TechniSat ®

DIGITAL

HD-VISION 32 PVR
HD-VISION 40 PVR
CONAX embedded

Operating manual

TFT-LCD television set with integrated hard disk

Conax

1 Table of contents

Remote control

Sound on/off	On/Standby
	Option*
	during TV operation: Sound/sub-title selectionSpecial functions
	during radio operation: Station selection by switching the sound sub carriers
Numeric keyboard	
0/AV (External inputs)	red Rewind
	Green PVR Navigator, stop
Recording	yellow Pause, Replay
Multi-function keys	blue Zoom Fast-forward
Arrow key up Programmes +	OK Programme list on/off
Arrow key left Volume -	Arrow key right Volume +/-
Arrow key down Programmes -	Back
SFI	Info
	TV/Radio mode
Programme +	Volume +
Programme -	Volume -
Stop	Menu on/off
Video-text On/Off*	Select language*
	Sleep Timer

* This function is only available, if the appropriate data are broadcast on the set channel position.

Remote control option:
Switching to the remote control option will enable you to operate two TechniSat receivers and a TechniSat TV using the same coding via the remote control.
> To change the remote control option, press the required key (SAT1, SAT2 or TV) and OK simultaneously!!!
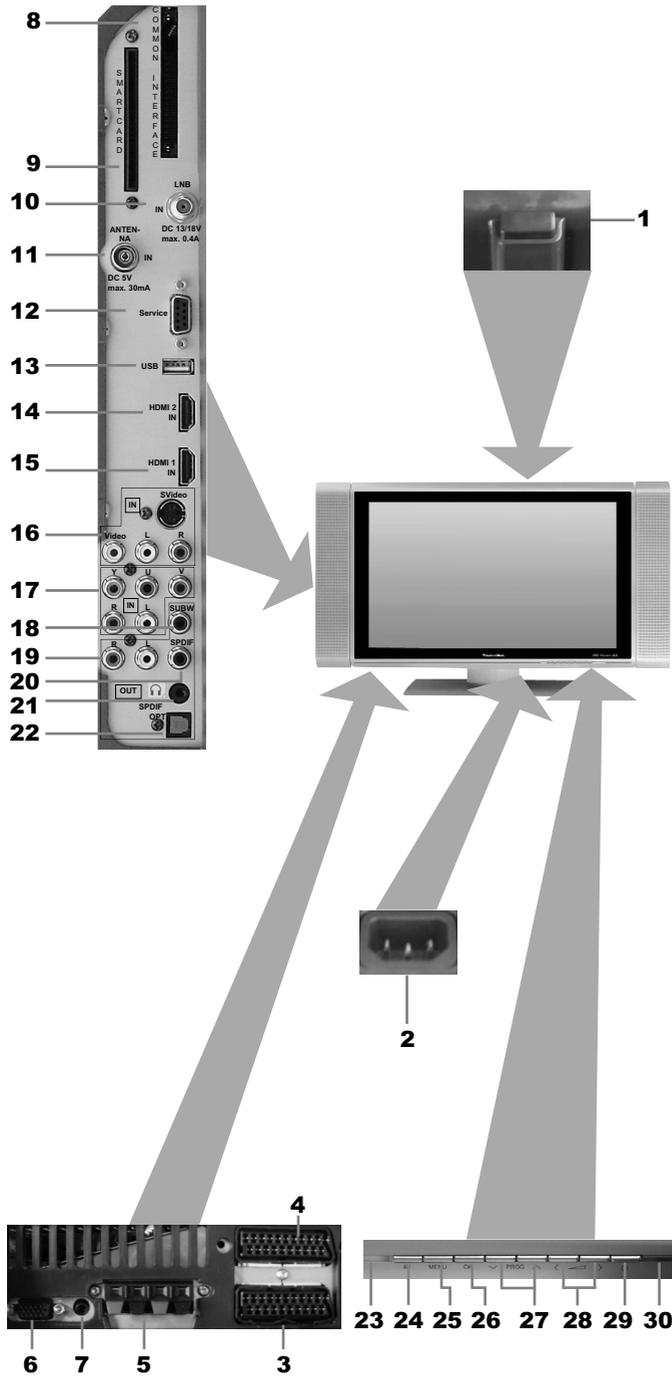
Mains
1 Mains switch
2 Mains connector

Connections:
3 Scart connection (AV2)
4 Scart connection (AV1)
5 Loudspeaker connection
6 VGA connection
7 Audio IN (VGA/DVI)
8 Common Interface
9 Card reader
(Align the golden chip of the Conax-smart card to the front and in insertion direction).
10 LNB input (DVB-S)
11 Antenna input (DVB-C, DVB-T, analogue)
12 RS232 Interface
13 USB connection
14 HDMI connection 2
15 HDMI connection 1
16 Video, S-Video and audio input
17 Component inputs (Y, U, V and audio)
18 Sub-woofer output
19 Audio output (R,L)
20 Digital audio output (SPDIF electrical)
21 Headphone output (Jack 3.5mm)
22 Digital audio output (SPDIF optical)

Manual control:
23 LED
24 AV
25 Menu
26 OK
27 Programme +/-
28 Volume +/-
29 On/Standby
30 IR receiver

3 Please read first

Before using the device for the first time, check the supply for completeness. The package contains:

1 LCD television set,	1 remote control,
1 operating manual,	1 guarantee card,
2 batteries (1.5V micro cells),	1 right-angle screwdriver,
1 mains connection cable,	

3.1 Intended use

- Connection to the power supply 230V/ 50Hz

- The TV set is only intended for the reception and playback of picture and sound signals.

- The device is only suitable for connecting audio and video devices,
  antenna equipment and computers, which comply with the DIN standard and have an
  appropriate CE-mark.

- Use is allowed in private and business areas in dry rooms and under supervision.

- All other uses are explicitly prohibited.

3.2 Manufacturer's declaration

The TV set is in compliance with the requirements of

- the EU Directive 73/23/EEC (Low voltage Directive)
      - EN 60065

- the EU Directive 89/336/EEC (EMC Directive)
      - EN 55013, EN 55020, EN 60555-2

and carries the CE-mark.

3.2.1 Information on the LCD screen

The display you have acquired meets the highest quality standards and was examined and classified concerning pixel errors according to ISO 13406-2. Despite extreme care during production, it cannot be completely avoided for technical reasons, that the rendition of individual pixels is not correct. We ask for your understanding, that incorrect pixels in the context of the ISO classification are not considered as a defect of the device in terms of the warranty.

3.2.2 Information on the data stored on the hard disk

We recommending making a backup of the data stored on your HD vision 32 PVR or HD vision 40 PVR before delivering your television set for maintenance to your specialist dealer.
Reimporting the data is not covered by the maintenance or repair work.
TechniSat does not accept any responsibility for data, which was lost or damaged during repair.

3.3 Transport

Only transport your device in an upright position. Do not lift the device by the loudspeakers.

3.4 Remote control / Replacing the batteries

> Open the lid of the battery compartment on the back of the remote control by applying light pressure to the marked position.
> Insert the supplied batteries, while observing the correct polarity (Marking is visible in the battery compartment).
> Close battery compartment.

3.5 Care and cleaning

Only wipe the housing with a slightly damp, soft cloth.
Do not use any sprayed cleaners or aggressive chemical cleaning agents for the housing, in order not to damage the high-quality surface.
Clean the display when the TV is turned off with a dry cloth or the LCD panel cleaning set.
You can acquire the LCD panel cleaning set from your specialised dealer under the following designation and article number.

LCD panel cleaner Art no. 0000/3830

3.6 Safety regulations

For your own protection, please read the safety precautions carefully, before putting your new device in operation.
The manufacturer does not assume responsibility for damages caused by inappropriate handling and by non-compliance with the safety precautions.

Only operate the device in a moderate climate.
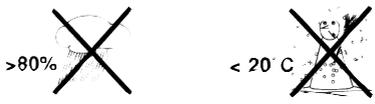
- In order to ensure sufficient ventilation, place the device on an even surface.

Never place burning items, e.g. burning candles, on the device.

- Do not switch the TV set on immediately after delivery or after transporting in cold weather; Wait for the temperature to take on room temperature.
Never expose the device to dripping or splashed water and do not place any items filled with liquid, e.g. vases, on it. If water has penetrated into the device, immediately pull the power supply plug and notify your customer service.
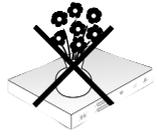
- Do not place the TV set in narrow shelves or cupboards, leave at least 10 cm for ventilation to the device.

- The device is equipped with louvres to enable the heat from the inside of the device to escape. Never cover the louvres with items, such as newspapers, table clothes, etc.

- Do not operate any heating sources near to the device, which could additionally heat up the device.

- Do not insert any items into the louvres.

- In the case any conspicuous defect of the device, odour, or smoke development, immediately pull the power supply plug and contact the customer service.

- The TV set should be turned off by means of the power supply plug, in the case of an electrical power outage.

- The TV should be turned off, if you are away for a lengthy period. This increases the life span of the panel and saves energy.

Never open the device!
Touching components conducting high voltage could be lethal!

Only trained personnel are allowed to open the unit.

3.7 Operating intervals

Pull the power supply plug and antenna connection during thunderstorms or longer operational interruptions.
Overvoltage can damage the device.

Disconnect the device from the mains in the following cases and request help from an expert:

- The electric cable is damaged.
- The device was exposed to moisture or liquid penetrated.
- In the case of substantial malfunctions.
- In the case of extreme exterior damages.

3.8 Wall mounting

It is possible with a suitable wall mount,e.g. TechniSat HD-Mount (Art no. 2020/2632) or TechniSat HD-Mount LCD wall mount (Article no.: 2020/2732), to connect the television to a suitable wall.
For this purpose, you must disassemble the pedestal.

3.8.1 Removing the pedestal

Do not forget that you have to remove the loudspeaker cable from the connection terminal on models with the loudspeakers at the bottom before you can remove the pedestal.
> Place the display of the device onto an even surface.
Ensure that no pressure is applied to the panel and that the LCD panel is not damaged.

Put something soft under the device, in order to protect the front and the LCD panel against damages and scratches.

> Loosen and remove the two marked screws.
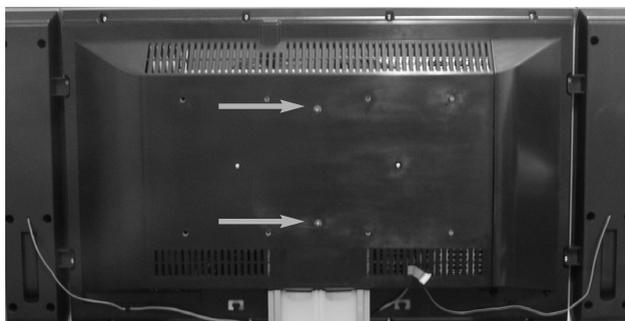
> Now remove the pedestal carefully in the direction of the lower side of the device.

You require an additional special profile, in order to be able to use the loudspeakers, if they are situated at the bottom of the device when mounting on a wall. You can purchase this additional profile from your specialised dealer under the following designation and article number.

HD-Vision 32:   HD-Mount Adapter 32"   Art no. 0001/3240
HD-Vision 40:   HD-Mount Adapter 40"   Art no. 0002/3240

3.9 Detachable loudspeakers

Your device is equipped with detachable loudspeakers. You can remove these, if:

- You would like to position the loudspeakers separately on a loudspeaker stand. (only possible for the 32" models with side loudspeakers).
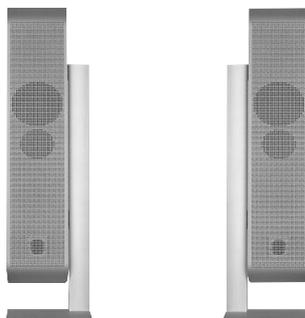
- You would like to mount the loudspeakers on the additional profile when mounting the TV on the wall (see section 3.8.1. (only possible for models with the loudspeakers at the bottom).
- You would like to connect the device to a HIFI or surround system (see section 4.6) and do not want to use the supplied loudspeakers.

