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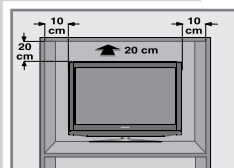
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Environmental note

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# SET-UP AND SAFETY



Please note the following information when setting up your television set.

This television set is designed to receive and display video and audio signals.

Any other use is expressly prohibited.

The ideal viewing distance is 5 times the screen diagonal.

External light falling on the screen impairs picture quality.

To assure sufficient ventilation make sure there is enough space around it in the wall unit.

The television set is designed for use in dry rooms. If you do use it in the open, please ensure that it is protected from moisture, such as rain or splashing water. Do not expose the television set to any moisture.

Do not place any vessels such as vases on the television, as they may spill liquid, thus presenting a safety risk.

Place the television set on a solid, level surface. Do not place any objects such as newspapers on the television set or cloth or similar items beneath it.

Do not place the television set close to heating units or in direct sunlight, as this will impair cooling.

Heat build-up can be dangerous and shortens the operating life of the television set. For reasons of safety, have a specialist remove any dirt deposits in the set from time to time.

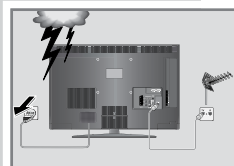
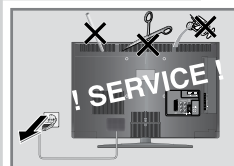
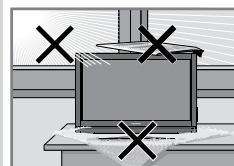
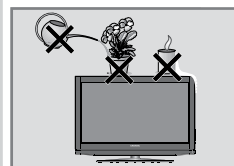
Do not open the television set under any circumstances. Warranty claims are excluded for damage resulting from improper handling.

Make sure the power cord or the power supply unit (if provided) are not damaged.

The television set may only be operated with the mains cable/adaptor supplied.

Thunderstorms are a danger to all electrical devices. Even if the television set is switched off, it can be damaged by a lightning strike to the mains or the antenna cable. Always disconnect the mains and antenna plugs during a storm.

Clean the screen with a soft, damp cloth. Only use plain water.



## SET-UP AND SAFETY

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Please note when deciding where to put the device that furniture surfaces are covered by various types of lacquer and plastic, most of which contain chemical additives. These may cause corrosion to the feet of the device, thus resulting in stains on the surface of the furniture which can be difficult or impossible to remove.

The screen of your LCD television meets the highest quality standards and has been checked for pixel faults.

Despite the great care taken in manufacturing, technological reasons make it impossible to completely discount the possibility that some pixels may be faulty.

Provided they are within the thresholds specified by the DIN norm, pixel faults of this kind cannot be regarded as a defect as defined by the warranty.

### **Notes:**

Do not connect any other equipment while the device is switched on. Switch off the other equipment as well before connecting it. Only plug the device into the mains socket after you have connected the external devices and the antenna. Make sure the power plug is freely accessible.

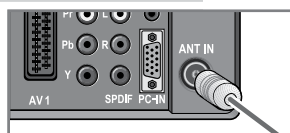
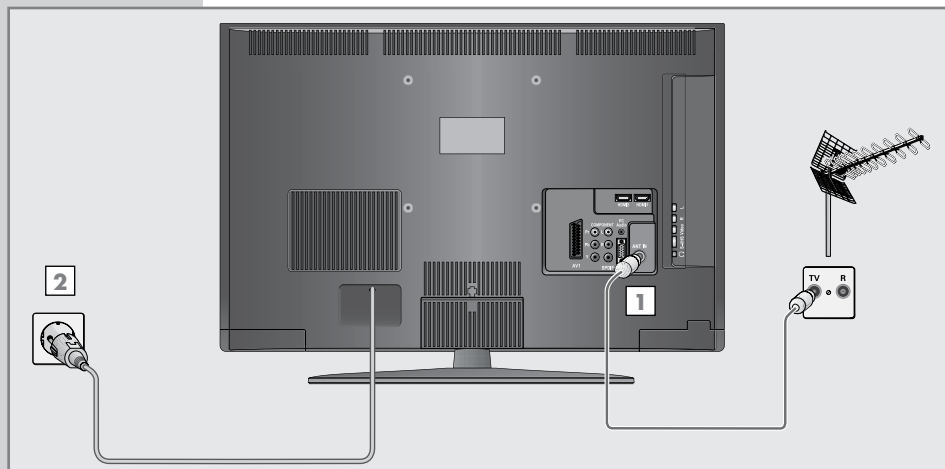
### **Caution:**

If you want to use a wall bracket for your television, make sure you read the assembly instructions for the wall bracket carefully or have your specialist dealer mount it for you.

When buying the wall bracket, make sure that all the fastening points needed on the television are there on the wall bracket and that they are all used when it is mounted.

# CONNECTION/PREPARATION\_\_\_\_\_

## Connecting the antenna and the mains cable



- 1 Plug the antenna cable of the rooftop antenna into the »ANT IN« antenna socket on the television.
- 2 Plug the mains cable into the wall socket.

### Note:

Only plug the device into the mains socket after you have connected the external devices and the antenna.

Only connect the television using the power cord supplied to a suitable earthed safety socket.

Do not use an adapter plug or extension lead which does not meet the applicable safety standards. Do not tamper with the power cord.

# CONNECTION/PREPARATION\_\_\_\_\_

## Inserting batteries in the remote control

- 1 Open the battery compartment by removing the lid.
- 2 Insert the batteries (3 x 1.5 V micro for example R03 or AAA). Observe the polarity (marked on the base of the battery compartment).
- 3 Close the battery compartment.

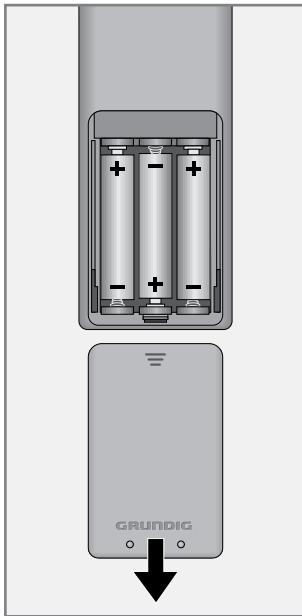
### **Note:**

If the television no longer reacts properly to remote control commands, the batteries may be flat. Be sure to remove used batteries.

The manufacturer accepts no liability for damage resulting from used batteries.

