

TOSHIBA

OWNER'S MANUAL

LCD Color TV

BBE

SmartMedia **SD** **MEMORY STICK**

32WL48A
32WL48E
32WL48T

Owner's Record

You will find the model number and serial number on the back of the TV. Record these numbers in the spaces provided below. Refer to them whenever you call upon your TOSHIBA dealer regarding this product.

Model number:

Serial number:

Introduction

Getting started

Basic operation

Using TV's features

Viewing teletext

Equipment
connections

Reference section

Welcome to Toshiba

Thank you for purchasing this Toshiba LCD Color Television. This manual will help you use the exciting features of your new TV.

Instructions in this manual are based on using the remote control.

You can also use the controls on the TV if they have the same name as those on the remote control.

Please read all the safety and operating instructions carefully, and keep the manual for future reference.

Contents

Introduction		Using TV's features	
Important Safety Instructions	3	Input selection	29
Installation	3	Input selection	29
Use	5	Timer, To activate Gray screen	30
Service	6	Timer	30
Cleaning	7	To activate Gray screen	30
Important information	8	Side panel adjustment	31
Important information	8	Side panel adjustment	31
Getting started		BRIDGE MEDIA Using	32
Installation	9	To use the BRIDGE MEDIA	32
Connecting an antenna	9	To use the BRIDGE MEDIA (still picture)	33
Installing the remote control batteries	9	To use the BRIDGE MEDIA (motion picture)	36
Exploring your new TV	10	To use the BRIDGE MEDIA (information)	39
TV top	10	Viewing teletext*	
TV front	10	Teletext - Setting up	40
TV back	11	Teletext mode	40
Learning about the remote control	12	About Teletext	41
Location of controls	12	Teletext general information	41
Turning the TV on	13	Teletext - FAST and LIST modes	42
Switching on the TV	13	Using FAST mode	42
Switching off the TV	13	Using LIST mode	42
Learning about the menu system	14	Teletext - Control buttons	43
Menu display chart	14	Teletext buttons on the remote control	43
Selecting a language	15	Equipment connections	
Programming channel memory	16	Side connections	44
System selection, Auto tuning	16	Connection example	44
Manual tuning	16	Back connections	45
Program sorting	18	Connection example	45
Watching TV programs	19	Connecting a computer	46
Volume, Sound Mute, Changing program		To connect a computer	46
positions, program return, on-screen		PC Setting	47
information	19	Picture size/position adjustments	47
Basic operation		To adjust Clock phase and Sampling clock/	
Viewing the wide-screen picture format	20	To reset	48
Picture size selection	20	Connecting an HDMI or a DVI device	49
Picture size/position, Reset	21	To connect an HDMI or a DVI device	49
Picture size/position adjustments	21	Reference section	
Reset (Picture size/position adjustments)	21	Troubleshooting	50
Picture quality adjustment	22	Symptom and solution	50
Picture quality adjustment	22	Broadcast system, Specifications	51
To activate the Digital Noise Reduction	23	Broadcast Transmission Systems of Each	
To activate the Black stretch	23	Country or Region	51
To select the Color Temperature	23	LCD Color Television	51
Sound adjustment	24		
Sound quality adjustment	24		
Speaker On/Off	24		
MTS (Multi-channel TV Sound) setting	25		
Selecting the Dual 1 or Dual 2 mode	25		
Stereo/Bilingual selection	26		
To activate/deactivate BBE	27		
To select the Audio output	27		
Woofer Int./Ext. mode, Bass boost,			
Woofer system	28		

* The Teletext function is not available for 32WL48T.

Important Safety Instructions

Be sure to observe the following instructions and precautions to ensure safe use of this TV.
The exact power cord will vary according to the country or region.

Installation

Always connect the power plug to an electrical outlet equipped with 110 – 240V AC 50/60 Hz.

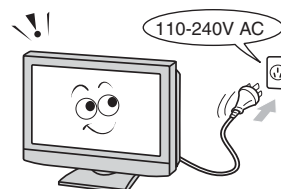
Do not use the TV outside the specified voltage range. It may cause a fire or an electric shock.

WARNING ABOUT THREE-WIRE GROUNDING-TYPE PLUG:

Do not remove the earthing pin on the power plug. This system is equipped with a three pin earthing-type power plug. This plug will only fit an earthing-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace the wall outlet.

Do not defeat the purpose of the earthing plug.

Check!

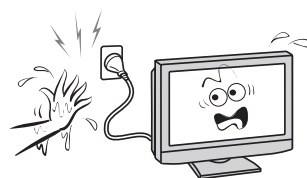


About the fuse

In a three pin earthing-type, 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.

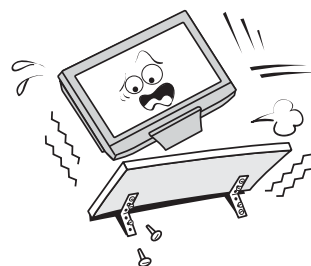
Never insert or remove the power plug with wet hands.

This may cause electric shock.



Do not place the TV in an unstabilized location such as on a shaky table, incline or location subject to vibration.

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



The slots and openings in the cabinet must never be blocked or covered.

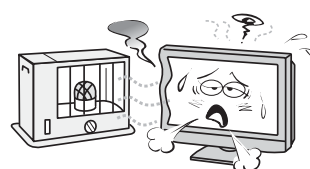
- Do not place the TV so that it is facing upwards, or on its side.
- Do not place the TV into a closet or bookshelf where the ventilation is poor.
- Do not spread a newspaper, tablecloth or curtain on the TV.
- When installing the TV against a wall, keep the TV at least 10 cm from the wall.
- Do not place the TV on an unstable object, such as a carpet, or a cushion, etc.

The inside of this TV will overheat if the ventilation holes are sealed, which may result in a fire.



Never place the TV near a heater.

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

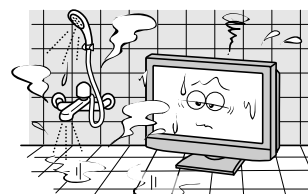


Important Safety Instructions (continued)

Installation (continued)

Do not place the TV in locations exposed to high humidity levels such as in a bathroom or close to a humidifier.

This may cause a fire or an electric shock.



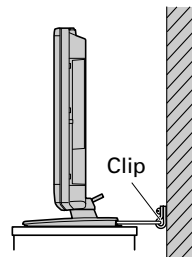
Do not place the TV next to a stove where it will be exposed to oil, smoke, or steam, or in a location where there is a large quantity of dust.

This may cause a fire or electric shock.

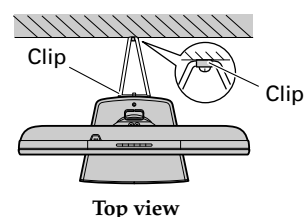


Install the TV in a horizontal, stable location. Connect between two clips on the back of the TV and a wall, pillar, etc., with a sturdy tie and clip of supplied accessories (see page 52).

If the TV is not installed securely, it may lean or fall over and cause an injury.



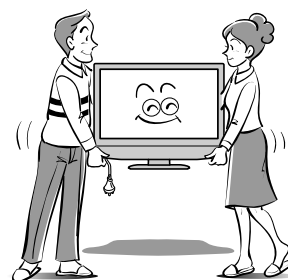
Side view



Top view

Precautions for moving the TV

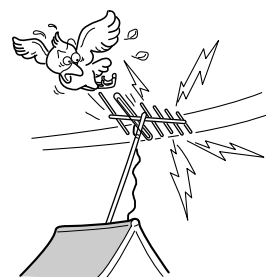
- When moving the TV, be sure to remove the power plug from the wall outlet and disconnect the antenna cable and audio/video cables, any steady ties. Fire or electric shock may result if the power cord is damaged.
- When carrying the TV, at least two people are needed. Be sure to carry it upright.
- Do not carry the TV with the screen facing up or down.



Precautions for installing on outdoor antenna

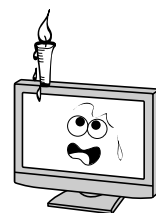
An outside antenna system should not be located in the vicinity of overhead power lines, or other electric light or power circuits.

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



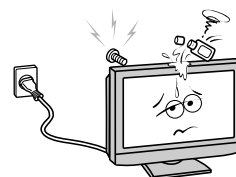
Use

Do not place hot objects or naked flame sources, such as lighted candles or nightlights on, or close to the TV. High temperatures can melt plastic and lead to fires.



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

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



Do not insert objects (metal or paper) or pour water inside the TV from ventilation holes and other places.

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



Do not stand or climb on the TV.

Be especially careful in households with children to prevent them from climbing on top of the TV.

It may move, fall over, break, become damaged or cause an injury.



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



Important Safety Instructions (continued)

Use (continued)

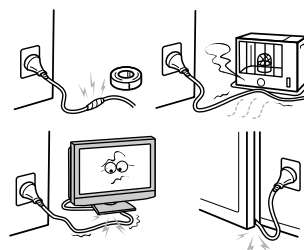
Do not pull on the power cord when removing the plug from the wall outlet.

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



Do not cut, break, modify, twist, bunch up or bent the cord or apply excessive force or tension to it.

Do not place heavy objects on the cord or allow it to overheat as this may cause damage, fire or electric shock. Contact a service technician if the power cord is damaged.



If there is thunder or lightning, do not touch the antenna cable or other connected cables.

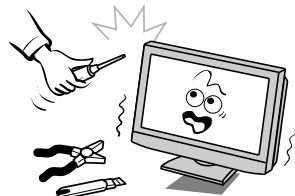
You may suffer an electric shock.



Service

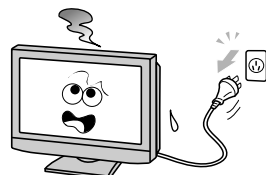
Never repair, modify or disassemble the TV by yourself.

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



When a malfunction occurs, or if smoke or peculiar smells comes from the TV, turn off the TV and remove the power plug from the outlet immediately.

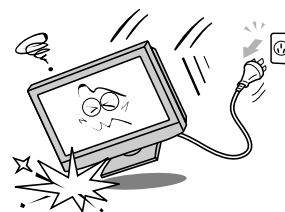
Make sure that the smoke or smell has stopped, then contact a service technician. If the TV is still used in this condition, it may then cause a fire or an electric shock.



Service (continued)

If the TV is dropped or the cabinet is damaged, turn off the TV and remove the power plug from the outlet immediately.

If the TV is still power used in this condition, it may cause a fire or an electric shock. Contact a service technician for inspection.



Exemptions

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

Cleaning

Remove the power plug before cleaning.

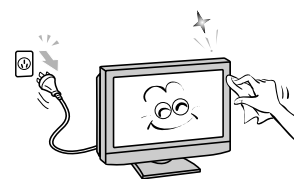
Do not use solvents such as benzine or thinner to clean the TV.

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

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

When cleaning the surface of the LCD display:

- Wipe the panel surface gently with a soft, dry cloth.



When dust has collected on the power plug connectors, remove the plug from the outlet and clean off the dust.

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



Important information

Important information

About LCD screen

- If you have the LCD screen facing to the sun, the LCD screen will be damaged. Be aware of locating the TV in the place such as window side or outside of the room.
- Do not press the LCD screen strongly or scratch it, and do not putting anything on it. These actions will damage the LCD screen.

About cabinet

Do not spray volatile compounds such as insecticide on the cabinet.
This may cause a discoloration or damage the cabinet.

Some parts of the screen do not light up

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

About Interference

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

About using under the low temperature places

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

About disposal

Cold cathode fluorescent lamp in the LCD panel contains a small amount of mercury. Please follow local ordinances or regulations for disposal.

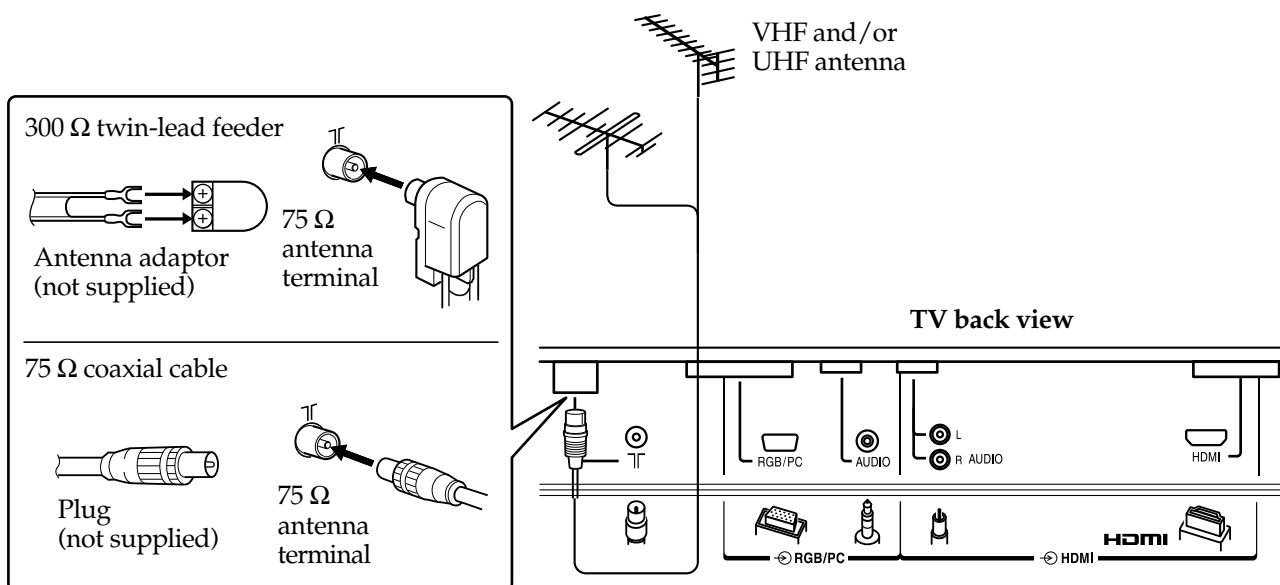
About afterimage

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

Installation

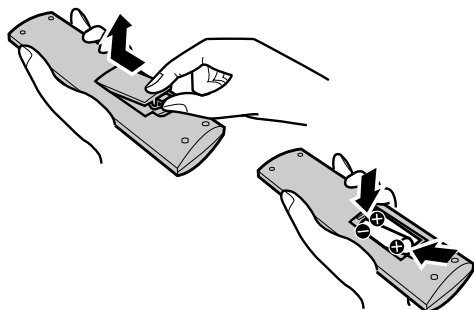
Connecting an antenna

Optimum reception of color requires a good signal and will generally mean that an outdoor antenna must be used. The exact type and positioning of the antenna will depend upon your particular area. Your Toshiba dealer or service personnel can best advise you on which antenna to use in your area. Before connecting the antenna cable, remove the back terminal cover (see page 11).



Installing the remote control batteries

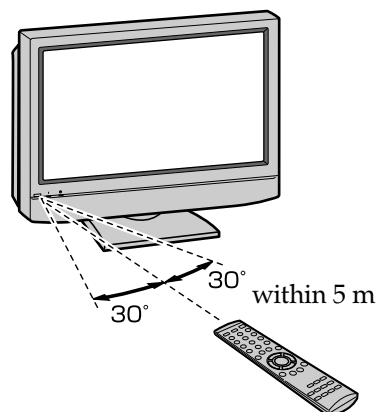
Remove the battery cover. Insert two R03 (AAA) batteries matching the $-/+$ polarities of the battery to the $-/+$ marks inside the battery compartment.



Caution:

- Dispose of batteries in a designated disposal area. Do not throw batteries into a fire.
- Attention should be drawn to the environmental aspects of battery disposal.
- Do not mix battery types or combine used batteries with new ones.

Effective range



Notes:

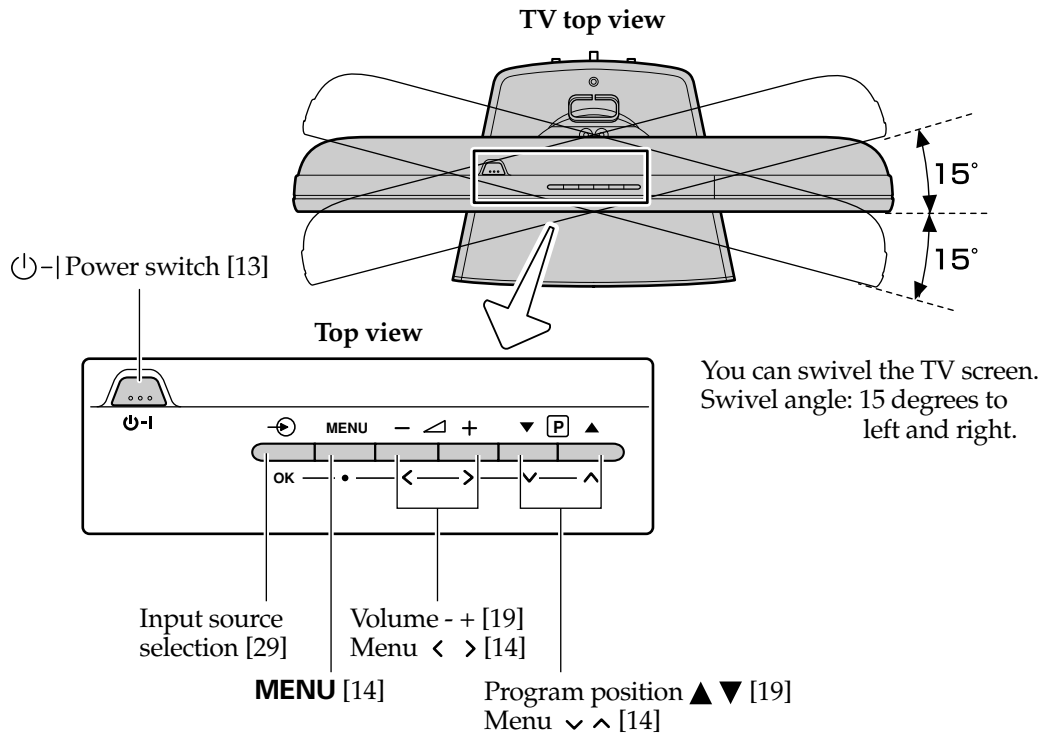
- If the remote control does not operate correctly, or if the operating range becomes reduced, replace both batteries with new ones.
- If the batteries are dead or if you will not use the remote control for a long time, remove the batteries to prevent battery acid from leaking into the battery compartment.