3.9.1 Removing the loudspeakers

> Remove the loudspeaker cables from the connection terminals. Press the spring contact down and remove the cables.
> Now loosen the fastening screws of the loudspeaker(s) with a suitable screwdriver and remove them.
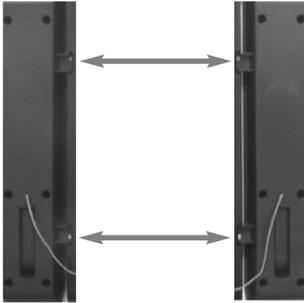
TV set variant with side loudspeakers

TV set variant with bottom loudspeakers

> Cover the openings of the loudspeaker fasteners with the enclosed screens (only possible on models with side loudspeakers).

3.10 Notes on waste disposal

The packing of your equipment is completely made up of recyclable materials. Please dispose of these sorted accordingly by means of the "Dual System".

This product may not be disposed via normal household waste at the end of its service life, but must be delivered to a collection service for the recycling of electrical and electronic devices.

This is pointed out by the ⌧ symbol on the product, the instruction manual or the packing.

The materials are recyclable according to their designation. You help to protect the environment, if you enable recycling, reuse of material, or other types of utilisation of end-of-life equipment.

Please ask your municipal administration, where the next waste disposal is located.

Ensure that the drained batteries of the remote control are not put into the household waste but are properly disposed of (given to the specialised trade, hazardous waste).

4 Connections

a   Connection of the satellite antenna to the LNB input.
b   Connection of the cable connection (digital and/or analogue) or the DVB-T antenna to the antenna input of the TV set.
c   Connection of the TV set to a DVD player by:
    - an HDMI connection cable   or
    - a SCART connection cable   or
    - a Cinch component cable
d   Scart connection of the TV set to a video cassette recorder.
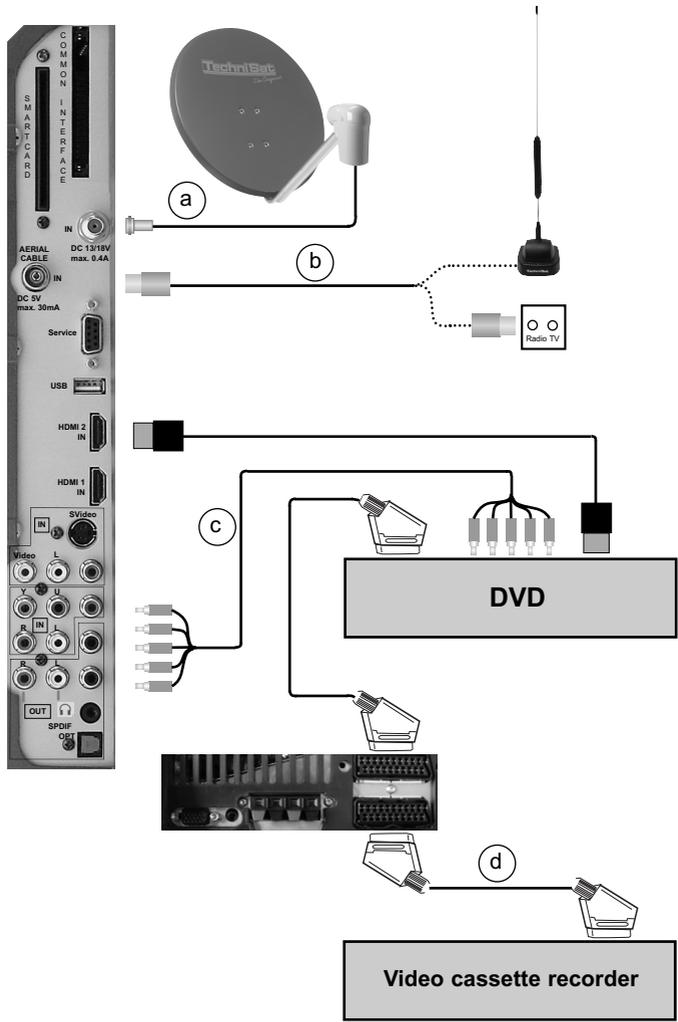
The following notes **a b c** refer to the connection example on page 14.

You must first remove the cover, in order to be able to get to the device connections.

> For this purpose, lightly press both **snap-fits** upwards and remove the cover towards the back.

Snap-fit

> In order to cover the connection cable, lead this along the back of the pedestal behind the detachable plastic holders.

4.1 Satellite antenna

a Connect the cable coming from the LNB of the satellite antenna to the **LNB input** of the LCD TV set.

4.2 Antenna/cable connector (analogue and digital)

b Connect the antenna input of the LCD TV set either to a **terrestrial antenna** or to the **outlet** of the cable or antenna connection.

Please note:

The simultaneous reception of DVB-T and DVB-C signals can result in reception problems of some cable and DVB-T programmes.

4.3 DVD player

c Connect your DVD player either by means of an HDMI connection cable to an **HDMI connection**

or by

- a DVI/HDMI connection cable to an **HDMI connection** and additionally by an audio connection cable to the **Audio IN (VGA/DVI)** input.

or by

- a SCART cable to a **SCART socket**

or by

- a Cinch cable to the **component inputs** of the LCD TV set.

4.4 Video cassette recorder

d Connect a **Scart connector** of the LCD TV set with a Scart cable to the **Scart connector** of your video cassette recorder.

4.5 S-VHS Video cassette recorder/Video camera

If you would like to play back S-VHS video recorder or video camera signals on your television set, connect the devices to the Video/S-Video inputs on the left rear side of the set.

4.6 HiFi amplifier

4.6.1 Analogue

Connect the Cinch sockets of the back **analogue audio output** of the television set by a suitable cable to an input of your HiFi amplifier (e.g. CD or AUX; **Note!** The phono-input is not suitable!).

4.6.2 Digital

If your amplifier is equipped with an appropriate electrical or optical input (SPDIF), then connect the **digital audio output socket (electrical** or **optical)** to the input of your amplifier.
The sampling rates 32, 44.1 and 48 kHz are available, depending on the respective station.
A Dolby Digital signal (AC3) is also available at this output, if transmitted.

4.7 Sub-woofer

Connect an available active sub-woofer by a suitable cable to the sub-woofer output.

4.8 Serial interface (RS 232)

The RS 232 interface enables updating the system software and pre Programming via the PC.

4.9 USB socket

The USB connection enables updating the system software and pre Programming via the PC or USB.

4.10 Headphones

If you would like to use headphones, connect them to the **headphone connection** on the left rear side of the set.

4.11 PC

If your PC is equipped with a DVI output, we recommend, connecting the PC with a DVI HDMI cable to the HDMI connection of the television set. Otherwise, please use a VGA cable and connect the PC to the VGA connection of the television set.

> With help of the **0/AV** key of the remote control switch the TV set to **VGA** or **HDMI playback**.
> The switchover should be accomplished automatically when connecting via a DVI-HDMI cable.

You should configure the resolution of the graphics card before connecting the PC to the television in such a way, that the format corresponds to a format supported by the television.
You can find the supported formats in the technical data (Section 15).
E.g., the resolution 1024*768@60Hz is supported.

To set a specific resolution for your graphics card please read the operating system instructions of your PC. You can normally find this setting Windows in the menu Start -> Settings -> System control -> Display ->Settings.

You will achieve an optimal result (a screen filling picture in the best possible resolution), if you trigger the panel in its native resolution (1366*768). According to the VESA CVT Standard, the resolution 1360*768@50Hz is available, which is therefore nearly perfect. You can find the precise parameters in the technical data (Section 15). Your television set communicates this resolution to the PC by DDC. unfortunately it is not sure, whether the graphics card driver will also accept this.

In the case of small disturbances or unsharp pictures when connecting via the VGA input, please correct this by setting the **Trigger Threshold** in the menu -> Settings -> VGA Settings -> Trigger Threshold. A possible lateral shift of the picture can be corrected by means of the **Horizontal Position** control in the same menu.

4.12 Mains connection

The LCD TV set should only be connected to the mains (230V/50Hz) after the device has been connected to all appropriate 50230 components. This prevents destruction of the TV set or of other components.

5 Initial installation

After reading the safety notes and having connected the device as described in Chapter 4, turn the device on as described in Chapter 6.
The **AutoInstall** installation assistant starts automatically during the initial start-up of the device. The installation assistant helps you to easily carry out the most important settings on the TV set.
You can exit the initial installation at any time by pressing the **red** function key. You can return to the previous installation step by means of the **green** function key. This enables you to correct incorrect inputs at any time.
The initial installation demonstrated here is only exemplary. The precise initial installation sequence depends on your previously entered settings.
Therefore follow the instructions displayed on the screen very carefully.

Operating language

The installation assistant starts with the selection of the **up/down arrow keys**.
> Highlight the required operating language with the **arrow keys up/down**
> Press the **OK** key to confirm.

Audio language

> Select the preferred **audio language** with the **up/down arrow keys**.
> Acknowledge with **OK**, to accept the selection.

Time zone settings

> Select with the **up/down arrow keys** the time zone, which corresponds to the country, in which the device is operated.
  The time is set automatically according to your selection.
> Press the **OK** key to confirm.

Transmission area

> Select the transmission area, in which you are located with the **up/down arrow keys**.
  According to the selection, the programmes are sorted in the favourites list after terminating the installation assistant.
> Acknowledge with **OK**, to accept the selection.

Representation of 4:3 programmes

Programmes, which are broadcast in an aspect ratio of 4:3, can either be displayed in the **original** format, **always** in the **16:9** format or with **optimal** utilisation of the screen.

> Select how programmes broadcast in the 4:3 format should be displayed with the **up/down arrow keys**.

> Acknowledge with **OK**, to accept the selection and to proceed to the selection of the available reception signals.

Selection of the reception signals

> Select the available reception signals with the **up/down arrow keys**.
  DVB-S for digital satellite programmes;
  DVB-C for digital cable programmes;
  DVB-T for digital terrestrial programmes;
  Analogue CT for analogue terrestrial and cable programmes; **FM Radio** for VHF radio stations).

> Use the **right/left arrow keys** to determine, whether the marked reception signal is available at your location (**Yes**) or (**No**).

> Then use the **up/down arrow keys** to select the **Continue** field and acknowledge with **OK**, to accept the selection.

DiSEqC configuration (DVB-S)

In this installation step, you can adapt the settings of your TV set to the configuration of your satellite antenna.

> If you would like to accept the standard antenna adjustment, use the **up/down arrow keys** to mark the **Standard** field and acknowledge with **OK**.
  In this case, continue with the "**Antenna settings (DVB-T)**" option.

> If the configuration of your receiving installation does not correspond to the standard settings, select the **Manual** field and acknowledge with **OK**.

> Following the detailed description in section 8.5 adapt your antenna settings according to your receiving installation.

> Then select the **Continue** field with the **arrow keys** and acknowledge with **OK**.
  In the next step check the configuration of your antenna again.

> Mark the Yes field using the **left/right arrow keys**, if you want to save the changes and then press **OK** to confirm.

Antenna settings (DVB-T)

If you are used an active DVB-T antenna, which is not equipped with its own power supply, it can be powered by your TV set via the coax cable. For this purpose, set the **antenna power supply** to **On**.

> With the **right/left arrow keys** turn the power supply **On** or **Off**.

> Use the **up/down arrow keys** to highlight the **Continue** entry and acknowledge with **OK**.

Software update

Your device now checks, whether new system software is available. You can immediately update your software, if new software is available. **Please note**, that this is only possible after a station search run, if the DVB-S signal is deactivated.

