

AUS GUTEM GRUND

GRUNDIG

COLOR TELEVISION

VISION 2 22-2930 T DVD

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CONTENTS

4

6

6

6

6

8

8

9

10

10

11

11

12

13

15

15

16

18

19

21

21

22

23

23

24

25

25

25

27

27

29

31

33

33

34

34

34

35

36

38

38

39

39

39

39

39

SET-UP AND SAFETY

GENERAL INFORMATION

Special features of your television

Receiving digital stations

What is Common Interface?

CONNECTION/PREPARATION

Connecting the antenna and the mains cable

Inserting batteries in the remote control

OVERVIEW

Connections on the television set

Controls on the television set

Adjusting the inclination of the screen

The remote control for television mode

The remote control for DVD and data mode

SETTINGS

Searching for television stations

Changing stored channels for digital stations

Picture settings

Audio settings

TELEVISION OPERATION

Basic functions

Zoom function

Zapping function

Electronic TV guide

Changing the picture format

TELETEXT MODE

FLOF text and normal text mode

Additional functions

CONVENIENCE FUNCTIONS

Convenience functions

Parental control

Timer functions

DVD PLAYBACK

Special DVD features

Preparation

Inserting the disc

Removing the disc

Playing a track

Additional playback functions

Repeating a chapter, a track or the disc

Creating a playlist

S-VCD/VCD PLAYBACK

S-VCD/VCD features

PBC (playback control)

Playing a track

Picture search

CONTENTS

40

40

41

42

43

43

44

46

46

46

46

48

49

50

51

51

52

52

52

53

53

54

56

58

58

58

59

59

59

59

60

60

60

61

61

61

62

62

62

63

64

USB-MODE

The file formats

Connecting external data media

The file browser

Settings in the USB setup menu

Playback – Basic functions

Additional playback functions

USING EXTERNAL DEVICES

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

High definition – HD ready

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

Headphones

Decoder or satellite receiver

Camcorder

PC MONITOR MODE

Connecting a PC

OPERATION WITH COMMON INTERFACE

Inserting the CA module

Access control for CA module and smart card

SPECIAL SETTINGS

Tuning digital television stations

Tuning analogue television stations

Changing stored channels for analogue stations

INFORMATION

Displaying signal information

Updating software

DVD SETTINGS

Setting the TV system (TV norm)

Selecting the TV format for your television

Selecting the language of the screen menu

Displaying and concealing the multi-angle symbol

Resetting the DVD to its original condition

Last playback position

Authorising the content of a DVD

Changing the password

Switching the dynamic range (volume range) on and off

Technical data

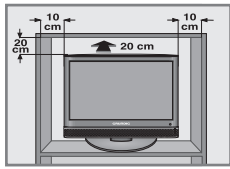
Service information for dealers

Environmental note

Troubleshooting

General information on laser devices

SET-UP AND SAFETY



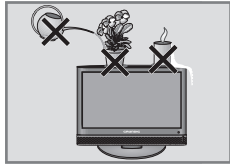
Please note the following information when setting up your television set.

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

Any other use is expressly prohibited.

External light falling on the screen impairs picture quality.

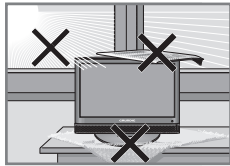
To assure sufficient ventilation make sure there is enough space around it in the wall unit.



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.

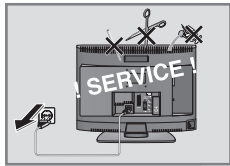
Do not place any vessels such as vases on the television, as they may spill liquid, thus presenting a safety risk.

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 insert foreign objects in the disc compartment.

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/adapter 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.

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.

SET-UP AND SAFETY

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.

GENERAL INFORMATION

Special features of your television

This television can receive and process all analogue and all unencrypted digital stations. This television set has an integrated digital and analogue receiver. The digital receiver unit converts the signals from digital stations to provide outstanding audio and picture quality.

The TV guide (only for digital stations) tells you of any schedule changes at short notice, and provides an overview of all the stations' schedules for the next few days.

Detailed information on the individual stations – if it is provided by the broadcaster – is also available in the electronic programme guide.

You can connect various data media, for example, an external hard drive, a USM memory stick or a digital camera to the USB socket. Using the file browser, you can then select and play the file formats you want (for example, MP4, MP3 or JPEG data).

The television set has a comprehensive, user-friendly menu system.

The menu is displayed on the television screen, and the functions of the remote control buttons are explained.

Receiving digital stations

To receive digital stations you need a digital rooftop or indoor antenna (passive or active indoor antenna with its own power supply).

Unlike analogue broadcasting, not every station has its own transmission frequency. Instead, several stations are grouped into what are known as bouquets on a regional or national level.

You can find the current transmission information on teletext from various broadcasters, or look in a TV guide or on the Internet.

What is Common Interface?

Common Interface (CI) is an interface for DVB receivers.

Encoded stations can only be viewed with a CA module suitable for the encoding system and the corresponding smart card.

The television set is equipped with a Common Interface slot into which CA modules from various providers can be inserted.

You can insert the provider's smart card into the CA module in order to enable the encrypted stations you want to see.

GENERAL INFORMATION_____

DVD mode

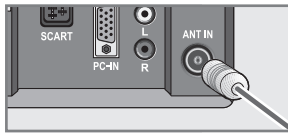
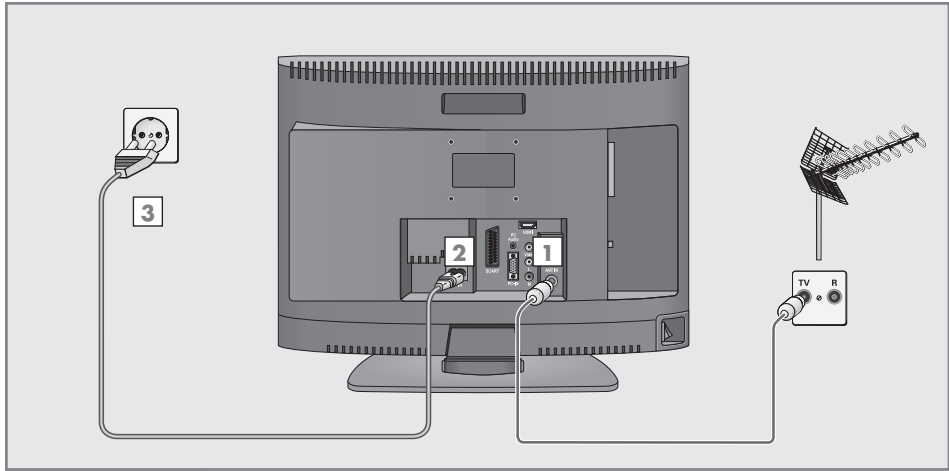
DVD mode provides your television with perfect picture playback in studio quality.

Other features of DVDs include the choice of audio channel and language, choice of subtitle language and various camera recording angles.

In addition to DVDs it can play MP4 video CDs, MP3 CDs, JPEG encoded (photo) CDs, video CDs, S-Video CDs and audio CDs. The functions of these data CDs are described in the chapter on audio and video files from page 40.

CONNECTION/PREPARATION_____

Connecting the antenna and the mains cable



- 1 Plug the cable of the rooftop or indoor antenna (passive or active indoor antenna with its own power supply for digital television stations) into the antenna socket »ANT IN« on the television set;

or

plug the rooftop antenna cable (for analogue television stations) into the »ANT IN« socket on the television.

Note:

When connecting an indoor antenna you may have to try it out at different positions until you get the best reception.

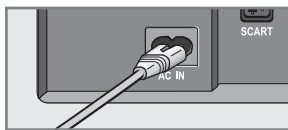
- 2 Plug the mains cable supplied into the »AC IN« mains socket of the television.
- 3 Plug the mains cable into the wall socket.

Note:

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

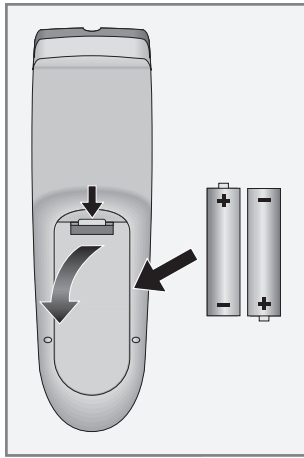
Only connect the television using the power cord supplied to a suitable earthed safety socket.

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 (2 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.

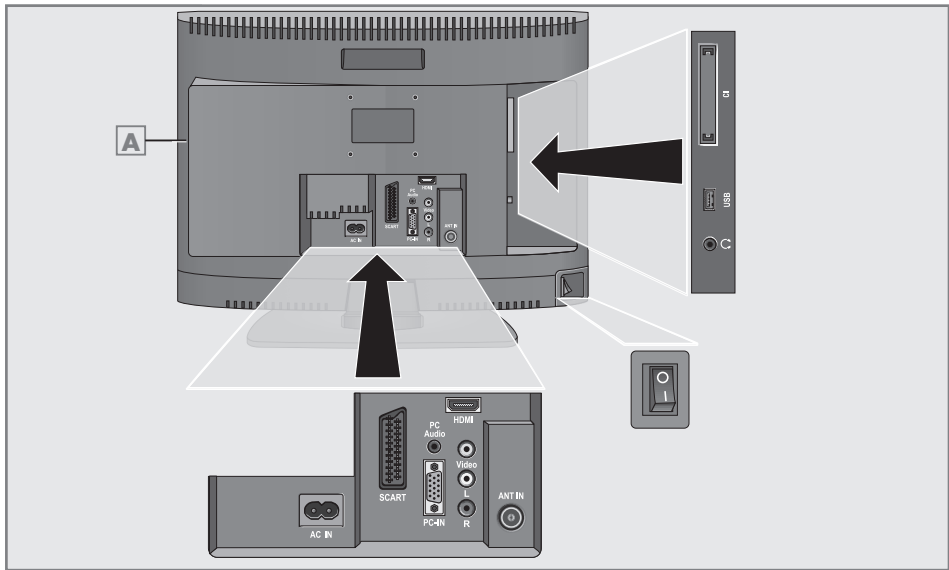
The manufacturer accepts no liability for damage resulting from used batteries.

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 set



A

AC IN

SCART

PC-IN

PC Audio

R L

Video

HDMI

ANTI-N



USB

CI

I O

Disc slot.

Power cord socket.

SCART socket (FBAS signal, RGB signal).

VGA socket, video input for PC.

Audio input for PC.

Audio input for camcorder.

Video input for camcorder.

HDMI socket, audio/video input (HDMI).

Antenna socket.

Headphone connection (3.5 mm ø jack).