Exploring your new TV

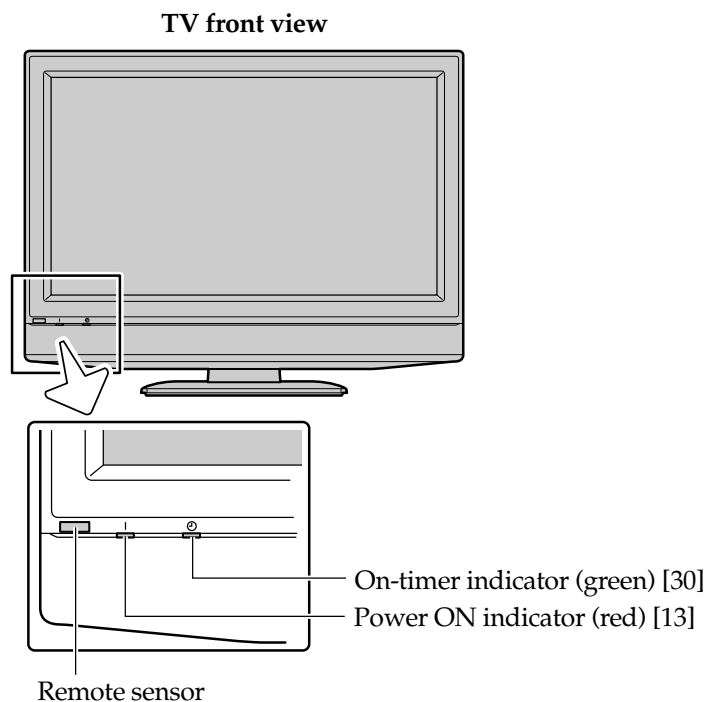
You can operate your TV using the buttons on the top of the panel or the remote control. The back and side of the panel provide the terminal connections to connect other equipment to your TV. See "Equipment connections" on pages 44 - 46, 49.

TV top

For the use of each control, see the pages in brackets.

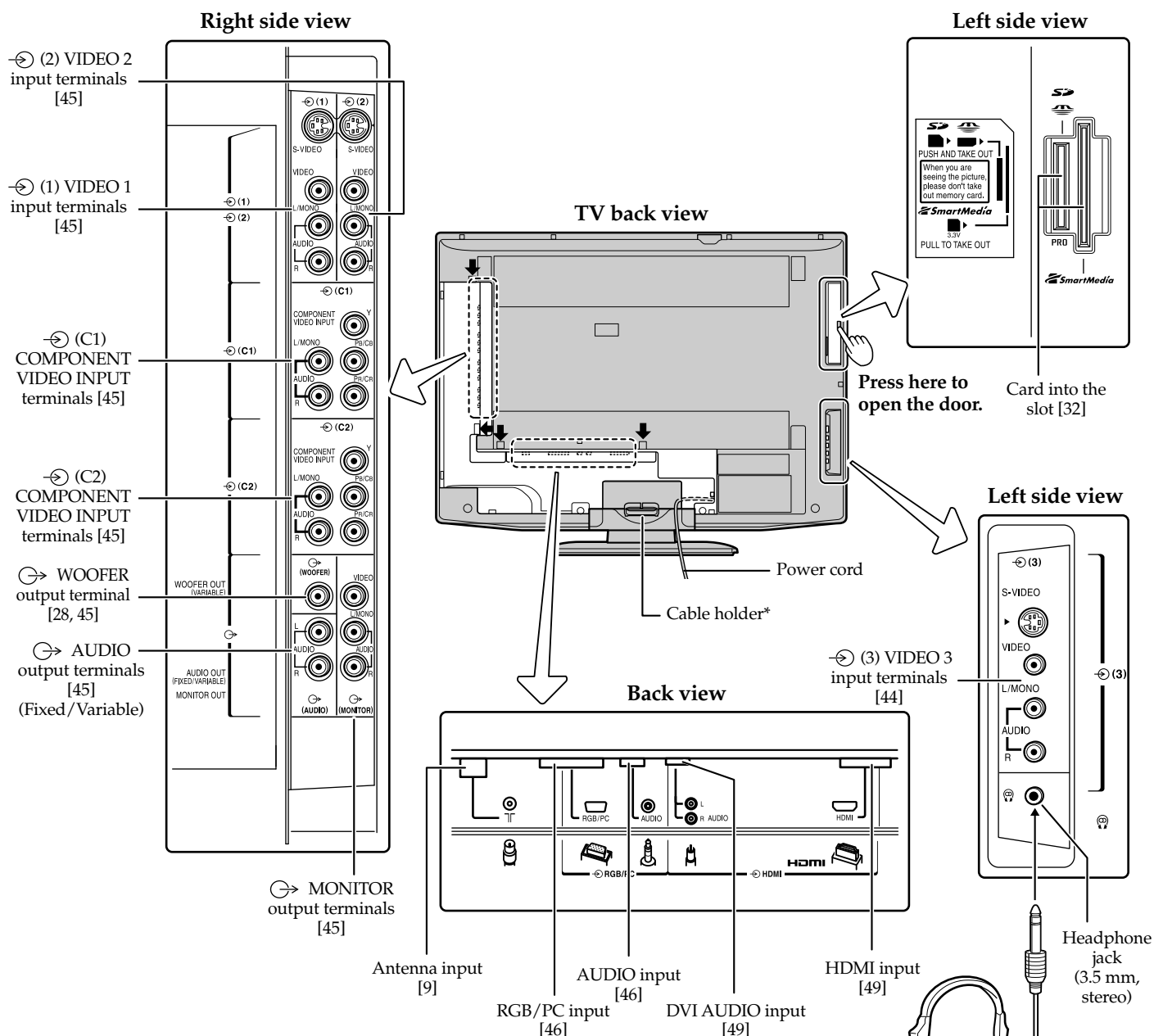


TV front



TV back

Before the connecting antenna, video and audio cables etc., remove the back terminal covers (squeeze tab and pull covers).



* You can use the cable holder to hold antenna cable, video and audio cables etc.

When moving the TV, do not hold this holder.

Note:

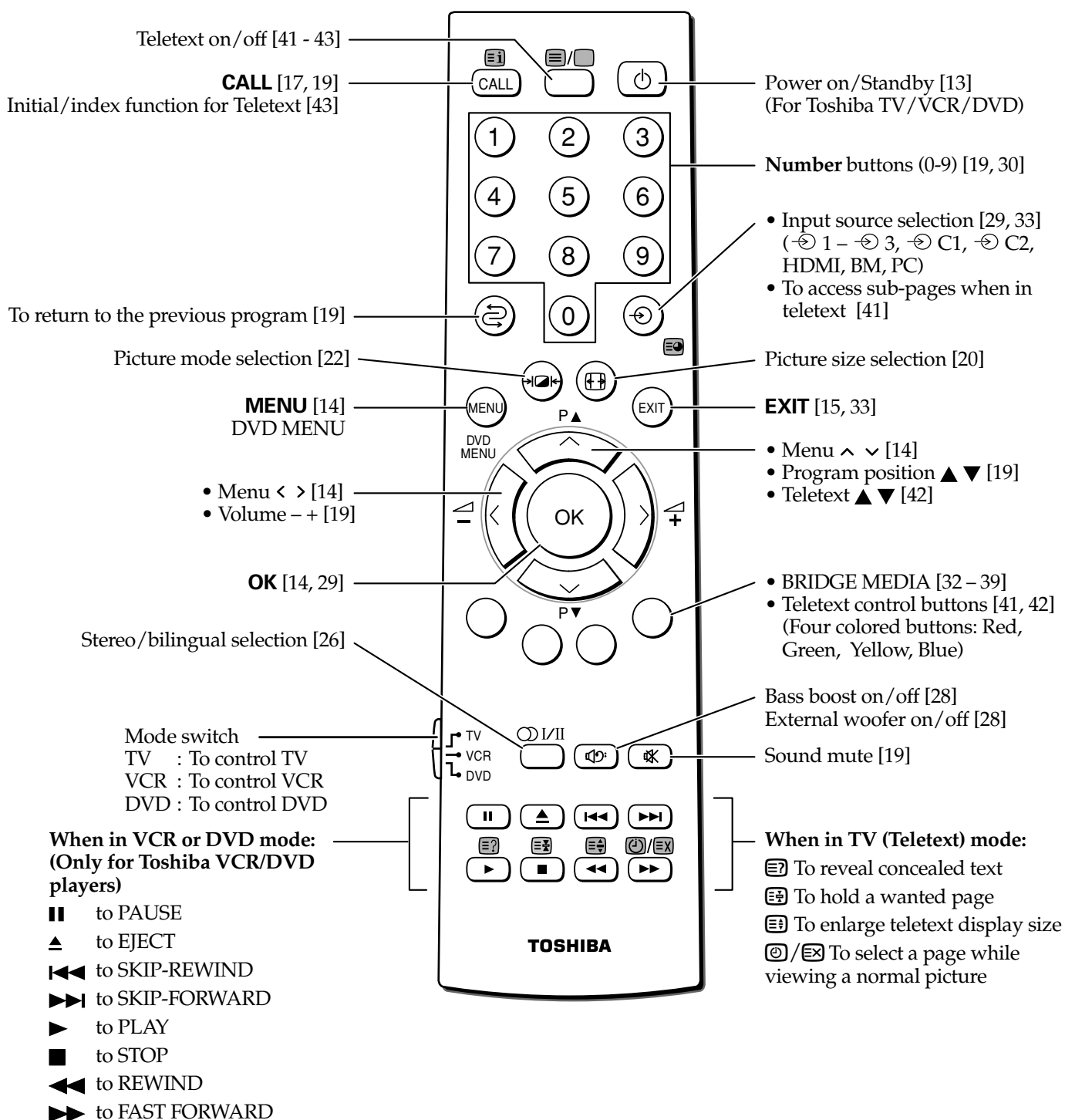
Inserting the Headphone jack will mute the sound from all speakers and deliver normal stereo left and right signals.

Learning about the remote control

Location of controls

For the use of each control, see pages in brackets.

32WL48T do not have the shaded marks.

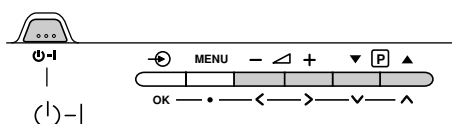


Turning the TV on

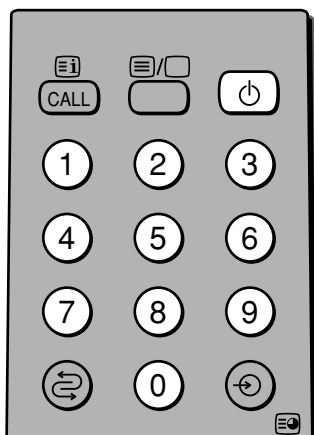
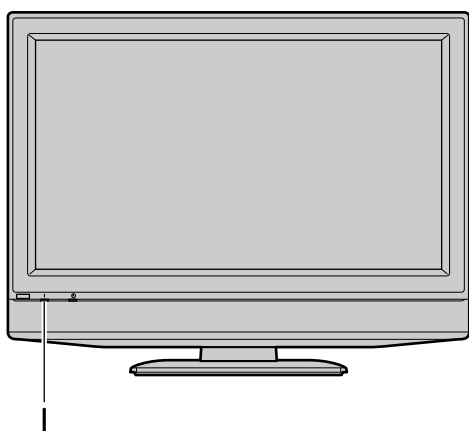
To conserve energy it is recommended to turn your TV off and not to leave it in standby. Connect the power cord.

Switching on the TV

TV top view



TV front view

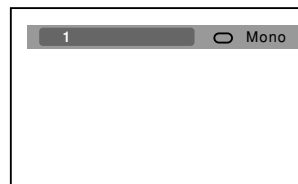


Note:

If "Y" (black and white) signal only is input, and the color system mode is set to Auto, color noise may appear on the screen. In this case, select the appropriate Color system (For the system of each country or region, refer to pages 17 and 51).

- 1 Press the -| POWER switch on the TV until it clicks.

The | Power ON indicator lights in red. Press the button on the remote control if the picture does not exist.



Notes: (After your TV is tuned in)

- You can also turn on the TV by pressing one of the **Number** buttons (0 - 9) on the remote control instead of the button. By pressing the number (one digit only) where the channel you want to watch is preset, you can turn on the TV and go to your selected channel at the same time.
- When the remote control is not at hand, you can turn on the TV by pressing the or buttons on the top of the panel.
- This TV is a design based on an extremely high level digital technology; it takes approximately 10 seconds after the TV is turned on for picture to appear.

Switching off the TV

- 1 Press the button on the remote control to switch to the standby mode.
- 2 To switch the TV off, press the -| POWER switch on the TV. Power indicator light will be turned off.

Notes:

- This TV is not full disconnected from the main supply, as minute current is consumed even when the -| POWER switch is turned off. When the TV will not be used for a long period of time, such as during vacation or travel, remove the power plug from the wall outlet.
- The TV will automatically turn itself off after approximately 15 minutes if it is tuned to a vacant channel or a station that completes its broadcast for the day. This feature does not work in external input or PC mode.
- If the power is cut off while you are viewing the TV, the Last Mode Memory feature turns the TV on automatically when the power is resupplied.

Learning about the menu system

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

Press the **MENU** button to display menu, then press the < or > button to select main menu headings.

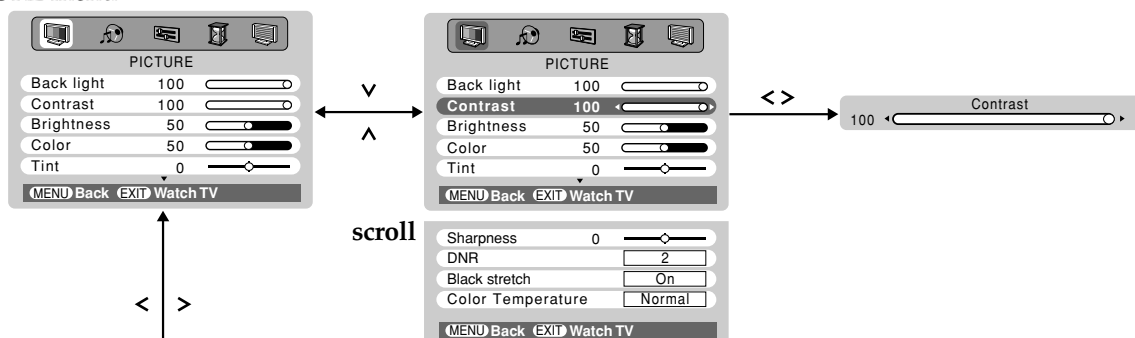
Press the ∨ or ∧ button to select an item.

Press the < or > button to select or adjust setting.

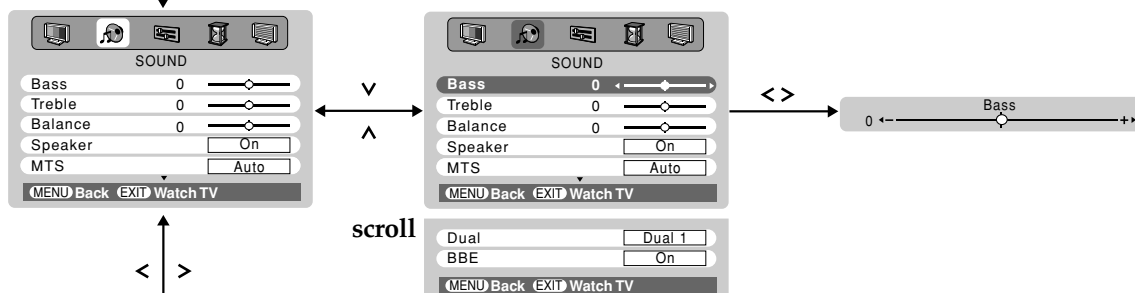
Press the **OK** button to display the next menu.

Menu display chart

PICTURE menu



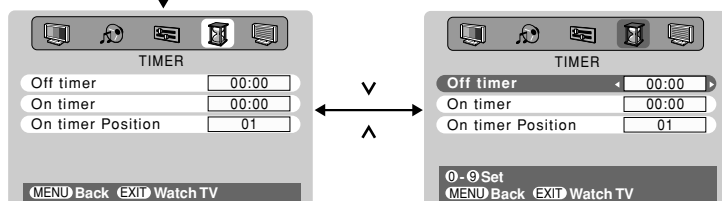
SOUND menu



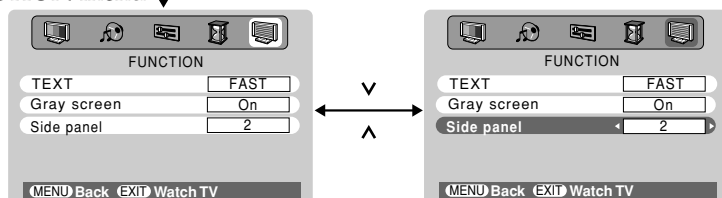
SET UP menu



TIMER menu

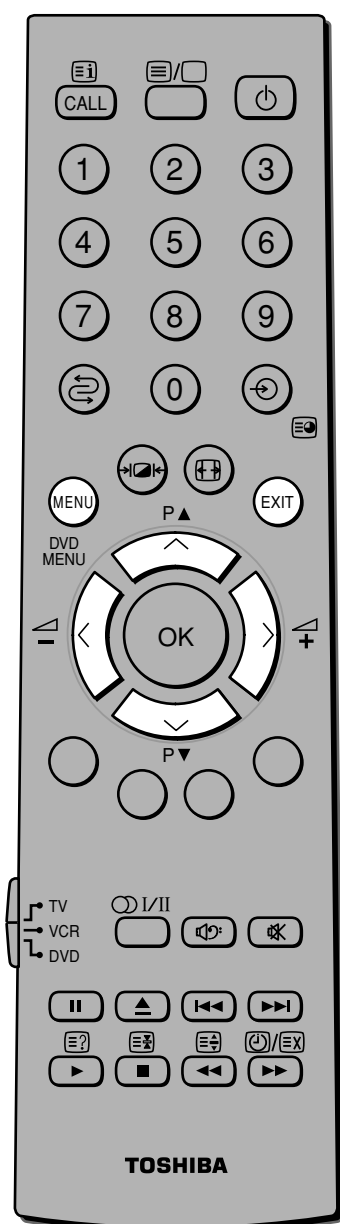


FUNCTION menu



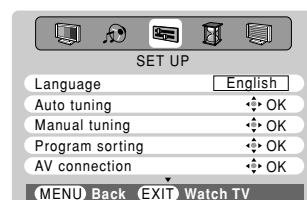
* The TEXT does not appear for 32WL48T.

Selecting a language



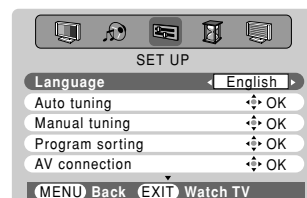
Choose from seven different languages (English, Chinese (CS), Malay, Thai, Vietnamese, Russian and Arabic) for the on-screen display.

- 1 Press the **MENU** button, then press the < or > button to display the SET UP menu.



- 2 Press the ∇ or \blacktriangle button to select Language.

- 3 Press the < or > button to select the desired language.