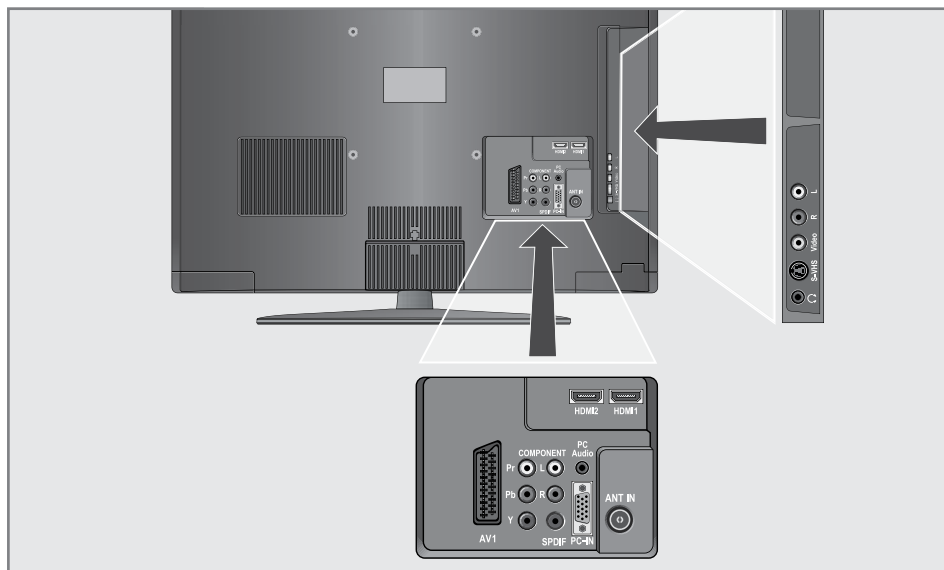
### **Environmental note**

Batteries, including those which contain no heavy metal, may not be disposed of with household waste. Please dispose of used batteries in an environmentally sound manner. Find out about the legal regulations which apply in your area.



# OVERVIEW

## Connections on the television



|                                                                                     |                                                                                                                                 |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>AV 1</b>                                                                         | Euro/AV socket (FBAS signal, RGB signal).                                                                                       |
| <b>COMPONENT</b>                                                                    |                                                                                                                                 |
| <b>Y Pb Pr</b>                                                                      | Video signal input (YUV signal).                                                                                                |
| <b>L R</b>                                                                          | Audio signal input (YUV signal).                                                                                                |
| <b>SPDIF</b>                                                                        | Audio output sockets (coaxial) for PCM signals. For connecting to a digital multi-channel audio/video amplifier or AV receiver. |
| <b>PC Audio</b>                                                                     | Audio signal input for PC.                                                                                                      |
| <b>PC-IN</b>                                                                        | VGA socket, video signal input for PC.                                                                                          |
| <b>ANT IN</b>                                                                       | Antenna socket.                                                                                                                 |
| <b>HDMI2</b>                                                                        | HDMI socket, audio/video signal input (HDMI).                                                                                   |
| <b>HDMI1</b>                                                                        | HDMI socket, audio/video signal input (HDMI).                                                                                   |
|  | Headphone connection (3.5 mm jack plug).                                                                                        |
| <b>S-VHS</b>                                                                        | Video signal input for S-Video camcorder.                                                                                       |
| <b>Video</b>                                                                        | Video signal input for camcorder.                                                                                               |
| <b>R L</b>                                                                          | Audio signal input for camcorder.                                                                                               |

# OVERVIEW

## Controls on the television



**⏻/I**

Switches the television on and back into standby mode.

The only way to disconnect the television from the mains supply is to pull the plug.

**V- V+**

Adjust the volume.

Select menu functions.

**MENU**

Opens the »MAIN MENU« menu.

Press »**P+**« or »**P-**« to select an item.

Press »**V+**« or »**V-**« to activate a function.

Press »**V+**« or »**V-**« to set a function.

Press »**MENU**« to close the menu.



Opens the pre-selection for AV channels.

Select within the menu with »**P+**« or »**P-**«, confirm with »**V+**« or »**V-**«.

**P- P+**

Switch the television on from standby.

Channel selection.

Select a function in the menu.

# OVERVIEW

## The remote control



Switches the television off (standby).

**1...0**

Switches the television on from standby mode.  
Selects stations directly.

**AV**

Opens the pre-selection for AV channels.  
Press **▲** or **▼** to select and press **●** to confirm.

**?**

Displays information, such as the number and name of the station, the time, etc;  
reveals answers in teletext mode.

**PIP**



Switches between picture formats;  
switches to double character size in teletext mode.



Sound on/off (mute).

**i**

Opens and closes the main menu.

**Z**

Zapping function;  
holds the page in teletext mode.

**▲ ▼**

Switch the television on from standby;  
selects stations step by step;  
move the cursor in the menus up and down.



Opens the channel list;  
activates various functions.

**- +**

Adjusts the volume.  
Moves the cursor left/right in the menu.

**TXT**

Switches between teletext and TV modes.

**TV-G**

Key has no function.



Selects various picture settings;  
selects a page in teletext mode.



Shows the time;  
selects a page in teletext mode.



Selects a page in teletext mode.



Selects various sound settings;  
switches to the previous menu;  
selects a page in teletext mode.

# OVERVIEW



## SCAN

## PAT

## S

## P

## M

Enlarges the picture.

Selects the split screen function and returns to normal picture.

Selects sub-pages in teletext mode.

Updates the page in teletext mode.

Switches to operation of a GRUNDIG digital receiver, GRUNDIG digital receiver with hard disk (PDR), GRUNDIG DVD player, GRUNDIG DVD recorder or GRUNDIG AV receiver.

Press »M« until the »DR«, »DVD« or »AMP« display lights up.

Then select the one you want.

If you do not press a button within 10 seconds, the remote control returns to television mode (»TV«).

### Note:

»DR« has been programmed for operating a GRUNDIG digital receiver (remote control level 1).

»DVD« has been programmed for operating a GRUNDIG DVD player.

»AMP« has been programmed for operating a GRUNDIG AV receiver.

The functions available depend on the model of the device you are using.

Just try it out.

You can change this programming:

Press and hold down »M« and press three number buttons to enter the code:

»1«, »2«, »3« for a GRUNDIG DVD player.

»4«, »5«, »6« for a GRUNDIG DVD recorder.

»1«, »4«, »7« for a GRUNDIG digital receiver (remote control level 1).

»2«, »5«, »8« for a GRUNDIG digital receiver (remote control level 2).

»3«, »6«, »9« for a GRUNDIG digital receiver with a hard disc (PDR).

# SETTINGS

## Setting television channels automatically

The television set is equipped with an automatic channel search system.

You start the search and can then sort the television channels into your order of preference.

99 preset positions are provided, to which you can assign television channels from the antenna or from the cable connection.

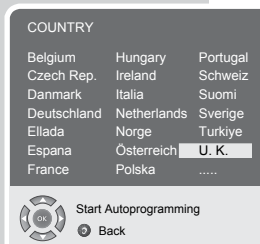
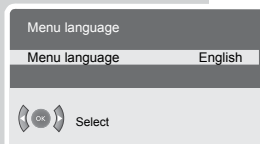
- 1 Press **⏻**, **»1...0«** or **»^«** or **»v«** to switch on the device from standby mode.