> Use the **right/left arrow keys** to select the **Update** field and acknowledge with **OK**. The new software for your TV set will now be downloaded. This procedure can take some time.

Station search run/ISIPRO^{only DVB-S}

You have various options to search for new stations or to update your programme list.
You can either, if available, use the ISIPRO programme list function to download a new satellite programme list for your device **from the satellite** or carry out a station search run.

> In order to download a possibly available programme list use the **up/down arrow keys to select** the **ISIPRO programme list update** line.
  This function can only be downloaded from the satellite, if an updated programme list is available in comparison to the one stored in your device.

> Acknowledge with the **OK** key. The updated programme list will now be downloaded from the satellite. Subsequently, a station search run follows checking "All" programme available from further reception sources, if this has been configured in "Selection of reception signals".
  Please observe the further screen inserts.

If you wish to carry out a station search run, proceed as follows:

> Use the **up/down arrow keys** to highlight the **All** field, if you would like to look for both free and encoded channels, or **All free**, if you want to look for free channels only.

> An automatic search run is started by pressing the **OK** key.
  The selected reception ranges are automatically scanned for channels during this search run. This procedure can take a few minutes. Please observe further screen inserts.

Terminating the installation assistant

> Acknowledge the final message of the installation assistant with **OK** , in order to return to normal operation.

6 Operation

6.1 Turning the TV set on and off

Turning on with the mains switch on the TV set

> Turn the TV set on by pressing the **mains switch** on the top back side of the device. The TV set now runs through an initialisation procedure and cannot be operated during this period. This procedure can, depending on the quantity of hard disk recordings, take some seconds.

Please note, that the TV set may only be turned off with the mains switch when it is in the standby mode. This prevents the loss of data and possible damage to the files or hard disk.

Turning on from the standby mode

> Turn the TV set on by pressing the **On/Standby** key on the remote control/on the set.

or

> by pressing the **Programmes +/-** key on the remote control/on the set

or
> by pressing a numeric key from **0** to **9** on the remote control

or
> by turning a device on, which is connected to an external input. (During activated Auto-start function, section 11) The operating mode is signalled by a green LED.

Turning the TV set off

> Turn the TV set off by pressing the **mains switch** on the device or by pressing the **On/Standby** key on the remote control/on the set.
The TV set is in the standby mode, if it was turned off with the **On/Standby** key. The LED display is red in this case.
> The TV set can be additionally turn off with the **Autostop** function (see section 11).

The device remembers, whether it was set to "On" or "Off", as entered with the remote control or keys of the set.
If the TV set was turned off with the mains switch during operation, it starts up directly in the operating mode after being turned on again with the mains switch.

The TV set should be turned off with the mains switch in case of electrical power outage, so that it will not turn itself on again inadvertently.

6.2 Programme selection

6.2.1 With the Programme up/down keys

> You can move up and down through the programmes by one programme position res-pectively with the **Programme +/-** key on the remote control/on the set.

6.2.2 By means of the numeric keyboard

> Enter the required programme number on the **numeric keyboard**.

For example:

1   for programme position **1**
1,   then **4**   for programme position **14**
2,   then **3**,   then **4**   for programme position **234**
1,   then **2**,   then **4**,   then **5**   for programme position **1245**

When entering multi-digit programme numbers, you have approximately three seconds time after pressing a key to complete the input.
If you only want to enter a 1,2 or 3-digit number, you can accelerate the input procedure by pressing the last number for a longer period.

6.2.3 By means of the programme list

> Press the **OK** key.
The programme list is now displayed. Only TV programmes are displayed in the TV mode and only radio programmes in the radio mode. The currently set programme is highlighted.
> By means of the **arrow keys** or **numeric keyboard**, you can now select the required programme.
Move the marker by one line at the time through the list with the **up/down arrow**

keys.
Scroll up or down through the list page-wise with the **left/right arrow keys**.
> You can obtain additional information on the current broadcasts by pressing the **yellow** INFO **control key**.
> The selected programme is set by pressing the **OK** key.

6.2.3.1 Select list

In order to facilitate finding programmes, your device has different programme lists available. You can select your **Favourites list** or have the programmes displayed in the alphabetically sorted Complete list or according to **Providers**.
> Press the **OK** key.
The active programme list is now displayed.
> By means of the **red Category** control key, you can now open a window with the programme list types (**Favourites list**, **Provider list**, **Complete list** and **Hard disk recordings**).
The active programme list type is marked.
> With the **up/down arrow keys** you can now select e.g. the programme list type **Complete list** and acknowledge with **OK**.
The alphabetically sorted complete list is displayed, in which all programmes are contained.
> You can now select the required programme with the **arrow keys up/down.**
> You can obtain additional information on the current broadcasts by pressing the **yellow** INFO **control key**.
> Press the **OK** key to confirm.

6.2.4 Calling locked programmes

If a programme is set, that is locked by the parental lock function , the message Enter **PIN** is displayed on the screen.
> Use the **numeric keyboard** to enter your PIN code.
The required programme will be set.

or
> Switching to an unblocked programme.
You will be asked for the PIN code once when switching to a blocked programme, if you have selected the **Once** setting in section 8.3.1. To increase operating convenience, you only have to enter the PIN code once during an operating phase.
Refer to section 6.3.3 if you are using a smart card.

6.2.5 Return to the last set programme

> The last set programme is reset by pressing the **Return** key on the remote control.
> Press the key once again to reset the programme, that you were watching beforehand.

6.2.6 Infobox

An Infobox with the programme position and the current programme is briefly displayed after each programme change. Additionally further programme characteristics are displayed, such as e.g. broadcast teletext and the audio mode.
> In order to display the Infobox manually, press the **Info** key.
> You can scroll through lengthier information on the current broadcast by pressing the **arrow keys**.
> The following programme is displayed, if transmitted, by pressing the **Info** key again.
> The insert disappears by pressing the **Info** key again.

6.2.7 AV source

> In order to select a device connected to the Scart sockets, component input, to the HDMI inputs, to the VGA connection or to the AV connection of the TV set, press the **AV** key.
The selection window **AV source** is displayed on the screen with the available AV connections.

> Use the **up/down arrow keys** to select the required source.

TV	Internal reception unit: TV
Radio	Internal reception unit: Radio
EURO-AV1	ext. Device on Scart connector 1
EURO-AV2	ext. Device on Scart connector 2
Video/S-Video	ext. Device on AV connections (Cinch or S-Video)
YUV	ext. Device on component input
HDMI 1	ext. Device on HDMI input 1
HDMI 2	ext. Device on HDMI input 2
VGA	VGA input (PC)

> Acknowledge with **OK** to switch to the selected input.
> In order to return to television operation, press the **AV** key again and using the **up/down arrow keys** select the **TV** line or press the **TV/Radio** key.

Please note:
It is not possible to operate devices simultaneously if they are connected to both the Video Cinch-connection and to the S-Video connection!

6.3 Reception of encoded programmes

Your unit is equipped with an integrated CONAX decoder system as well as a "Common Interface" for recording from two CI-modules. This enables you to receive encoded programmes. For this purpose, you must either insert a CONAX smart card into the integrated card reader or insert a CI module with a valid smart card into the intended slot:

> Insert the **CONAX** smart card in the card slot of the integrated card reader. (The golden chip should point forwards and in the insertion direction)

or

> Insert a CI module into the slot with the top pointing to the rear.
> Insert the smart card into the card slot of the CI module.
Make sure that the golden chip of the smart card is pointed to the rear in insertion direction.
> Your television set now automatically checks the CI slot, if an encoded programme has been set and displays the programme unencrypted, if an appropriate CI module with a valid smart card is available for this programme.

Special functions

Some programme positions offer you specific special functions. On these multi-feed channels, you can for instance select various matches on some sports channels (e.g. German Federal Football League), change audio channels (e.g. Stadium or commentary) or camera perspectives (Formula 1).
Certain channels also let you select the time you would like your ordered film to start.

6.3.1 Optional channels

Certain programmes provide optional channels. This function enables you, e.g. during a sport broadcast, to freely select different camera perspectives (Formula 1) or to change to different sports venues (German Federal Football League). If a programme provides Option channels, this is displayed by **OPT** in the Infobox.
> In order to select one of the possible options, press the **Option** key
The available options are then displayed in a selection window.
> Select the required option with the **up/down arrow keys**.
> Acknowledge with **OK**. Your television will now set the required option.

6.3.2 Start time selection

You have possibility of selecting individual films at different starting times on some channels. These films can therefore be viewed twenty-four hours a day at different starting times. If a programme provides Start time selection, this is displayed by **OPT** in the Infobox.
> In order to select one of the possible start times, press the **Option** key.
A selection window will be displayed showing the offered start times.
> Use the **up/down arrow keys** to select the required start time.
> Acknowledge with **OK**.
You can watch the programme at the selected time, if the programme has been activated for the set start time.

6.3.3 Smart card PIN code

A child lock can also be implemented to block programmes that are unsuitable for children and are broadcast by encoded programmes. The **smart card PIN code** must be entered to activate the respective broadcast. This PIN code is stored on the respective smart card and is provided together with the card. Therefore, the **smart card PIN code** is **not** to be mixed up with
unit PIN code of the TV set (Section 8.3.2) A message is displayed, if you turn a programme on, which is currently broadcasting a previously locked programme.
> Use the numerical keypad to enter **the** 4-digit **smart card** PIN-code in order to activate the broadcast.
The broadcast is activated as soon as the correct input has been entered.

6.4 Volume adjustment

After turning the TV set on, the sound is played with the volume set in the **Volume adjustment** menu (Section 8.2).
> Adjust the volume of your TV set with the **Volume +** rocker key louder and with the **Volume -** rocker key quieter.
This setting is not stored when you turn your TV set off.
> Pressing the **Sound off/on** key turns the sound off, renewed pressing of this key turns the sound on again.

6.4.1 Headphone volume

> You can adjust the headphone volume by pressing the **left/right arrow keys** when the volume is deactivated.

6.5 Selection of a different Language/Sound option

A message is displayed ⒜⒝ in the Infobox, if a programme is broadcast in several languages or on several sound channels. You can set a different language or a different sound channel as follows:

> Press the **Select language** key.
> A list of the currently broadcast languages is displayed on the screen.
> Use the **up/down arrow keys** to select the required language and acknowledge with **OK**.
> You can now hear the broadcast in the set language.
> Your TV set can also receive mono broadcasts.
> Use the **left/right arrow keys** to select between mono channel 1 ▣▣, mono channel 2 ▣▣ and stereo ◀▶.

6.5.1 Dolby Digital (AC3 mode)

The Dolby-Symbol is displayed in the Infobox ▣▣ when turning a programme on, which is broadcast in Dolby Digital sound.
If you have not activated the **Dolby Digital AC3** function (Section 8.2) , you can set your device to AC3 mode as follows:
> Press the **Select language** key.
> If broadcast, a list of currently broadcast languages and **Dolby Digital** (AC **3**) will be displayed on the screen.
> Use the **up/down arrow keys** to select the **Dolby Digital line** and acknowledge with **OK**.
> You can now hear the programme in Dolby Digital sound. If you would like your TV set to automatically play in Dolby Digital, set your television as described in section 8.2 to automatic AC3 playback.

6.6 Teletext

Your TV set can display teletext information on programmes, if these broadcast teletext data. This is indicated by the ▣▣ Symbol in the Infobox.

6.6.1 Turning teletext on/off

> Select the programme, whose teletext you would like to look at.
> Pressing the **Teletext** key turns the teletext on.
> This is displayed on page 100 (Overview), if the set station broadcasts teletext information.
> Renewed pressing of the **Teletext** key returns you to the TV mode.