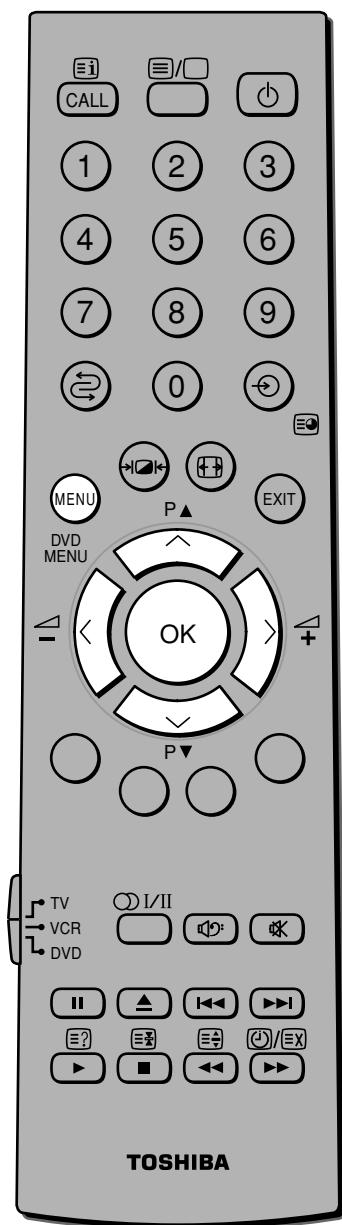
Notes:

- In the video input mode (→ 1 - → 3, → C1, → C2), Auto tuning, Manual tuning and Program sorting are not available. Instead, Manual setting appears in the SET UP menu (see page 29).
- If you connect external equipment via component video source to external input, Color system selection in the Manual setting menu is not available.
- If you do not make a selection for a while, the menu display disappears automatically.
- If you want to close an on-screen display instantly, press the **EXIT** button except for the BRIDGE MEDIA function (see page 32).
- To return to the previous menu, press the **MENU** button except for the BRIDGE MEDIA function (see page 32).
- The \blacktriangle / ∇ buttons function as the Program position **P▲** / **P▼** buttons when there is no menu display on the screen.
- The < / > buttons function as the Volume \triangleleft + / \triangleleft - buttons when there is no menu display is on the screen.
- In the PC input mode, different SET UP menu will appear (see page 47).

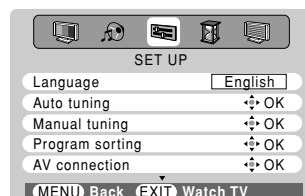
Programming channel memory

- First, use the Auto tuning function to preset all the active channels in your area automatically. Then, arrange the preset channels with the Manual tuning function so that you can tune into only desired channels.
- Use the Channel search operation if desired channels cannot be preset with the Auto tuning or if you would like to preset channels to specific position numbers one by one.

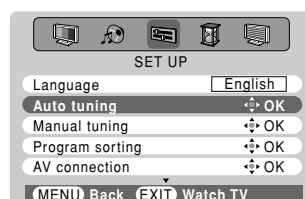
System selection, Auto tuning



- 1 Press the **MENU** button, then press the < or > button to display the SET UP menu.

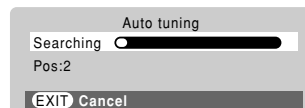


- 2 Press the ∨ or ∧ button to select Auto tuning.



- 3 Press and hold the **OK** button for several seconds to start the automatic search.

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



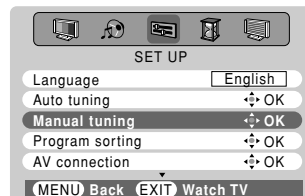
DO NOT PRESS ANY BUTTONS WHILE THE AUTOMATIC SEARCH IS IN PROGRESS.

If you make a mistake, simply repeat steps 1-3 to start again from the beginning.

- 4 When the automatic search is complete, the TV will automatically return to the first program position.
- 5 Press the **P▲** or **P▼** button to view the programmed position.

Manual tuning

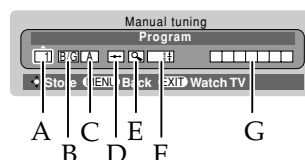
- 1 Press the **MENU** button, then press the < or > button to display the SET UP menu. Press the ∨ or ∧ button to select Manual tuning.



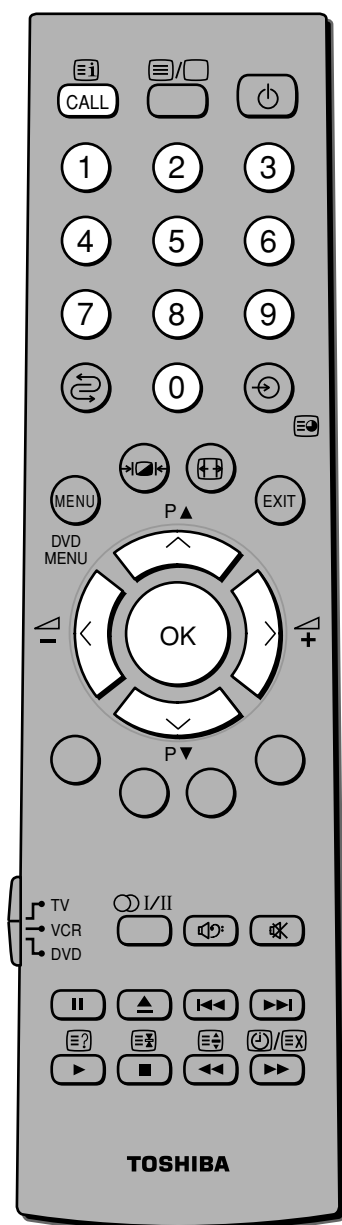
- 2 Press the **OK** button to display the Manual tuning menu. Press the ∨ or ∧ button to select the program position you want to arrange.



- 3 Press the **OK** button to display the breakdown menu. Press the < or > button to select an item, then press the ∨ or ∧ button to select the item as shown below.



Manual tuning (continued)



- A. Program position selection
- B. Sound system (see page 51)
- C. Color system (see page 51)
 - A : Automatic (factory set), P : PAL, S : SECAM
 - N4 : NTSC4.43 (MHz), N3 : NTSC3.58 (MHz)

If the color of a certain channel is abnormal, the automatic color system selection (A) may have malfunctioned, or sound system selection is wrong. In such a case, select another color and/or sound system (see page 51).

- D. Program position skip selection

Press the \wedge or \vee button to turn the program position skip option on " \curvearrowright " or off " \rightarrow ".

The program position will then be skipped when you select channels with the **P▲** or **P▼** button.

The " \curvearrowright " mark will appear beside a program position number when you use the **Number** button on the remote control.

- E. Channel search operation

Press the \wedge button to search up the band or the \vee button to search down the band.

Press the \vee or \wedge button repeatedly until your desired channel is displayed.

When a station/satellite is found, it will be displayed. **DO NOT PRESS ANY OTHER BUTTONS WHILE THE SET IS TUNING.**

- F. Auto Fine Tuning

Press the \vee or \wedge button to turn the Auto Fine Tuning option On " $\#$ " or Off "0".

The Auto Fine Tuning feature automatically corrects slight fluctuations when receiving signals.

Manual Fine Tuning

While the Auto Fine Tuning turn off "0", press the \vee or \wedge button so that the better picture and sound are obtained.

- G. Label

Station labels appear under the program position display each time you turn on the TV, select a channel, or press the **CALL** button.

To change or create station labels:

- 1) Press the \vee or \wedge button repeatedly to select a character for the first space, then press the \rightarrow button.

\rightarrow A \rightarrow Z \rightarrow (\rightarrow) \rightarrow * \rightarrow + \rightarrow , \rightarrow - \rightarrow . \rightarrow / \rightarrow 0 \rightarrow 9 \rightarrow □ \rightarrow

*(blank space)

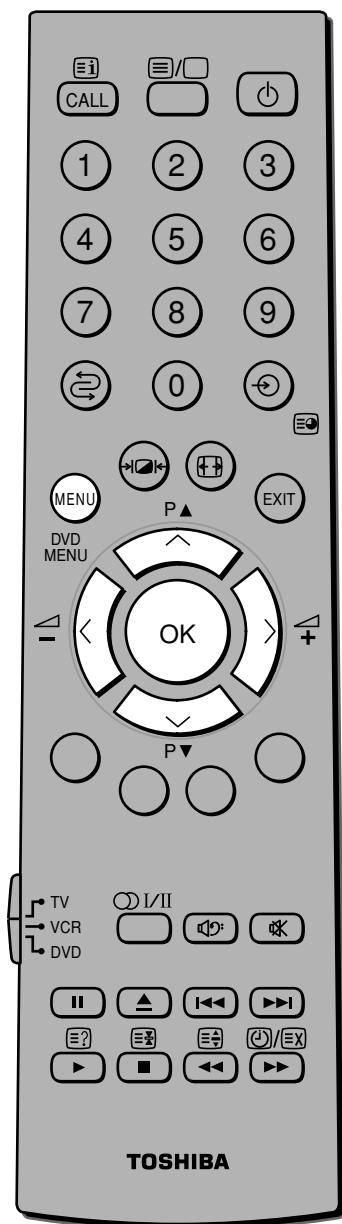
- 2) Repeat step 1 to enter the rest of the characters. If you would like a blank space in the label name, you must choose an empty space from the list of characters.

Press the **OK** button to store your settings.

Programming channel memory (continued)

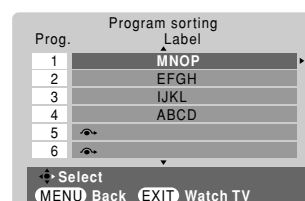
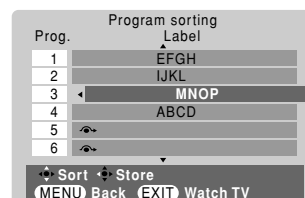
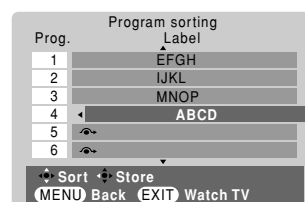
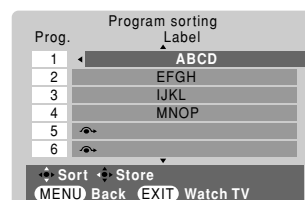
This TV is capable of receiving a number of different channels depending upon where you live. Program sorting is an easy way of storing each channel on the program position of your choice.

Program sorting



Ex.: To swap channel ABCD (Prog.1) for channel MNOP (Prog.4):

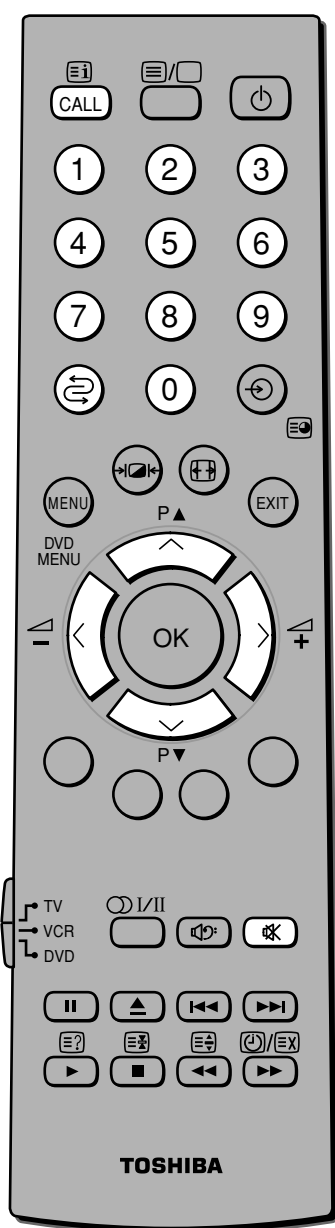
- 1** Press the **MENU** button, then press the < or > button to display the SET UP menu. Press the ^ or v button to select Program sorting.
- 2** Press the **OK** button to display the Program sorting menu.
- 3** Press the ^ or v button to select the channel ABCD to be moved.
- 4** Press the > button to enter your choice.
- 5** Press the v button to select the new position "4", then press the < button.
- 6** Repeat steps from 3 to 5 to move the channel MNOP to the program position "1".
- 7** Confirm new sorting list.



Watching TV programs

Volume, Sound Mute, Changing program positions, program return, on-screen information

TV top view

**Note:**

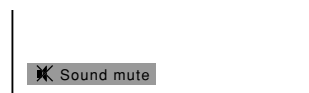
The program position selection change between different format channels takes several seconds.

To alter the volume:

- 1 Press the $\triangle +$ or $\triangle -$ button to raise or lower the volume.

**To mute the sound:**

- 1 Press the \times button. The word Sound mute appears on the screen.
- 2 Press the \times button again to restore the sound.

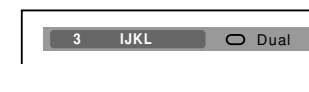
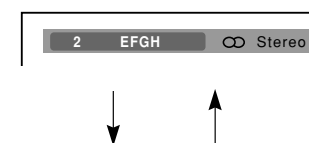
**To change program position:**

- 1 Enter the desired program position number using the **Number** buttons on the remote control.
For program positions below 10, use 0 and the required number e.g., for program position 1.
- 2 You can also change the program position by using the **P▲** or **P▼** button.
The program position will be displayed on the screen with the Mono/Stereo/Dual indicator.

**To switch between two program positions:**

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

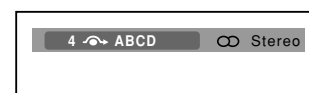
- 1 Select the first program position you want to view.
- 2 Select the second program position with the **Number** buttons (0-9).
- 3 Press the \rightleftarrows button. The previous channel will be displayed.



Each time you press the \rightleftarrows button, the TV will switch back and forth between the two program positions.

To display the on-screen information:

- 1 Press the **CALL** button to display the following on-screen information.
The information will disappear in 6 seconds.
 - Program position or external input mode selected
 - Program skip on/off information
 - Label (if set)
 - Mono/Stereo/Dual audio status
- 2 To erase the display instantly, press the **CALL** button again.



Viewing the wide-screen picture format


This TV is capable of showing broadcasts in a number of formats. Depending on the type of broadcast being transmitted, you may select between Super live, Cinema, Subtitle, 14:9, Wide and 4:3.

Picture size selection



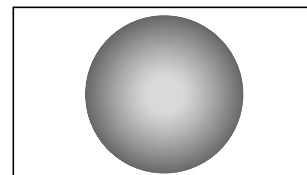
Notes:

- Using the special functions to change the size of the displayed image (e.g. changing the height/width ratio) for the purpose of public display or commercial gain may infringe on copyright laws.
- The picture size selection is not available for 720p/1080i input signals.
- If the aspect ratio of the selected format is different from the one of the TV transmission or video program, it can cause a difference in vision. Change to the correct aspect ratio picture size.
- When the BRIDGE MEDIA function (see page 32) and PC mode (see page 46) are selected, the picture size selection is wide or 4:3 only.

Press the  button repeatedly to view the options available.

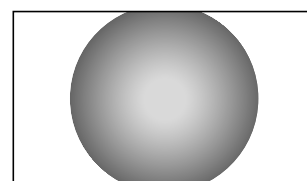
Super live

This setting will enlarge the image to fit the screen by stretching the image vertically and horizontally, holding the correct proportions at the center of the image.



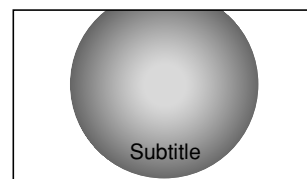
Cinema

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.



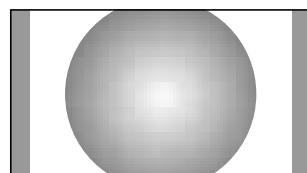
Subtitle

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



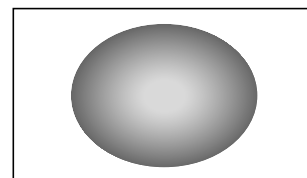
14:9

Use this setting when watching a 14:9 broadcast.



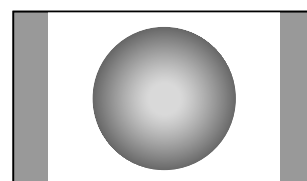
Wide

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



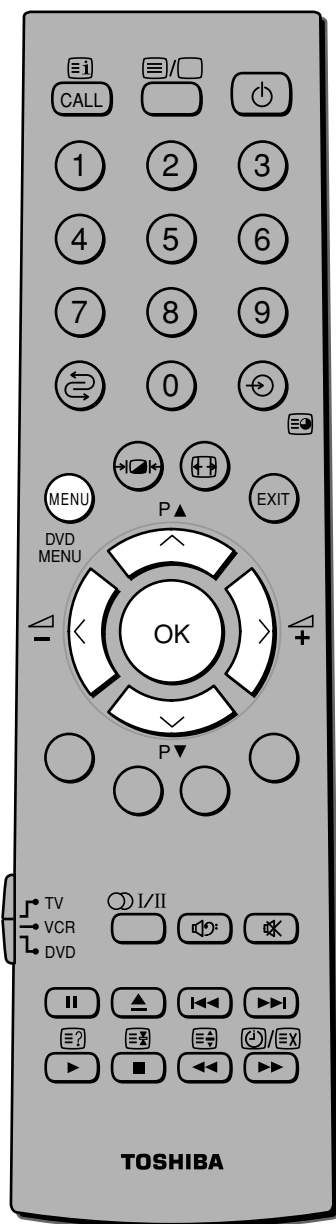
4:3

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



Picture size/position, Reset

Picture size/position adjustments



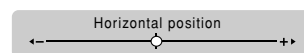
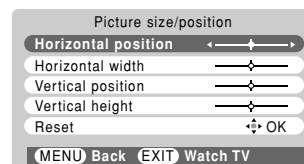
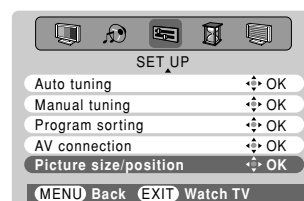
Notes:

- When the picture format is in Wide or 4:3 mode, only the Horizontal position can be adjusted.
- The picture position adjustments are not available for 720p/1080i input signals.

Adjustment to the size/position of the picture may be made to suit your viewing preferences.

To adjust picture size/position:

- 1 Press the **MENU** button, then press the < or > button to display the SET UP menu.
- 2 Press the ∨ or ∧ button to select Picture size/position.
- 3 Press the **OK** button to display the Picture size/position menu.
The menu will vary depending upon the widescreen format you have previously chosen.
- 4 Press the ∨ or ∧ button to select an option you want to adjust.
- 5 Press the < or > button to adjust the settings as required.