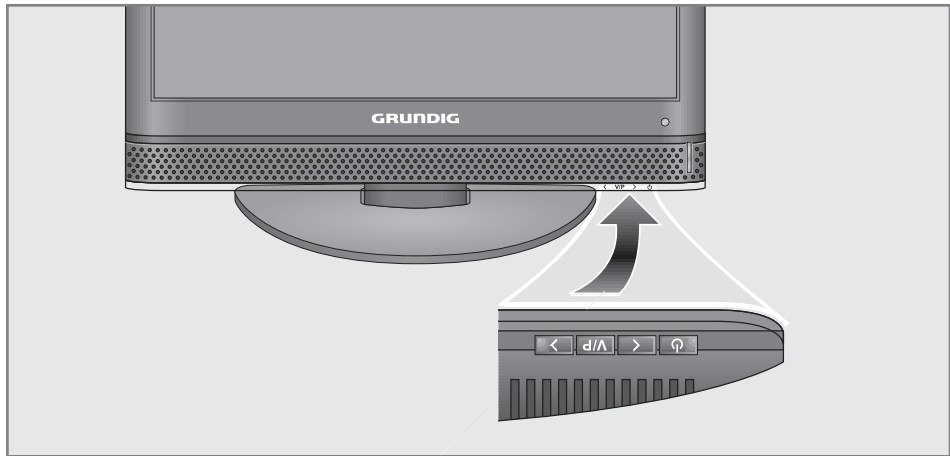
USB socket for external data media.




Common Interface slot.

Power switch, switches the television to standby or off.

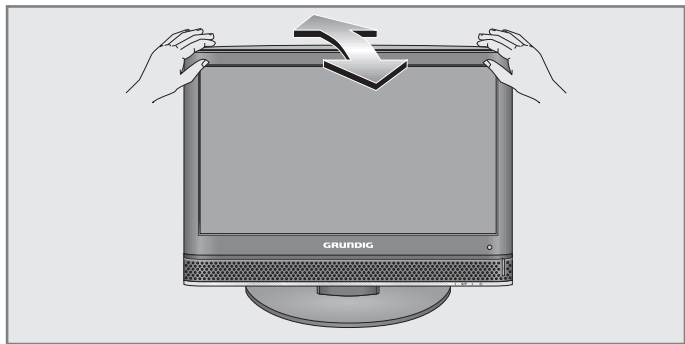
OVERVIEW

Controls on the television set



-  Switches the television on from standby and back into standby mode.
-  Decreases the volume;
station selection down.
- V/P** Pre-selection for volume or station.
Switches the television on from standby.
-  Increases the volume;
station selection up.

Adjusting the inclination of the screen



- 1 Carefully tilt the screen forward or back.

OVERVIEW

The remote control for television mode



MUTE

Sound on/off (mute).

POWER

Switches the television set in and out of standby mode.

1...0

Switch the television on from standby mode. Select stations directly.

16:9

Switches between picture formats.

0 FAV

Selects station lists.



Selects the zoom function.

i

Displays the number and name of a station (in analogue TV mode); displays the time, preset and station information (in digital TV mode); selects page 100 in teletext mode.

MENU

Opens and closes the menu.



Switches to the previous menu.

V+ V-

Adjust the volume.



Move the cursor up and down.



Move cursor to the left and right.

OK

Opens the channel list.

Activates various functions in the menu.

P+ P-

Switch the television on from standby mode. Select channels in steps.



Opens the pre-selection for AV channels, the DVD and the USB mode. Then select with »▼« or »▲«.



REPEAT

Switches between the two previous selected stations.

?/EPG A-B

Opens the electronic TV guide. Reveals answers in teletext mode.

TXT

Switches between teletext and TV modes.

»» HOLD

Holds the page in teletext mode



Opens the »Subtitle Languages« menu. Switches to double character size in teletext mode.



Opens the »Audio Languages« menu. Updates a page in teletext mode.

OVERVIEW



Opens the »Audio Languages« menu.
Updates a page in teletext mode.



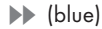
Selects a page in teletext mode.



Selects a page in teletext mode.



Selects a page in teletext mode.



Selects a page in teletext mode.

The remote control for DVD and data mode



During playback, selects various camera angles* for certain scenes or passages on the DVD.



Selects the zoom function.



For selecting and displaying subtitles* of the DVD during playback.



Switches between the original and the dubbed language* during DVD playback.
Switches between various sound formats.



Number buttons for various data.



For programming a playback list for the inserted disc.



Opens the menu for entering and selecting a track, chapter or playing time.



Displays information about the track, the chapter and the playing time.



Move the cursor up and down.



Move cursor to the left and right.



Confirms functions.



During playback, opens the track menu* of the DVD.



During playback, opens the disc menu* of a DVD;
switches Playback Control (PBC) on and off (for VCD/S-VCD);
opens the file browser during audio/video data playback.



Selects repeat functions.



Selects the A - B repeat functions.

* Depends on the DVD in use

OVERVIEW



Selects the previous track or section during playback.



Selects the next track or section during playback.



Switches to reverse picture search at various speeds during playback.



Switches to forwards picture search at various speeds during playback.



Ejects the disc.



Starts playback; freeze frame for DVDs and video data; pause for audio and MP3 data.



Stops all operations.

SETUP

Opens the main menu on the DVD unit.

SETTINGS

Searching for television stations

The television has an automatic tuning function, which first searches for digital TV channels and then analogue ones.

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

There are 400 presets for digital channels and 99 for analogue channels, to which you can assign TV stations from the antenna or from the cable connection (analogue channels).

- 1 Press **»POWER«**, **»1...0«** or **»P+«** or **»P-«** to switch on the television from standby mode.
 - The **»Installation Guide«** menu appears when the device is first switched on.
- 2 Press **»◀«** or **»▶«** to select the language.

Help:

If the **»Installation Guide«** menu does not appear on the screen, make the setting by following the instructions on returning the television to its factory condition on page 27.

Note

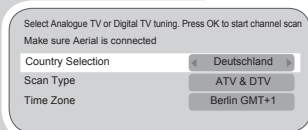
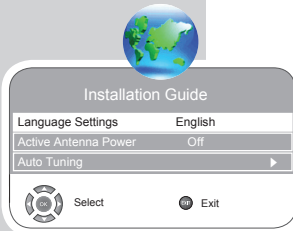
The antenna power supply may only be switched on if the antenna is actually an active indoor antenna with a signal amplifier and it is not already supplied with a voltage via a mains plug (or similar supply).

Otherwise you may cause a short circuit and irreparably damage your antenna.

- 3 Select the **»Active Antenna Power«** with **»▼«** or **»▲«**. Press **»◀«** or **»▶«** to switch on the antenna voltage (**»On«**).
- 4 Select **»Auto Tuning«** with **»▼«** or **»▲«** and confirm with **»OK«**.
 - **»Country Selection«** is active.
- 5 Press **»◀«** or **»▶«** to select the country.
- 6 Select the **»Scan Type«** with **»▼«** or **»▲«**. Press **»◀«** or **»▶«** to select whether you want to search for only digital television stations (DTV), only analogue television stations (ATV) or both (ATV & DTV).
- 7 Select **»Time zone«** with **»▼«** or **»▲«**. Press **»◀«** or **»▶«** to select time zone.
- 8 Press **»OK«** to start the search.
 - The **»Searching...«** menu appears, and the search for TV stations begins. This may take several minutes depending on the number of television stations received.

Note:

The search can be ended prematurely with **»MENU«**.



SETTINGS

Changing stored channels for digital stations

You can change the order of the channels found as required, delete channels you do not need and block access to certain presets (parental control).

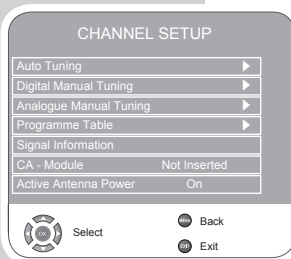
Press »▶▶« (blue) to switch between »Programme Table - ALL TYPE«, »Programme Table - DTV«, »Programme Table - RADIO« and »Programme Table - ATV«.

Press »▶||« (red) to display the channels assigned to a network.

Press »P+« to switch the channel list to the next page, press »P-« to switch it back to the previous page.

Opening the channel list

- 1 Open the menu with »MENU«.
- The »PICTURE« menu is displayed.
- 2 Select the »CHANNEL SETUP« menu with »◀« or »▶«.
- 3 Select »Programme Table« with »▼« or »▲« and confirm with »OK«.
- The »Programme Table« menu is displayed.



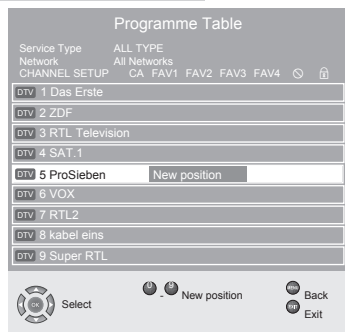
Moving channels to different presets

- 1 In the »Programme Table« menu, press »▼« or »▲« to select the channel to be moved.
- 2 Press »◀◀« (green) to highlight the channel.
- 3 Enter the new presets with one, two or three digits using »1...0«.
- 4 Press »OK« to confirm the entry.

Notes:

To sort the other television channels, repeat steps **1** to **4**.

Stations that are assigned to fixed preset numbers (such as French stations with LCN coding) cannot be moved.



SETTINGS

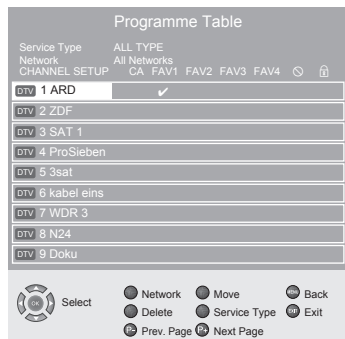
Creating a list of favourites

You can select your favourite channels and save them in up to four lists (FAV1 to FAV4).

- 1 In the »Programme Table« menu, select the television channel with »▼« or »▲«.
- 2 "Push" the television channel with »◀« or »▶« into the favourites list 1 to 4 and save it with »OK«.
 - The position in the favourites list is marked with »✓«.
 - You can enter the same channel in more than one favourites list.

Note:

You can delete channels from the favourites list. Press »▼« or »▲« and »◀« or »▶« to select the channel and »OK« to delete it.



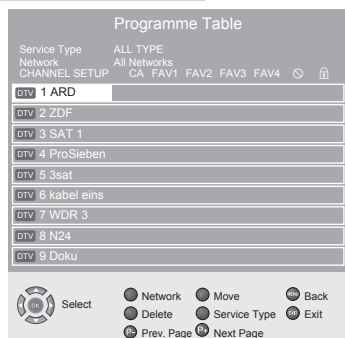
Deleting channels

- 1 In the »Programme Table« menu, press »▼« or »▲« to select the channel to be deleted and press »■« (yellow) to confirm.
- 2 Press »◀◀« (green) to confirm the deletion.
- 3 Select the »Yes« button with »◀« or »▶« and confirm with »OK«.

Notes:

Press »▶▶||« (red) to delete all the channels.

Presets whose channels have been deleted are no longer shown in the »Programme Table«.