6.6.2 Page selection

> Enter the 3-digit page number on the **numeric keyboard 0** to **9**.
> Your input is displayed in the upper left corner of the screen. This might take a few seconds until your unit finds the requested page and displays it on the screen, since not all teletext pages can be broadcast simultaneously.

or
> Use the **red** or **green** key to scroll forward or backward through the pages.
> Press the **yellow** control key to call up the teletext group displayed in the yellow window.
> Press the **blue** control key to call up the teletext block displayed in the blue window.

6.6.3 Teletext sub-pages

Many teletext pages consist of several sub-pages. This is indicated by two numbers separated by a slash (current sub-page/number of sub-pages) in the teletext picture. A new available sub-page is displayed automatically.
> In order to display a sub-page, press the **OK** key.

The column on the left edge of the screen is activated. The already downloaded sub-pages are highlighted.
> Select the required sub-page with the **up/down arrow keys**.
> Exit the display of the sub-pages by pressing **OK**.

6.6.4 Teletext additional functions

Calling some teletext additional functions is only possible, if the command line on the right side of the teletext window has been activated.
> In order to activate the command line, press the **Return** key.
The appropriate symbols are now highlighted in colour.

6.6.4.1 Stop mode

> In order to prevent the automatic changing of the sub-pages, press the **red** control key, while the additional teletext functions are activated.
The displayed sub-page is now displayed continuously. (The wording STOP is now displayed in the header).
> Automatic switching of the sub-pages is reactivated by pressing this key again.
or
> In order to prevent automatic scrolling of the pages, press the **Stop** key, when the additionally teletext functions are not activated.

6.6.4.2 Displaying enlarged teletext pages

> In order to display enlargened teletext pages, press the **green** control key, when the additional teletext functions are activated.
The upper half of the pages is now enlarged.
> Renewed pressing of the **green** control key enlarges the lower half of the teletext page.
> Press the **green** control key again to reset the page to the normal size.

6.6.4.3 Displaying hidden information

> In order to display hidden information (e.g. puzzle solutions, VPS times etc.), press the **yellow** control key.
> This information is hidden by pressing the **yellow** control key again.

6.6.4.4 Displaying the TV picture without leaving VT

> The TV picture is displayed by pressing the **blue** control key and hidden by pressing this control key again.

6.6.4.5 Changing the teletext font

If, against all expectations, it should be necessary, you can change the font of the teletext decoder manually.
> You access the option for changing the font by pressing the **Return** key.
> Select the font with the **left/right arrow keys**, which matches to the language of the broadcast teletext information.

6.7 Sleep timer

You can set the turning off time of your TV set with the sleep timer.
> In order to activate the sleep timer, press the **Sleep Timer key**.
A menu window is displayed for checking the remaining period.
> You can set the remaining period of the sleep timer with the **right/left arrow keys** in 15-minute steps or turn it off.

> Return to standard operation by pressing the **TV/Radio** key.
> The remaining period of the sleep timer is displayed in the Infobox.

6.8 Freeze image

> Press the **Stop** key to display the current TV picture as a frozen image.
> Pressing this key again returns you to standard operation.

6.9 Switching TV/Radio

> Switch to the radio mode with the **TV/Radio** key.
> The device switches to the last heard radio programme.
> Please also note the picture settings during radio operation in section 11.
> Pressing the key **TV/Radio again,** turns on the last viewed TV channel.

6.10 Channel/Transponder/Source information

> First, press the OK key to call the navigator.
> Select the programme position of which you would like to view information with the **arrow keys**.
> The data of the marked channel / transponder or source are displayed by pressing the **Option** key.
> Please note, that the data of external sources can only be displayed, if the respective source has been included in the favourites list as described in section 10.2.
> Return to standard operation by pressing the **TV/Radio** key.

6.11 Format change/Zoom

Television broadcasts are transmitted in different aspect ratios (e.g. 16:9 or 4:3). In order to display optimally sized television pictures on your LCD TV set, you can preselect the aspect ratio (Section 8.1) or activate the automatic format recognition mode (Section 8.1). You can additionally adapt the aspect ratio during normal and playback mode manually to the respective broadcast or recording according to your requirements.

6.11.1 Calling format change/Zoom from standard operation

> Press the **blue** control key during standard operation, in order to call the menu for the manual adjustment of the aspect ratio.

6.11.2 Calling format change/Zoom from the playback mode

> In order to call the menu for manual adjustment of the aspect ratio during playback operation, first press the **Option** key.
> Now press the **blue** control key, while the option selection is displayed.

6.11.3 Format selection

> You can set defined standard formats by pressing the **OK** key.

You can additionally change the picture width and height manually by means of the **arrow keys** as follows.

Arrow key right	Expands picture width
Arrow key up	Expands picture height
Arrow key left	Reduces picture width
Arrow key down	Reduces picture height

You have the possibility to change the vertical picture position by means of the **colour keys**, if the picture is so large, that the LCD panel cuts it off.

Red   Move the picture downwards
Green   Move the picture upwards

In order to cancel the set adjustments press the **yellow Reset** control key.
>   In order to return to standard operation press the **return** key.

6.11.4 Format change in VGA mode

The format is changed in the VGA mode as follows:
>   Press the **blue** control key.
>   Use the **right/arrow keys** to switch between formats **4:3** and **16:9**.

6.12 Programme guide SFI

Your TV set is equipped with an electronic programme guide. This enables you to display programme information on an individual programme or on several programmes on the screen.
You can quickly achieve an overview of the currently running programmes or of the programmes broadcast during the day or during the following days.

The SFI functions enable you to:
-    Display information on the programme contents on the screen.
-    Select programmes, which are automatically started at the beginning of their broadcast.
-    Program timers.
-    Search for and set specific programme types (genre).

6.12.1 Importing the SFI-data

Your TV set downloads the programme information at the update times set in Section 8.4.1 (Update time). The device must be in the standby mode for this purpose. This function is not carried out, if your TV set is in operation at this time or has been turned off by means of being mains switch.
The duration of the import process depends on the number of imported programmes. The maximum number possible to display is seven days in advance. An increased data quantity reduces the period, due to the increased number of programmes in the electronic programme guide. You can decide, which digital programmes are contained in the "electronic programme guide". These can be entered or removed, as described in section 8.4.5.
Section 8.4 also describes how you can start the SFI data import manually.

6.12.2 Interrupting the import procedure

>   Turn the TV set on by pressing the **On/Standby** key.
>   Terminate the import procedure by pressing the **OK** key twice.

6.12.3 Calling the electronic programme guide

>   Press the **SFI** key on the remote control of the TV set. The electronic programme guide is displayed on the screen. The programmes you have specified or which were specified in the factory are displayed with their current broadcasts. You can now use the SFI function to read the information provided on the various broadcasts. You can also use the SFI functions, in order to switch to another broadcast, mark it or enter it in the timer programme.

6.12.4 Now (Table with current programme contents)

First, the SFI table "**Now**" is displayed with the currently broadcast programmes. The bar to the right of the programme name shows the elapsed broadcast time for the current programme. The currently set programme is highlighted.

> You can move the mark by means of the **arrow keys**.
> The **up/down arrow keys** move the mark through the lines and the **right/left arrow keys** through the pages.
> The SFI functions (Section 6.12.7) are now ready for use.

> Press the **yellow** control key to continue to the SFI table**After**" (See section 6.12.5).

or

> Press the **TV/Radio** key to return to standard operation.

6.12.5 Later

> Using the **yellow** function key, you can call the table "**Later**" (following programmes).
> The SFI functions (Section 6.12.7) are now available.
> Press the **yellow** control key to jump to the SFI "**More**" table Section (Section 6.12.6)

or

> Press the **green** control key to go to the previous SFI table"**Now**".

or

> Press the **TV/Radio**key to return to standard operation.

6.12.6 More

> Press the **yellow** control key once again when the SFI "**Later**" table is activated to display the SFI "**More**" table.
> An additional time window is displayed in the header of this table. The time of the displayed SFI table is indicated in this time window.

> Repeated pressing of the **yellow** control key scrolls further by the time indicated in the yellow field at the bottom of the screen.

> Repeated pressing of the **green** control key scrolls back by the time indicated in the green field at the bottom of the screen.
> The individual days of the week are displayed on the lower edge of the screen. These fields are highlighted as soon as information is available for the appropriate weekday.

> In order to achieve an overview over a required day, press the number key on the **numeric keyboard**.corresponding to the day of the week.

or

> Press the **TV/Radio** key to return to the "**Later**" table.

6.12.7 SFI functions

To carry out the following SFI functions call the **SFI** as described in section 6.12.3.

6.12.7.1 SFI Info

The **SFIinformation** provides you with brief information on the selected programme or selected broadcast. Available SFI information is indicated by a ▥ next to the appropriate programme.

> Select the required programme with the **arrow keys** as well as **yellow** and **green** control keys.
> Press the **SFI** key to display the info.
  It is possible to move or scroll through longer information texts with the **arrow keys**.
> Pressing the **Return** key returns you to the previous table.

6.12.7.2 Programming the SFI Timer

The timer function turns your TV set on or changes channels, in order e.g. to record the required broadcast during your absence.
The screen is not turned on, if your TV set was in standby mode when the timer started.
> Select the required broadcast with the **arrow keys** or with the **control keys**
> Press the **Record** key to program a **hard disk timer** (see section 7.1.2) for the selected programme.

or

> Press the **Option** once to program a **VCR timer** (see section 7.1.2) for the selected programme.

> Pressing the **Option** key again changes the timer type to a **channel change timer**.

or

> Press the **redTimer** control key to open the Timer selection window.
> Use the **up/down arrow keys** to mark the required **timer type** (see section 7.1.2).

Deleting the timer programming

> Select the broadcast, which is highlighted for a timer with the **arrow keys** or with the **control keys.**
> For a hard disk timer, press the **Record** key, in order to cancel the timer- mark on the broadcast.

or

> For a VCR timer or channel change timer, press the **Option** key a few times if necessary, in order to cancel the timer mark on the broadcast.

or

> Press the **red Timer** control key, in order to open the timer selection window.
> Use the **up/down arrow keys** to select the delete **Timer option**.
> Acknowledge with **OK**, in order to delete the timer mark on the broadcast.

During timer operation

The LCD panel remains turned off, if the device was activated by the hard disk timer. The remote control functions are predominantly deactivated, in order to prevent unintentional abort of the recording.

Aborting timer operation

If the device started the timer from the standby mode, press the **On/Standby** key, in order to also turn the screen on.
> Press a key of the **numeric keyboard**.

If a **hard disk timer** has been aborted, a window appears querying, whether the recording should be stored, deleted or continued.
> Use the **up/down arrow keys** to select the required input **Store**, **Delete** or **Return**.
> Acknowledge with **OK**.

If a **VCR timer** has been aborted, a window appears querying, whether the aborted **timer mode should be terminated?**
> Use the **right/left arrow keys** to select the **Yes** field.
> Acknowledge with the **OK** key.

6.12.7.3 SFI programme overview

Use the SFI programme overview to display a table of today's programmes of an individual channel. Proceed as follows:
> Press the **SFI** key.
  The SFI table "**Now**" is displayed.
> Press the **green programme** control key.
  The daily overview of the set programme is now displayed.
> Use the **arrow keys** to move the marker onto the broadcast or time that you want.
  The individual days of the week are displayed on the lower edge of the screen. These fields are highlighted, as soon as information is available for the appropriate weekday.
> To display the programme contents of a required day, press the numeric key corresponding to the weekday on the **numeric keyboard**.

Displaying an SFI overview of other programmes

> Press the **yellow Programmes** control key.
  A list with the favourite programmes is additionally displayed.
> You can now select the required programme with the **arrow keys**.
> Press the **OK** key to display the SFI overview of the selected programme.