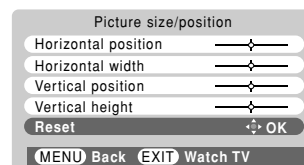
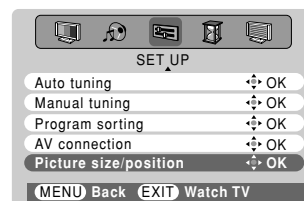


Reset (Picture size/position adjustments)

This feature adjusts the picture size/position to the factory settings.

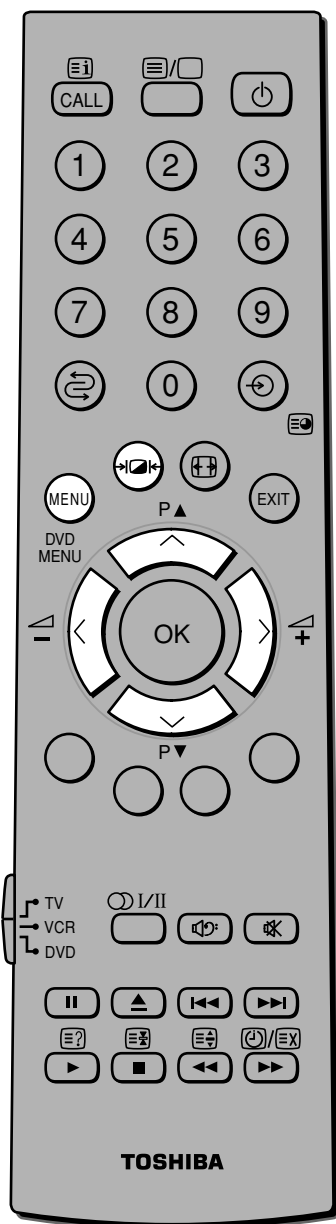
To reset the picture size/position:

- 1 Press the **MENU** button, then press the < or > button to display the SET UP menu.
- 2 Press the ∨ or ∧ button to select Picture size/position.
- 3 Press the **OK** button to display the Picture size/position menu. Press the ∨ or ∧ button to select Reset.
- 4 Press the **OK** button.



Picture quality adjustment

Picture quality adjustment


Note:

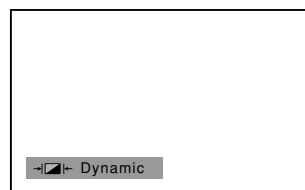
The Tint may only be adjusted on a tape which has been recorded and played back on an NTSC VCR.





To select the picture mode:

You can select the picture quality instantly among three preset modes and one user-set mode.

- Press the  button to select the desired picture quality.

Dynamic, Standard, Mild and Memory (user-set) can be selected cyclically.



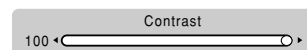
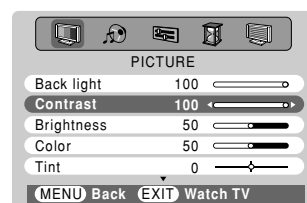
Mode	Picture quality
 Dynamic	bright and dynamic picture
 Standard	standard picture
 Mild	soft picture
 Memory	the picture quality you set

Note:

While in the PC input mode (see page 29), you cannot be available this mode.

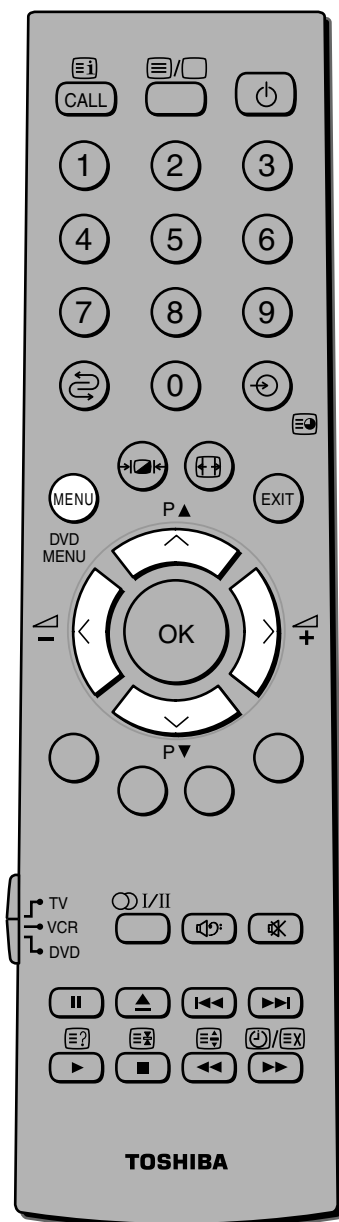
To adjust the basic picture quality:

- Press the **MENU** button, then press the < or > button to display the PICTURE menu.
- Press the ∇ or \blacktriangle button to select Back light, Contrast, Brightness, Color, Tint or Sharpness.
- Press the < or > button to adjust the level.



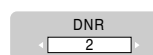
Selection	< Pressing >	
Back light	darker	lighter
Contrast	lower	higher
Brightness	darker	lighter
Color	paler	deeper
Tint	reddish	greenish
Sharpness	softer	sharper

To activate the Digital Noise Reduction



If the receiving signal is weak and the picture is blurry, the picture may be improved when using this feature.

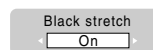
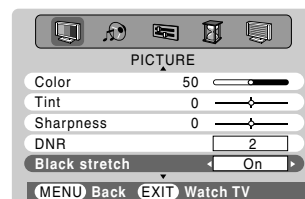
- 1 Press the **MENU** button, then press the < or > button to display the PICTURE menu.
- 2 Press the ∨ or ∧ button to select DNR.
- 3 Press the < or > button to adjust the level (0-5).



To activate the Black stretch

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

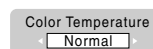
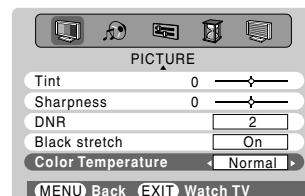
- 1 Press the **MENU** button, then press the < or > button to display the PICTURE menu.
- 2 Press the ∨ or ∧ button to select Black stretch.
- 3 Press the < or > button to select On or Off.



To select the Color Temperature

You can change the tone of the picture by selecting from three preset color temperatures: Cool, Normal and Warm.

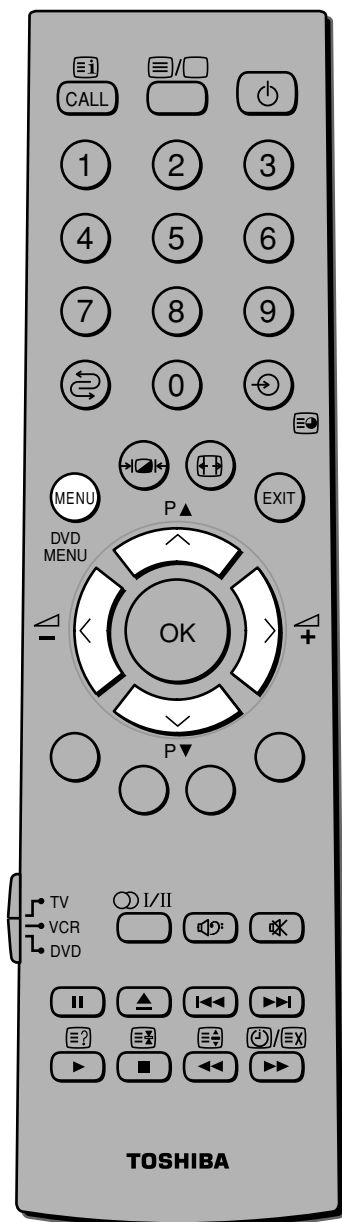
- 1 Press the **MENU** button, then press the < or > button to display the PICTURE menu.
- 2 Press the ∨ or ∧ button to select Color Temperature.
- 3 Press the < or > button to select the mode you prefer.



Cool : Lends a blue hue to the picture.
 Normal : Neutral
 Warm : Lends a red hue to the picture.

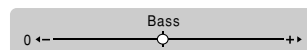
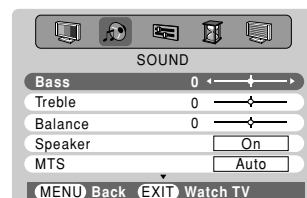
Sound adjustment

Sound quality adjustment



To adjust the sound quality:

- 1 Press the **MENU** button, then press the < or > button to display the SOUND menu.
- 2 Press the ∨ or ∧ button to select Bass, Treble or Balance.
- 3 Press the < or > button to adjust the level.



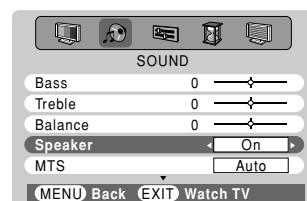
Selection	< Pressing	>
Bass	weaker	stronger
Treble	weaker	stronger
Balance	decreases the right channel	decreases the left channel

Speaker On/Off

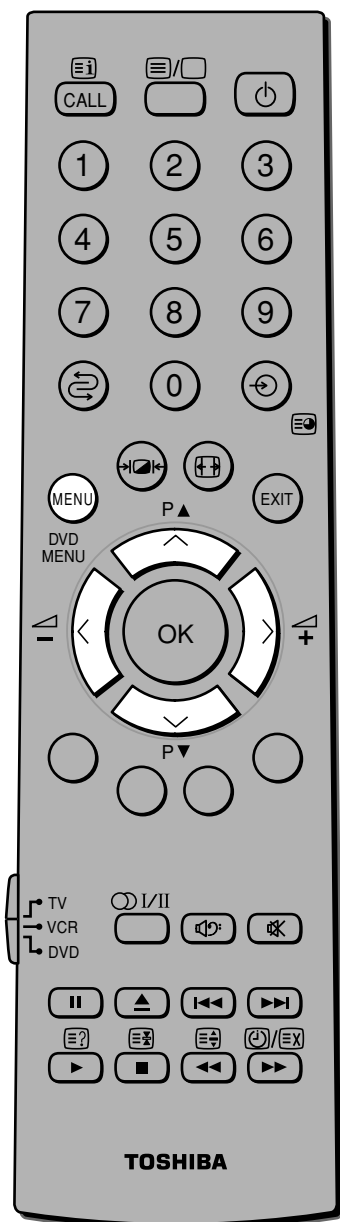
Use this feature to turn the TV speakers off when you connect an audio system (see page 45).

To activate/deactivate the speaker:

- 1 Press the **MENU** button, then press the < or > button to display the SOUND menu.
- 2 Press the ∨ or ∧ button to select Speaker.
- 3 Press the < or > button to select On or Off.



MTS (Multi-channel TV Sound) setting

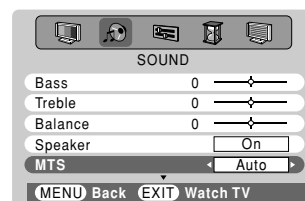


Setting the MTS mode:

Auto mode

The MTS Auto mode automatically recognize stereo/bilingual programs depending on the broadcast signal.

- 1 Press the **MENU** button, then press the < or > button to display the SOUND menu. Press the ∨ or ∧ button to select MTS.



- 2 Press the < or > button to select Auto or Mono.

Mono mode

If you experience noise or poor reception of any stereo/bilingual program, set the MTS mode to Mono.

Noise will be reduced and reception may improve.

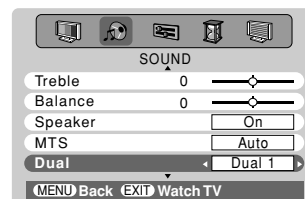
Note:

If you experience noise with a particular program on whose channel reception is usually good, try setting MTS mode to Auto, then press the button to Mono (monaural) (see page 26).

Selecting the Dual 1 or Dual 2 mode

You can hear only Dual 1 or Dual 2 sound selected, whenever bilingual programs are received.

- 1 Press the **MENU** button, then press the < or > button to display the SOUND menu.
- 2 Press the ∨ or ∧ button to select Dual, then press the < or > to select Dual 1 or Dual 2.

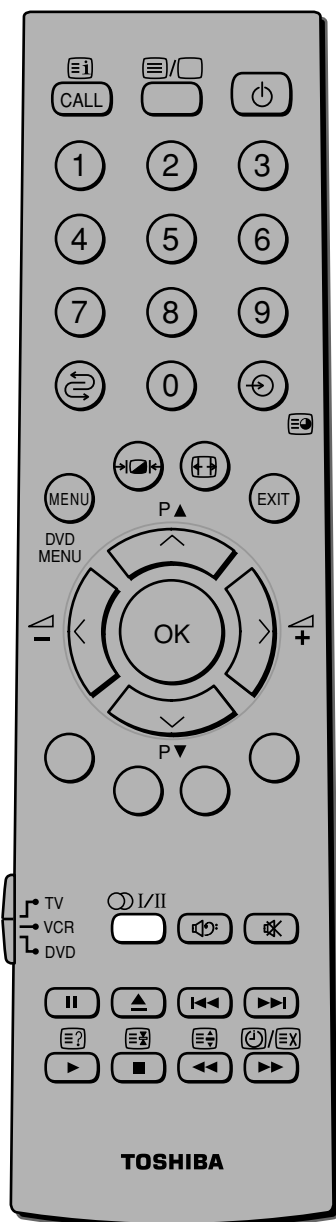


Notes:

- When the MTS setting is in Mono mode, the Dual menu is not selectable.
- The Dual menu setting status remains even if the TV is turned off.

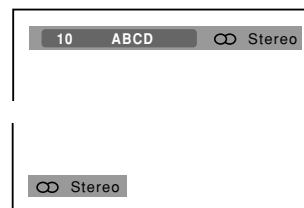
Sound adjustment (continued)

Stereo/Bilingual selection



To select the stereo programs:

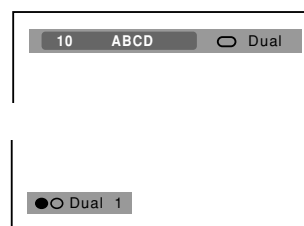
- 1 When a stereo program is received, Stereo appears.
- 2 Press the I/II button to select the stereo/monaural mode. Stereo and Mono appear cyclically on the screen.



Display	Reception mode
Stereo	Stereo
Mono	Monaural

To select the bilingual programs:

- 1 When a bilingual program is received, Dual appears.
- 2 Press the I/II button to select the sound to be heard. The sound differs according to the transmission system: NICAM or German stereo/bilingual broadcast. Dual 1, Dual 2 and Mono appear cyclically on the screen.

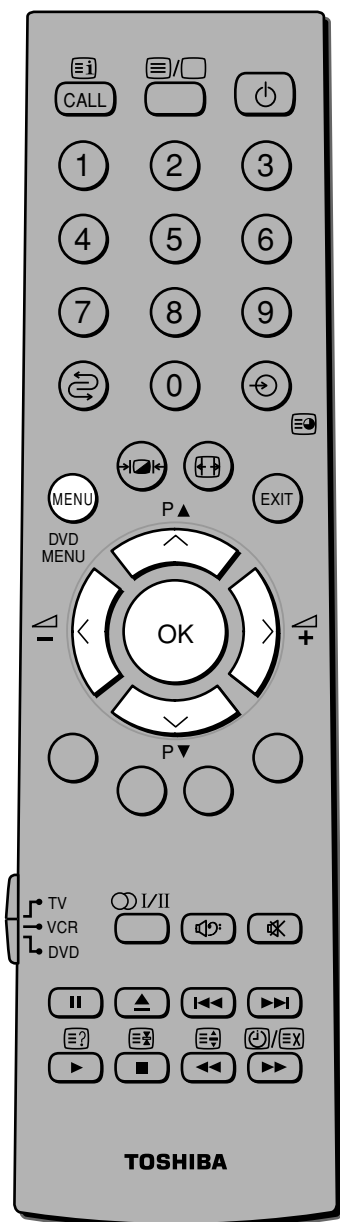


Display	Sound to be heard	
	NICAM	German stereo/bilingual broadcast
Dual 1	Sub I sound	Main sound
Dual 2	Sub II sound	Sub sound
Mono	Main sound	—

Note:

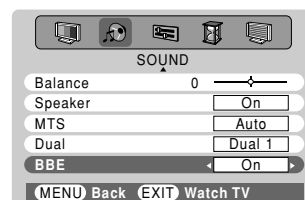
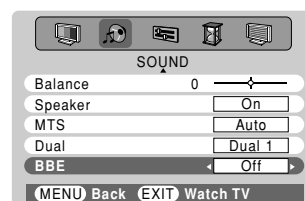
These settings are not stored in the TV memory.

To activate / deactivate BBE



BBE® sound processor is the edge sound enhancement technology licensed by BBE Sound, Inc. You can enjoy a more natural sound with increased dynamic range of musical passages and improvement in speech intelligibility.

- 1 Press the **MENU** button, then press the < or > button to display the SOUND menu.
- 2 Press the ∨ or ∧ button to select BBE.
- 3 Press the < or > button to select On or Off.



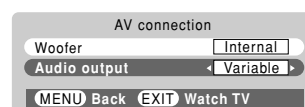
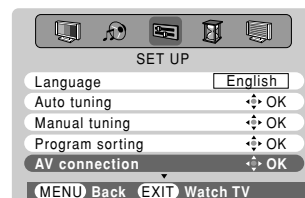
* Manufactured under license from BBE Sound, Inc.
Licensed by BBE Sound, Inc. under USP4638258, 5510752 and 5736897. BBE and BBE symbol are registered trademarks of BBE Sound, Inc.

To select the Audio output

With the Audio out feature "Variable", you can use the TV's remote controller to adjust the sound volume of the external audio system connected (see page 45).

To select the sound volume from AUDIO output terminals:

- 1 Press the **MENU** button, then press the < or > button to display the SET UP menu.
- 2 Press the ∨ or ∧ button to select AV connection, then press the **OK** button to display the AV connection menu.
- 3 Press the ∨ or ∧ button to select Audio output, then press the < or > button to select Variable or Fixed.

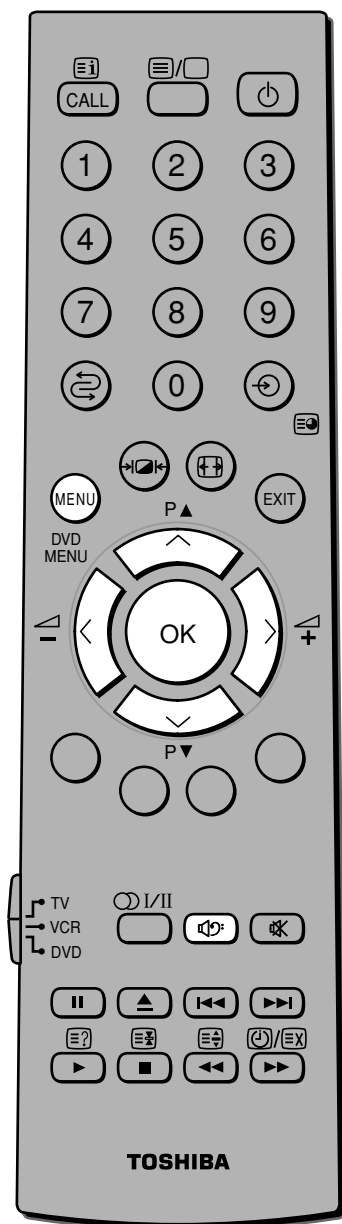


Note:

Make sure the volume control of your audio amplifier is set to a moderate listening level.