- The **»Menu language«** menu appears when the television is first switched on.

### Hint:

If the **»Menu language«** menu does not appear on the screen, then set it in accordance with the chapter on resetting all television channels on page 31.

- 2 Select language with **»-«** or **»+«** and press **»●«** to confirm.
  - The **»COUNTRY«** menu appears.
- 3 Press **»^«**, **»v«**, **»-«** or **»+«** to select the country and **»●«** to confirm.
  - The search begins. It may last a few minutes, depending on the number of television stations found.
  - After the search the television switches to channel position 1 and the **»PROGRAM TABLE«** menu appears.



## Changing stored channels

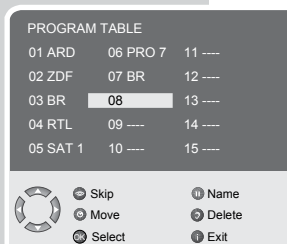
You can delete channels that have been stored more than once during the automatic search. You can also store channels in a different preset position, change or enter the name of a channel as well as skip channels.

### Deleting channels

- 1 In the **»PROGRAM TABLE«** menu, select the station to be deleted with **»^«**, **»v«**, **»-«** or **»+«**.
- 2 Highlight the channel with **»↻«** (blue).
- 3 Press **»↻«** (blue) to delete the channel.

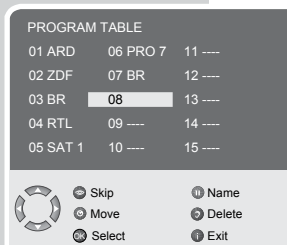
### Note:

To delete other stations, repeat steps 1 to 3.



# SETTINGS

## Sorting television channels

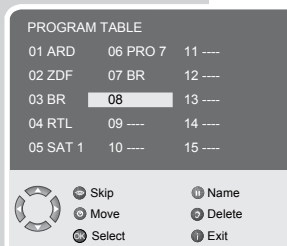


- 1 In the »PROGRAM TABLE« menu, select the channel to be moved with »▲«, »▼«, »-« or »+«.
- 2 Highlight the channel with »⌂« (green).
- 3 Select a new channel position by pressing »▲«, »▼«, »-« or »+« and then press »⌂« (green) to confirm.
  - All of the channels that follow move up one position.

### Note:

To sort the other television channels repeat steps 1 to 3.

## Entering the channel names (maximum of 5 characters)



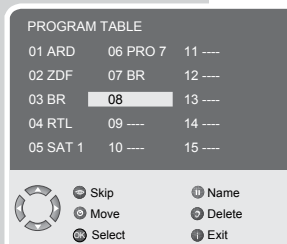
- 1 In the »PROGRAM TABLE« menu, select the desired channel with »▲«, »▼«, »-« or »+«.
- 2 Highlight the channel with »□□« (yellow).
- 3 Select letters or numbers with »▲« or »▼«, move to the next position with »-« or »+« and repeat.
- 4 Store the channel name with »□□« (yellow).

### Note:

To enter additional channel names, repeat steps 1 to 4.

## Skipping television channels

You can mark television channels which should be skipped during selection with »▲« or »▼«. A selection with the number keys is also possible.



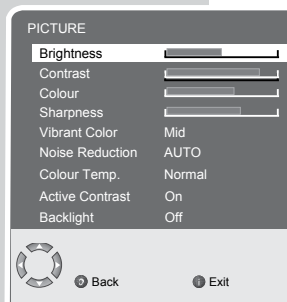
- 1 In the »PROGRAM TABLE« menu, select the desired channel with »▲«, »▼«, »-« or »+«.
- 2 Highlight the channel with »⏏« (red).
  - The station is now displayed in red.
  - You can deselect the selected channel by pressing the red button again.

## Concluding the settings

- 1 Press »i« to finish the settings.

# SETTINGS

## Picture settings



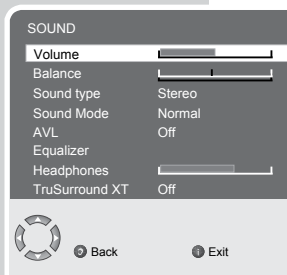
- 1 Press »i« to open the »MAIN MENU«.  
– The »MAIN MENU« appears.
- 2 Select »Picture« with »▲« or »▼« and confirm with »●«.  
– The »PICTURE« menu appears.
- 3 Select the line »Brightness«, »Contrast«, »Colour«, »Sharpness«, »Vibrant Color«, »Noise Reduction«, »Colour Temp.«, »Active Contrast« (backlighting adjusts according to the picture content to ensure optimum contrast) or »Backlight« (backlighting for the LCD screen) with »▲« or »▼«.

### Note:

You can only change the backlighting if the »Active Contrast« function is switched off.

- 4 Press »-« or »+« to select the level.
- 5 Press »i« to finish the settings.

## Audio settings



- 1 Press »i« to open the »MAIN MENU«.  
– The »MAIN MENU« appears.
- 2 Select »Sound« with »▲« or »▼« and confirm with »●«.  
– The »SOUND« menu appears.

### Volume

- 1 Select »Volume« with »▲« or »▼« and adjust the setting with »-« or »+«.

### Balance

- 1 Select »Balance« with »▲« or »▼« and adjust the setting with »-« or »+«.

### Stereo / two channel, mono

If the device receives two channel programmes, e.g. a film with the original sound on sound channel B (display: »Dual II«) and the dubbed version on sound channel A (display: »Dual I«), you can select the sound channel you desire.

If the device receives stereo or Nicam programmes, it switches automatically to stereo sound (display: »Stereo«).

You can switch the sound to »Mono« if the stereo reception quality is poor.

- 1 Select »Sound type« with »▲« or »▼« and adjust the setting with »-« or »+«.

# SETTINGS

## Stereo width

Widens the audio output for stereo programmes and improves the sound with mono reception.

- 1 Select »Sound Mode« with »▲« or »▼«.
- 2 Select the setting »Spatial« with »-« or »+«.

## SRS TruSurround XT\*

SRS TruSurround XT is a patented audio technology, which is integrated in the television set and only requires the built-in speakers to produce a Surround Sound effect.

- 1 Select the »Sound Mode« line with »▲« or »▼«.
- 2 Select the setting »SRS« with »-« or »+«.

## TruBass and Dialog Clarity

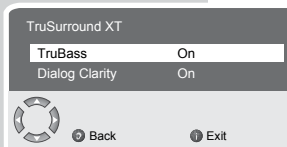
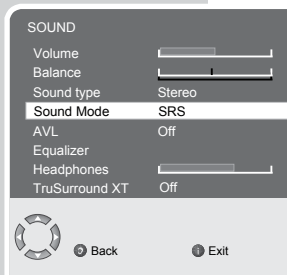
The »TruBass« setting gives you an increased bass effect. »Dialog Clarity« recognises dialogue sections in audio recordings and improves dialogue reproduction.