6.12.7.4 Overview by programme type/genre

If you are interested in a particular programme type, the programme information can be displayed according to particular genres, e.g. film, news, etc
> Press the **SFI** key.
  The SFI table "**Now**" is displayed.
> Press the **blue** control key, in order to call the **SFI menu**.
> Use the **up/down arrow keys** to select the **Genre** option and acknowledge with **OK**.
> Now press the **yellow Genres** control key, in order to open a list of the available categories.
> Use the **up/down arrow keys** to select the required programme type and acknowledge with **OK**.
  An overview is now displayed, which only contains the programmes of the selected programme category.
> Use the **up/down arrow keys** to place the marker on the required broadcast.
  The individual days of the week are displayed on the lower edge of the screen. These fields are highlighted, as soon as information is available for the appropriate weekday.

>   To display the programme contents of a required day, press the numeric key correspon-
ding to the weekday on the **numeric keyboard**.

6.12.8 Exiting SFI

>   Return to standard operation by pressing the **TV/Radio** key.

7 Hard disk mode

Your HD-Vision PVR (**PVR**= **P**ersonal **V**ideo **R**ecorder) is equipped with a firmly integrated hard
disk drive. Installing a hard disk that has not been authorised by TechniSat is not intended. The
hard disk eliminates the need for an external storage device (e.g. a video cassette recorder) for
recording. The recording capacity depends thereby on the size of the hard disk and on the data
volume of the broadcast material.
During the recording additional sound channels and teletext data is recorded, if broadcast, besi-
des the actual audio and video data. You can call these during the following playback, as descri-
bed in the sections 6.5 and 6.6.

7.1 Recording

The following recording modes are available for recording programmes on the hard disk.

1. Immediate recording
Select this recording mode to immediately record the current broadcast at the push of a button.

2. Timer controlled recording
This function will switch your TV set on and off for the selected broadcast, in order to record it
on your hard disk for example during your absence.
The timer can be programmed automatically or manually using the SFI function.

3. Timeshift recording
Timeshift recording makes time delayed TV possible. You can watch another programme whilst
recording and play it back later on.

7.1.1 Immediate recording

Starting Record manually

Option 1:
>   Switch to the channel that is broadcasting the programme that you want to record.
>   Press the **Record** key to record the current programme.
       The programme will be displayed on the screen whilst Record is running. A message in
       the top right screen area as well as in the Infobox indicates the start of the recording.
>   If you want to stop the playback of the current broadcast at a specific place, press the
       yellow Playback/Pause control key. While Record is running in the background, a
       frozen image is displayed on the screen.
>   In order to continue replaying the broadcast from this position, press the **yellow
Replay/Pause** control key again.
       You will now be watching a time delayed live broadcast (**Timeshift**), whilst the actual
       broadcast is still being recorded in the background.

Option 2:

> If you have to interrupt viewing your programme, for example, because of a telephone call, etc., just press the **yellow Replay/Pause** control key to stop this programme from being replayed and to start recording the current programme at the same time. A freeze image is displayed with a message in the upper right screen area as well as in the Infobox on the screen, whilst the recording starts in the background.

> In order to continue replaying the broadcast from this position, press the **yellow Replay/Pause** control key again.
You will now be watching a time delayed live broadcast (**Timeshift**), whilst the actual broadcast is still being recorded in the background.

Stopping recording manually

> First select the recording you want to stop, by calling the PVR Navigator with **OK**, select Recording with the **arrow keys** and acknowledge with **OK**.

> Now press the **green Stop** control key.
The **Do you want to save or delete the recording?** query will now be displayed.

> Use the **up/down arrow keys** to select **Save**, to save the recording on the hard disk or **Delete**, if you do not want to save the broadcast and then acknowledge with **OK**.

Stopping recording automatically

Option 1:

> Press the **On/Stand-by** key.
A query concerning the current recording will be displayed on the screen.

> Select the line containing the required activity with the **up/down arrow keys** and acknowledge with **OK**.
The TV will now record the current broadcast completely or up to the selected point in time; after the recording it will go into standby, the screen is turned off immediately after making your selection.

> Playback displays the recording at the current live position, if you turn the TV on before the recording has finished.

Option 2:

> Press the **record** key.
A window containing the available functions will be displayed on the screen.

> Use the **up/down arrow keys** to mark the line containing the action that you want, e.g. **+1 hour**.

> Acknowledge with **OK**.
The TV set will now record the broadcast(s) of the set programme for the selected period and will then stop recording automatically.

7.1.2 Timer recordings

You can record broadcasts, e.g. in your absence, on the integrated hard disk by means of the hard disk timer. Your TV can also utilise a video cassette recorder timer and station change timer. The only difference between these timer types with regard to programming is the specification of the appropriate timer type.
You can either program the timer manually as described in this chapter or as explained in Section 7.16.7.2, by using the SFI function.

1. Hard disk timer

This function will switch your TV set on and off for the selected broadcast, in order to record it on your hard disk for example during your absence.

The screen remains black, if the hard disk timer turned the device on.

2. Video recorder timer

The video cassette recorder timer will switch your TV set on and off, so that the selected programme can be recorded by an external recording device, e.g. a video cassette recorder, during your absence. Please note, that you must also program your video cassette recorder, so that it will record the programme.

The LCD panel remains black, if the hard disk timer turned the device on

3. Channel change timer

If your TV set is in standard operation mode, it will switch to the set programme position when the set time is reached.

The device can continue to be used in this mode as compared to hard disk or video cassette recorder timer, but will not be switched on when the broadcast starts or switched off when it ends.

This type of timer merely changes the programme.

7.1.2.1 Calling the timer overview

The timer overview provides you with a summary of all already programmed timer events.

> Press the **SFI** key, to call the **programme guide SFI**.
> Press the **red timer** key, to open the **timer menu**
> Use the **up/down arrow keys** to select the **timer overview** category.
> Acknowledge by pressing the **OK** key.

If several timer events overlap, so that these timers cannot be correctly implemented, then this is indicated by the overlaps being highlighted in red.

7.1.2.2 Manually programming the timer

Manually programming the timer

> To programme the timer manually, first call the **timer overview**, as described in section 7.1.2.1.
> Using the **up/down arrow keys**, select the empty timer and acknowledge with **OK**. The timer input window is displayed.

Proceed as follows to program:

Source

> Using the **arrow keys**, select the **source** field and then acknowledge with **OK**.
> With the **up/down arrow keys** select the required source (**TV** or **radio**) and acknowledge with **OK**.

Channel

> Select the **channel** field with the **arrow keys**.
> Press the **OK** key. According to the previous setting, the TV or radio programme list will now be displayed.
> Select the required programme with the **arrow keys**. Move the marker by one line at the time through the list with the **up/down arrow keys**. The **arrow keys left/right** enable scrolling through the list page-wise upwards or downwards.

> Press the **OK** key to store the selected programme in the timer.

Date
> Select the **date** field with the **arrow keys**.
> Enter the date on which you would like to record the programme by means of the **numeric keyboard**.

Start
> Select the **start** field with the **right arrow key**.
> Use the **numerical keypad** to enter the timer start time in this line.

Stop
> Repeat the steps as described in "Start", to enter the stop time.
Events are also considered, if the stop time of a timer is equivalent to the beginning time of a following timer!

Repetition (optional)
> Select the **repetition** field with the **arrow keys**.
> Press the **OK** key.
  A selection window is now displayed with the various repetition options.
  1x   Timer on once.
  T   Daily repetition.
  W   Weekly repetition.
  1 W   Repetition during the following week.
  2 W   Repetition during the following 2 weeks.
  3 W   Repetition during the following 3 weeks.
  4 W   Repetition during the following 4 weeks.
  1-5   Repetition only on workdays.
  6-7   Repetition only on the weekend
  5-7   Repetition on weekends starting on Friday.
> Use the **up/down arrow keys** to select the required function.
> Press the **OK** key to accept the settings.

Timer type
> Select the **timer type** field with the **arrow keys**.
> Pressing the **OK** key opens a window to select the **timer type**.
> Select the required **timer type** (see section 7.1.2) with the **up/down arrow keys** and acknowledge with **OK**.

Storing data in the memory

> Press the **green Accept** control key to save the data in the memory after you have completed programming. If you have selected a blocked programme as described in section 8.3, you must first enter the PIN code before the data can be saved in the memory.

Note!!!
Ensure that the device has also stored the time. Should this not be the case, leave your set e.g. tuned to ZDF for approx. 30 seconds, so that the time can be imported.

7.1.2.3 Changing the timer programming

> In order to change an existing timer setting, first call the **timer overview**, as described in section 7.1.2.1.
> Use the **up/down arrow keys** to select the timer, you would like to alter.
> Press the **green change** control key, in order to open the settings of the selected timer; you can now change this as described in section 7.1.2.2.

7.1.2.4 Deleting the timer programming

> First call the **timer overview** as described in section 7.1.2.1.
> In order to delete an existing timer setting, select it with the **up/down arrow keys.**
> Press the **yellow Delete** control key.
  The following message is displayed: **Do you really want to delete this timer?**
> Select **yes** with the **left/right arrow keys**.
> To delete the timer entry acknowledge with **OK**.
> Return to standard operation by pressing the **TV/Radio** key.

7.1.3 Timeshift function

The timeshift function enables you to use the Replay and Record functions simultaneously. This enables watching **time delayed TV**. You can watch the programme from the beginning of the recording and skip any parts that have already been recorded (e.g. advertising blocks). The live broadcast signal will be recorded simultaneously (refer to the following example).

Example: Jumping advertising blocks
Would you like to watch a broadcast without any annoying advertising interruptions?
The PVR can easily skip the advertising blocks.
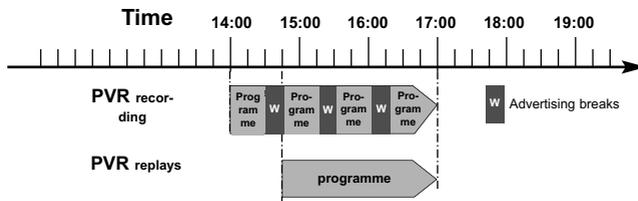
Example: Time delayed replay
You have missed the start of A Formula 1 Grand Prix. No problem!
The PVR will show you the time delayed race, whilst it is still recording.
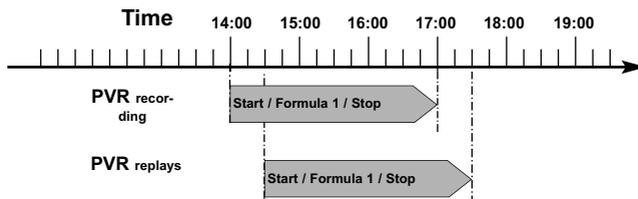
Starting the **timeshift function**

> Press the **yellow Playback/Pause** control key.
> The playback of this programme is stopped and the current programme is recorded simultaneously. A freeze image is displayed with a message in the upper right screen area as well as in the Infobox on the screen, whilst the recording starts in the background.
> In order to continue replaying the broadcast from this position, press the **yellow Replay/Pause** control key again.
> You will now be watching a time delayed live broadcast (**Timeshift**), whilst the actual broadcast is still being recorded in the background.
> In order to go to a specific part of **an ongoing recording**, the functions **Playback**, **Pause** as well as **fast Forward**, as described in section 7.2, are available.
> Pressing the **Info** key displays the Infobox with a progress bar, which displays the length of the recording as well as the time delay to the live picture.

7.1.4 Setting markers during a recording

> Pressing the **Record** key during an ongoing recording will open a window displaying all available functions.
> Use the **up/down arrow keys** to select the **marker line** and acknowledge with **OK**.
> A marker will now be set at the current position. Repeat this procedure to set markers at all required positions of a recording.
> Markers can also be set during a playback (Section 7.2.4) and in the hard disk management menu (Section 7.3.1.3).

7.2 Replay

You can access to your hard disk recordings via the hard disk or PVR Navigator.