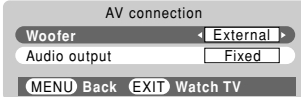
Sound adjustment (continued)

Woofer Int./Ext. mode, Bass boost, Woofer system


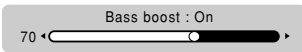

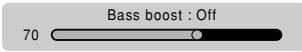

Note:

The Bass Boost effect is active only when the sound outputs from the speaker or the external woofer system.

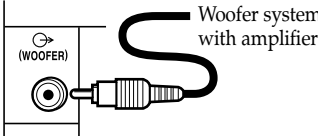

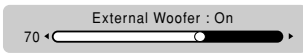

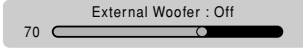
To select the woofer Int./Ext. mode:

- 1 Press the **MENU** button, then press the < or > button to display the SET UP menu.
- 2 Press the ∨ or ∧ button to select AV connection, then press the **OK** button to display the AV connection menu.
 
- 3 Press the ∨ or ∧ button to select Woofer, then press the < or > button to select Internal or External.
 - Internal is to use the bass boost.
 - External is to use the external woofer system.

To use the bass boost:

- 1 Select Woofer Internal mode as shown above.
- 2 Press the  button to display Bass boost level.
 
- 3 While the Bass boost display is on the screen, press the < or > button to adjust the bass boost level.
- 4 To turn off the bass boost, press the  button to display Bass boost Off.
 

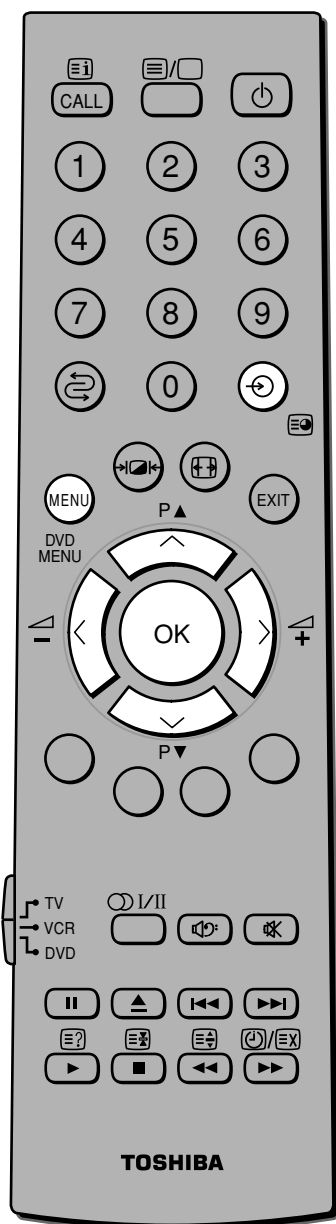
To use the external woofer system:

- 1 Connect the external woofer to the "WOOFER" output terminal located on the rear of the TV (see page 45).
 
- 2 Select Woofer External mode from the AV connection menu.
- 3 Press the  button to display External Woofer level, then press the < or > button to adjust the woofer level.
 
- 4 To turn off the external woofer, press the  button to display External Woofer Off.
 

Input selection

Input selection

TV top view



Notes:

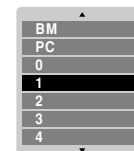
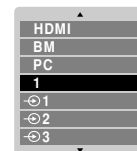
- To return to the TV mode from the PC mode, press the \odot button.
- When the \odot C1, \odot C2, BM or PC mode is selected, the \odot MONITOR output terminals (see page 45) audio signal only.

To select input source:

1

Press and hold the \odot button or press the **OK** button on the remote control until the video input mode list appears on the screen, then press the \downarrow or \uparrow button to select appropriate input source (or press the \odot button on the top of the panel or \odot button on the remote control repeatedly to select required input source directly).

OK:

 \odot :
(Press and hold)

PC

2

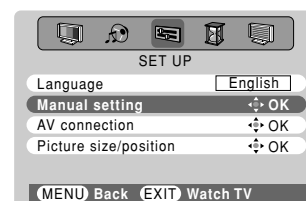
Press the **OK** button.

\odot 1 (\odot (1), VIDEO 1 input),
 \odot 2 (\odot (2), VIDEO 2 input), \odot 3 (\odot (3), VIDEO 3 input),
 \odot C1 (\odot (C1), COMPONENT VIDEO INPUT),
 \odot C2 (\odot (C2), COMPONENT VIDEO INPUT),
 HDMI (HDMI input), BM (BRIDGE MEDIA input),
 PC (\odot RGB/PC, PC input)

Manual setting:

1

Press the **MENU** button, then press the \leftarrow or \rightarrow button to display the SET UP menu. Press the \downarrow or \uparrow button to select Manual setting.

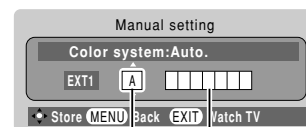


2

Press the **OK** button to display the Manual setting menu.

3

Press the \leftarrow or \rightarrow button to select an item, then press the \uparrow or \downarrow button to select the item as shown below.



A. Color System

Confirm that color system is set to "A" (Auto). If not, select "A" with the \uparrow or \downarrow button.

B. Video label

The video label allows you to label each input source for your TV.

To change or create video labels:

- Press the \uparrow or \downarrow button repeatedly to select a character for the first space, then press the \rightarrow button.

\leftarrow A \rightarrow Z \rightarrow () \rightarrow * \rightarrow + \rightarrow - \rightarrow , \rightarrow . \rightarrow / \rightarrow 0 \rightarrow 9 \rightarrow \rightarrow

*(blank space)

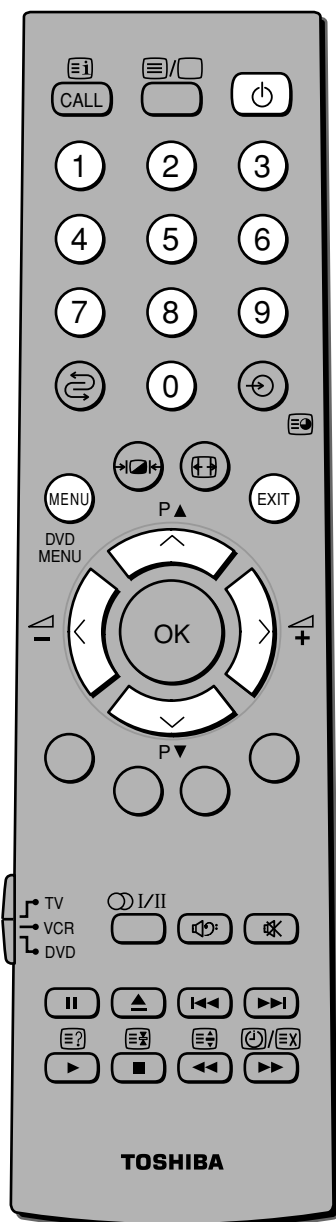
- Repeat step 1 to enter the rest of the characters. If you would like a blank space in the label name, you must choose an empty space from the list of characters.

Press the **OK** button to store your settings.

Timer, To activate Gray screen

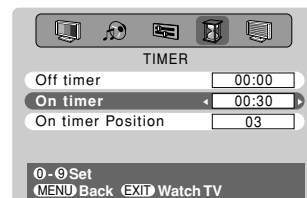
Timer

The Timer is especially useful if you want the TV to turn itself on or off after a selected period of time. For example: If you want the set to turn itself on in 30 minutes and watch program 3, simply follow the procedure indicated. Activation of the Timer is indicated by the green "On-timer indicator", on the front of the TV (see page 10).



To select the timer menu:

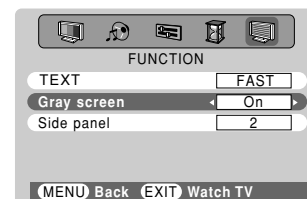
- 1 Press the **MENU** button, then press the < or > button to display the **TIMER** menu.
- 2 Press the ∨ or ∧ button to select the required timer mode (Off timer or On timer).
- 3 Press the **Number** buttons (0-9), < or > button to set the On or Off delay time, e.g. on in 30 minutes and program 3 selected.
- 4 Press the **EXIT** button to exit the menu. When setting the On timer, press the ∨ or ∧ button to select the On timer position and enter the program position number you want to watch. Set the Standby mode by pressing the ⏻ button.



To activate Gray screen

With the Gray screen function On, the screen will automatically turn gray and the sound will be muted when no signal is being received.

- 1 Press the **MENU** button, then press the < or > button to display the **FUNCTION** menu.
- 2 Press the ∨ or ∧ button to select Gray screen.
- 3 Press the < or > button to select On or Off.

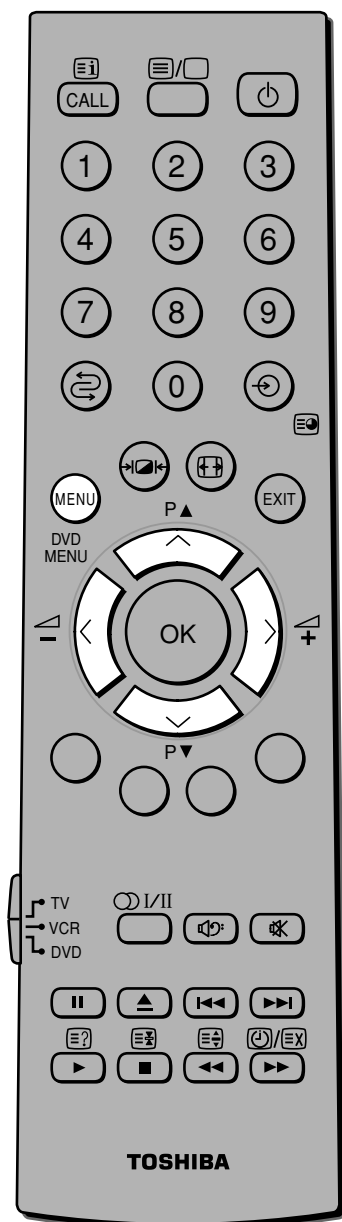


Note:

While in the PC input mode (see page 29), the Gray screen is not available.

Side panel adjustment

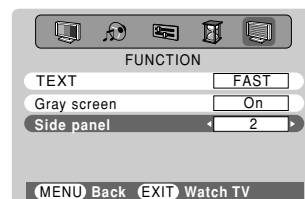
Side panel adjustment



You can adjust the brightness of side panel in 14:9 or 4:3 mode.

To adjust the Side panel setting:

- 1 Press the **MENU** button, then press the < or > button to display the FUNCTION menu.
- 2 Press the ∨ or ∧ button to select Side panel.
- 3 Press the < or > button to adjust. The more you turn the brightness high, the more effective is obtained.

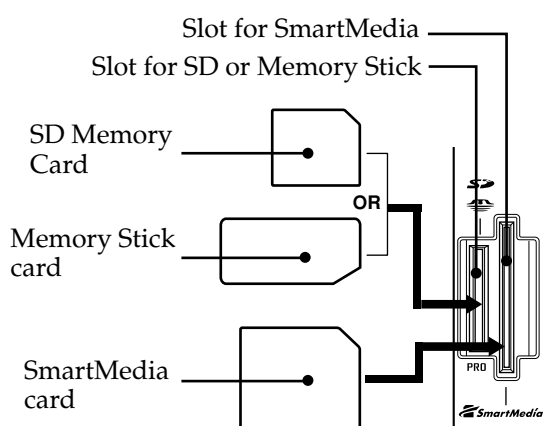


BRIDGE MEDIA Using

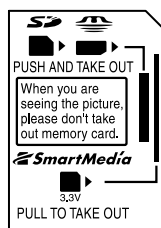
- The "BRIDGE MEDIA" function can be used to play back still or motion picture/sound memorized on "SD" Memory Cards, "Memory Stick" cards or "SmartMedia" cards by a digital still camera.
- The picture may not be reproduced properly depending on memory conditions.
If the picture cannot be displayed on the screen, you will see an "X" mark on the screen.
The edge of the picture may be hidden depending on the aspect ratio of the selected.
- If a full screen picture is displayed for more than 30 minutes, the screen saver will be activated (factory set).
(The motion picture appears on the screen.) (see page 39)

To use the BRIDGE MEDIA

TV left side view



Inside the door



- Match the or marks on the cards to the marks inside the door.
- Match the mark on the card to the mark inside the door.

To remove the memory card

- Push the SD Memory Card or Memory Stick card.
- Pull out the SmartMedia card.

Memory Card Format

Item		Format
SD Memory Card		8/16/32/64/128/256/512 MB
Memory Stick	Memory Stick	16/32/64/128 MB
	Memory Stick (magic gate/high speed data transmission)	16/32/64/128 MB
	Memory Stick (magic gate)	32/64/128 MB
	Memory Stick PRO	256/512 MB and 1GB
	Memory Stick (with memory select)	128 MB × 2
SmartMedia		8/16/32/64/128 MB

- About Memory Stick: Magic Gate and high speed data transmission are not available on this TV.


Still Picture Format

Item	Format
Memory Format	JPEG
File Format	Exif ver 2.2
Compatibility	DCF ver 1.0
Extension	JPG
Number of Picture Elements	H: $160 \leq x \leq 4096$ V: $120 \leq x \leq 4096$
Number of files	65535
Applicable maximum capacity	1GB

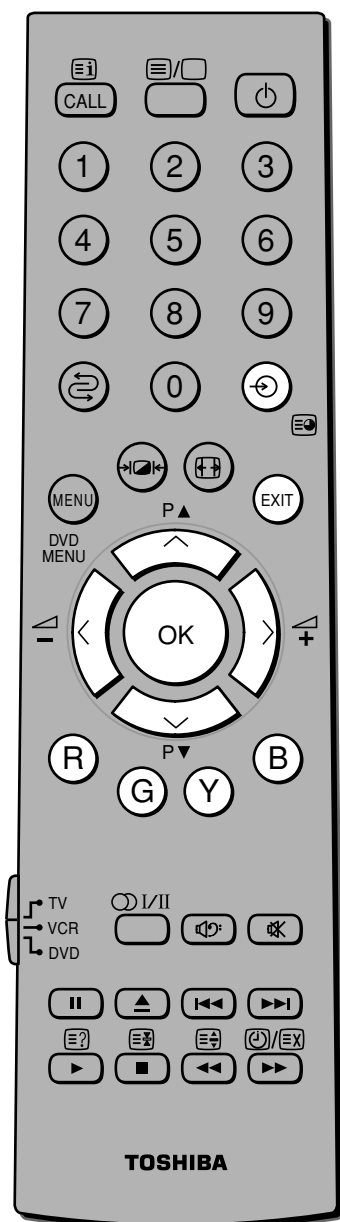
Motion Picture Format

Item		Format
Memory Format		Motion JPEG/MPEG-1
File Format		AVI/MOV (QuickTime)/MPEG-1
Extension		avi/mov/mpg
Number of Picture Elements and Frames Rate	Motion JPEG	VGA 640 × 480 (0 < x ≤ 10 fps)
		QVGA 320 × 240 (0 < x ≤ 15 fps)
		QQVGA 160 × 120 (0 < x ≤ 20 fps)
	MPEG-1	CIF 352 × 288 (0 < x ≤ 8 fps)
Audio Format		PCM/MPEG-1 Audio
Audio Sampling Frequency		5 - 48 kHz

- is a trademark of Toshiba Corporation.
- is a trademark of SD Card Association.
- is a trademark of Sony Corporation.

- The picture of the memory card insert in later will appear on the screen.
- If you use this function for a purpose other than your private viewing or listening, it may infringe copyright laws.
- You can also select BRIDGE MEDIA by pressing the  button (see page 29).
- While in the BRIDGE MEDIA mode, the Auto tuning, Manual tuning and Program sorting disappear automatically in the SET UP menu.

To use the BRIDGE MEDIA (still picture)




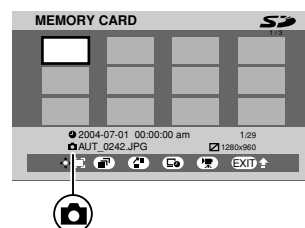
Notes:

- To exit the BRIDGE MEDIA, press the  button.
- To return to the previous menu, press the **EXIT** button.

To select the full screen picture:

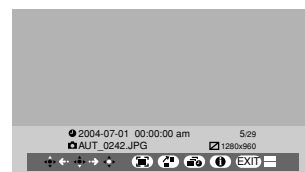
Insert the SD Memory Card or Memory Stick card into the slot.
Insert the SmartMedia card into the slot.

- The index menu appears on the screen, then press the \downarrow , \uparrow , \leftarrow or \rightarrow button to select the screen pictures.
If the memory card contains still pictures, the  mark appears on the screen.



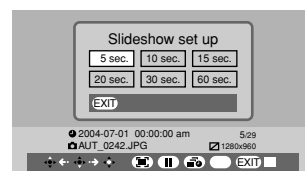
- To change to the MEMORY CARD menu, press the **EXIT** button.
- To change to the motion picture, press the **B** button. If there is no motion picture, you cannot change the mode.

- Press the **OK** button.
Press the \downarrow or \uparrow button to select another full screen picture you want to see on the screen.



To use the Slide show:

- From the full screen picture, press the **R** button.
- Press the **Y** button to display the Slideshow set up.
Press the \downarrow , \uparrow , \leftarrow or \rightarrow button to select 5 sec., 10 sec., 15 sec., 20 sec., 30 sec., or 60 sec.
- Press the **OK** button, the Slide show will start.



To stop the Slide show
Press the **R** or **G** button.



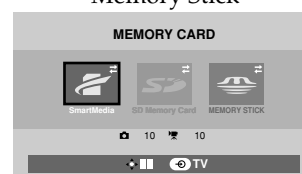
Notes:

- If you select "Slide" mode in the index menu, the Slideshow set up times may differ from the times you set in step 2.
- The MEMORY CARD menu variation.