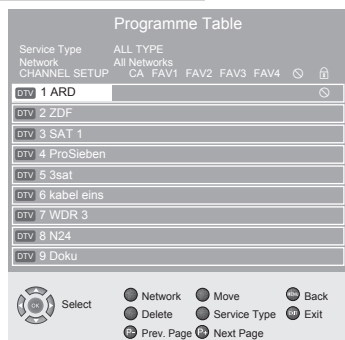
Skipping television stations

You can highlight television stations to be skipped when you select with »P+« or »P-«. It is still possible to select using the number buttons.

- 1 In the »Programme Table« menu, select the television channel with »▼« or »▲«.
- 2 Press »▶« to switch to the »⊙« symbol and press »OK« to highlight the television channel.
 - The channel is marked with »⊙«.

Note:

Channels can be enabled again. Press »▼« or »▲« to select the channel, press »▶« to switch to the symbol »⊙« and press »OK« to enable the channel again.

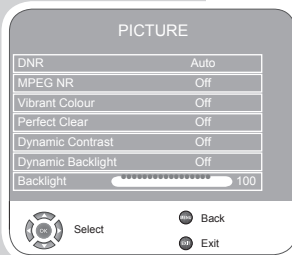
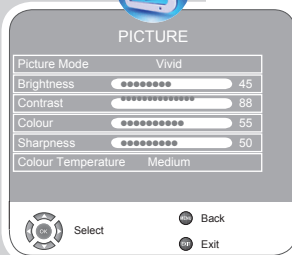


Ending the settings

- 1 Press »MENU« to finish the settings.

SETTINGS

Picture settings



- 1 Open the menu with **»MENU«**.
- The **»PICTURE«** menu is displayed.
- 2 Select **»Picture Mode«**, **»Brightness«**, **»Contrast«**, **»Colour«**, **»Sharpness«** or **»Colour Temperature«** with **»▼«** or **»▲«**.
Select the value with **»◀«** or **»▶«** and confirm with **»OK«**.

Notes:

Other settings can be found on the second page of the **»PICTURE«** menu.

- 3 Switch to the second menu page with **»▼«** and confirm **»Advanced Picture Settings«** with **»OK«**.
- 4 Select **»DNR«**, **»MPEG NR.«**, **»Vibrant colour«**, **»Perfect Clear«**, **»Dynamic Contrast«**, **»Dynamic Backlight«** or **»Backlight«** with **»▼«** or **»▲«**.
Select the value with **»◀«** or **»▶«** and confirm with **»OK«**.

Notes:

To switch to the first page of the **»PICTURE«** menu, press **»◀«**.

»Dynamic Contrast« (backlighting adjusts according to the picture content to ensure optimum contrast).

You can only select the **»MPEG NR.«** function on digital and AV presets.

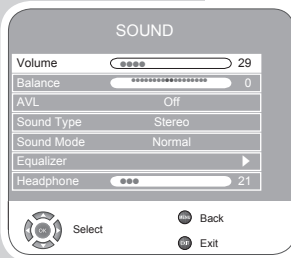
»MPEG NR.« reduces any interference from artefacts (pixel blocks) from digital stations with MPEG compression (such as from DVB-T receivers or DVD players).

You can only change the backlighting if the **»Dynamic Backlight«** function is switched off.

- 5 Press **»MENU«** to end the setting.

SETTINGS

Audio settings



- 1 Open the menu with **»MENU«**.
- The **»PICTURE«** menu is displayed.

- 2 Select the **»SOUND«** menu with **»◀«** or **»▶«** and confirm with **»OK«**.

Note:

Additional operations are explained in the following sections.

Volume

- 1 Select **»Volume«** with **»▼«** or **»▲«** and adjust the setting with **»◀«** or **»▶«**.

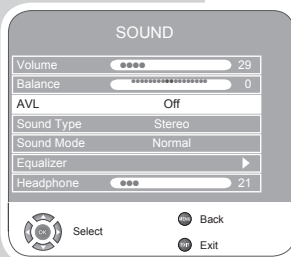
Balance

- 1 Select **»Balance«** with **»▼«** or **»▲«** and adjust the setting with **»◀«** or **»▶«**.

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 **»▶«**.



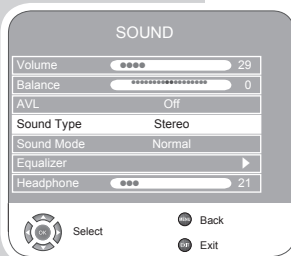
Stereo / two channel, mono

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 **»▶«**.



Stereo width

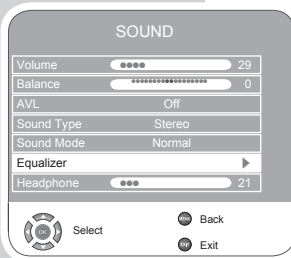
Widens the audio output for stereo programmes and improves the sound with mono reception.

- 1 Select **»Sound Mode«** with **»▼«** or **»▲«**.
- 2 Press **»◀«** or **»▶«** to select the setting **»Spatial«**.

SETTINGS

Equaliser

The equaliser offers you four preset sound settings (Music, Sports, Movie and Speech) and one which you can create yourself (User).



- 1 Select »Equalizer« with »▼« or »▲« and confirm with »OK«.
- 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 »←« to save the setting.

Concluding the settings

- 1 Press »MENU« to finish the settings.

TELEVISION OPERATION

Basic functions



Switching on and off

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

Selecting channels


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

Selecting stations from lists

You can select stations from various lists, (e.g. All Channels, FAV1).

- 1 Press »0 FAV« to call up the overview of channel lists.
- The overview is displayed.
- 2 Press »▼« or »▲« to select the channel list and »OK« to confirm.
- 3 Press »▼« or »▲« to select the channel and »OK« to confirm.
- 4 Press »MENU« to switch off the channel list.

Selecting AV channels

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

Switching between digital and analogue channels

- 1 Open the »INPUT SOURCE« menu by pressing »«.
- 2 Press »▼« or »▲« to select »DTV« (digital presets) or »ATV« (analogue presets) and press »OK« to confirm.

Adjusting the volume

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

Muting

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

TELEVISION OPERATION



Displaying the time and information

You can only open information about television stations in the digital television mode.

- 1 Display info line by pressing »i«.
- 2 Press »i« again to view more detailed information on the selected programme.
- 3 Press »▶« to switch to the next programme, press »◀« to switch back to the current programme.
- 4 Press »MENU« to switch off the information.

Audio language

You can select various languages when watching digital channels. This depends on the programme being broadcast.

- 1 Press »🔊« to open the selection menu.
- 2 Select your language using »▼« or »▲« and press »OK« to confirm.

Subtitles

You can select various subtitles when watching digital channels. This depends on the programme being broadcast.

- 1 Open the selection menu with »☐«.
- 2 Select your language using »▼« or »▲« and press »OK« to confirm.

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 »🔍«.

TELEVISION OPERATION

Zapping function

This function enables you to switch or zap between the two TV stations you last selected (select with »1...0« directly).

- 1 Press »1...0« to select the TV station.
- 2 Press »1...0« to switch to another TV station.
- 3 Press » REPEAT« to switch between both TV stations.

Electronic TV guide

The electronic program guide offers an overview of all programmes that will be broadcast in the next week (for digital stations only).

- 1 Press »?/EPG A-B« to see programme information.

Notes:

Not all stations supply provide a detailed TV guide.

Many broadcasters supply the daily programme but no detailed descriptions.

There are broadcasters which do not provide any information at all.

- 2 Select the television station with »▼« or »▲«.
 - The programmes being shown on the selected television channel for today are displayed.
 - In addition, information about the programme currently being transmitted is displayed with detailed information.
- 3 Press »▶« to switch to today's programme.

Note:

You can open and switch off extensive programme information with »|«.

- 4 Press »▼« to select information on the next programme and, »▲« to return to the information for the current programme.
- 5 Press »◀◀« (green) to select the next days, and »▶▶« (red) to return to today.

Notes:

Press »▶▶« (blue) and »OK« to transfer the selected programme into the memory timer.

Press »■« (yellow) to open the memory timer overview.

Press »◀« to switch back to station selection.

- 6 Press »MENU« to quit the electronic programme guide.

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

»Auto« format

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

The picture format is automatically switched to **»4:3«** for 4:3 programmes.

»16:9« and »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.

»4:3« format

The picture is shown in 4:3 format.

»LetterBox« 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.

»Subtitle« format

If you cannot read the subtitles which appear on the bottom of the screen, then select **»Subtitle«**.

»Panorama« and »Cinema 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 »TXT« 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 »TXT« 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 »■«.
- As soon as the page is found, the page number is displayed.
- 2 Press »■« to switch to the teletext page.

Increasing character size

If you have difficulty reading the text on the screen, you can double 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 »◀◀◀«.
- 2 Press »◀◀◀« 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 Press »◀◀ or ▶▶◀ to enter the sub-menu.

Reveal answer

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

- 1 Display information with »?/EPG A-B◀.
- 2 Conceal information with »?/EPG A-B◀.

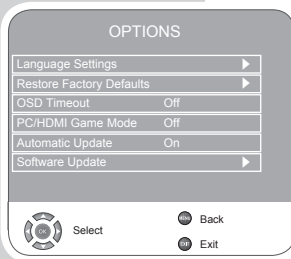
Split screen (Split Screen)

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 »16:9◀.
- The television channel and the teletext page appear next to each other on the screen.
- 2 To deactivate the split screen function, press »16:9◀.

CONVENIENCE FUNCTIONS

Convenience functions



- 1 Open the menu with **»MENU«**.
- The **»PICTURE«** menu is displayed.
- 2 Select **»OPTIONS«** with **»◀«** or **»▶«** and press **»OK«** to confirm.

Note:

Additional operations are explained in the following sections.

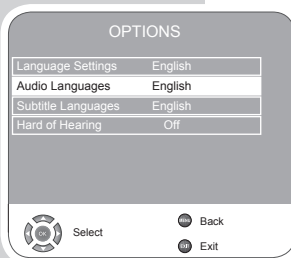
Changing the menu language

- 1 Select **»Language Settings«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 2 Select **»Language Settings«** with **»▼«** or **»▲«**.
- 3 Select the language with **»◀«** or **»▶«**.
- 4 Press **»MENU«** to finish the setting.

Language settings

(only for digital television channels)

You can alter the appearance of subtitles or disable them, select the subtitle language, select a second subtitle language, and select the audio language and a second audio language.



- 1 Select **»Language Settings«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 2 Select **»Audio Languages«, »Subtitle languages«, »Hard of Hearing«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 3 Select **»Primary«** or **»Secondary«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 4 Press **»◀«** or **»▶«** to make the setting.
- 5 Select **»Close«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 6 Press **»MENU«** to end the setting.

Resetting the television to its original state

This function enables you to delete the station lists and all custom settings.



- 1 Select **»Restore Factory Defaults«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 2 Select the **»Yes«** button with **»◀«** or **»▶«** and confirm the reset function with **»OK«**.
- The **»Installation Guide«** menu is displayed.
- 3 Continue the settings as described in the chapter on searching for television stations on page 15.