7.2.1 Playback of hard disk recordings

> Press the **green** control key in standard operation to open the PVR Navigator.
> A list of all the TV or radio recordings stored on the hard disk will be displayed, depending on whether you are in the TV or Radio mode. The recording that has been marked for replaying will be displayed in the preview window.
> Use the **up/down arrow keys** to select the recording that you want to replay.
> Press **OK** to start replaying.
> The Infobox is displayed briefly showing the entire recording time and the current position as well as the usual information (see section 6.2.6).

7.2.1.1 Recording a broadcast and replaying an existing recording simultaneously

You can replay a recording stored on the hard disk at the same time as recording an broadcast.
> First call the Navigator by pressing the **OK** key.
> The PVR Navigator is displayed immediately.
> Use the **up/down arrow keys** to select the recording that you want to play.
> Start playback by pressing **OK**.

7.2.2 Pause/Freeze image

> To stop the playback of a recording (Freeze image), press the **yellow Playback/Pause** control key during the playback.
> The insert **Pause II** *is displayed.*
> Press the **yellow Playback/Pause** control key again, in order to continue playback from the same position.

7.2.3 Fast forward and backward winding

Your PVR is equipped with a fast forward and backward function, in order to go to a specific position in a recording.

> During playback, you can press the **blue Forward** control key or the **red Backward** control key.
> The insert **Fast forward ▶▶** or **Fast backward ◀◀** *is displayed.*
> The recording is now played with **4-fold** speed in the selected direction.
> Press the **blue** or **red** control key again to increase the speed to **16-fold**.
> The insert **Fast forward ▶▶▶** or **Fast backward ◀◀◀** *is displayed.*
> Press the **blue** or **red** control key again to increase the search speed to **64-fold**.
> An insert **Fast forward ▶▶▶▶** or **Fast backward ◀◀◀◀** is displayed.
> You can jump forward or backward in **10-minute steps** by renewed pressing of the **blue** or **red** control key.
> After finding the required position of the recording, press the **yellow Playback/Pause** control key to return to standard playback mode.

7.2.4 Setting markers

> Fast forward/backwards as previously described to the recording position, where you would like to insert a marker.
> Press the **recording** key, in order to set a marker at the required position.
> Repeat this procedure to set markers at all required positions of a recording. Markers can also be set during a recording (Section 7.1.4) and in the hard disk management menu (Section 7.3.1.3).

7.2.5 Jump to markers

You have the option during replay to directly jump to the position in the recording, where you set a marker, as described in sections 7.1.4, 7.2.4 or 7.3.1.3.

> Pressing the **Option** key during playback opens a window with the available markers.
> The marker "Current" is also displayed. This indicates the current playback position of the recording.
> Playback starts from this position as soon as you have selected a marker with the **up/down arrow keys**.
> Pressing the **OK** key closes the window and you return to the standard playback mode at the marked position.

7.2.6 Exit replay

> Press the **green** control key to exit the playback mode.
> The playback is terminated and your TV returns to standard operation. The TV "remembers" the recording position, where you terminated the playback. The receiver will automatically return to the position where you stopped before restarting a playback of this recording.

7.3 Hard disk management

> Call the **main menu** by pressing the **Menu** key.
> Select the **hard disk management** line with the **up/down arrow keys**.
> Acknowledge with **OK**.
> The **hard disk management menu is displayed**.
> Use the **up/down arrow keys** to move the marker within the menu and change the individual positions.

7.3.1 Managing the recordings

This menu offers the possibility to manage your recordings.
> Press the **OK** key, in order to display the **recordings management** sub menu.
  A list of the recordings stored on the hard disk is displayed.
> Use the **up/down arrow keys** to select the required recording.

7.3.1.1 Deleting

> A highlighted recording can be deleted by pressing the **red Delete** control key.
> Use the **left/right arrow keys** to select the **Yes** field in the displayed query and ack-
  nowledge with **OK**, in order to delete the recording.

7.3.1.2 Parental lock function

 Recordings that are unsuitable for children and youngsters can be blocked. These recordings
can only be replayed after the 4-digit unit PIN code has been entered. To activate the child lock,
turn it on as described in section 8.3.
> The highlighted recording can be blocked by pressing the **green** control key.
  The child lock symbol will indicate that the selected recording has been blocked.

7.3.1.3 Editing

> Press the **yellow Edit** control key to jump to the menu to edit the selected hard disk
  recording.
  This is displayed in a preview window (1). The available markers (2) for this recording
  are also displayed. The markers **Start** and **End** are available. Furthermore, a yellow pro-
  gress bar (3) is displayed, indicating the current replay position and the overall recording
  time. A red bar (4) is also displayed. This indicates the current playback section between
  two markers.
> In order to jump to a position in a recording specified by a marker, select the required
  marker with the **up/down arrow keys** and acknowledge with **OK**.

Jumping to any position in the recording

> Use the **coloured keys** (see section 7.2.3) to jump to an arbitrary recording position.

Functions

> Press the **green Menu** control key, in order to open a window with the available func-
  tions for editing the recordings.
> Use the **up/down arrow keys** to select the required function and press **OK** to con-
  firm.

Setting markers

> Fast forward/backwards as previously described to the recording position, where you
  would like to insert a marker.
> Press the **green menu** control key to open the function window.
> Select the set **marker line with the** up/down arrow keys.
> Press the **OK** key, in order to set a marker at this position of the recording.

Deleting markers

> Use the **up/down arrow keys** to delete a marker.
> Press the **green menu** control key to open the function window.
> Use the **up/down arrow keys** to select the delete **marker line**.

> Acknowledge with **OK**, in order to delete the marker.
  Only the marker (Position marker) is deleted, the recording remains unchanged.

Jump to marker

Press a key to jump to a position in the recording that you have previously selected with a marker

> Use the **up/down arrow keys** to select a required marker.
> Press the **green menu** control key and then the
  up/down arrow keys to select the line containing the required **To** marker **function**.
> Acknowledge with **OK**, in order to jump to this marker.

Deleting a section

Your PVR enables you to delete specific sections in a recording (e.g. unwanted advertising blocks).

Please note:
The deleted section will be permanently deleted from the hard disk.
Proceed as follows to delete a section:
Two markers must identify the start and the end of the section to be cut out.

> Mark the beginning and end of the section you want to delete, as described in setting **markers**, with a marker each.
> Use the **up/down arrow keys** to select the marker, which identifies the beginning of the section to be deleted.
  The section to be deleted is now identified on the progress display bar as well as in the overview of the available markers in **red**.
> Now press the **green menu** control key and then use the **up/down arrow keys** to select the **Delete section line**.
> A query window is displayed by pressing **OK**.
  Information on the section that is about to be deleted will be displayed.
> In order to delete this section, use the **right/left arrow keys** to select the **Yes** field and acknowledge with **OK**.

Extracting a section

This function enables you to copy a section from a recording. This will create a new recording that only contains this section. The recording from which this section was copied remains unchanged.
Proceed as follows to extract a section:
Two markers must identify the beginning and end of the section to be copied.
> Mark the beginning and end of the section you want to delete, as described in setting **markers**, with a marker each.
> Now use the **up/down arrow keys** to select the marker, which identifies the beginning of the section to be copied.
  The section to be copied is now identified in the progress display bar as well as in the overview of the available markers in **red**.
> Now press the **green menu** control key and use the **up/down arrow keys** to highlight the **Extract section line**.
> A query window is displayed by pressing **OK**.
  Information on the section that is about to be copied will be displayed.
> In order to copy the section, use the **right/left arrow keys** to select the **Yes** field and acknowledge with **OK**.
  The selected section will now be copied as a new recording. This process might take a few minutes, as it depends on the size of selected section.

Splitting a recording

Use this function, e.g. if two consecutive broadcasts have been recorded in one recording, in order to split them into two individual recordings. A recording is always split from the selected respective marker.

Split the recording as follows:

> Select the beginning of the section to be split, as described in setting **markers**, with a marker.

> Now use the **up/down arrow keys** to select the marker from where on the complete recording should be divided.

> Now press the **green menu** control key and use the **up/down arrow keys** to highlight the **Split recording line**.

> A query window is displayed by pressing **OK**.
   This displays information on both new recordings.

> In order to split the recording, use the **right/left arrow keys** to select the **Yes** field and acknowledge with **OK**.

7.3.2 Hard disk information

> Pressing the **OK** key opens a window with information on the integrated hard disk.

7.3.3 Hard disk management

> Press the **OK** key, in order to achieve an overview of free memory on the hard disk and of the number of saved recordings.

7.3.3.1 Checking the hard disk

> In order to check the hard disk, select the Check **field with the right/left arrow keys**

> Press the **OK** key.
   A query is displayed, asking if the check should be carried out.

> Use the **right/left arrow keys** to select the **Yes** field and acknowledge with **OK**.
   The examination now starts and can take some minutes depending on used memory and number of recordings. The result of the check run is then displayed on the screen.

7.3.3.2 Formatting the hard disk

The file system is renewed during formatting of the hard disk. This can be necessary, if an error has been discovered during examination of the hard disk.

Note!
Formatting completely deletes the hard disk, all saved recordings are deleted.

> In order to format the hard disk, use the **right/left arrow keys** to select the **Format** field.

> Press the **OK** key.
   A query message is displayed, asking whether formatting should be carried out.

> Use the **right/left arrow keys** to select the **Yes** field and acknowledge with **OK**.
   Formatting is now started and can take some minutes.

Please note!
The device may only be operated with the installed hard disk. Otherwise, you might damage the unit.
Never open the device and do not exchange the hard disk, because the warranty is otherwise void.

7.3.4 Exit hard disk management

> Press the **Return** key to return to the next highest menu level.

or

> Return to standard operation by pressing the **TV/Radio** key.

8 Settings

The OSD menu enables you to carry out many device settings with only a few keystrokes.
The set values are stored automatically when you exit the menu.
> Call the **main menu** by pressing the **Menu** key.
> Use the **up/down arrow keys** to select the **Settings** line.
> Acknowledge with **OK**.
   The **Settings menu is displayed**.

8.1 Picture / HDMI / VGA settings

Picture settings can be accomplished by means of the sources **TV**, **Radio**, **Euro-AV 1**, **Euro-AV 2**, **Video/S-Video** and **YUV** and also apply to the picture of recordings played back from hard disk recordings. The HDMI settings are accomplished from the sources **HDMI 1** and **HDMI 2** and the VGA settings in **VGA** mode. In order to accomplish picture, HDMI or VGA settings, proceed as follows:
> Use the **up/down arrow keys** to select the **Picture settings** line, **HDMI settings** or **VGA settings**.
> Acknowledge with **OK**.
   The **Picture settings**, **HDMI settings**, or **VGA settings** menu is displayed.

8.1.1 Calling preset picture settings

There are two specified settings for various picture values, which you can call. The picture settings can then be adjusted to your requirement as described in the following
> The preset picture settings can be called by pressing the **green Natural** control key or the **yellow Intensive** control key.

8.1.2 Manually adjusting picture values

Light control
Select here, whether the adaptation of the background lighting to the ambient brightness should be accomplished automatically (**Auto 1**, **Auto 2** or **Auto 3**) or whether you would like carry this out **manually**.
> Select the **light control** line with the **up/down arrow keys**.
> Set the light control with the **right/left arrow keys** to **Auto 1**, **Auto 2**, **Auto 3** or **manual**.

Background lighting
Adapts the display background lighting to the ambient brightness and can only be set, if you have selected **Manual** under "Light control".
> Select the **Background lighting** line with the **up/down arrow keys**.
> Set the intensity of the background lighting of the LCD panel with the **right/left arrow keys**.

Colour temperature
You can set the colour temperature of the LCD panel here.
> Select the **Colour temperature** line with the **arrow keys up/down**.
> Use the **right/left arrow keys** to select the colour temperature **6500K**, **7900K**, **9300K** or **10000K**.

Brightness
Increase the brightness, if dark parts of the picture are inconspicuous, reduce the brightness, if black objects seem grey. The brightness control is optimally set in the middle position.
> Select the **Brightness** line with the **up/down arrow keys.**
> Adjust the brightness according to your requirements with the **right/left arrow keys**.