- 1 Select »TruSurround XT« with »▲« or »▼« and press »OK« to confirm.  
(The »SRS« setting must be selected in the »Sound Mode« line.)  
– The »TruSurround XT« menu is displayed.
- 2 Select the »TruBass« or »Dialog Clarity« line with »▲« or »▼« and select »On« with »-« or »+«.
- 3 Press »↻« (blue) to end the settings.

## Automatic volume

The television channels broadcast at different volumes. The automatic volume limiting (AVL) function means the volume is kept the same when you switch between channels.

- 1 Select »AVL« with »▲« or »▼« and then select »On« with »-« or »+«.

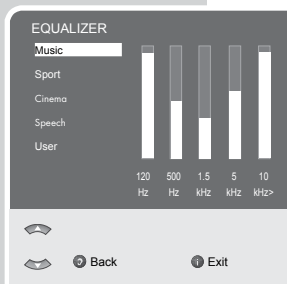


\* Under licence from SRS Labs, Inc.

TruSurround XT, SRS and the  symbol are trademarks of SRS Labs, Inc.

## Equalizer

The equalizer offers you four preset sound settings (Music, Sport, Cinema and Speech) and one which you can create yourself (User).



- 1 Select »Equalizer« with »▲« or »▼« and confirm with »●«.  
(If the »SRS« setting has been selected in the »Sound Mode« line, the »Equalizer« line cannot be selected.)  
- The »EQUALIZER« menu appears.
- 2 Select the audio setting »User« with »▲« or »▼« and confirm with »+«.  
- The frequency band »120 Hz« is activated.
- 3 Set the desired value with »▲« or »▼« and select the next frequency band with »-« or »+«.
- 4 Press »↻« (blue) to save the setting.

## Concluding the settings

- 1 Press »i« to finish the settings.

# TELEVISION OPERATION

## Basic functions



### Switching on and off

- 1 Press »«, »1...0« or »« or »« to switch on the device from standby mode.
- 2 Press the »« button to switch the television to standby mode.

### Selecting channels

- 1 Use »1...0« to select channels directly.
- 2 Press »« or »« to move up and down channels.
- 3 Open the channel list by pressing »«, select the station with »« or »« and press »« to switch off the channel list.

### Selecting AV channels

- 1 Call up the »SOURCE TABLE« menu with »AV«.
- 2 Select the desired AV channel position with »« or »« and press »« to confirm.
- 3 Switch back to the television channel with »1...0«.

### Adjusting the volume

- 1 Adjust the volume with »-« or »+«.

### Muting

- 1 Use »« to switch the sound off (mute) and to switch it on again.

### Displaying time

- 1 You can display the time by pressing the »« button (only for channels with teletext).

### Displaying information

- 1 Press »?« to display the information.
  - The display disappears automatically after a short while.

### Freeze-frame

If you wish to view a particular scene for longer, you can freeze the frame of the current programme.

- 1 Press »« (yellow).
- 2 To quit this function, press »« again.

# TELEVISION OPERATION

## Picture settings

You can select different picture settings.

- 1 Select the desired picture setting from »User«, »Standard«, »Soft«, »Natural« or »Rich« with »«.
  - You can alter the »User« picture setting, see the "Picture settings" chapter on page 13.

## Audio settings

You can select different audio settings.

- 1 Select the desired sound setting from »User«, »Music«, »Sport«, »Cinema« or »Speech« with »«.
  - You can alter the »User« sound settings, see the "Equalizer" chapter on page 15.

## Zap function

This function allows you to save the television channel which you are currently watching and switch to other channels (zapping).

- 1 Select the channel you want to save in the zap memory with »1...0« or »« or »«, (e.g. channel 1, BBC 1) and save by pressing »Z«.
  - The display »BBC 1« appears in the screen.
- 2 Change channels with »1...0« or »« or »«.
- 3 You can now use »Z« to switch between the saved channel (in the example, BBC 1) and the channel you were watching before.
- 4 Press »i« to quit the zap function.
  - The display disappears.

## Zoom function

With this function, you can enlarge the picture on the television or computer.

- 1 Activate the zoom function by pressing and holding down »SCAN«.

# TELEVISION OPERATION

## Changing the picture format

The television automatically switches to the 16:9 format if this format is detected via the Euro-AV socket.

- 1 Select the picture format with »«. The selected picture format, for example »16:9«, appears on the screen.
  - You can choose between the following picture formats:

### »AUTOMATIC« format

The picture format is automatically switched to »16:9« for 16:9 programmes.

For programmes in 4:3 format, the picture automatically fills the screen.

### »FORMAT 16:9« and »FORMAT 14:9« formats

During programmes in 4:3 format, the picture is stretched horizontally if »16:9« or »14:9« is selected.

The picture geometry is stretched horizontally.

With actual 16:9 signal sources (from a set-top box on the Euro-AV socket) the picture fills the screen completely and with the correct geometry.

### »FORMAT 4:3« format

The picture is shown in 4:3 format.

### »CINEMA« format

The letterbox setting is especially suitable for programmes in 16:9 format.

The black borders which are usually at the top and bottom of the screen are eliminated, 4:3 pictures fill the screen.

The transmitted pictures are enlarged, but are slightly cropped at the top and bottom. The picture geometry remains unchanged.

### »SKY TOP« format

If you cannot read the subtitles which appear at the bottom of the screen, then select »SKY TOP«.

### »PANORAMA« format

This setting is suited to films with a large width/height ratio.

During programmes in 4:3 format the picture is stretched horizontally if the »PANORAMA« function is selected. The picture geometry is stretched horizontally.

# TELETEXT MODE

## FLOF text and normal text mode

- 1 Press »**TEXT**« to switch to teletext mode.
- 2 Use »**1...0**« to enter the page number directly or »**▲**« and »**▼**« to switch up and down pages (to return to page 100, press »**i**«).

### Note:

At the bottom of the screen, you will see an information line consisting of a red, green and, depending on the station, yellow and blue text field. Your remote control has buttons with the corresponding colours.

- 3 Press »**👁**« (red), »**🕒**« (green), »**🟡**« (yellow) or »**🟢**« (blue) to select a teletext page. This depends on the options in the information line.
- 4 Press »**TEXT**« to switch off teletext mode.

## Additional functions

### Skipping the waiting time

While a page is being searched for, you can switch to the television channel.

- 1 Enter the teletext page number using »**1...0**« and then press »**P**«.  
– As soon as the page is found, the page number is displayed.
- 2 Press »**P**« to switch to the teletext page.

### Increasing character size

If you have difficulty reading the text on the screen, you can increase the character size.

- 1 To enlarge the character size of a teletext page, press »**🔍**« repeatedly.