CONVENIENCE FUNCTIONS

Setting the screen menu display duration

- 1 Select the line »OSD Timeout« with »▼« or »▲« and confirm using »OK«.
- 2 Select the display time (10, 15, 30 or 60 seconds) with »◀« or »▶« and confirm using »OK«.

Note:

If the »Off« setting is selected, the screen menus will be displayed permanently.

- 3 Press »MENU« to end the setting.

Game mode

This function is only available for preset channels »HDMI«, »YPBPR« or »PC«.

Use this function to adjust the screen settings of the television set for games. Connect the games console using the »HDMI« or »PC-IN« sockets.

You can no longer make settings in the »PICTURE« menu.

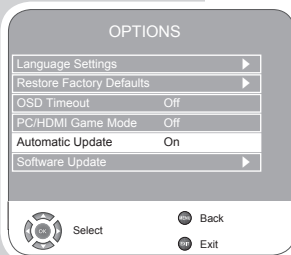
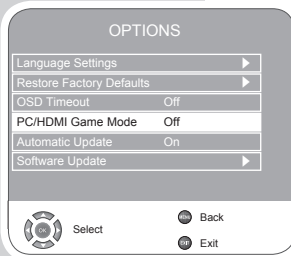
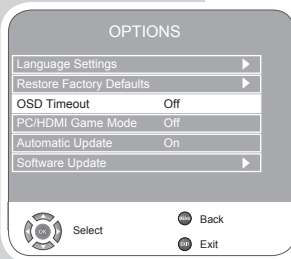
- 1 Select »PC/HDMI Game Mode« with »▼« or »▲«
- 2 Press »◀« or »▶« to switch the function on or off.
- 3 Press »MENU« to end the setting.

Automatic software update

(Only for digital television channels)

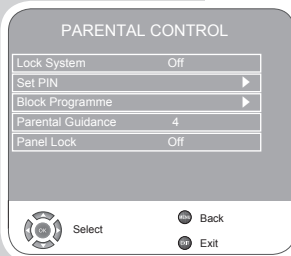
If this function is enabled, the device automatically searches for new software and updates it if a new version is available.

- 1 Select the line »Automatic Update« with »▼« or »▲« and confirm using »OK«.
- 2 Press »◀« or »▶« to switch the function on or off.
- 3 Press »MENU« to end the setting.



CONVENIENCE FUNCTIONS

Parental control



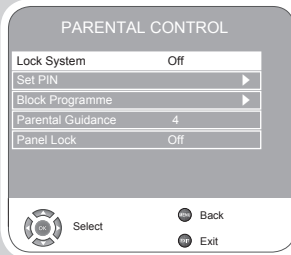
- 1 Open the menu with »MENU«.
- The »PICTURE« menu is displayed.
- 2 Select the »PARENTAL CONTROL« menu with »◀« or »▶« and press »OK« to confirm.
- 3 Enter the PIN code »0000« with »1 ... 0«.

Note:

Additional operations are explained in the following sections.

Lock the system

Using this function, you can lock the television menus so that they can only be accessed by entering a PIN code.

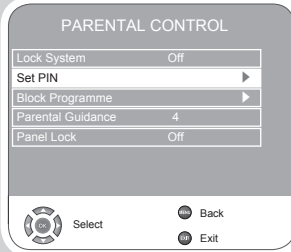


- 1 Select »Lock System« with »▼« or »▲«.
- 2 Activate the lock with »◀« or »▶«.
- 3 Press »MENU« to end the setting.

Changing the PIN code

Instead of the default code »0000«, you can enter a personal code.

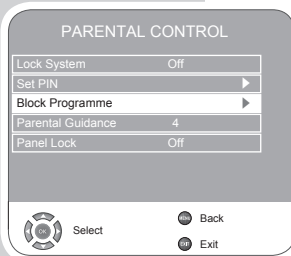
Please take note of your personal code.



- 1 Select »Set PIN« with »▼« or »▲« and press »OK« to confirm.
- 2 Enter your new personal PIN code with »1 ... 0« in four digits.
- 3 Enter your personal PIN code again with »1 ... 0« and press »OK« to confirm.
- 4 Press »MENU« to end the setting.

Block a television channel

You can block individual television channels which are not suitable for children using a personal PIN code.



- 1 Select »Block Programme« with »▼« or »▲« and press »OK« to confirm.
- The »Block Programme« menu appears.
- 2 In the »Block Programme« menu, press »▼« or »▲« to select the channel and press »◀◀« (green) to confirm.
- In the »Block Programme« menu the symbol »R« is displayed after the station.
- 3 Press »MENU« to end the setting.

Note:

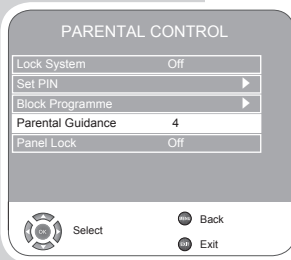
Press »▼« or »▲« to release the channel and switch off the block by pressing »◀◀« (green).

CONVENIENCE FUNCTIONS

Authorise channels

There are movies which contain contents or scenes which are not suitable for children.

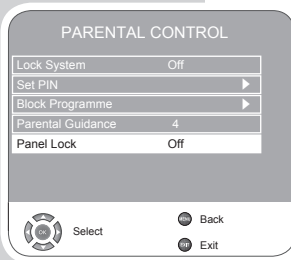
Certain programmes contain information which identifies these contents or scenes and have been given an access level from 4 to 18. You can select one of the access levels and thus authorise the playback.



- 1 Select »Parental Guidance« with »▼« or »▲«.
- 2 Select the access level with »◀« or »▶«.
- 3 Press »MENU« to end the setting.

Blocking the control panel (parental control)

If the control panel block is activated, the buttons on the television do not work.



- 1 Select »Panel Lock« with »▼« or »▲«.
- 2 Activate (On) or deactivate (Off) the panel block with »◀« or »▶«.
- 3 Press »MENU« to end the setting.

CONVENIENCE FUNCTIONS

Timer functions



- 1 Open the menu with **»MENU«**.
- The **»PICTURE«** menu is displayed.
- 2 Select the **»TIMER«** menu with **»◀«** or **»▶«** and press **»OK«** to confirm.

Notes:

The correct time is shown in **»Clock«**.

Additional operations are explained in the following sections.

Switch-off timer

In the **»Off Time«** menu, you can enter a switch-off time for the television. The television switches off after the entered time has elapsed in stand-by.



- 1 Select **»Off Time«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 2 Select **»Repeat«** with **»▼«** or **»▲«** and select the mode with **»◀«** or **»▶«**.
- 3 Select **»Hour«** with **»▼«** or **»▲«** and enter the time with **»1...0«**.
- 4 Select **»Minute«** with **»▼«** or **»▲«** and enter the time with **»1...0«**.
- 5 Select **»Close«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 6 Press **»MENU«** to end the setting.

Switch-on timer

In the **»On Time«** menu, you can enter a switch-on time for the television.

The television switches on with the preset volume and the desired channel after the set time in stand-by mode has elapsed.



- 1 Select **»On Time«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 2 Select **»Activate«** with **»▼«** or **»▲«** and press **»◀«** or **»▶«** to choose when the television should switch on.
- 3 Select **»Hour«** with **»▼«** or **»▲«** and enter the time with **»1...0«**.
- 4 Select **»Minute«** with **»▼«** or **»▲«** and enter the time with **»1...0«**.
- 5 Select **»Volume«** with **»▼«** or **»▲«** and set the volume by pressing **»◀«** or **»▶«**.
- 6 Select **»Mode«** with **»▼«** or **»▲«** and press **»◀«** or **»▶«** to select **»DTV«** or **»ATV«**. This entry is only possible if you have already entered a switch-on time.
- 7 Select **»Program«** with **»▼«** or **»▲«** and enter the television channel by pressing **»◀«** or **»▶«**.
- 8 Select **»Close«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- 9 Press **»MENU«** to end the setting.

CONVENIENCE FUNCTIONS

Enter the switch-off time (Sleep Timer)

In the »Sleep Timer« menu you can enter a time for the television to switch off. After this time has elapsed, the television switches to standby mode.

- 1 Select »Sleep Timer« with »▼« or »▲«.
- 2 Select the switch-off time with »◀« or »▶«.

Note:

Switch off the function by pressing »◀« or »▶« to set it to »Off«.

- 3 Press »MENU« to end the setting.



Automatic switch-off (Auto Timer)

If this function is activated, the television switches off after 5 minutes on stand-by if no video signal is transmitted.

- 1 Select »Auto Sleep« with »▼« or »▲«
- 2 Press »◀« or »▶« to switch the function »On«.

Note:

Switch off the function by pressing »◀« or »▶« to set it to »Off«.

- 3 Press »MENU« to end the setting.



Setting the time zone

The television automatically detects the local difference to Greenwich Mean Time (the selected channel provides a time signal). You can set the local time difference yourself if the time is not detected or is not the same as your local time.

- 1 Select »Time Zone« with »▼« or »▲«
- 2 Set the time zone with »◀« or »▶« (in Germany: + 1.00 hour).
- 3 Press »MENU« to end the setting.



Special DVD features

Your television provides you with perfect digital video playback in studio quality.

It also provides superb cinema-quality audio playback – in stereo or with digital multi-channel sound – depending on the type of DVD used.

Other features of DVD videos include the choice of audio channel and language, choice of subtitle language and various camera recording angles.

In addition to DVDs it can play MP4 video CDs, MP3 CDs, JPEG encoded (photo) CDs, video CDs, S-Video CDs and audio CDs.

The functions of these data CDs are described in the chapter on audio and video files from page 40.

DVD features

You can recognise a DVD by the logo on the label.

The discs have one or more tracks depending on the content of the DVD.

Each track can contain one or more chapter. Selecting the track and chapter is simple and convenient.

You can control and direct playback of a DVD using the menu of the DVD player on the television screen.

Special DVD features

DVDs have an overview of all the tracks and track sections in the track menu.

Some of the DVD player functions, such as slow motion, freeze-frame and auto-play, can also be controlled by the DVD itself. Because of this you may not be able to select these functions during certain scenes.

Many DVDs have audio tracks recorded in up to eight languages. You can select the language you prefer.

Many DVDs are recorded by the manufacturer with subtitles in several languages. You can select subtitles from up to 32 languages.

Films are released at different times in different parts of the world. This is why all devices all over the world have a regional code. The regional code for your device is 2.


DVDs can also have other regional codes. If you insert a DVD with a different regional code into the device, a message appears on the television screen with the regional code. The DVD cannot be played.

If the »⊗« symbol appears on the television screen, then the selected function is not possible with this DVD.