Contrast
Increase the contrast, if the picture seems "flat". Reduce the contrast, if light parts of the picture are inconspicuous.
> Use the **up/down arrow keys** to select the **Contrast** line.
> Use the **right/left arrow keys** to adjust the contrast.

Contrast improvement
Additionally to setting the contrast, you have the option of contrast improvement to increase the contrast of your TV set
> Use the **up/down arrow keys** to select the **contrast improvement** line.
> Use the **right/left arrow keys** to switch the contrast improvement to **Normal**, **Strong** or **Extra**.

Colour
> Use the **up/down arrow keys** to select the **Colour** line.
> Use the **right/left arrow keys** to adjust the colour intensity.

Image definition
We recommend the setting **Soft**, if the MPEG artefacts (blocks) are disturbingly visible (Picture is transmitted with a too low data rate). For analogue sources, (e.g. video cassette recorder) the setting **Strong** can bring about an improvement. The setting **Extra** is recommended above all for HDMI sources. In all other cases we recommend the setting **Normal**.
> Select the **image definition** line with the **up/down arrow keys.**
> Use the **right/left arrow keys** to set the image definition to **Soft**, **Normal**, **Strong** or **Extra**.

Noise suppression^{only picture settings}
The noise suppression can improve the visual impression when watching noisy sources (e.g. an old film). This improvement goes hand in hand with wiping effects of movements.

>   Use the **up/down arrow keys** to select the **Noise suppression** line.
>   Use the **right/left arrow keys** to set the value of the noise suppression to Weak,
>   **Medium** or **Strong** or switch the noise suppression Off.

Edge smoothing^{only picture settings}

Edge smoothing optimally adapts picture material, which has been recorded with a television camera (interlaced) to the progressive representation on an LCD screen. Pictures recorded by a film camera are not influenced. We recommend turning edge smoothing on.
>   Select the **edge smoothing** line with the **up/down arrow keys.**
>   Use the **up/down arrow keys** to turn edge smoothing **On** or **Off**.

Movement compensation^{only picture settings}

The movement compensation prevents a disturbing jerking during movements (in particular during pan shots) during the playback of film material. In contrast to a television camera, which records 50 pictures per second, the film camera only records 24 pictures per second. This is not enough when playing backing fast movements. The movement compensation therefore calculates by means of a movement analysis with a complicated calculating procedure intermediate pictures during run-time.
>   Use the **up/down arrow keys** to select the **Movement compensation** line.
>   Use the **up/down arrow keys** to turn the movement compensation **On** or **Off**.

Aspect ratio

This setting enables you to decide, how programmes broadcast in the 4:3 format (that is the usual television format) are displayed on your 16:9 wide screen TV set.

The setting **Original** achieves an undistorted and true to original playback. You will of course see a black stripe left and right of the picture.

The setting **Always 16:9** zooms the actually small picture to the full width of your 16:9 TV set. The black stripes disappear, but the geometry of the displayed picture is distorted.

The setting **Optimal** is therefore a compromise. The geometry is only slightly distorted, so that faces continue to appear completely natural. Additionally, some of the picture information is cut off at the top and at the bottom. This normally doesn't matter, because the stations do not normally transmit any important information in this area, because conventional tube devices also never show the complete picture for technical reasons. Small black stripes remain on the left and right of the picture in this setting.

In the setting **Optimal 16:9**, the small 4:3 picture is zoomed to fill out the complete screen. The picture is also cut off a bit at the top and bottom, similar to the Optimal setting. The picture is therefore not distorted as much as in the setting Always 16:9, but the complete width of the screen is utilised.
>   Select the **aspect ratio** line with the **up/down arrow keys.**
>   Use the **right/left arrow keys** to set the aspect ratio to **Original**, **Always 16:9**,
>   **Optimal** or **Optimal 16:9**.

Format recognition^{only picture settings}

The setting enables you to decide, how the automatic recognition of 16:9 broadcasts should be accomplished.
The picture source normally signals, whether the programme is broadcast in the format 4:3 or 16:9. In the setting **Signalisation**, the playback of the broadcast is then accomplished according to the picture size.
It can happen however that the signalisation is missing. Your TV set then assumes that the bro-

adcast is in the 4:3 format. A 16:9 broadcast without signalisation is now played with black bars on the left and right as well as top and bottom (the bars are only at the top and bottom, if you selected the Always 16:9 option when setting the aspect ratio). If the 16:9 broadcast signalisation is missing, you have the possibility to enlarge the picture with the zoom function (see section 6.11).

If you select the **black bar** setting, then the system automatically recognises - even in the case of missing signalisation - on account of the black bars, that the broadcast is transmitted in the 16:9 format. The television then switches automatically to 16:9 representation after a short time. Unfortunately there are also broadcasting services, who do not signal a 16:9 broadcast, because they want to accommodate advertising in the top and bottom black bars. This causes the automatic to switch within short time intervals, depending on whether the bars are really black, or whether they contain picture information.

In this case, it is advisable not to select the setting **black bars**, but the setting **Signalisation**. The format recognition can be deactivated with the **Off** option, in the improbable case that a 4:3 broadcast is inadvertently signalled as 16:9 broadcast

> Select the **Format recognition** line with the **up/down arrow keys.**
> Use the **right/left arrow keys** to set format recognition to **black bars** or **signalisation** or switch to **Off**, if you do not require automatic format recognition.

Horizontal position^{only HDMI-/VGA settings}
> Select the Horizontal position line with the **up/down arrow keys.**
> Use the **right/left arrow keys** to adjust the horizontal position.

Black level^{only HDMI settings}
> Use the **up/down arrow keys** to select the black level line.
> Use the **right/left arrow keys** to set the black level to **high** or **low**.

Trigger threshold^{only VGA settings}
> Select the **Trigger threshold** line with the **up/down arrow keys.**
> Use the **right/left arrow keys** to adjust the trigger threshold.

8.1.3 Exiting picture settings

The accomplished settings are saved automatically when exiting this menu.
> Press the **Return** key, to return to the next higher menu level.
> In order to return to standard operation press the **Menu** key.

8.2 Sound settings

In order to adjust the sound settings proceed as follows:
> Call the **Settings** menu as described in Section 8.
> Use the **up/down arrow keys** to select the **Sound settings** line.
> Acknowledge with **OK**.
  The **Sound settings menu is displayed**.

Switching on volume
> Use the **up/down arrow keys** to select the **Switching on volume** line.
> Use the **right/left arrow keys** to adjust the volume, to which the device is set after turned on.

Treble
> Use the **up/down arrow keys** to select the **Treble** line.
> Use the **right/left arrow keys** to set treble according to your requirements.

Bass
> Use the **up/down arrow keys** to select the **Bass** line.
> Use the **right/left arrow keys** to adjust the basses.

Bass volume
Additionally to treble, you can also adjust the bass volume.
> Select the **bass volume** line with the **up/down arrow keys.**
> Use the **right/left arrow keys** to adjust the required bass volume.

Balance
> Select the **Balance** line with the **up/down arrow keys.**
> Use the **right/left arrow keys** to adjust the balance.

Surround sound
> Select the **Surround sound** line with the **up/down arrow keys.**
> With the **right/left arrow keys** turn the surround sound **On** or **Off**.

Automatic Volume Leveller (AVL)
The **AVL** serves to play different sources with the same volume via the internal loudspeakers. This saves you a possibly necessary adaptation of the volume when switching to a different channel or input. The volume is also decreased after a short period, if advertising is broadcast with an increased volume.
> Select the **AVL** line with the **up/down arrow keys.**
> Use the **right/left arrow keys** to switch the automatic volume leveller **On** or **Off**.

Headphone volume
> Use the **up/down arrow keys** to select the **headphone volume** line.
> Use the **right/left arrow keys** to adjust the headphone volume.

Headphone mode
> Select the **headphone audio mode** line with the **up/down arrow keys.**
> Use the **right/left arrow keys** to set the headphone audio mode **to stereo**, **Left** or **Right**.

Sub-woofer volume
> Use the **up/down arrow keys** to select the **Sub-woofer volume** line.
> Use the **right/left arrow keys** to adjust the sub-woofer volume.

Sub-woofer threshold frequency
> Use the **up/down arrow keys** to select the **sub-woofer threshold frequency**line.
> Use the **right/left arrow keys** to set the threshold frequency of the sub-woofer.

Language (Audio signal)

Set the required audio language for digital programmes here. This is set automatically, if broadcast, after asearch run.

> Use the **up/down arrow keys** to select the **Language (Audio signal)** line.
> Use the **right/left arrow keys** to set the preferred language.

2nd Language (Audio signal)

Set the audio language of digital programmes here, which are to be set automatically, if the first language is not available.

> Use the **up/down arrow keys** to select the **2nd language (Audio signal)** line.
> Use the **right/left arrow keys** to set the preferred second language.

Dolby Digital (AC3)

Various films are broadcast in Dolby Digital format. Should you have a Dolby Digital 5.1 channel amplifier you can hear the appropriate films in 5.1 channel Dolby Digital Sound if broadcasted in this mode. The only precondition is a connection between the digital output Audio Out Digital (see section 4.6.2) of your device and the digital input of your Dolby Digital 5.1 channel amplifier.
A programme broadcast in Dolby Digital sound will be, if the Dolby Digital (AC3) function is activated, played automatically in Dolby Digital format.
The Dolby Digital sound can be activated manually, if this function is not turned on. Please also note section 6.5.1 of the operating manual.

> Mark the **Dolby Digital (AC3)** line using the **up/down arrow keys**.
> Activate automatic playback of the Dolby Digital format with the **right/left arrow keys On**.

8.2.1 Exiting sound settings

The accomplished settings are saved automatically when exiting this menu.

> Press the **Return** key, to return to the next higher menu level.
> In order to return to standard operation press the **Menu** key.

8.3 Protection of Minors

Your device is equipped with a parental lock function. This enables you to protect important functions (e.g. calling the main menu) against unauthorised use. You can only set locked programmes by entering a 4-digit PIN code. Proceed as follows to edit the **Child lock** menu:

> Call the **main menu** by pressing the **menu** key.
> Select the **Settings** line with the **up/down arrow keys.**
> Acknowledge with **OK**.
  The Settings sub-menu is displayed.
> Highlight the **Child lock** line with the **up/down arrow keys**.
> Acknowledge by pressing the **OK** key.
  The **parental control** menu is displayed.

8.3.1 PIN query

Please note that this setting applies to the device PIN code only and should not be not be mixed up with the smart cardPIN code. Refer to Section 6.3.3.

> Use the **up/down arrow keys** to select the **PIN query** line.
> Use the **left/right arrow keys** in this line to set theparental control function to **Always**, **Once** or **Off**.

If the pin query mode has been set to **Once** or **Always** and the PIN has not yet been chan-
ged, you will be asked to change the PIN. Proceed as described in Section 8.3.2.

Always
The main menu, the locked programmes as well as the locked hard disk recordings are always
locked in the setting **Always**.

Once
In the setting **Once**, the PIN must only be entered once to call the main menu, the locked pro-
grammes and the locked hard disk recordings during one operating phase.

Off
The parental control function is not active, when the setting is on **Off**.

8.3.2 Changing the device pin

The device PIN code was set to **0000** in the factory. To modify the device PIN code proceed
as follows:
> Use the **up/down arrow keys** to select the change Device PIN line and then press
   OK to confirm.
> First use the **numeric keyboard** to enter the currently valid device PIN-Code.
   The marking the chance to the enter **New PIN line**.
> Enter the new device PIN code by means of the numeric keyboard.
   The marking now jumps to the repeat **New PIN line**.
> Use the **numeric keyboard** to enter the new PIN code again, to confirm it.
> Acknowledge the final note with **OK**.