### Page stop

A multiple page may contain several sub-pages, which are automatically scrolled by the transmitting station.

- 1 Stop the sub-pages with »**Z**«.
- 2 Press »**Z**« to quit the function.



# TELETEXT MODE\_\_\_\_\_

## Calling up a sub-page directly

If the selected teletext page contains further pages, the number of the current sub-page as well as the total number of pages is displayed.

- 1 Call up the sub-pages with »**S**«.
- 2 Press »**1...0**« to enter the sub-menu.
- 3 Press »**S**« to quit the function.

## Reveal answer

Certain teletext pages contain "hidden answers" or information which can be called up.

- 1 Display information with »**?**«.
- 2 Conceal information with »**?**«.

## Split screen (Split Screen)

With this function you can see the television channel on the left and the teletext page on the right.

- 1 To activate the split screen function, press »**PAT**«.
  - The television channel and the teletext page appear next to each other on the screen.
- 2 To deactivate the split screen function, press »**PAT**«.



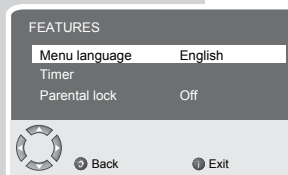
# CONVENIENCE FUNCTIONS\_\_\_\_\_

## Convenience functions with the »Features« menu

- 1 To open the »MAIN MENU« press »i«.
- 2 Select »Features« with »▲« or »▼« and confirm with »●«.

### Note:

Further operation is explained in the following sections.

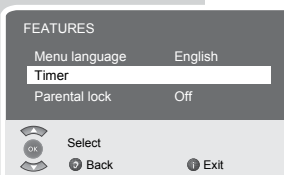


## Changing the menu language

- 1 Select »Menu language« with »▲« or »▼«
- 2 Select the language with »-« or »+«.
- 3 Press »i« to finish the setting.

## Timers

A switch-on and switch-off time can be set in the »TIMER« menu. After this time has elapsed, the television switches to standby mode or switches on from standby mode. Enter the channel number of the TV station in to the channel number field and the television switches on to it.



- 1 Select »Timer« with »▲« or »▼« and confirm with »●«.
- 2 Select »Current time«, »Turn-off time«, »Turn-on time« or »Program no« with »▲« or »▼«.
- 3 Enter the time, turn-off time«, turn-on time or program number with »1...0«.

### Note:

You can delete the switch-on or switch-off time with »●«.

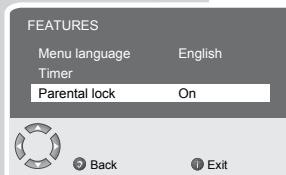
- 4 Press »i« to end the setting.

# CONVENIENCE FUNCTIONS\_\_\_\_\_

## Activating the parental lock

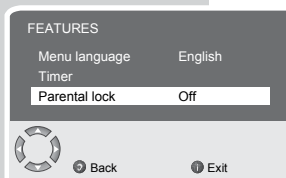
You can block programmes which are unsuitable for children.

- 1 Select the television channel with »▲«, »▼« or »1...0«.
- 2 To open the »MAIN MENU« press »i«.
- 3 Select »Features« with »▲« or »▼« and confirm with »●«.
- 4 Select »Parental lock« with »▲« or »▼« and confirm with »●«.
- 5 Activate the parental lock with »-« or »+« (On).
- 6 Press »i« to finish the setting.  
- The selected channel position is now blocked.



## Deactivating the parental lock

- 1 Select the blocked television channel with »1...0«.
- 2 To open the »MAIN MENU« press »i«.
- 3 Select »Features« with »▲« or »▼« and confirm with »●«.
- 4 Select »Parental lock« with »▲« or »▼« and confirm with »●«.
- 5 Switch off the parental lock with »-« or »+« (Off).
- 6 Press »i« to finish the setting.



# USING EXTERNAL DEVICES

## DVD player, DVD recorder, video recorder or set-top box

### Note:

Which television socket(s) you connect your external devices to depends on the sockets the external device is equipped with and the signals which are available.

Note that with many external devices the resolution of the video signal must be adapted to the input sockets on the television (check the external device's instruction manual). You can find out which values you need to set by referring to the guidelines in the section about connection options.

### Note:

Do not connect any other equipment while the device is switched on. Switch off the other equipment as well before connecting it. Only plug the device into the mains socket after you have connected the external devices.

## High definition – HD ready

Your television can playback high-definition television signals (HDTV).

You can connect the input sources (HDTV set-top box or High Definition DVD player) to the »HDMI« socket (digital HDTV signal).

This ensures that you can view digital HDTV programmes, even if they are copy-protected (HDCP High Bandwidth Digital Content Protection).



## Connecting a DVD player, DVD recorder, video recorder or set-top box

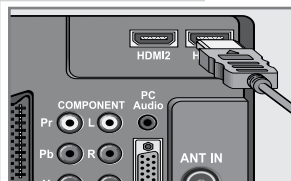
### With a digital audio/video signal

Video signal: digital video; resolution: standard 576p; HDTV 720p, 1080i, 1080p.

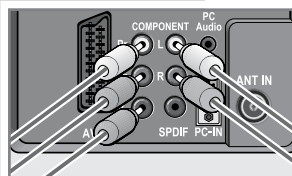
Audio signal: digital audio (stereo, multi-channel compression, uncompressed).

Channel position »HDMI1« or »HDMI2«.

- 1 Connect the »HDMI1« or »HDMI2« socket on the television and the corresponding HDMI socket on the external device using a standard HDMI cable (digital video and audio signal).



# USING EXTERNAL DEVICES



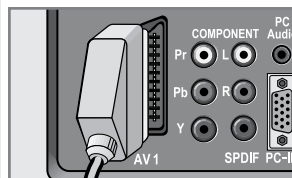
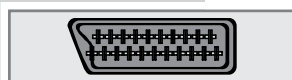
## With an analogue video signal (progressive)

Video signal: YUV; resolution: standard 576p; HDTV 720p, 1080i, 1080p.

Audio signal: stereo, analogue.

Channel position »YPbPr«.

- 1 Connect the »**COMPONENT Y Pb Pr**« sockets on the television and the corresponding sockets on the external device using cinch cables (video signal).
- 2 Connect the »**COMPONENT L R**« sockets on the television to the corresponding sockets on the external device using cinch cables (audio signal).



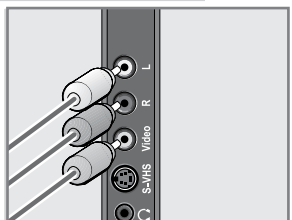
## Using the Euro/AV socket

Video signal: CVBS/RGB (AV1).

Audio signal: stereo, analogue.

Channel position »AV1«.

- 1 Connect the »**AV1**« socket on the television and the corresponding socket on the external device using a EURO-AV cable (video and audio signal).