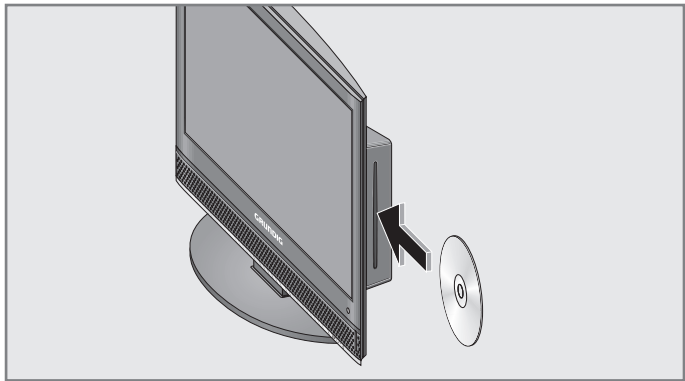
DVD PLAYBACK

Preparation

- 1 Press »POWER«, »1...0« or »P+« or »P-« to switch on the television from standby.
- 2 To select a preset for DVD mode, open the »SOURCE« menu by pressing »«, select the »DVD« preset with »▲« or »▼« and confirm with »OK«.
 - Display on the television screen: »Open« and then »No disc«.


Inserting the disc

- 1 Insert the disc into the disc compartment with the label facing forwards (on the right of the device), until it latches in automatically.
 - Display »Loading«, the disc is being scanned.



Note:

Playback of a DVD starts automatically.

If the »« symbol appears on the television screen, the selected function is not possible with this disc.

Removing the disc

- 1 Press »▲«.
 - Display: »Open«, remove the disc.

DVD PLAYBACK

Playing a track

- 1 After the DVD is scanned, playback starts automatically.

Note:

Depending on the DVD used, you might have to select the track or chapter from the DVD contents.

Select the chapter or track with »▲«, »▼«, »◀« or »▶« and activate or start playback with »OK« or »▶||«.

- 2 Press »▶||« to pause playback (freeze-frame).
- 3 Press »▶||« to resume playback.
- 4 To stop playback, press »■« twice.

Viewing information

You can view information about the track, chapter, playing time and much more on the screen.

- 1 Display info line by pressing »i«.
- 2 Conceal the info line by pressing »i«.

Selecting tracks and chapters with the DVD menu

The DVD may contain several tracks or chapters you can choose from. You can find out in the info item next to the track and chapter display how many tracks or chapters the DVD contains.

- 1 Open the content of the DVD »TITLE« (disc menu) or »◀« (track menu).
 - If the DVD has a track menu it will appear on the screen.
- 2 Select the track or chapter with »▲«, »▼«, »◀« or »▶« start playback with »OK«.
 - Playback begins with the track/chapter you selected.

Selecting tracks using the info menu

The function depends on the DVD you are using.

- 1 During playback, display the info bar by pressing »GOTO«.
- 2 Press »◀« or »▶« to select the track.
- 3 Enter the track with two digits using »1 ... 0« and confirm with »OK«.
 - Playback begins with the track you selected.



Selecting chapters using the info menu

The function depends on the DVD you are using.

- 1 During playback, display the info bar by pressing »GOTO«.
- 2 Press »◀« or »▶« to select the chapter.
- 3 Enter the chapter with one or two digits using »1 ... 0«.
 - Playback begins with the chapter you selected.

Switching the dubbed language or the audio format

Use this setting to change from the preset dubbed language if the DVD offers alternatives.

- 1 Press »  « during playback.
 - Display: for example »Audio 1/3 AC3 5.1CH German« is displayed briefly, and the current dubbing language is displayed, in the example: the 1st of 3 possible dubbed languages, sound format AC3.
- 2 Select the dubbed language by pressing »  « repeatedly.



Note:

The structure of the DVD itself may prevent you from switching the audio language. In this case you can usually make the setting in the DVD menu.

Selecting and displaying subtitles

If the DVD provides subtitles, they can be displayed on your TV screen.

If subtitles are available in several languages, you can select the ones you want.

- 1 Press »  « during playback.
 - Display: for example, »Subtitle 02/10 German« is briefly displayed, and the current subtitle is displayed.
- 2 Keep pressing »  « to select the subtitle language.

Notes:

To switch off the subtitles, press »  « repeatedly until »Subtitles off« appears in the display.

Switching the subtitles can be suppressed by the structure of the DVD itself. In this case you can usually make the setting in the DVD menu.

Selecting the camera angle for particular scenes or passages

Some DVDs contain scenes or passages which were filmed several times from different camera angles.

You can choose from these different angles.

- 1 Press »**ANGLE**« during playback to select the camera angle function.
- 2 To select another camera angle, keep pressing »**ANGLE**«.

DVD PLAYBACK

Repeating a chapter, a track or the disc

These functions repeat the chapter, track or the whole disc currently playing.

- 1 Press »**REPEAT**« during playback.
- Display: the »🔄 Chapter« is repeated.
- 2 Press »**REPEAT**« twice during playback.
- Display: »🔄 Title« is repeated.
- 3 Press »**REPEAT**« three times during playback.
- Display: »🔄 All«, the whole disc is repeated.
- 4 Press »**REPEAT**« again to quit the function.

Creating a playlist

This function enables you to create a playlist for DVDs.

- 1 Place a disc in the compartment.
- 2 Open the »Program« menu by pressing »**P+**«.
- 3 Enter the number of the track or chapter with »**1 ... 0**«.
- The mark moves to the next preset, repeat the entry.
- 4 For the station playlist, select »Start« with »**▲**«, »**▼**«, »**◀**« or »**▶**« and confirm with »**OK**«.
- The station is played back.
- 5 Press »**■**« to end playback.

Note:

After playback, it is automatically deleted.

S-VCD/VCD PLAYBACK

S-VCD/VCD features

You can recognise S-VCDs/VCDs (video CDs) by the logo on the label.

Depending on the contents of the S-VCDs/VCDs (films, music videos etc.), the discs may carry one or more tracks.

Like audio CDs, VCDs/S-VCDs also have a track structure.

You can create S-VCDs/VCDs using the PBC (playback control) system for track navigation. This depends on the editing and burning software used.

You can control and direct playback of the S-VCD/VCD using the menu of the DVD player on the television screen.

You cannot select some of the functions on the DVD player (slow motion, camera angle, marking scenes) when you are playing an S-VCD/VCD. This depends on how the S-VCD/VCD was created.

Depending on how they were created, S-VCDs can have various subtitles and dubbed languages.

PBC (playback control)

PBC is a navigation option for S-VCDs/VCDs. PBC information is copied onto the disc when it is manufactured. »◀◀ switches between the playlist structure (the menu on the S-VCD/VCD) and the manual selection by the user.

PBC is activated when it is ready for delivery. PBC and station information on the S-VCD/VCD specify the navigation options.

Playing a track

- 1 After the disc compartment closes and the S-VCD/VCD is scanned, playback starts automatically.
- 2 Press »▶||◀ to pause playback (freeze-frame).
- 3 Press »▶||◀ to resume playback.
- 4 To stop playback, press »■◀ twice.

Picture search

Several different speeds are available.

- 1 Select the playback speed during playback by pressing »▶▶◀ or »◀◀◀.
- 2 Press »▶||◀ to resume playback.

USB-MODE

The file formats

Your television can be operated via the USB input with the following file formats:

MP4 video data

The MP4 process was designed to compress video files. An MP4 video is an encoder/decoder, based on the MPEG-4 compression system, which is used to decrypt and display compressed video data.

This enables the television to play back videos compressed in the MPEG 4 SP format.

MPEG 4 SP files are “packaged” with the audio data – which have been compressed using MP3, AAC or Dolby Digital® – in this “.AVI” or “.MP4” file.

MP3/WMA audio data

MP3 stands for MPEG-1 Audio Layer 3 and comes from the Motion Picture Expert Group (MPEG) standard, which was developed for compressing audio and video data.

WMA is a compression standard for audio data (Windows Media Audio).

These formats enable audio files to be saved on a computer with a sound quality similar to that of a CD.

MP3 files can be organised into folders and subfolders similar to files on a computer.

JPEG picture data

JPEG stands for Joint Picture Experts Group. This process was designed to compress picture files.

JPEG files can be saved onto a data medium along with other file types.

The files can be compiled in folders. This structure is similar to that of an MP3 CD.



USB-MODE

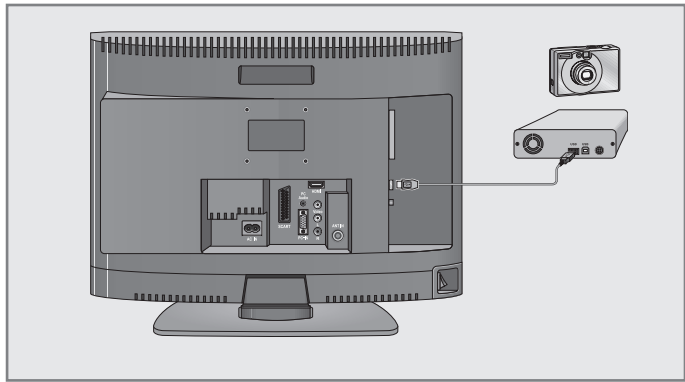
Connecting external data media

Before connecting the data medium, switch the television to stand-by with »**POWER**«. Connect the device and then switch the television on again.

Before connecting the data medium, the television must first be switched to standby, otherwise files can be damaged.

The USB port supplies the data medium with a maximum of 500 mA. Use an external power adapter if you want to use a hard drive, for example, as the data medium.

Do not disconnect the data medium from the USB port when you are retrieving data.



- 1 Connect the USB interface »**USB**« of the television and the corresponding socket on the data device (external hard drive, digital camera, card reader or MP3 player) using a USB cable;

or

plug the memory stick into the USB interface »**USB**« of the television.

Note:

A bi-directional data transfer as defined for ITE (Information Technology Equipment) devices in EN 55022/EN 55024 is not possible.

USB transfer is not in itself an operating mode. It is only an additional function.

- 2 Confirm the display »  Yes« using »**OK**«.
 - The file browser appears.

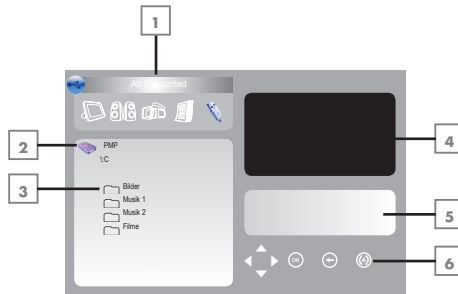
USB-MODE

The file browser

The file browser displays the data (AVI., JPEG, MP3, MP4 or WMA data) that the external data medium offers.

If a data medium contains different file formats, you can deactivate data you do not need for the playback using a filter function (All Supported, Text, Movie, Music, Photo).

The main menu of the file browser



- 1 Selected data format.
- 2 Name of the data medium.
- 3 Total folders on the data medium.
- 4 Inset picture of a selected JPEG picture.
- 5 Status information for the selected file.
- 6 Repeat functions.

USB-MODE

Settings in the USB setup menu

Opening the USB setup menu

- 1 Open the menu with »M«.
 - The »PICTURE« menu is displayed.
- 2 Select the »USB SETUP« menu with »◀« or »▶«.

Note:

Additional operations are explained in the following sections.

Switching on automatic preview

If the automatic preview is switched on, you can see the selected JPEG picture in the main menu of the file browser.