Ex. SD and SmartMedia

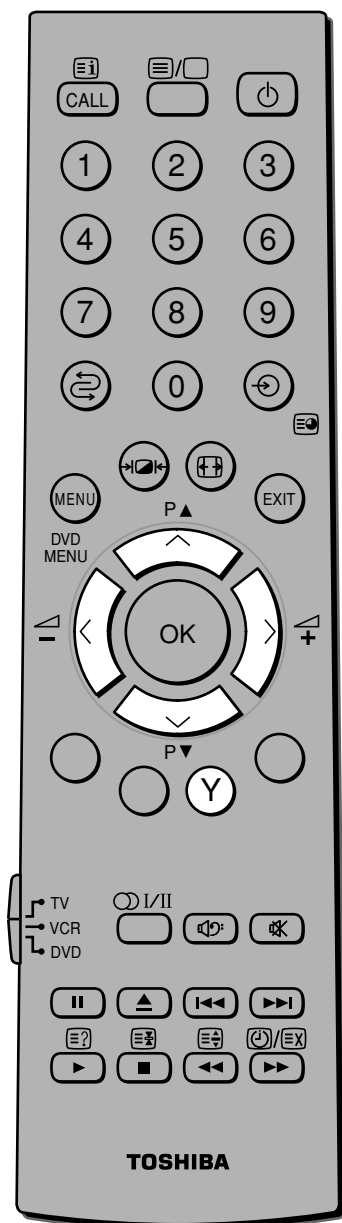


Ex. SmartMedia and Memory Stick



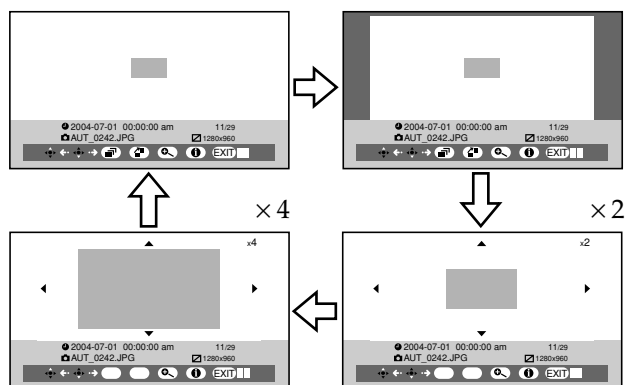
BRIDGE MEDIA Using (continued)

To use the BRIDGE MEDIA (still picture) (continued)



To use the zoom mode:

From the full screen picture, press the **Y** button to display the picture with a frame. Each time you press the **Y** button, the picture zooms as follows:

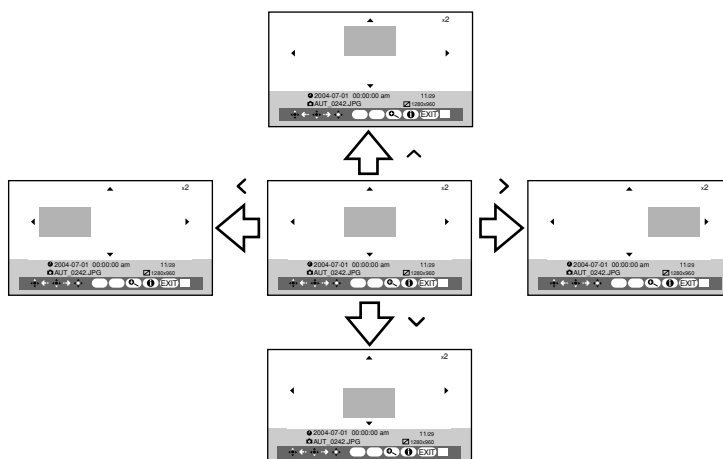


To select the picture position:

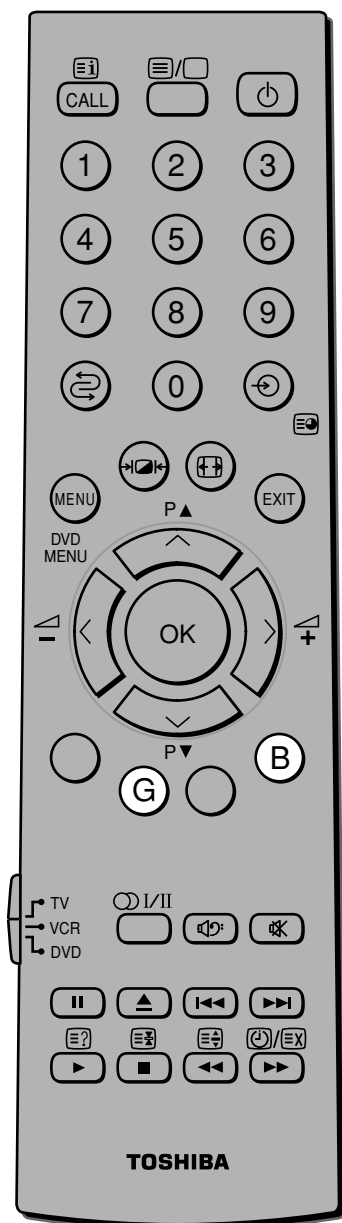
When in the $\times 2$ zoom mode or $\times 4$ zoom mode, you can select the picture position.

Press the \swarrow , \nearrow , \leftarrow or \rightarrow button to select the picture position.

Ex. $\times 2$ mode

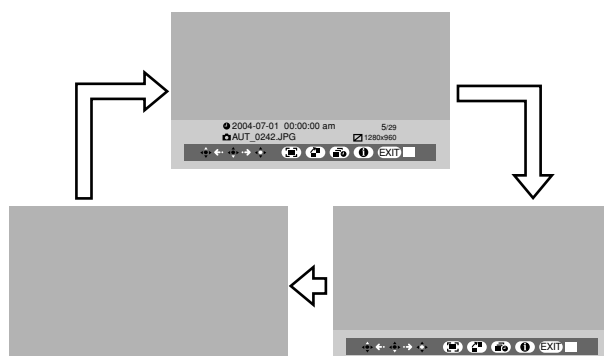


To use the BRIDGE MEDIA (still picture) (continued)



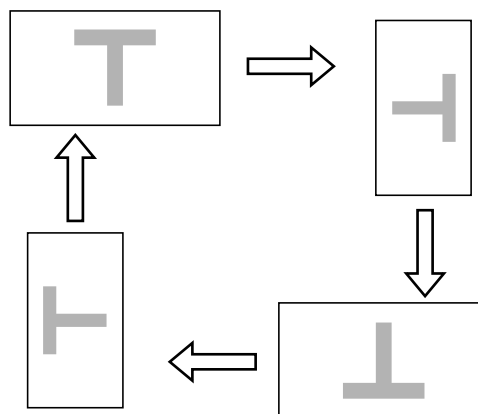
To select the information format:

Each time you press the **B** button, the on-screen information will change as follows:



To select the rotation picture format:

Each time you press the **G** button, the picture rotates clockwise by 90°:

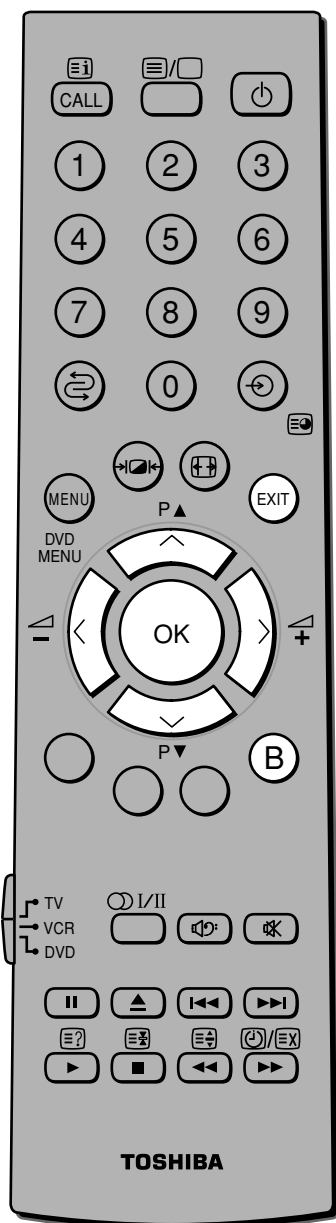


Note:

This function also operates in the index menu.


BRIDGE MEDIA Using (continued)

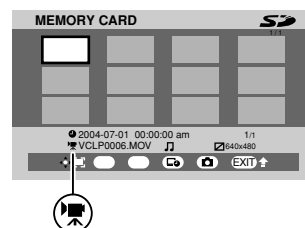
To use the BRIDGE MEDIA (motion picture)



To select the full screen motion picture and audio:

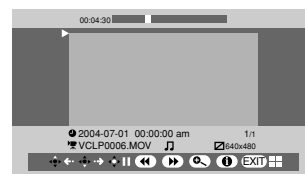
Insert the SD Memory Card or Memory Stick card into the slot.
Insert the SmartMedia card into the slot.

- 1 The index menu appears on the screen, then press the \downarrow , \uparrow , \leftarrow or \rightarrow button to select the screen pictures.
If the memory card contains motion picture and audio, the  mark appears on the screen.




- To change to the MEMORY CARD menu, press the **EXIT** button.
- To change the still picture, press the **B** button. If there is no still picture, you cannot change the mode.

- 2 Press the **OK** button, the full screen motion picture with frame and audio starts.
Press the \downarrow or \uparrow button to select another full screen motion picture you want to see on the screen.



Notes:

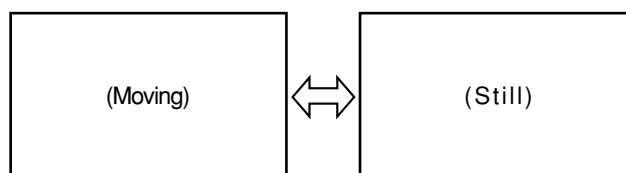
- Adjust the sound volume with the \triangle + or \triangle - button.
- The motion picture play back mark () is displayed for several seconds.

To return to the index menu

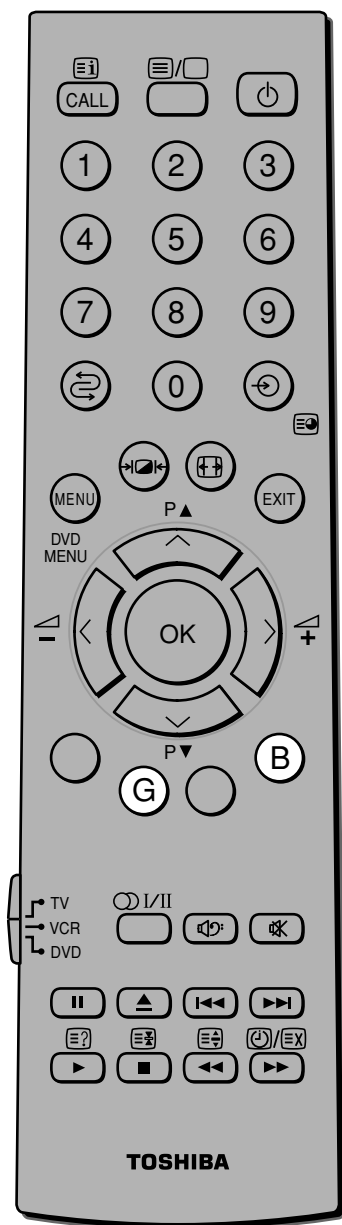
Press the **EXIT** button.

To freeze the picture and audio:

Each time you press the **OK** button to freeze, the on-screen picture and audio will change as follows:

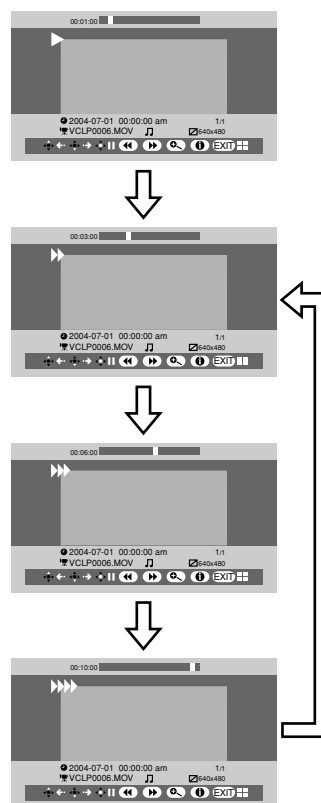


To use the BRIDGE MEDIA (motion picture) (continued)



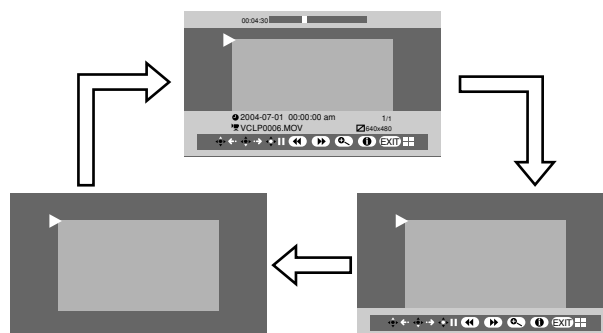
To use the fast forward:

Each time you press the **G** button, the on-screen picture will change as follows:



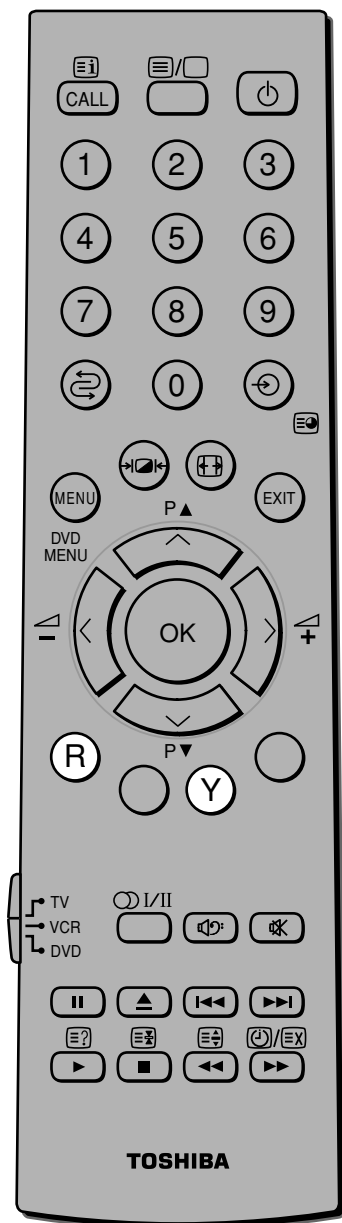
To select the information format:

Each time you press the **B** button, the on-screen information will change as follows:



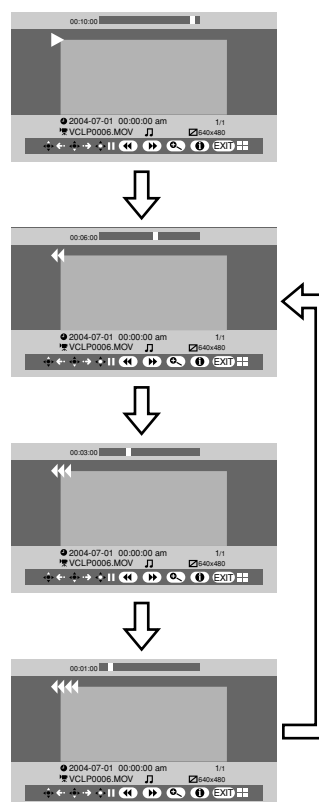
BRIDGE MEDIA Using (continued)

To use the BRIDGE MEDIA (motion picture) (continued)



To use the rewind:

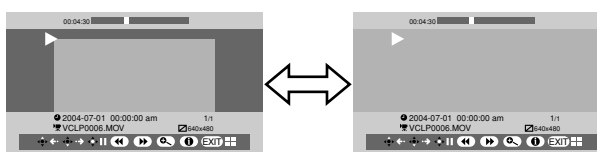
Each time you press the **R** button, the on-screen picture will change as follows:



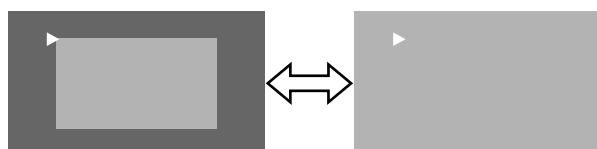
To turn off the frame:

Each time you press the **Y** button, the on-screen frame will change as follows:

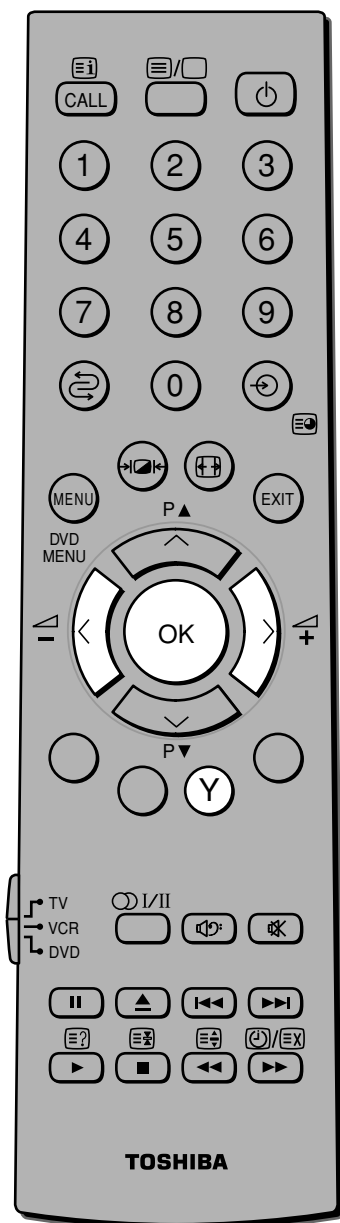
Ex. Normal



Ex. No information



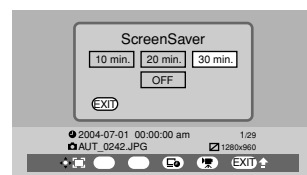
To use the BRIDGE MEDIA (information)



To select the screen saver:

The screen saver function activates by default. A moving picture will appear on the screen.

- 1 From the index menu (still or motion picture), then press the **Y** button to display the ScreenSaver.



- 2 Press the **<** or **>** button to select 10 min., 20 min., 30 min., or OFF.
(30 min: factory set)

- 3 Press the **OK** button to return.
The screen will return to the index menu.

Note:

While in the slide show or motion picture, the screen saver does not operate.

Alerts:

- | | |
|--|---|
| <ul style="list-style-type: none"> • NO IMAGE
No data to play back • NO SD Memory Card
No insert card • NO SmartMedia
No insert card • NO MEMORY STICK
No insert card • NO FILE
No recorded • MEMORY STICK TYPE ERROR
No accept Memory Stick | <ul style="list-style-type: none"> • FILE ERROR
File broken or irregular file • FILE ERROR
Not accept BM format • FILE TYPE ERROR
No accept file format • SD Memory Card ERROR
BM broken or inverse • SmartMedia ERROR
BM broken or inverse • MEMORY STICK ERROR
BM broken or inverse |
|--|---|

To use the memory card:

Note that the operation is not guaranteed for all these memory cards shown in the table.