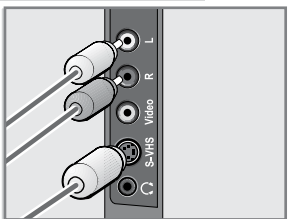
## With an analogue TV signal

Video signal: CVBS.

Audio signal: stereo, analogue.

Channel position »AV2«.

- 1 Connect the »**Video**« cinch socket on the television and the corresponding socket on the external device using cinch cables (video signal).
- 2 Connect the »**R L**« sockets on the television to the corresponding sockets on the external device using cinch cables (audio signal).



## With S-Video signal

Video signal: Y/C, resolution 576i; video, resolution 576i.

Audio signal: stereo, analogue.

Channel position »S-VHS«.

- 1 Connect the »**S-VHS**« socket on the television and the corresponding socket on the external device using an S-Video cable (video signal).
- 2 Connect the »**R L**« sockets on the television to the corresponding sockets on the external device using cinch cables (audio signal).

# USING EXTERNAL DEVICES

## Using a video recorder, DVD player or set-top box

- 1 Switch on the video recorder, DVD player or set-top box and select the function you wish to use.
- 2 Press **»AV«**, select the input signal channel with **»▲«** or **»▼«** (**»AV1«**, **»AV2«**, **»S-VHS«**, **»HDMI1«**, **»HDMI2«** or **»YPbPr«**) and press **»●«** to confirm.

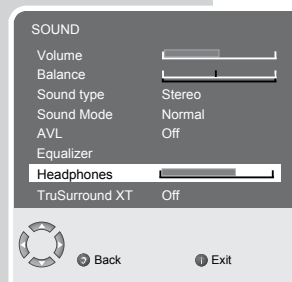
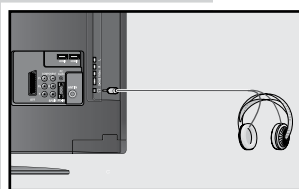
## Headphones

### Connecting headphones

- 1 Plug the headphone jack (3.5 mm jack plug) into the headphone socket on the left side of the television.

### Selecting the sound settings for the headphones

- 1 Press **»i«** to open the **»MAIN MENU«**.
- 2 Select **»Sound«** with **»▲«** or **»▼«** and confirm with **»●«**.
- 3 Select **»Headphones«** with **»▲«** or **»▼«**.
- 4 Press **»-«** or **»+«** to adjust the headphone volume.
- 5 Press **»i«** to finish the setting.

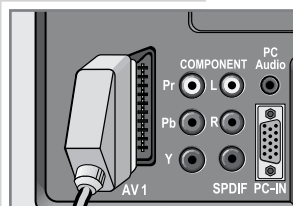
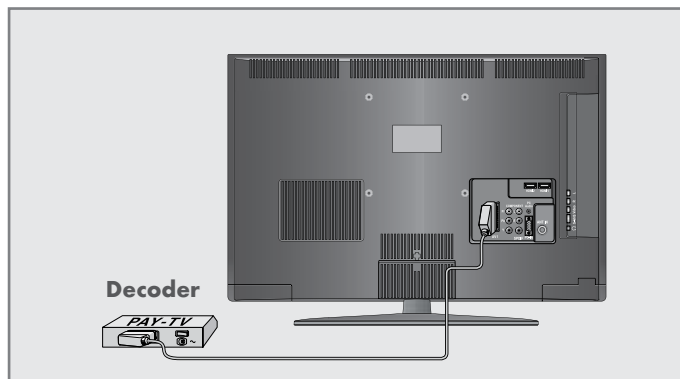


# USING EXTERNAL DEVICES \_\_\_\_\_

## Decoder or satellite receiver

In order for the television to receive encoded programs from a privately operated station, a decoder is needed.

### Connecting a decoder or satellite receiver



- 1 Connect the »AV1« socket on the television set and the appropriate socket on the decoder using a EURO-AV cable.

### Using a decoder or satellite receiver

- 1 Switch on the television and the decoder or the satellite receiver.
- 2 Press »AV«, select the channel »AV1« with »▲« or »▼« and press »●« to confirm.

# USING EXTERNAL DEVICES

## Camcorder

### Connecting the camcorder

- 1 Connect the yellow socket »**Video**« on the television and the corresponding socket on the camcorder (VHS, Video 8) with a cinch cable (picture signal);

or

connect the »**S-VHS**« socket (picture signal) on the television and the corresponding socket on the camcorder (S-VHS, Hi 8) with a S-Video cable.

- 2 Connect the white and red sockets »**R L**« on the television and the corresponding sockets on the camcorder with a cinch cable (audio signal).

#### Note:

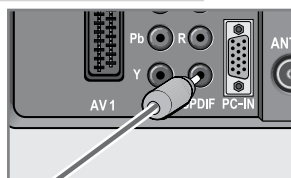
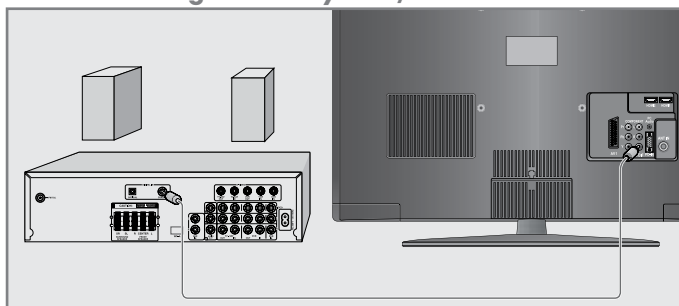
There must not be video signals at »**Video**« and »**S-VHS**« sockets at the same time. This could lead to picture disturbances.

### Operating with a camcorder

- 1 Switch on the camcorder, insert a cassette and start playback.
- 2 Press »**AV**«, select the »**AV2**« or »**S-VHS**« channel with »**▲**« or »**▼**« and press »**●**« to confirm.

## Hi-fi system/AV receiver

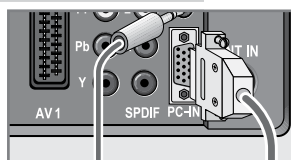
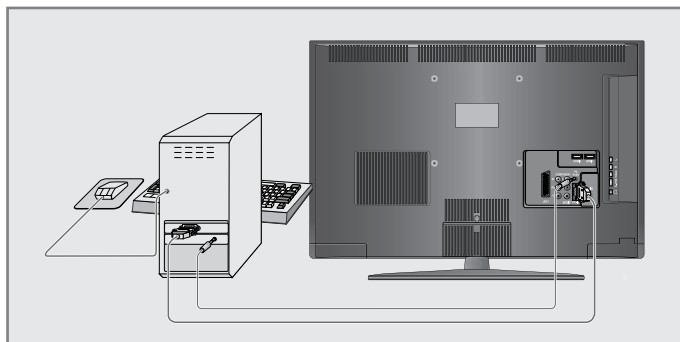
### Connecting the hi-fi system/AV receiver



- 1 Connect the socket »**SPDIF**« on the television to the corresponding socket on the AV receiver using a cinch cable (digital audio signal).