- 1 Select »Auto Preview« with »▼« or »▲«.
- 2 Press »◀« or »▶« to switch on the (on) function.
- 3 Press »M« to end the setting.


Selecting the display duration of the slideshow

- 1 Select »Slide Show Interval« with »▼« or »▲«.
- 2 Select the time (3, 5, 10 seconds) with »◀« or »▶«.
- 3 Press »i« to end the setting.

Selecting the display mode

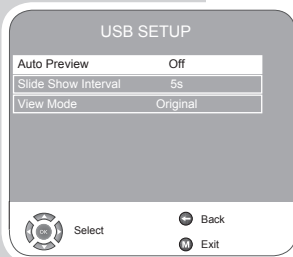
- 1 Select »View Mode« with »▼« or »▲«.
- 2 Press »◀« or »▶« to select the function.
- 3 Press »M« to end the setting.

Playback – Basic functions

- 1 Press »« to select data medium, press »▼« or »▲« to select »USB« and press »OK« to confirm.
 - The file browser (the "Contents") of the data medium is displayed.
- 2 Select file format (All Supported, Text, Movie, Music, Photo) with »◀« or »▶«.
- 3 Switch to the file overview with »OK«.
- 4 Select the file you want with »▼« or »▲« and press »OK« to confirm.
 - A list of sub-directories appears.

Note:

Switch back to the main folder with »◀«.



USB-MODE

- 5 Select the track or picture with »▼« or »▲« and start play by pressing »▶|||« (red).
 - You can view information on the film by pressing »👁« (red).
 - For playing MP3 or WMA data, information on the album, track and singer is displayed at the right of the menu.
 - When playing picture data, information about the resolution and the size is displayed at the right of the menu.

Note:

The file browser is switched off when playing picture data. Press »■« (yellow) to switch back to the file browser.

- 6 Press »▶|||« (red) to pause playback.
- 7 Press »▶|||« (red) to resume normal playback.
- 8 Press »■« (yellow) to end playback.
 - The file browser appears.

Note:

To return to the main folder, press »▲« to select the folder icon »📁« and then press »OK«.

Additional playback functions

Depending on the file formats used, the following additional functions are possible.

If the »🚫« symbol appears on the television screen, then the selected function is not possible with this file.

Play selected tracks

Only play the marked tracks.

- 1 Select the track with »▼« or »▲« and highlight using »OK«.
- 2 Select the next track with »▼« or »▲« and highlight with »OK«.
- 3 Start playback with »▶|||« (red).
- 4 Press »■« (yellow) to end playback.

Note:

To remove the highlighting, select the track with »▼« or »▲« and switch off the marking with »OK«.

Selecting a track or picture in steps (SKIP)

- 1 During playback, select the next track/picture you want with »▶▶|«.
- 2 Select the previous track/picture with »|◀◀«.
 - Playback begins with the track or picture you selected.

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

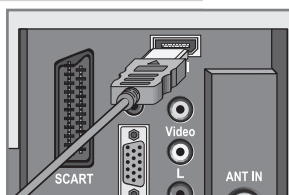
With a digital audio/video signal

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

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

Channel position »HDMI«.

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



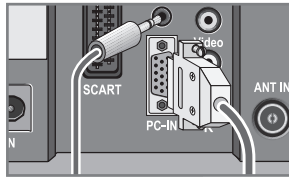
USING EXTERNAL DEVICES

With an analogue video signal (progressive)

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

Audio signal: stereo, analogue.

Channel position »YPBPR«.



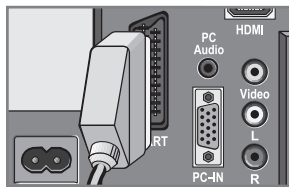
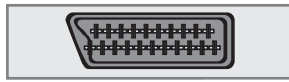
- 1 Connect the »PC-IN« socket on the television and the corresponding socket on the external device using a VGA-YPBPR adapter cable (video signal).
- 2 Connect the »PC AUDIO« sockets on the television to the corresponding sockets of the external device with a suitable cable (audio signal).

Using the Euro/AV socket

Video signal: FBAS/RGB.

Audio signal: stereo, analogue.

Channel position »SCART«.



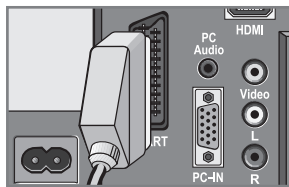
- 1 Connect the »SCART« socket on the television and the corresponding socket on the external device using a EURO-AV cable (video and audio signal).

Using the Euro/AV socket (S-Video signal)

Video signal: Y/C.

Audio signal: stereo, analogue.

Channel position »S-Video«.



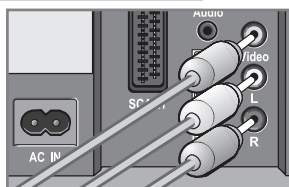
- 1 Connect the »SCART« socket on the television and the corresponding socket on the external device using a EURO-AV cable (video and audio signal).

With an analog TV signal

Video signal: FBAS.

Audio signal: stereo, analogue.





Channel position »AV«.



- 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 »L R« 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 , select the input signal channel with  or  (»SCART«, »AV«, »S-Video«, »HDMI« or »YPBPR«) and press  to confirm.

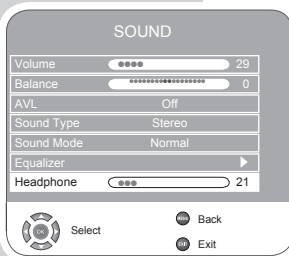
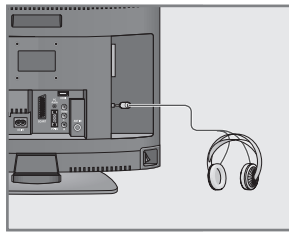
Headphones

Connecting the headphones

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

Selecting audio settings for the headphones

- 1 Open the menu with .
- The  menu is displayed.
- 2 Select the  menu with  or  and confirm with .
- 3 Select the  with  or .
- 4 Adjust the volume with  or .
- 5 Press  to end the setting.

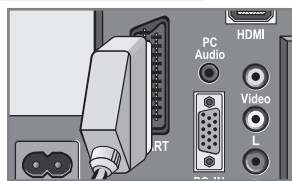
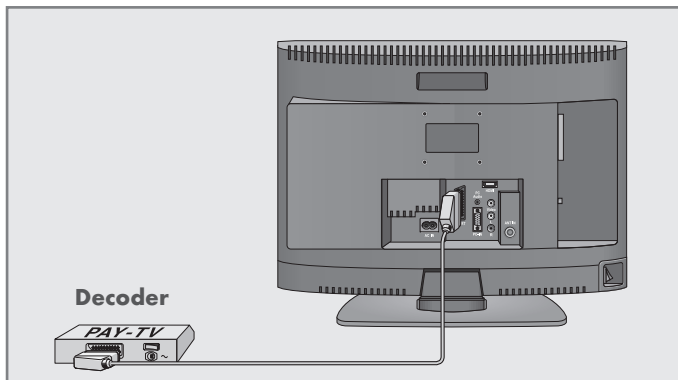


USING EXTERNAL DEVICES

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

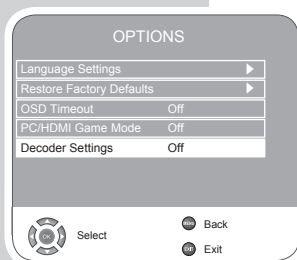
Using a decoder or satellite receiver

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

Activating the preset for a decoder

If this function is activated, the decoder (connected to the »SCART« socket) provides a decoded audio/video signal.

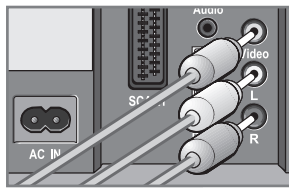
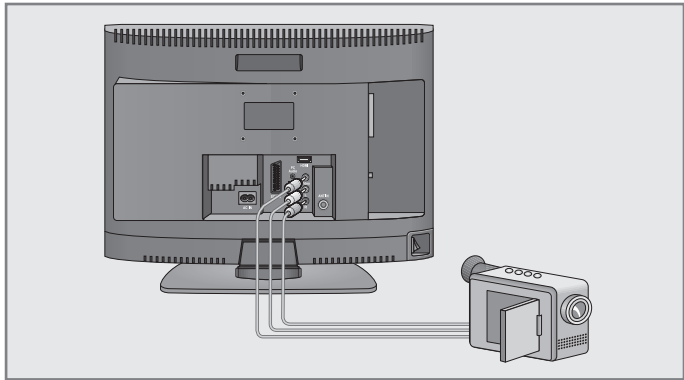
- 1 Open the menu with »MENU«.
- The »PICTURE« menu is displayed.
- 2 Select »OPTIONS« with »◀« or »▶« and press »OK« to confirm.
- 3 Select the »Decoder« with »▼« or »▲«.
- 4 Press »◀« or »▶« to switch the function (»On«).
- 5 Press »MENU« to end the setting.



USING EXTERNAL DEVICES _____


Camcorder

Connecting the camcorder



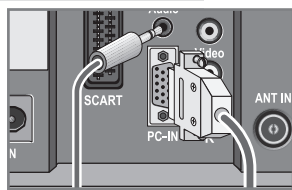
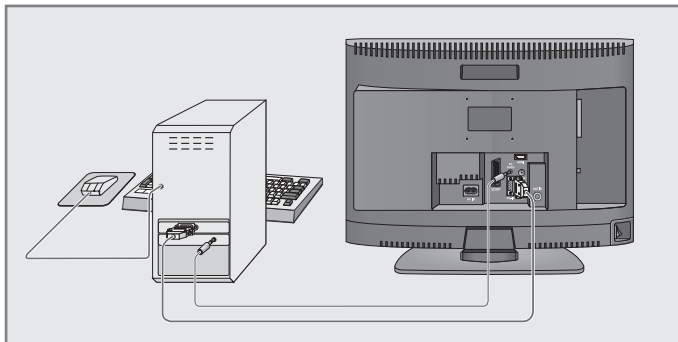
- 1 Connect the yellow socket »**Video**« on the television and the corresponding socket on the camcorder (VHS, Video 8) with a cinch cable (picture signal);
- 2 Connect the white and red sockets »**L R**« on the television and the corresponding sockets on the camcorder with a cinch cable (audio signal).

Operating with a camcorder

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

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:

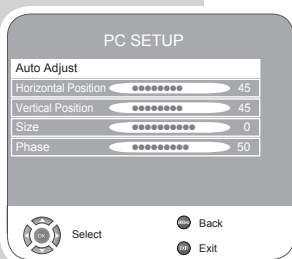
Adjust your PC to the monitor (for example, picture resolution 1280 x 768, picture frequency 60 Hz).

Selecting the channel position for the PC

- 1 Press **»<>«**, select the **»PC«** channel with **»▼«** or **»▲«** and press **»OK«** to confirm.