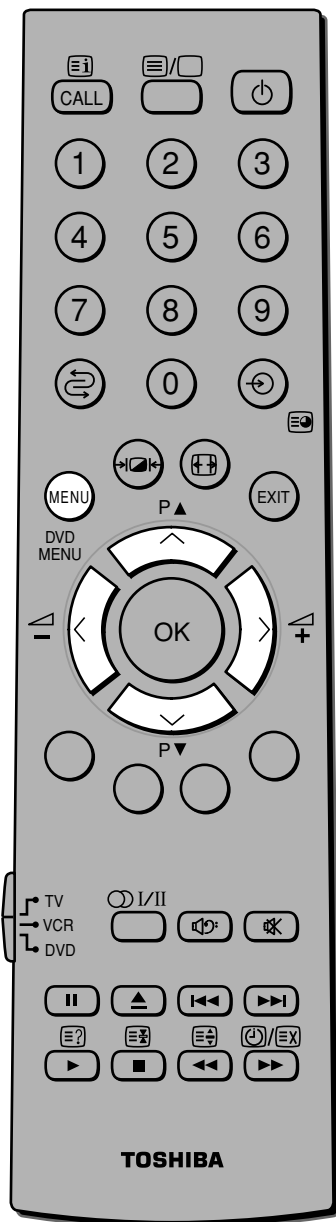
Toshiba recommend that you back up the data on the memory card before use. (The data of the memory card may be lost by misuse or malfunction of the TV. Toshiba assume no liability for losses incurred by data lost through the use of this TV.)

Teletext - Setting up

The Teletext function is not available for 32WL48T.

This TV has a multi-page teletext memory, which takes a few moments to load and it offers two ways of viewing Teletext FAST and LIST which are explained on page 42.

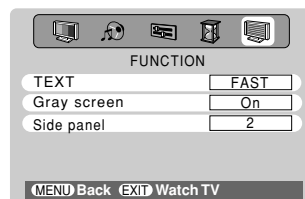
Teletext mode



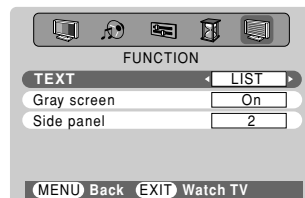
To select Teletext mode:

Select a channel position with the desired teletext service.

- 1 Press the **MENU** button, then press the **<** or **>** button to display the **FUNCTION** menu. Press the **∇** or **▲** button to select **TEXT**.



- 2 Press the **<** or **>** button to select between **FAST** or **LIST** modes.

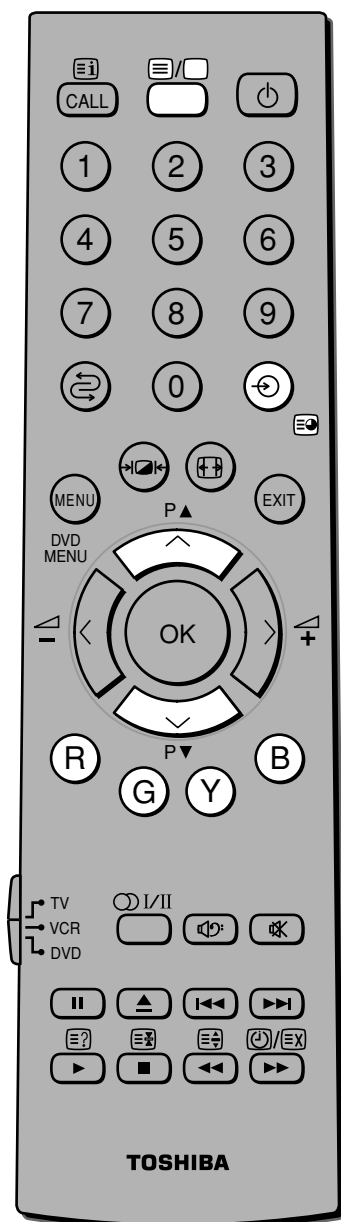


Note:

When you are watching the teletext program, only PICTURE menu and SOUND menu are selectable.

About Teletext

Teletext general information



TV/TEXT button:

Pressing the TV/TEXT button once will bring up the teletext screen. Press again to superimpose the teletext over a normal broadcast picture. Press again to return to normal TV mode. You need to return to normal viewing if you wish to change channels.

When you first press the TV/TEXT button to access the text service, the first page you see will be the initial page.

In **FAST** mode, this displays the main subjects available and their relevant page numbers.

In **LIST** mode, you will see whichever page number is currently stored on the **each color** button.

Sub-pages:

Once in this chosen page, if there are sub-pages they will automatically load into memory without changing the one you are reading. Arrows will appear alongside the page number, indicating sub-pages which have loaded to the left or right of the one on the screen. If there are many sub-pages, it will take a long time for them all to load and this will depend on the speed with which the broadcaster transmits them.

To access the sub-pages in memory, press the TV/TEXT (TV/TEXT) button, then use the ^ and v buttons to view them.

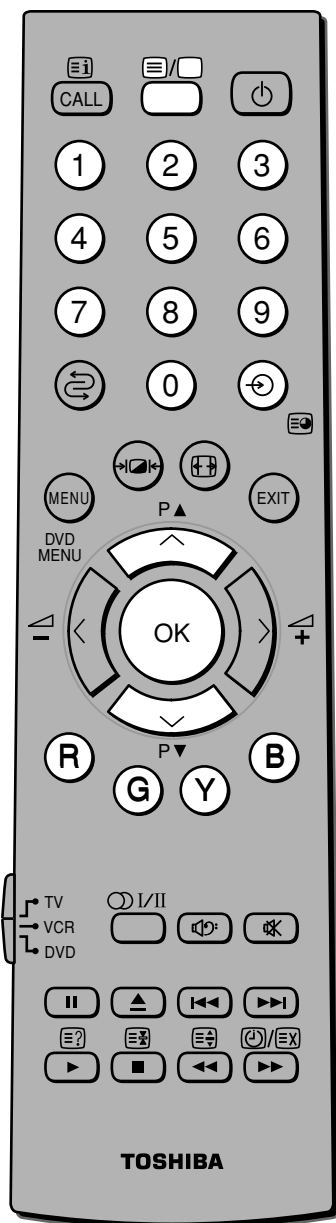
While in sub-pages mode, an indicator will show in the bottom left of the screen. After a short time of inactivity, the indicator will disappear. To access the sub-pages again, press the TV/TEXT (TV/TEXT) button.


Teletext - FAST and LIST modes

Using FAST mode

There are two Modes: FAST will display FASTEXT, if available. LIST will display your four favorite pages. In either mode, as an alternative to the colored buttons, you can access a page by entering a 3-digit number, using the **Number** buttons on the remote control, or to advance to the next page, press the **P▲** (^) button, to go back to the previous page press the **P▼** (v) button.

To change between FAST or LIST, see page 40.

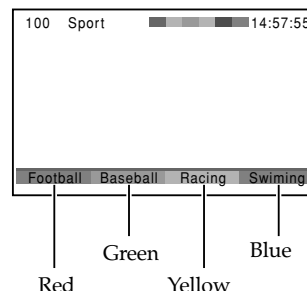


Press the  button to access teletext.

If FASTEXT is available, you will see 4 colored titles at the base of the TV screen. To access any given subject, simply press the relevant colored button on the remote control.

If FASTEXT is not available, you can access any page simply by entering a 3-digit page number or pressing the corresponding colored button.

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



Using LIST mode

1 Press the  button to access teletext.

The four choices at the bottom of the screen are now number – 100, 200, 300 and 400, which have been programmed into the TV's memory.

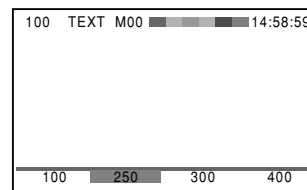
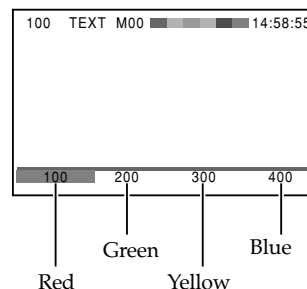
2 To view these pages, use the colored prompt buttons. e.g. press the Green button to view page 200.

3 If you want to change these stored pages, press the colored button for the color you want to change. e.g. press the Green button and enter the 3-digit number.

This number will change in the top left of the screen and in the colored highlight.

4 Press the **OK** button to store your choice. The bars at the bottom of the screen will flash white.

5 You may view other pages by simply entering the 3-digit page number – but **DO NOT** press the **OK** button or you will lose the favorite already stored.




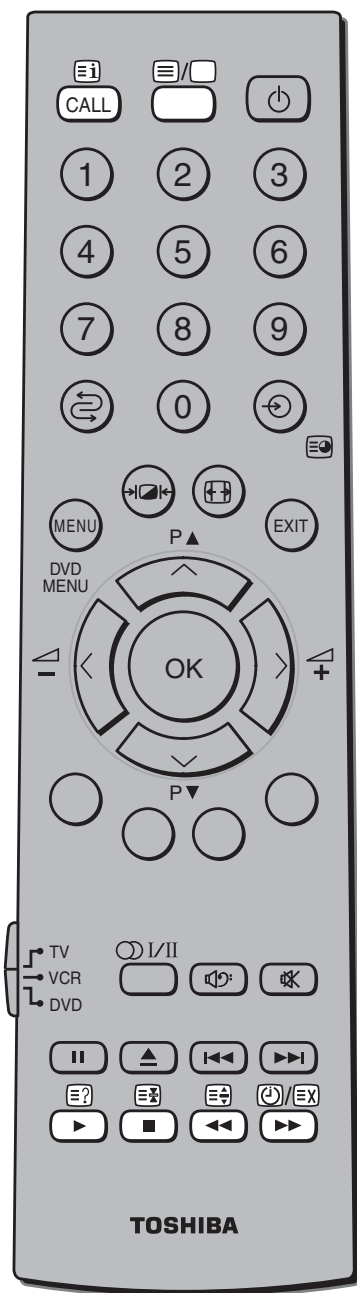
Teletext – Control buttons

Below is an introduction to the teletext buttons on your remote control and their functions.

Teletext buttons on the remote control

Note:

It will not be possible to change program position while in Teletext mode, you will have to cancel the teletext first by pressing the  button to return to a normal TV picture.



To display a page of teletext:


Press the  button to display teletext. Press again to superimpose the teletext over a normal broadcast picture. Press again to return to normal TV mode.

To display an index/initial page:


In FAST-mode

Press the  button to access the index page. The one displayed is dependant on the broadcaster.

In LIST-mode

Press the  button to return to your page currently stored on the each colored button.


To reveal concealed text:

Some pages cover topics such as quizzes and jokes. To discover the solutions, press the  button.



To hold a wanted page:

This feature is included as it is part of the broadcast teletext system but you will not need it as this TV allows you to control the display of sub-pages.


To enlarge the teletext display size:

Press the  button once to enlarge the top half of the page, press again to enlarge the bottom half of the page. Press again to revert to the normal size.

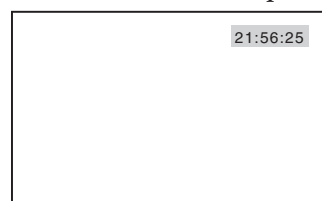
To select a page while viewing a normal picture:

When in teletext mode, if a page selection is made and then the  button is pressed, a normal picture will be displayed. The TV will indicate when the page is present by displaying the title bar of the text page at the top of the screen. Press the  button to view the page.

To select the time display:

If you press the  button while watching a normal TV broadcast, you will see a time display from the broadcaster. It will remain on the screen for about 5 seconds.

9:56 and 25 seconds p.m.

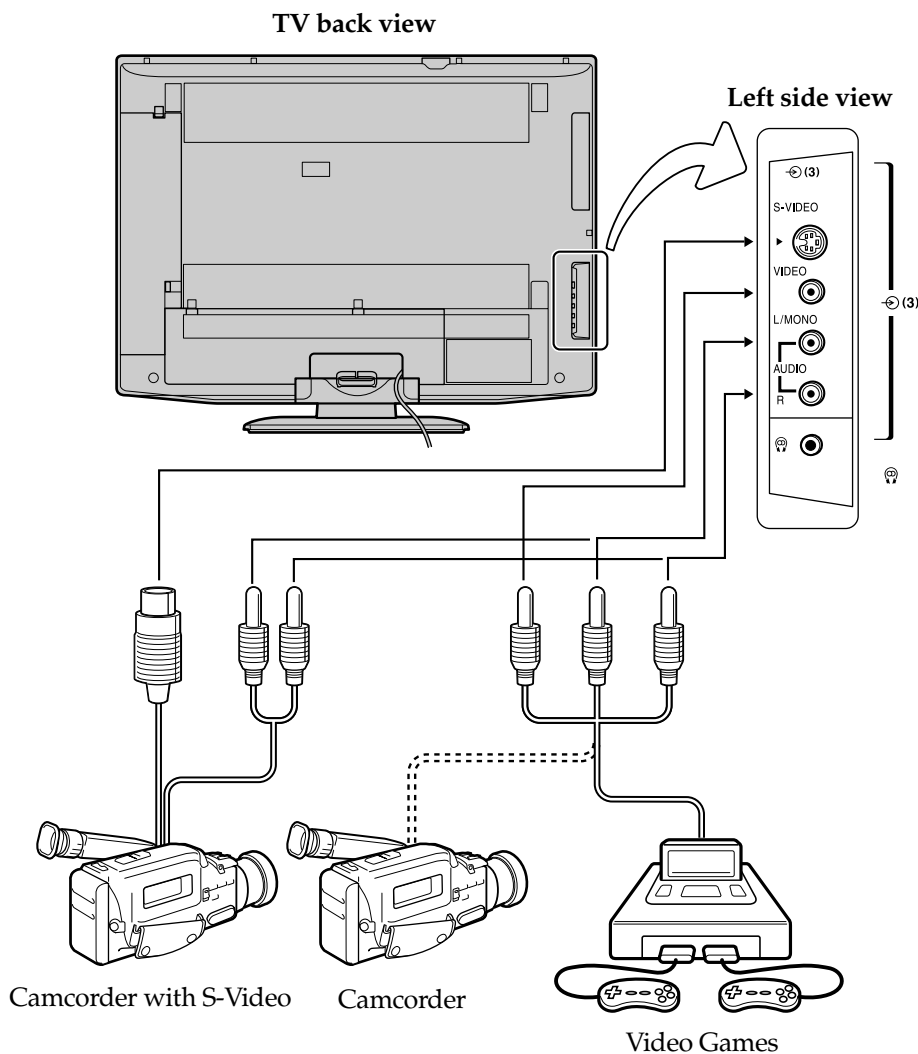


Side connections

You can connect a wide variety of auxiliary equipment via the phono sockets located on the left side of the TV \rightarrow (3).

Connection example

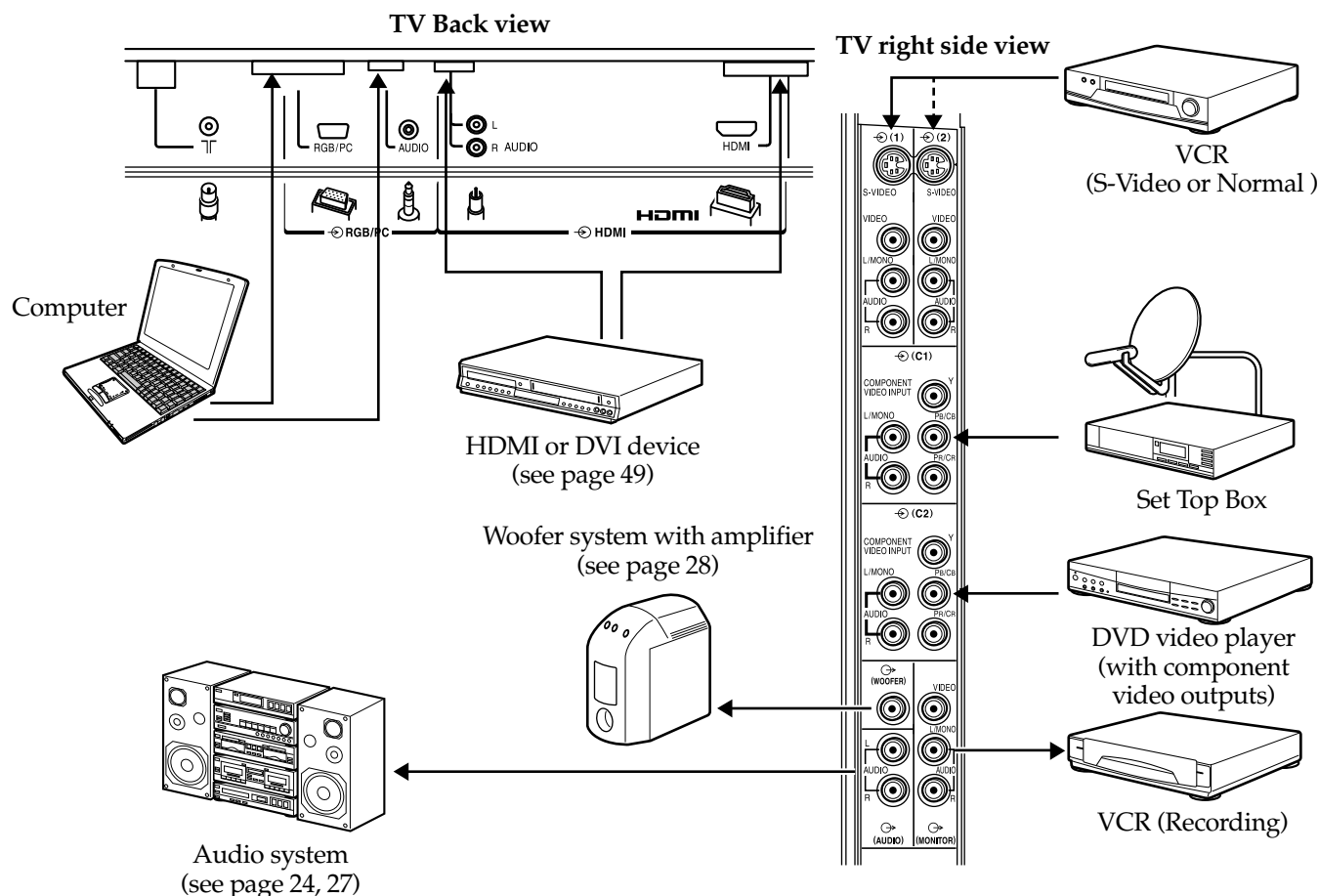
Please always refer to the owner's manual of the equipment to be connected for full details.