# PC MONITOR MODE\_\_\_\_\_

## Connecting a PC



- 1 Connect the socket »PC-IN« on the television to the corresponding socket on the PC using a VGA cable.
- 2 Connect the socket »PC Audio« on the television to the corresponding socket on the PC using a cinch cable (audio signal).

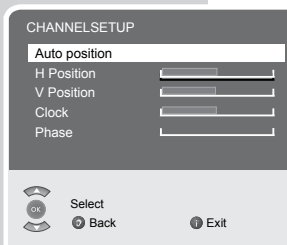
### Note:

Adjust your PC to the monitor (for example, picture resolution 1280 x 768, picture frequency 60 Hz).

## Selecting the channel position for the PC

- 1 Press »AV«, select the »PC« channel with »▲« or »▼« and press »●« to confirm.

## Settings for the PC



- 1 Press »i« to open the »MAIN MENU« menu.  
- The »MAIN MENU« menu appears.
- 2 Select »Channel setup« with »▲« or »▼« and press »●« to confirm.
- 3 Select the function or setting you want with »▲« or »▼« and press »-« or »+« to execute it.  
- Options:  
 »Auto position« For automatic PC configuration;  
 »H. Position« Adjust the picture position horizontally;  
 »V. Position« Adjust the picture position vertically;  
 »Clock« Set the cycle frequency;  
 »Phase« Remove horizontal flicker, blurring and horizontal lines.
- 4 Press »i« to exit the »Channel setup« menu.

# SPECIAL SETTINGS

## Setting television channels

This setting is only necessary if a new channel comes on air and you do not want to change the order of your channels. The television channel can be set directly or using the search.

### Setting channels using the search

- 1 Press »i« to open the »MAIN MENU«.  
– The »MAIN MENU« appears.
- 2 Select »Channel setup« with »▲« or »▼« and confirm with »●«.  
– The »CHANNEL SETUP« menu appears.
- 3 Select »Program no« with »▲« or »▼« and set the preset channel with »-« or »+«.
- 4 Select »Search« with »▲« or »▼« and start the search with »-« or »+«.  
– If a strong station signal is received, the search is interrupted and the picture appears. Repeat the search until the channel you want appears on the screen.

#### Note:

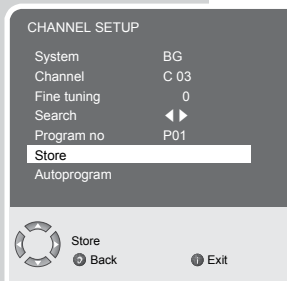
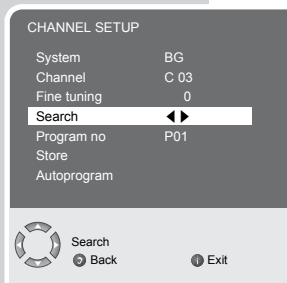
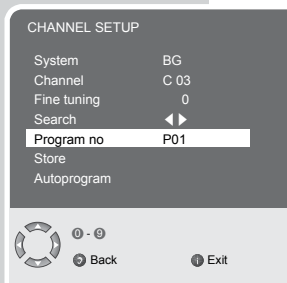
The current system is automatically displayed in the »System« line. Select »System« with »▲« or »▼« if the colour or sound are incorrect. Select the setting required with »-« or »+«.

- 5 Select »Store« with »▲« or »▼« and confirm with »-« or »+«.  
– The »Stored« message appears.

#### Note:

To set other television stations, repeat steps 3 to 5.

- 6 Press »i« to finish the setting.



# SPECIAL SETTINGS

## Fine tuning television channels

The television automatically tunes itself to the best possible reception. You may need to carry out manual fine tuning in areas where there is poor reception.

- 1 Press »i« to open the »MAIN MENU«.  
– The »MAIN MENU« appears.
- 2 Select »Channel setup« with »▲« or »▼« and confirm with »●«.  
– The »CHANNEL SETUP« menu appears.
- 3 Select »Fine tuning« with »▲« or »▼« and set it with »-« or »+«.
- 4 Select »Store« with »▲« or »▼« and confirm with »-« or »+«.  
– The »Stored« message appears.
- 5 Press »i« to finish the setting.

## Setting the television channels by entering the channel numbers

- 1 Press »i« to open the »MAIN MENU«.  
– The »MAIN MENU« appears.
- 2 Select »Channel setup« with »▲« or »▼« and confirm with »●«.  
– The »CHANNEL SETUP« menu appears.
- 3 Select »Program no« with »▲« or »▼« and set the preset channel with »-« or »+«.
- 4 Select »Channel« with »-« or »+«.
- 5 Press »●« to choose between »S« (special channel) and »C« (channel).
- 6 Press »-« or »+« to switch up and down channels or use »1...0« to enter the channel number directly.

### Note:

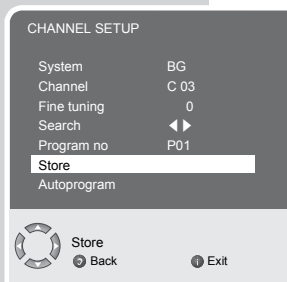
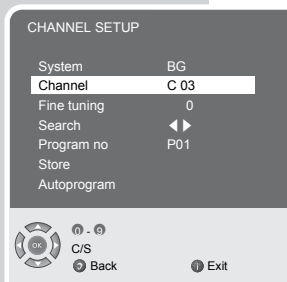
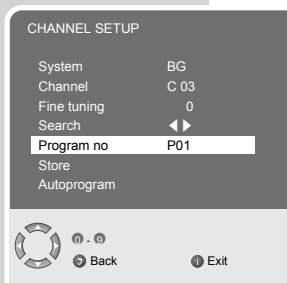
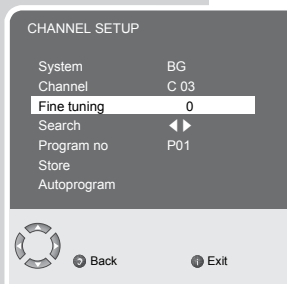
The current system is automatically displayed in the »System« line. Select »System« with »▲« or »▼« if the colour or sound are incorrect. Select the setting required with »-« or »+«.

- 7 Select »Store« with »▲« or »▼« and confirm with »-« or »+«.  
– The »Stored« message appears.

### Note:

To set the other television stations, repeat steps 3 to 7.

- 8 Press »i« to finish the setting.