Settings for the PC

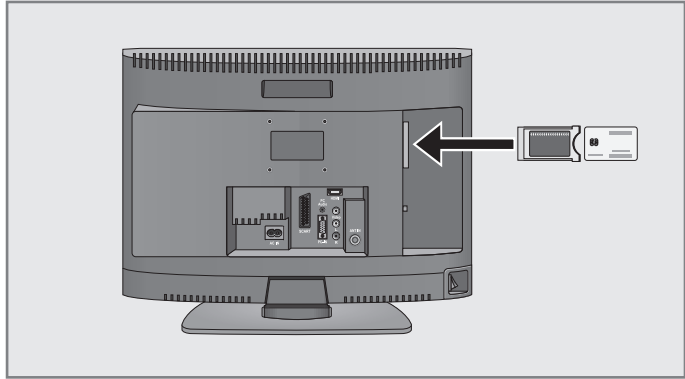
- 1 Open the menu with **»MENU«**.
- The **»PICTURE«** menu is displayed.
- 2 Select the **»PC SETUP«** menu with **»◀«** or **»▶«** and confirm with **»OK«**.
- 3 Select the function or setting you want with **»▼«** or **»▲«** and press **»◀«** or **»▶«** to execute it.
- Options:
 »Auto Adjust« For automatic PC configuration;
 »Horizontal Position« Adjust the picture position horizontally;
 »Vertical Position« Adjust the picture position vertically;
 »Size« Set the cycle frequency;
 »Phase« Remove horizontal flicker, blurring and horizontal lines.



- 4 Press **»MENU«** to finish the settings.

OPERATION WITH COMMON INTERFACE

Inserting the CA module



Note:

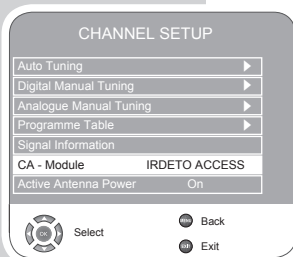
Switch off the appliance before inserting the CA module in the »CI« slot.

- 1 Insert the smart card into the CA module.
- 2 Insert the CA module with the smart card into the »CI« slot on the television.

Note:

To see which CA module is in the Common Interface slot, go to the »CA - Module« submenu.

Access control for CA module and smart card



- 1 Open the menu with »MENU«.
– The »PICTURE« menu is displayed.
- 2 Select the »CHANNEL SETUP« menu with »◀« or »▶« and confirm with »OK«.
- 3 Select »CA-Module« with »▼« or »▲« and press »OK« to confirm.

Notes:

This menu give operating instructions and – after you enter your PIN code – access to channels of the PAY-TV provider. The remaining settings are described in the manuals for your CA module and smart card.

- 4 Press »MENU« to finish the settings.

SPECIAL SETTINGS

Tuning digital television stations

This search deletes all television stations included in the channel list!

Tuning all digital television stations using the search

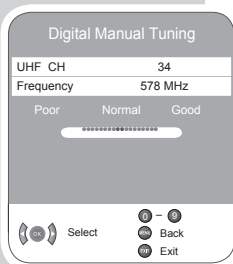
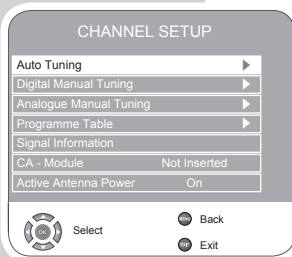
- 1 Open the menu with **»MENU«**.
- The **»PICTURE«** menu appears.
- 2 Select the **»CHANNEL SETUP«** menu with **»◀«** or **»▶«**.
- 3 Select **»Autotuning«** with **»▼«** or **»▲«** and confirm with **»OK«**.
- 4 Select **»Country Selection«** by pressing **»▼«** or **»▲«** and press **»◀«** or **»▶«** to make the setting.
- 5 Select the **»Scan Type«** with **»▼«**.
Press **»◀«** or **»▶«** to select the **»DTV«** display and start the search with **»OK«**.
- The **»Searching...«** menu appears, and the search for digital TV stations begins. This may take several minutes depending on the number of television stations received.
- The search is ended when the **»Programme Table«** appears.

Note:

You can stop the search by pressing **»◀«**.

Tuning the digital television stations by entering the channel numbers

- 1 Open the menu with **»MENU«**.
- The **»PICTURE«** menu appears.
- 2 Select the **»CHANNEL SETUP«** menu with **»◀«** or **»▶«**.
- 3 Select **»Digital Manual Tuning«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- The **»Digital Manual Tuning«** menu appears.
- 4 Enter channel number directly with **»1...0«** and press **»OK«** to confirm.
- The search is finished when the channels found appear in the list.
- 5 Press **»MENU«** to end the setting.






SPECIAL SETTINGS

Tuning analogue television stations

This setting is only necessary if you cannot receive any digital stations and you have not carried out an analogue search during initial setup.

The television station can be set directly or using the search.

Switching the television to analogue channels

- 1 Open the »INPUT SOURCE« menu by pressing »«.
- 2 Select input source »ATV« with »« or »« and press »OK« to confirm.

Note:

Additional operations are explained in the following sections.












Re-tuning all analogue television channels

These settings are only necessary if you can not receive any digital stations or if you want to re-tune all analogue channels.

The analogue television stations are listed in the channel list after the digital television stations.

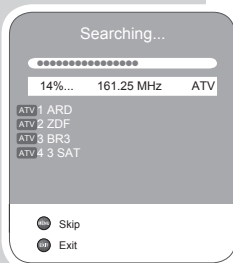
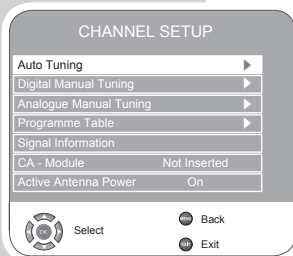
Note:

Plug the rooftop antenna cable (for analogue television stations) into the »ANT IN« socket on the television.

- 1 Open the menu with »MENU«.
- The »PICTURE« menu appears.
- 2 Select the »CHANNEL SETUP« menu with »« or »«.
- 3 Select »Autotuning« with »« or »« and confirm with »OK«.
- 4 Select »Country Selection« by pressing »« or »« and press »« or »« to make the setting.
- 5 Select the »Scan Type« with »«.
Press »« or »« to select the »ATV« display and start the search with »OK«.
- The »Searching...« menu appears, and the search for analogue TV stations begins. This may take several minutes depending on the number of television stations received.

Note:

You can stop the search by pressing »«.



SPECIAL SETTINGS

Tuning the analogue television channels by entering the channel numbers

- 1 Open the menu with »MENU«.
- The »PICTURE« menu appears.
- 2 Select the »CHANNEL SETUP« menu with »◀« or »▶«.
- 3 Select »Analogue Manual Tuning« with »▼« or »▲« and press »OK« to confirm.
- 4 Select the »Programme No« by pressing »▼« or »▲« and press »◀« or »▶« to set the preset.
- 5 Select »Current Channel« with »▼« or »▲«.
- 6 Press »OK« to choose between »S« (special channel) or »C« (channel).
- 7 Enter the channel number with »◀« or »▶« step by step or with »1...0« directly.

Note:

The current system is displayed in the »System« line. If the colour and/or sound is not functioning correctly, select »System« with »▼« or »▲«.

Select the necessary settings with »◀« or »▶«.

- 8 Press »▶||« (red) to finish the setting.

Note:

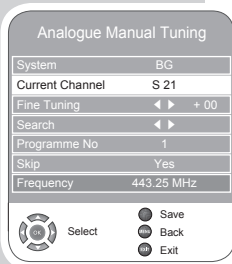
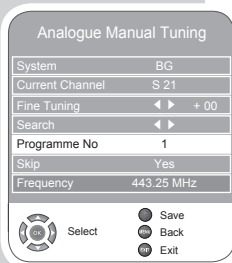
To set other television stations, repeat steps 4 to 8.

- 9 Press »MENU« to end the setting.

Fine tuning analogue television stations

The television automatically tunes itself to the best possible reception. You may need to fine tune it manually in areas where the reception is poor.

- 1 Select stations with »1 ... 0« directly or step by step with »P+« or »P-«.
- 2 Open the menu with »MENU«.
- The »PICTURE« menu appears.
- 3 Select the »CHANNEL SETUP« menu with »◀« or »▶«.
- 4 Select »Analogue Manual Tuning« with »▼« or »▲« and press »OK« to confirm.
- 5 Select »Fine Tuning« with »▼« or »▲« and set with »◀« or »▶«.
- 6 Press »▶||« (red) to finish the setting.
- 7 Press »MENU« to end the setting.



SPECIAL SETTINGS

Changing stored channels for analogue stations

If channels were stored with the automatic channel search during the tuning of the television channels, you can delete them. You can also store stations in a different preset, change or enter the name of a stations as well as skip channels.

Select channel lists

- 1 Open the menu with »MENU«.
– The »PICTURE« menu is displayed.
- 2 Select the »CHANNEL SETUP« menu with »◀« or »▶« and confirm with »OK«.
- 3 Select »Programme Table« with »▼« or »▲« and press »OK« to confirm.

Note:

Additional operations are explained in the following sections.

Deleting channels

- 1 In the »Programme Table« menu, press »▼« or »▲« to select the channel to be deleted and press »■« (yellow) to confirm.
- 2 Press »◀◀« (green) to confirm the deletion.

Note:

Press »▶▶▶« (red) to delete all the channels.

Sorting television channels

- 1 In the »Programme Table« menu, press »▼« or »▲« to select the channel to be moved.
- 2 Press »◀◀« (green) to highlight the channel.
- 3 Enter the new presets with one, two or three digits using »1...0«.
- 4 Press »OK« to confirm the entry.

Notes:

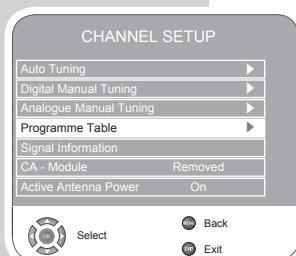
To sort the other television channels, repeat steps 1 to 4.

Entering the channel names (maximum of 5 characters)

- 1 In the »Programme Table« menu, select the desired channel with »▼«, »▲«, »◀« or »▶«.
- 2 Highlight the channel with »▶▶▶« (red).
- 3 Select letters or numbers with »▼« or »▲«, move to the next position with »◀« or »▶« and repeat.
- 4 Store the channel name with »OK«.

Note:

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



SPECIAL SETTINGS

Skipping television channels

You can highlight television stations to be skipped when you select with »P+« or »P-«. It is still possible to select using the number buttons.

- 1 In the »Programme Table« menu, select the desired channel with »▼«, »▲«, »◀« or »▶«.
- 2 Press »▶« to switch to the »⊙« symbol and press »OK« to highlight the television channel.
 - The channel is marked with »⊙«.

Note:

Channels can be enabled again. Press »▼« or »▲« to select the channel, press »▶« to switch to the symbol »⊙« and press »OK« to enable the channel again.

Creating a list of favourites

You can select your favourite channels and save them in up to four lists (FAV1 to FAV4).