- To select the side inputs, press and hold the \rightarrow (3) button until the video input mode list appears on the screen, then press the \wedge or \vee button to select \rightarrow (3) (see page 29), then press **OK**.
- Before connecting any external equipment, turn off all main power switches.
- Connect either the S-VIDEO input terminal or VIDEO input terminal, whichever terminal is used. Do not connect to both of these terminals.
- If you connect mono sound equipment to \rightarrow (3), connect the audio output of the equipment to the L/Mono jack on the TV.
- You can enjoy Video Games with this TV. However shooting games, which shoots at a target on the TV screen with a light gun, may not work because of the LCD Color TV properties.

Back connections

Connection example

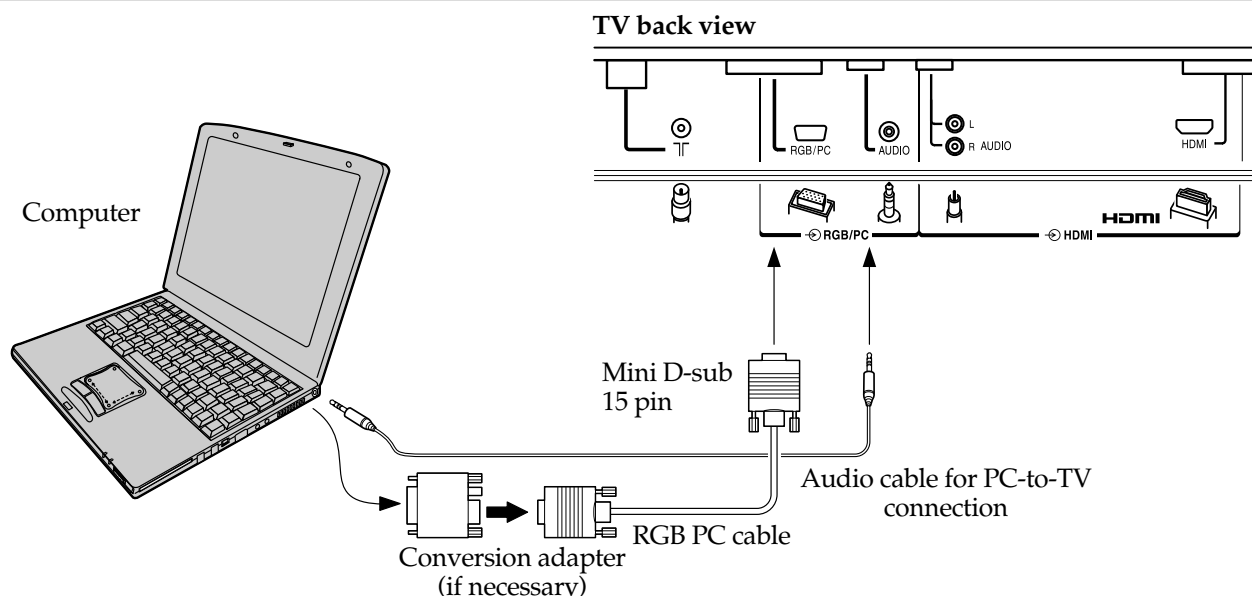


- Before connecting any external equipment, turn off all main power switches.
- Before connecting any external equipment, remove the back terminal covers (see page 11).
- Connect either the S-VIDEO input terminal or VIDEO input terminal, whichever terminal is used. Do not connect both of these terminals.
- In addition, there is a fixed/variable external audio output which enables the connection of a suitable audio system. A 3.5 mm switched phono socket allows an external active Woofer system to be connected.
- The COMPONENT VIDEO INPUT consists of three component video jacks (Y, P_B/C_B, P_R/C_R) and provides the best picture performance. These jacks can only be used with the component video compatible equipment e.g. DVD video player etc.
- Additional equipment and cables shown are not supplied with this TV.

Connecting a computer

Before connecting PC and audio cables, remove the back terminal covers (see page 11).
An analog RGB (15 pin) computer cable can be connected.

To connect a computer



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

The following signals can be displayed:

- VGA: 640 x 480 @ 60 Hz
- SVGA: 800 x 600 @ 60 Hz
- XGA: 1024 x 768 @ 60 Hz

However, these signal formats are converted to match the number of pixels of the LCD panel.
Therefore, the TV may not display small text properly.

Notes:

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

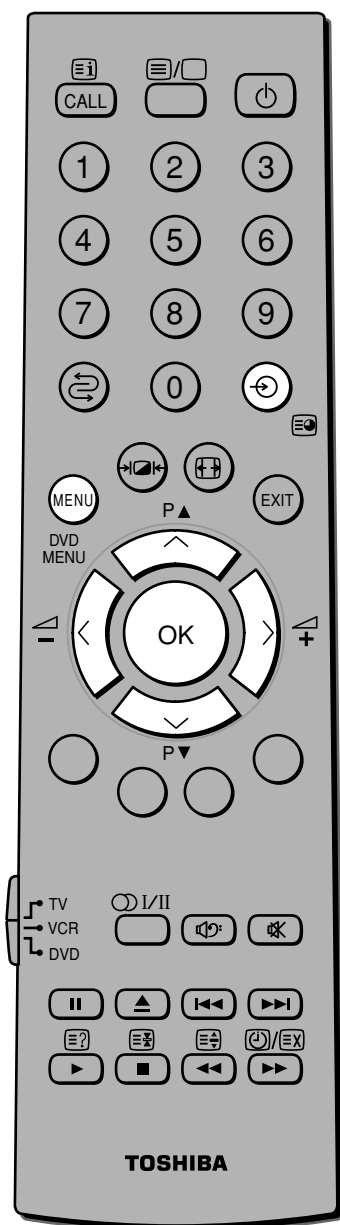
Signal names for mini D-sub 15 pin connector

Pin assignment for RGB/PC terminal		Pin No.	Signal name	Pin No.	Signal name
		1	R	9	NC
		2	G	10	Ground
		3	B	11	NC
		4	NC (not connected)	12	NC
		5	NC	13	H-sync
		6	Ground	14	V-sync
		7	Ground	15	NC
		8	Ground		

PC Setting

- While in the PC input mode, you cannot select the Color, Tint, DNR and Black stretch in the PICTURE menu (see page 14).
- While in the PC input mode, the Manual setting (see page 29) is not displayed.

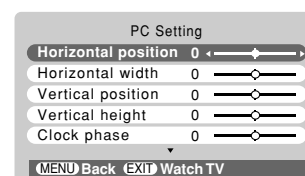
Picture size/position adjustments



First press and hold the button until the video input mode list appears on the screen, then press the or and **OK** buttons in order to select the PC input mode (see page 29).

To adjust picture size/position:

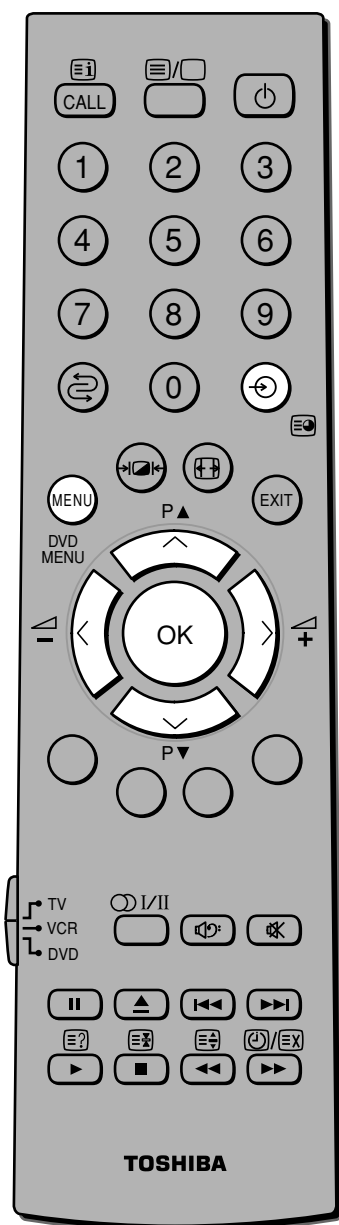
- 1 Press the **MENU** button, then press the or button to display the SET UP menu.
- 2 Press the or button to select PC Setting.
- 3 Press the **OK** button to display the PC Setting menu.
- 4 Press the or button to select an option you want to adjust. (PC Setting menu: Horizontal position, Horizontal width, Vertical position and Vertical height)
- 5 Press the or button to adjust the settings as required.



PC Setting (continued)

- If the clock phase, which synchronize the PC signal and LCD display, is not optimized, the picture will blur. This function enables you to adjust clock phase and display a clear picture.
- If the sampling clock does not synchronize with the dot clock frequency of the PC, blurred picture detail will occur, or screen width will change, or drift patterns in vertical lines may be apparent. This function enables you to adjust it and optimize the picture.
- The Reset function adjusts the PC Setting to the factory settings.

To adjust Clock phase and Sampling clock/To reset



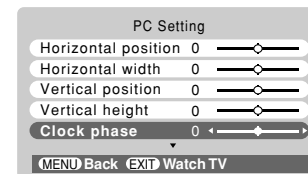
First press and hold the button until the video input mode list appears on the screen, then press the \vee or \wedge and **OK** buttons in order to select the PC input mode (see page 29).

To adjust the Clock phase of the picture:

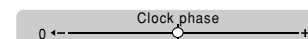
- 1 Press the **MENU** button, then press the \vee or \wedge button to display the SET UP menu. Press the \vee or \wedge button to select PC Setting.



- 2 Press the **OK** button, then press the \vee or \wedge button to select Clock phase.

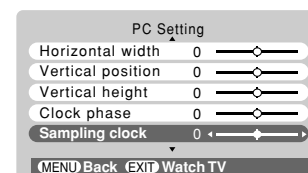


- 3 Press the \vee or \wedge button to obtain a clear picture.



To adjust the Sampling clock:

- 1 From the PC Setting menu, press the \vee or \wedge button to select Sampling clock.

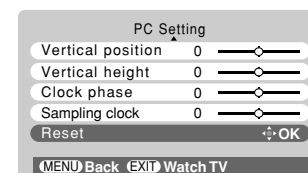


- 2 Press the \vee or \wedge button to optimize the picture.



To reset the PC Setting:

- 1 From the PC Setting menu, press the \vee or \wedge button to select Reset.



- 2 Press the **OK** button.

Note:

The optimum points of the clock phase and sampling clock adjustments may be incomprehensible according to the input signals.

Connecting an HDMI or a DVI device

- This TV is not intended for connection to and should not be used with a PC.
- When turning on your electronic components, turn on the TV first, and then the HDMI or DVI device.
- When turning off your electronic components, turn off the HDMI or DVI device first, and then the TV.
- Before connecting an HDMI or a DVI device, remove the back terminal covers (see page 11).
- This model may not be compatible with features and/or specifications that may be added in the future.

To connect an HDMI or a DVI device

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

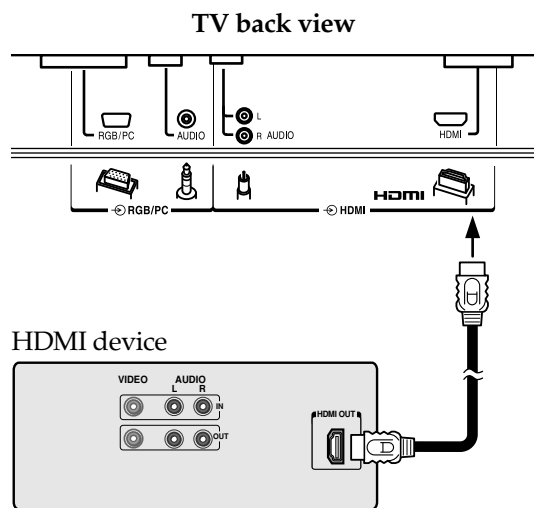
This input is designed to accept HDCP program material in digital from EIA/CEA-861/861B compliant consumer electronic devices (such as a set top box or DVD player with HDMI or DVI output).

The HDMI input is designed for best performance with 1080i (50 Hz/60 Hz) high-definition video signals, but will also accept and display 480i, 480p, 576i, 576p and 720p (50 Hz) signals.

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

To connect an HDMI device:

One HDMI cable (type A connector)



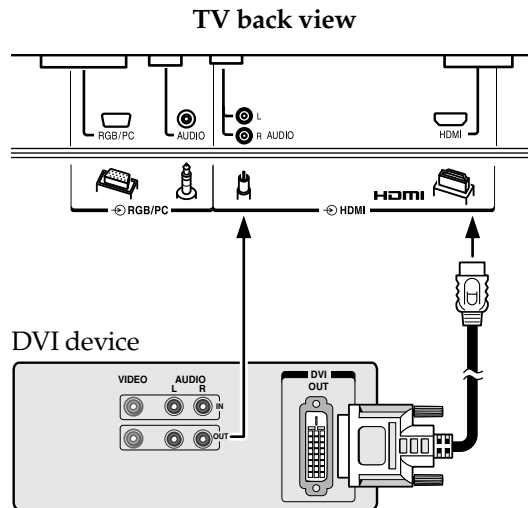
For proper operation, it is recommended that you use a short HDMI cable.

HDMI cable transfers both video and audio. Separate analog audio cables are not required.

Some CDVs (video CDs) may not output digital audio signals. In that case, you may hear sound by connecting analog audio cables. However, if you connect analog audio cables with this connection, the HDMI terminal on the TV will not receive the HDMI digital audio signal and you will hear analog audio only.

To connect a DVI device:

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



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

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

Standard analog audio cables

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

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

Troubleshooting

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

Symptom and solution

Symptom

Solution

TV will not turn on

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

No picture, no sound

- Check the antenna connections.

No sound, picture OK

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

Poor sound, picture OK

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

Poor picture, sound OK

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

Poor reception of broadcast channels

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

Teletext problems*

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

Multiple images

- The station may have broadcast difficulties. Try another channel.
- Antenna reception may be poor. Use a high directional outdoor antenna.

Poor color or no color

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

The remote control does not operate

- Remove all obstructions between the remote control and the remote control sensor in the TV.
- The remote control batteries may be dead. Replace them with new ones.
- Check that the TV/VCR/DVD switch on the remote control is properly set.

Some parts of the screen do not light up

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

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

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

The picture brightness varies when you switch the TV on.

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

* The Teletext problems are not available for 32WL48T.

Broadcast system, Specifications

Broadcast Transmission Systems of Each Country or Region

Area	Country or Region	System	
		Color	Sound
Asia M. E.	Bahrain, Kuwait, Israel, Oman, Qatar, United Arab Emirates, Yemen, etc. Indonesia, Malaysia, Singapore, Thailand, etc.	PAL	B/G
	China	PAL	D/K
	China Hong Kong	PAL	I
	Iraq, Islamic Republic of Iran, Lebanon, Saudi Arabia, etc.	SECAM	B/G
	Russian Federation, etc.	SECAM	D/K
	Myanmar, etc.	NTSC	M
Oceania	Australia, New Zealand, etc.	PAL	B/G
Africa	Republic of South Africa, etc.	PAL	I
South America	Argentina, Paraguay, Uruguay, etc.	PAL	N
	Brazil	PAL	M
	Chile, Colombia, etc.	NTSC	M

Note:

PAL, SECAM and NTSC 3.58 (MHz) are different color signal broadcast transmission systems applicable to different countries or region. NTSC 4.43 (MHz) is used in special VCRs to playback NTSC recorded video tapes through PAL television equipment.

LCD Color Television

Model	32WL48A, 32WL48E, 32WL48T			
Power source	110 - 240V AC, 50/60 Hz			
Power consumption	155W, 2.3W (standby)			
Dimensions	794mm (W) 630mm (H) 300mm (D)			
Mass (Weight)	24.0 kg			
Television system (Antenna input)	Channel coverage:			
	PAL	B/G (CCIR)	VHF	2 - 12
			UHF	21 - 69
			CATV	X - Z+2, S1 - S41
	PAL	I (UK)	VHF	-
			UHF	21 - 69
			CATV	-
	PAL	D/K (CHINA)	VHF	1 - 12
			UHF	13 - 57
			CATV	Z1 - Z38
	SECAM	B/G (CCIR)	VHF	2 - 12
			UHF	21 - 69
			CATV	X - Z+2, S1 - S41
	SECAM	D/K (OIRT)	VHF	1 - 12
			UHF	21 - 69
			CATV	X1 - X19
	NTSC	M (US)	VHF	2 - 13
			UHF	14 - 69
			CATV	A6 - A1, A - W, AA - ZZ, AAA, BBB
	NTSC	M (JAPAN)	VHF	1 - 12
			UHF	13 - 62
			CATV	M1 - M10, S1 - S41
	Special RF signal:			
	NTSC4.43 color system	5.5/6.0/6.5 MHz sound system		
	PAL 60 Hz color system	5.5/6.0/6.5 MHz sound system		

Specifications (continued)

LCD Color Television (continued)

COMPONENT VIDEO INPUT terminals (the signal format)	480i, 480p, 576i, 576p, 720p (50/60 Hz), 1080i (50/60 Hz) (These signal formats are converted to match the number of pixels of the LCD panel.)		
HDMI input terminals (the signal format)	480i, 480p, 576i, 576p, 720p (50 Hz), 1080i (50/60 Hz) (These signal formats are converted to match the number of pixels of the LCD panel.)		
Color system	PAL, SECAM, NTSC 3.58/4.43		
Aspect ratio	16 : 9		
Visible size (diagonal)	80.0 cm		
Number of pixels	1366 (H) dots × 768 (V) dots		
Audio power	10 W + 10 W (10% THD)		
Speakers	60 × 120 mm 2pcs.		
Input/Output terminals	⊖ (1) Input	4 pin Phono jacks	S-video A/V
	⊖ (2) Input	4 pin Phono jacks	S-video A/V
	⊖ (3) Input	4 pin Phono jacks	S-video A/V
	⊖ (C1) Input	Component video Phono jacks	Y, P _B /C _B , P _R /C _R Audio L/Mono + R
	⊖ (C2) Input	Component video Phono jacks	Y, P _B /C _B , P _R /C _R Audio L/Mono + R
	⊕ (MONITOR) Output	Phono jacks	A/V
	⊕ AUDIO Output	Phono jacks	Audio L + R (Fixed/Variable)
	⊕ Woofer Output	Phono jack	Bass Line out (Variable)
	PC Input	Mini D-sub 15 pin	Analog RGB
	Audio Input	3.5 mm stereo mini jack	
	Headphones jack	3.5 mm (Diameter) stereo	
	HDMI Input (type A)	19 pin	A/V Digital
	Audio Input	Phono jacks	Analog L + R
Operating condition	Temperature	0°C - 35°C	
	Humidity	20% - 80% (No moisture condensation)	
Supplied accessories :	Owner's manual (1), Remote control (1), Batteries (2), Clip (1)		



This is used to fix the TV to a wall, pillar, etc. (see page 4).

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

TOSHIBA CORPORATION