# SPECIAL SETTINGS

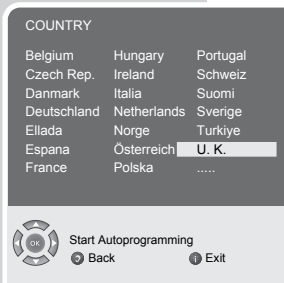
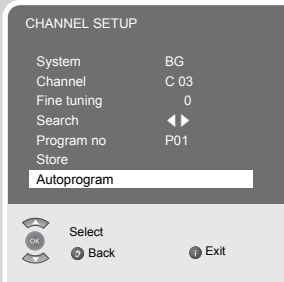
## Re-tuning all television channels

You can re-tune all the television stations, for example if you move to another town.

- 1 Select the channel with »P+«, »P-« or »1...0«, to select the preset number from which the new television channels will be added to the channel list, e.g. 1.
- 2 Press »i« to open the »MAIN MENU«.
- 3 Select »Channel setup« with »▲« or »▼« and confirm with »●«.  
- The »CHANNEL SETUP« menu appears.
- 4 Select »Autoprogram« with »▲« or »▼« and confirm with »●«.  
- The »COUNTRY« menu appears.
- 5 Press »▲«, »▼«, »-« or »+« to select the country.
- 6 Press »●« to start the search.  
- The search begins. It may last a few minutes, depending on the number of television stations found.

### Note:

You can interrupt the search by pressing »i«.



## Technical data

|                    |                                              |
|--------------------|----------------------------------------------|
| Operating voltage: | 220-240V~, 50-60 Hz                          |
| Power consumption: | in operation 130 W<br>in standby < 1W        |
| Sound output:      | 2 x 20 watts music (2 x 10 sine wave)        |
| Reception range:   | C01 ... C80,<br>special channels S01 ... S41 |
| Preset channels:   | 99 and 7 AV                                  |
| Screen size:       | 81 cm/32"                                    |
| Max. resolution:   | WUXGA 1920 x 1080                            |
| Weight:            | approx 11 kg                                 |

## Service information for dealers

The television set may only be operated with the mains adapter supplied.

The product complies with the following EU directives: 2006/95/EG directive for electrical equipment to be used within defined voltage ranges. 2004/108/EG directive on electromagnetic compatibility.

The device complies with the following standards: EN 60065, EN 55013, EN 55020, EN 55022, EN 55024.

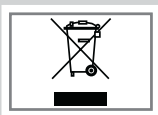
## Environmental note

This product has been made from high-quality parts and materials which can be re-used and recycled.

Therefore, do not throw the product away with normal household waste at the end of its life. Take it to a collection point for recycling electrical and electronic devices. This is indicated by this symbol on the product, in the operating manual and on the packaging.

Please find out about collection points operated by your local authority.

Help protect the environment by recycling used products.



# INFORMATION

## Troubleshooting

If the remedies given below do not work, please consult an authorised GRUNDIG dealer. Please bear in mind that malfunctions can also be caused by external devices such as video recorders or satellite receivers.

| Problem                              | Possible cause                                                           | Remedy                                                                                            |
|--------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Screen lit (snow), but no station    | Antenna cable                                                            | Is the antenna cable connected?                                                                   |
|                                      | No TV station programmed                                                 | Start a station search                                                                            |
| Poor picture contrast                | Picture settings incorrectly set                                         | Adjust the brightness, contrast or colour setting                                                 |
|                                      | Problem at station                                                       | Test with a different station                                                                     |
| Interference to picture and/or sound | Interference from other devices                                          | Change the position of the device                                                                 |
|                                      |                                                                          |                                                                                                   |
| Ghosting, reflection                 | Channel setting                                                          | Automatic or manual channel setting/fine tuning                                                   |
|                                      | Antenna                                                                  | Have antenna cable or system checked                                                              |
| No colour                            | Colour intensity at maximum                                              | Turn up the colour                                                                                |
|                                      | TV standard setting (if setting option is available)                     | Select the correct colour standard                                                                |
|                                      | Problem at station                                                       | Test with an another channel                                                                      |
| Picture but no sound                 | Volume set to minimum                                                    | Turn up or switch on the volume                                                                   |
|                                      |                                                                          |                                                                                                   |
| Teletext missing or faulty           | Problem at station                                                       | Test with an another channel                                                                      |
|                                      | Television station ( has no teletext) or antenna system                  | Test an another channel for fine tuning and ghosts                                                |
|                                      | Station signal too weak                                                  | Check the antenna system                                                                          |
| Remote control does not work         | No optical connection                                                    | Point the remote control at the television set                                                    |
|                                      | Remote control batteries                                                 | Check the batteries, change if necessary                                                          |
|                                      | Operating condition undefined                                            | Switch off the television with the main power button for approximately 2 minutes                  |
| Picture is dark in PC mode           | Incorrect setting for picture resolution and picture frequency on the PC | Change the setting on the PC (for example, picture resolution 1280 x 768, picture frequency 60Hz) |

### NOTE:

This is a Class A product. During operation the device can cause radio interference. In this case the user may have to remedy this. Please contact your specialist dealer.

## **Additional Information for units sold in the UK.**

Units sold in the UK are suitable for operation from a 240V ac, 50Hz mains supply.

The range of multi-system receivers is built to work in most European countries. However, the mains plug and socket system for the UK differs from many European countries.

This appliance has been supplied with a fitted, non-removable, approved converter plug for use in the UK. This converter plug is fitted with a 5A rated fuse.

In case this appliance is supplied with a moulded 2-pin Euro plug only, which is unsuitable for UK operation, this must be cut off and immediately disposed of. An approved 13A, 3-pin UK plug should then be fitted by a qualified electrician.

### **Note:**

The severed Euro plug must be destroyed to avoid a possible shock hazard should it be inserted into a socket elsewhere.

If a non-rewireable 3-pin plug or a rewireable 13A (BS1363) 3-pin plug is used, it must be fitted with a 5A ASTA or BSI approved BS1362 fuse. If any other type of plug is used it must be protected by a 5A fuse either in the plug, or at the distribution board. If this type of plug becomes defective, ensure that the fuse is removed before disposal, to eliminate potential shock hazard.

If it is necessary to change the fuse in the non-rewireable plug, the correct type and rating (5A ASTA or BSI approved BS1362) must be used and the fuse cover must be refitted. If the fuse cover is lost or damaged, the lead and plug must not be used until a replacement is obtained. Replacement fuse covers should be obtained from your dealer.

### **Important:**

The wires in the mains lead are colour coded in accordance with the following code:

BLUE – NEUTRAL

BROWN – LIVE

As the colours of the wires in the mains lead of your appliance may not correspond with the coloured marking identifying terminals in your plug, proceed as follows:

Connect the BLUE coloured wire to plug terminal marked with the letter "N" or coloured black.

Connect the BROWN coloured wire to the plug terminal marked with the letter "L" or coloured red.

In no circumstance must any of the wires be connected to the terminal marked with the letter "E", earth symbol "⏏", coloured green, or green & yellow.