- 1 In the »Programme Table« menu, select the television channel with »▼« or »▲«.
- 2 "Push" the television channel with »◀« or »▶« into the favourites list 1 to 4 and save it with »OK«.
 - The position in the favourites list is marked with »✓«.
 - You can enter the same channel in more than one favourites list.

Note:

You can delete channels from the favourites list. Press »▼« or »▲« and »◀« or »▶« to select the channel and »OK« to delete it.

Concluding the settings

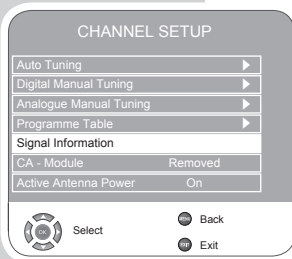
- 1 Press »MENU« to finish the settings.

INFORMATION

Displaying signal information

(only for digital television channels)

- 1 Open the menu with **»MENU«**.
- The **»PICTURE«** menu appears.
- 2 Select the menu **»CHANNEL SETUP«** with **»◀«** or **»▶«**.
- 3 Select **»Signal Information«** with **»▼«** or **»▲«** and press **»OK«** to confirm.
- You will see information on the channel, modulation, quality and signal strength.



Notes:

The lower section of the menu shows the signal properties. The further the bar for **»Quality«** and **»Signal Strength«** extends to the right, the better the reception signal.

The signal level not only depends on your receiver system, but also on the channel which is currently active. Remember this when aligning your antenna using the signal level display.

- 4 Press **»MENU«** to end the display.

Updating software

(only for digital television channels)

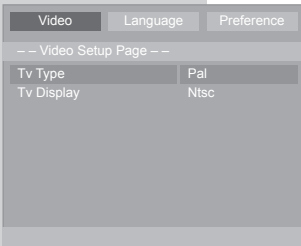
- 1 Open the menu with **»MENU«**.
- The **»PICTURE«** menu appears.
- 2 Select the **»OPTIONS«** menu with **»◀«** or **»▶«**.
- 3 Select the **»Software Update«** menu by pressing **»▼«** or **»▲«**.
- 4 Press **»OK«** to start the software update.
- The software is updated automatically, if possible.
- 5 Press **»MENU«** to end the setting.



DVD SETTINGS

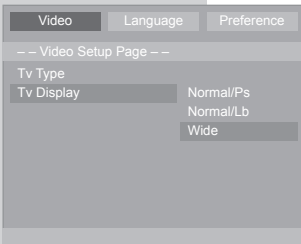
Setting the TV system (TV norm)

Select »NTSC« for televisions with the NTSC system, or »PAL« for those with the PAL system.



- 1 Press »**SETUP**« to open the main menu.
- 2 Select the »Video« menu item with »◀« or »▶«.
- 3 Select the »TV type« by pressing »▼« or »▲« and press »**OK**« to activate.
- 4 Select your setting (»PAL« or »Ntsc«) with »▼« or »▲« and press »**OK**« to confirm.
- 5 Press »**SETUP**« to close the menu.

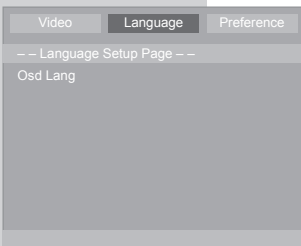
Selecting the TV format for your television



- 1 Press »**SETUP**« to open the main menu.
- 2 Select the »Video« menu item with »◀« or »▶«.
- 3 Select »Tv Display« by pressing »▼« or »▲« and press »**OK**« to activate.
- 4 Select the picture format by pressing »▼« or »▲« and press »**OK**« to confirm.
- 5 Press »**SETUP**« to close the menu.

Selecting the language of the screen menu

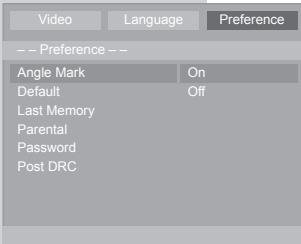
This sets the language of the screen menu for operation.



- 1 Press »**SETUP**« to open the main menu.
- 2 Select the »Language« menu item with »◀« or »▶«.
- 3 Select the »OSD Lang« by pressing »▼« or »▲« and press »**OK**« to activate.
- 4 Select the language by pressing »▼« or »▲« and press »**OK**« to confirm.
- 5 Press »**SETUP**« to close the menu.

DVD SETTINGS

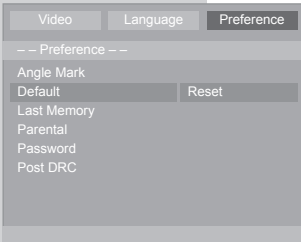
Displaying and concealing the multi-angle symbol



If this function is activated, the current camera perspective and all the camera angles are displayed. Not all DVDs have this function.

- 1 Press »**SETUP**« to open the main menu.
- 2 Select the »Preference« menu item with »◀« or »▶«.
- 3 Select the »Angle Mark« by pressing »▼« or »▲« and press »**OK**« to activate.
- 4 Press »▼« or »▲« to switch the function on and off and press »**OK**« to confirm.
- 5 Press »**SETUP**« to close the menu.

Resetting the DVD to its original condition

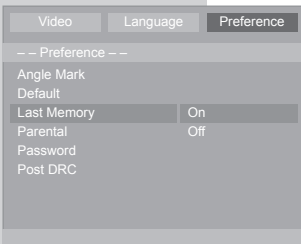


All custom settings are restored to the original status.

- 1 Press »**SETUP**« to open the main menu.
- 2 Select the »Preference« menu item with »◀« or »▶«.
- 3 Select »Default« by pressing »▼« or »▲« and press »**OK**« to activate.
- 4 Press »**OK**« to restore the DVD to the original condition.
- 5 Press »**SETUP**« to close the menu.

Last playback position

When this function is activated, the DVD player automatically returns to the last playback position and resumes playing once it is switched on again.



- 1 Press »**SETUP**« to open the main menu.
- 2 Select the »Preferences« menu item with »◀« or »▶«.
- 3 Select the »Last Memory« by pressing »▼« or »▲« and press »**OK**« to activate.
- 4 Select the function by pressing »▼« or »▲« (On) and press »**OK**« to confirm.

Note:

To deactivate the screen saver, repeat the setting and select »Off«.

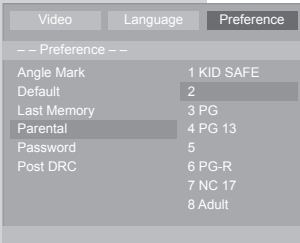
- 5 Press »**SETUP**« to close the menu.

DVD SETTINGS

Authorising the content of a DVD

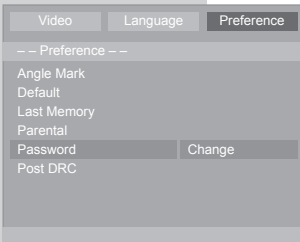
Films on DVD may be wholly or partially unsuitable for children.

These DVDs contain information which marks the content or scenes with access levels of 1 to 8. You can select one of the access levels and thus authorise alternative scenes for playback.



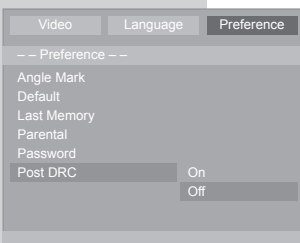
- 1 Place a disc in the compartment.
- 2 Press »**SETUP**« to open the main menu.
- 3 Select the »Preference« menu item with »◀« or »▶«.
- 4 Select »Parental« by pressing »▼« or »▲« and press »OK« to activate.
- 5 Select the access level by pressing »▼« or »▲« and press »OK« to confirm.
- 6 To confirm the access level, enter the current password with the number buttons »0« »0« »0« »0« and press »OK« to confirm.
- 7 Press »**SETUP**« to close the menu.

Changing the password



- 1 Press »**SETUP**« to open the main menu.
- 2 Select the »Preference« menu item with »◀« or »▶«.
- 3 Select »Password« by pressing »▼« or »▲« and press »OK« to activate.
- 4 Enter your current password with the number buttons »0« »0« »0« »0«.
- 5 Enter the new four-digit access code with the number buttons »1 ... 0«.
- 6 Enter the new four-digit access code with the number buttons »1 ... 0« and press »OK« to confirm.
- 7 Press »**SETUP**« to close the menu.

Switching the dynamic range (volume range) on and off



- 1 Press »**SETUP**« to open the main menu.
- 2 Select the »Preference« menu item with »◀« or »▶«.
- 3 Select »Post DRC« by pressing »▼« or »▲« and press »OK« to activate.
- 4 Select the function with »▼« or »▲« (»On«) and press »OK« to confirm.
- 5 Press »**SETUP**« to close the menu.

INFORMATION

Technical data

| | |
|---|--|
| Operating voltage: | 220 - 240 V ~, 50 - 60 Hz |
| Power consumption: | in operation 50 W in standby 0,95 W |
| Sound output: | 2 x 6 watts music (2 x 3 sine wave) |
| Rohs Limits Pb (Lead)/ Hg (Mercury): | Pb meets ROHS Directive / 20,0 mg |
| Display Area (dm ²): | 12,81 dm ² |
| Peak Luminance (Ratio, home mode, max.): | 95 / 285 / 300 % |
| Reception ranges: | Analogue: C01 ... C80, special channels S01 ... S41 Digital: VHF/UHF Bandwidth 7 MHz and 8 MHz COFDM modes: 2k and 8k Constellation: 16QAM, 64QAM, QPSK |
| Preset channels: | 400 (digital), 99 (analogue) and 6 AV, 1 USB |
| Screen size: | 55 cm/21.6" |
| Max. resolution: | WXGA 1366 x 768 |
| Disc formats: | DVD R, DVD RW, CD-R, CD-RW |
| Media formats: | DVD video, audio CD, video CD (VCD 1.0/1.1/2.0), S-Video CD, CD ROM (MP4-ASP, MP3, WMA, JPEG) USB 2.0 |
| Weight: | approx 5 kg |

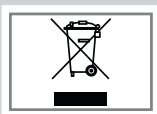
Service information for dealers

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.

Technical changes and errors reserved.



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 a 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 a another channel |
| | Television station (has no teletext) or antenna system | Test 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.

INFORMATION

CLASS 1
LASER
PRODUCT



General information on laser devices

This device is a CLASS 1 LASER PRODUCT. This means that the laser is designed in such a way as to ensure that the maximum permissible emission value cannot be exceeded under any circumstances.

Caution:

If operating devices or methods other than those specified here are employed, it may lead to dangerous exposure to emissions.

This device emits laser radiation. Because of the danger of eye injuries, the unit may only be opened or serviced by trained personnel.

If settings other than those stated here are used or other procedures are carried out, this may lead to dangerous exposure to radiation.

This product contains components which are covered by certain U.S. patents or for other reasons are considered intellectual property of the Macrovision Corporation and other proprietors. The use of this protected technology must first be approved by Macrovision Corporation and is only permitted for private use at home or for other restricted applications provided that all the subsequent approvals from Macrovision Corporation have been granted. Reproduction or disassembly of the device is prohibited.

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