VHF 01-05)		VHF E2-E12, S1-S41
	UHF 21-69		
Germany	VHF 05-12	SECAM-L	UHF F21-F69
	UHF 21-69		VHF F1-F10, B-Q
Austria	VHF 05-12	SECAM-D/K	UHF R21-R69
	UHF 21-69		VHF R1-R12
Switzerland	VHF 05-12		
	UHF 21-69		
Italian	VHF 05-12 (D,E,F,G,H,H1,H2)		
	UHF 21-69		
Spain	UHF 21-69		
Nederlands	VHF 05-12		
	UHF 21-69		
Greece	VHF 05-12		
	UHF 21-69		

DVB-C Broadcast systems
DVB-T2 Broadcast system (L235* series only)

Video Input   PAL, SECAM, NTSC 3.58/4.43

External connections

EXT1	Input/Output	21-pin SCART	Auto, Mixed, RGB, Composite, S-Vídeo / TV Out
EXT2/EXT3	Input	RCA jacks	(EXIT2) Video
		RCA jacks	(EXIT3) Y, $P_B/C_B/P_R/C_R$
RGB/PC	Input	D-sub	RGB
HDMI 1/2 Audio	Input	HDMI®	
EXT2/EXT3		RCA jacks	Audio L + R (shared)
Digital Audio		Output (S/PDIF)	Coaxial
USB Port	Interface version:	USB 2.0	
	USB Class:	USB Flash Drive	
	File system:	FAT32	

Stereo   A2, Nicam
2 Carrier System

Energy efficiency Class

32W23**	A+ Class
32L23**	A+ Class
39L23**	A+ Class
50L23**	A+ Class

Visible Screen Size (approx.)

32W23**	80cm
32L23**	80cm
39L23**	98cm
50L23**	126cm

On mode power consumption** (approx.)

32W23**	31.0W
32L23**	31.0W
39L23**	44.6W
50L23**	70.8W

** Tested in accordance with IEC 62087-BD in default settings.

Annual power consumption** (approx.)

32W23**	45.3KWh/y
32L23**	45.3KWh/y
39L23**	65.1KWh/y
50L23**	103.4KWh/y

*** Energy consumption XYZ kWh per year, based on the power consumption of the television operating 4 hours per day for 365 days. The actual energy consumption will depend on how the television is used.

Standby power consumption (approx.)

32W23**	<0.3W
32L23**	<0.3W
39L23**	<0.3W
50L23**	<0.3W

Screen Resolution (pixels)

32W23**	1366 x 768
32L23**	1920 x 1080
39L23**	1920 x 1080
50L23**	1920 x 1080

Display   16:9

Sound Output (At 10% Distortion)

32W23**	7W + 7W
32L23**	7W + 7W
39L23**	7W + 7W
50L23**	7W + 7W

Power consumption (approx.)

32W23**	63W
32L23**	65W
39L23**	105W
50L23**	162W

Weight (approx.)

TV with stand	32W23**	6.0kg
	32L23**	6.0kg
	39L23**	8.0kg
	50L23**	17.5kg
Gross weight	32W23**	9.0kg
	32L23**	8.5kg
	39L23**	12.0kg
	50L23**	22.5kg
TV without stand	32W23**	5.2kg
	32L23**	5.2kg
	39L23**	7.0kg
	50L23**	15.7kg

Dimensions (H x W x D mm) (approx.)

32W23**	504 x 736 x 180
32L23**	504 x 736 x 180
39L23**	590 x 891 x 200
50L23**	743 x 1136 x 230

Headphone Socket   R3.5mm stereo

Operating Conditions   Temperature: 5ºC - 35ºC
(41ºF - 94ºF)
Humidity: 20% - 80%
(non-condensing)

Accessories   Remote control
2 batteries
(AAA, IEC R03 1.5V)
Quick Start Guide
Screw

Specification is subject to change without notice.

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Cleaning the screen and cabinet…

Turn off the power, clean the screen and cabinet with a soft, dry cloth. We recommend that you do not use any proprietary polishes or solvents on the screen or cabinet as this may cause damage.

Disposal…

The following information is only for EU-member states:

Disposal of products

The crossed out wheeled dust bin symbol indicates that products must be collected and disposed of separately from household waste. Integrated batteries and accumulators can be disposed of with the product. They will be separated at the recycling centres. The black bar indicates that the product was placed on the market after August 13, 2005. By participating in separate collection of products and batteries, you will help to assure the proper disposal of products and batteries and thus help to prevent potential negative consequences for the environment and human health.

For more detailed information about the collection and recycling programmes available in your country, please contact your local city office or the shop where you purchased the product.

Disposal of batteries and/or accumulators

The crossed out wheeled dust bin symbol indicates that batteries and/or accumulators must be collected and disposed of separately from household waste.

If the battery or accumulator contains more than the specified values of lead (Pb), mercury (Hg), and/or cadmium (Cd) defined in the Battery Directive (2006/66/EC), then the chemical symbols for lead (Pb), mercury (Hg) and/or cadmium (Cd) will appear below the crossed out wheeled dust bin symbol. By participating in separate collection of batteries, you will help to assure the proper disposal of products and batteries and thus help to prevent potential negative consequences for the environment and human health.

For more detailed information about the collection and recycling programmes available in your country, please contact your local city office or the shop where you purchased the product.