Note!
Ensure that you never forget the device PIN code. If this is the case however, please ask your
specialised dealer for help!

8.3.3 Selecting TV stations / Radio stations

> Select the **Select TV station** or **Select radio station** line with the **up/down
   arrow keys**.
> Acknowledge with **OK**.
   A window is now displayed to select the TV programmes or radio programmes. The
   favourites list is displayed in the right half of the picture. The currently set programme is
   marked in the favourites list. The alphabetically sorted provider list is displayed on the
   left side of the screen.
> Now use the **arrow keys** to select the programme you want to block.
> Pressing the **yellow** control key blocks the programme.
   The child protection symbol is displayed next to the selected programme.
> Proceed as described above to unlock programmes by highlighting the appropriate pro-
   gramme and removing the child lock by pressing the **yellow** control key.

Selecting blocks

In order to select several programmes at the same time proceed as follows:
> Press the **OK** key to jump to select mode.
   The selected programme is highlighted in blue.
> Use the **arrow keys** to additionally select the following/previous programmes.

> After selecting the required programmes as described, press the **yellow** control key to block the selected programmes.

Selecting the provider list

> If you would like to take a look at the programme of a provider, press the **red Provider list control key.**.
> The marking jumps to the left half of the picture to the provider overview.
> Use the **arrow keys** to select the required provider and acknowledge with **OK**.
> The marking now jumps back to the right half of the picture. The favourites programme list of the selected provider is now displayed. The programmes are marked with the appropriate programme position numbers.

Exiting station selection

> After you have selected the station or rejected the selection, press the **Return** key to return to the **parental control** menu.
> Return to normal operation by pressing the **Menu** key.

8.3.4 Switch-on safety lock

Your device is additionally equipped with a switch-on safety lock. The device can only be switched on with the remote control, if this is activated. The device cannot be switched on by actuating the device keys.

Activated the switch-on safety lock

> Press the **Option** key for approximately 2 seconds until the insert "**Switch-on safety lock activated** " followed by " **Switch to standby**" is displayed.
> Switch the device to the standby mode.

Deactivating the switch-on safety lock

> Turn the television set on with the remote control, the switch-on safety lock is now deactivated.

8.4 Programming the electronic programme guide

Your receiver can receive data channels with additional SFI data. This enables an SFI preview for up to one week in advance.
During satellite reception, you receive this data channel from the ASTRA satellite system (19.2° East). In order to also receive the appropriate data channel via DVB-C or DVB-T, this must be available in your cable network or DVB-T reception area.
> Call the **main menu** by pressing the **menu** key.
> Select the **Settings** line with the **up/down arrow keys.**
> Acknowledge with **OK**.
> The Settings sub-menu is displayed.
> Select the **Programme guide** line with the **up/down arrow keys.**
> Acknowledge by pressing the **OK** key.
> The **programme guide** menu is displayed.

8.4.1 Update time

> Use the **up/down arrow keys** to highlight the **Update time** line.
> Use the **numeric keyboard** to set the time at which the automatic download of the SFI-data should start.

8.4.2 SFI update

> In order to receive the data channel, select the **SFI update** line with the **up/down arrow keys**
> Use the **right/left arrow keys** to activate the update (**Yes**).

If you do not want to receive the additional data or cannot receive the data due to your location, turn the data reception option off.

> Use the **right/left arrow keys** to set the SFI update to **No**, in order to turn the data reception off.

Note:
In order to automatically download new SFI data, the device must be in the standby mode..

> To manually update the SFI data, press the **green Update** control key.

8.4.3 SFI channel (DVB-S)

You can carry out corrections in this menu, it the parameters of the data channel for downloading the SFI list via satellite have changed. Your specialised dealer can inform you on the up-to-date transponder data. We should normally not have to make any changes in this menu.

> Press **OK**, to call the **SFI channel (DVB-S)** submenu.

8.4.4 SFI channel (DVB-C/T)

This menu enables you to carry out any corrections, if the data channel for downloading the SFI-list either by cable or terrestrial should have changed. Your specialised dealer can inform you on the current data channel. You normally should not have to change anything.

> Press **OK**, to call the **SFI channel (DVB-C/T)** submenu.
> Your device will now investigate, whether the data channel is broadcast on the selected programme.

8.4.5 Selecting TV stations / Radio stations

> Select the **Select TV station** or **Select radio station** line with the **up/down arrow keys**.
> Acknowledge with **OK**.
> A window is now displayed to select the TV programmes or radio programmes. The favourites list is displayed in the right half of the picture. The currently set programme is marked in the favourites list. The alphabetically sorted provider list is displayed on the left side of the screen.
> Use the **arrow keys** to select the programme, that would like to include in the programme guide.
> Press the **yellow SFI** control key to add the highlighted programme to the electronic programme guide or to delete it from the. programme guide
> In order to add several programmes to the programme guide, select these as described in section 8.3.3 (**Selecting blocks**).

> After selecting the required programmes in this manner, press the **yellow SFI** control key, in order to store the selected programmes in the. electronic programme guide.

Selecting the provider list

> If you would like to take a look at the programme of a provider, press the **red Provider list control key.**.
> The marking jumps to the left half of the picture to the provider overview.
> Use the **arrow keys** to select the required provider and acknowledge with **OK**.
> The marking now jumps back to the right half of the picture. The favourites programme list of the selected provider is now displayed. The programmes are marked with the appropriate programme position numbers.

Exiting station selection

> Press the **Return** key to return to the **programme guide** menu.

8.4.6 Start category

The electronic programme guide provides the following representation options:

Overview
This type of display gives you a quick overview of all the programmes in the electronic. programme guide

Programme
This representation displays a table with the daily programmes of individual stations.

Genres
If you are interested in particular programme categories, you can view the programme information sorted by particular categories, e.g. film, news, etc.

Last used
This setting will always show the last type of display used when calling the SFI.
> Select the **Start category** line with the **up/down arrow keys.**
> Set the representation mode in this line with the **arrow keys right/left**, which should be displayed when calling the electronic programme guide.
> You can additionally select a further category, if you selected the genre start category.
> Use the up/down arrow keys to select the next line.
> Now select the preferential category (e.g. film, news, show, etc.) with the **right/left arrow keys**.

8.5 Antenna settings (DVB-S)

> Call the **main menu** by pressing the **Menu** key.
> Use the **up/down arrow keys** to select the **Settings** line.
> Acknowledge with **OK**.
> The **Settings menu is displayed**.
> Use the **up/down arrow keys** to select the **antenna settings (DVB-S)** line
> Acknowledge with **OK**.
> The **Antenna settings menu is displayed**.

8.5.1 Turning DiSEqC on/off

DiSEqC (Digital Satellite Equipment Control) is a digital control signal to control DiSEqC-compatible components via the antenna cable.If your external unit has DiSEqC components, you must activate the DiSEqC control.

> Use the **up/down arrow keys** to select the **DiSEqC** line.
> Use the **right/left arrow keys** to turn DiSEqC **On** or **Off**.
  Since only one LNB can be addressed when the DiSEqC controller is deactivated, the menu is limited to the configuration of one LNB. If you switch the DiSEqC off, an additionally query is placed, whether you would like to delete the programmes of the DiSEqC positions 2 to 4.
> Use the **left/right arrow keys** to select **Yes** or **No** and acknowledge with **OK**.

8.5.2 Setting the array

The four DiSEqC controller switching criteria are specified in the antenna settings (DVB-S) menu
Your equipment is pre-programmed, so that the ASTRA 19.2° East satellite is received on the switch position A/A and Eutelsat 13,0°
East on the position B/A of a multi-switch. Should the array of your receiver be designed differently or if it can receive other satellites, you can adjust your TV set to your receiving installation as follows.

> Use the **arrow keys** to select the DiSEqC switch position (1-4), to which you would like to allocate a satellite (e.g. **A/B 3   No satellite**), by highlighting this line.
> Press the **OK** key.
  A window offering a selection of different satellites is displayed.
> Now select the required satellite with the **Arrow keys**.
  Use the **up/down arrow keys** to move the marker up or down by one line at a time.
  Use the **left/right arrow keys** to switch to the following or previous page. Please select a reserve position, designated as **User 1** to **User 12**, if the required satellite is not contained in the list.
> Acknowledge with **OK**. The selected satellite is inserted at the previously marked position**.**

Work on this menu until the specifications comply with those of your receiving installation.
For all switch criteria, which you do not require set **No Satellite**.

8.5.3 Further settings/LNB characteristics

After setting the array of your DVB-S module to your receiving installation, you must furthermore check and if necessary correct the further settings for your reception unit.

> Use the **left/right arrow keys** to move the marker to the **configuration** column.
> Use the **up/down arrow keys** to select the line, in which you want to check the settings or change, then press **continue**.
> Acknowledge with **OK**. A sub-menu is displayed, in which you can carry out LNB settings and adjust a test transponder.
> Use the **up/down arrow keys** to select the line, in which you want to carry out modifications and edit this item as specified.

LNB Type

> Press the **OK** key to open a window displaying the available LNB types.
> Use the **up/down arrow keys** to select either **Single/Twin LNB**, **Quatro LNB**, **DisiCon 1 LNB**, **DisiCon 2 LNB**, **DisiCon 4 LNB**, **C-Band LNB** or **User LNB**.
> Press the **OK** key to accept the settings.

Test transponder

You only have to enter the following menu items, if you want to check the satellite signal of a specific satellite.

Please infer the appropriate data concerning the station lists from trade publications (e.g. Infosat) or from the Internet.

Symbol rate (kBaud)

The symbol rate indicates, which data quantity is transmitted per second. This can be for instance 27500 (27500 symbols per second).

> Enter the appropriate symbol rate by means of the **numeric keyboard**.

Frequency (MHz)

> Enter a frequency in this line by means of the **numeric keyboard** on which the digital programmes are broadcast.

Polarisation

> Use the **left/right arrow keys** to enter the required polarisation plane (**horizontal** or **vertical**).

User LNB

If you have selected under the LNB type **User LNB,** you can carry out additional settings:

Low Band

LOF (Local oscillator frequency) is the frequency, with which the LNB converts the received frequency into the so-called 1st intermediate frequency, which can then be received by the DVB module. So-called universal LNBs work with 2 LOFs, in order to convert the complete reception range of 10.7 to 11.8 GHz (low-band) and 11.7 to 12.75 GHz (high-band).

> Use the **numeric keyboard** to enter the LOF of the low band of your LNB into this line.

High Band

> Use the **numeric keyboard** to enter the LOF of the high band of your LNB into this line.

Transition LOF Low/High

> Use the **numeric keyboard** to enter the frequency into this line at which your LNB changes from low band to high band.

Signal quality

The signal quality should be indicated in this line, if you have entered the specifications of the test transponder correctly.

8.6 Antenna settings (DVB-T)

Your TV set is equipped with a signal strength indicator, in order to ideally align the DVB-T antenna.

> Call the **main menu** by pressing the **menu** key.
> Select the **Settings** menu line by selecting it with the up/down arrow keys.
> Acknowledge with **OK**.
   The **Settings menu is displayed**.

> Use the **up/down arrow keys** to select the **Antenna settings (DVB-T) input option**.
> Press the **OK** key to call the **antenna settings (DVB-T)** menu.
> Position your antenna in such a way, that the level display shows maximum reception strength for the channels receivable at your location.

Antenna supply

When using an **active antenna** without external power supply, it is necessary to switch the antenna power supply (5V/30mA) on. The antenna is thereby supplied by means of the connection **Antenna input**, if the antenna permits power supply via the coaxial cable.

> For this purpose, select the **antenna supply** line with the **up/down arrow keys**.
> Switch the antenna supply with the **left/right arrow keys to On** or **Off**.

9 Station search function

There are various possibilities to carry out a programme search run, in order to set available or new programmes.

1. Automatic search
Select this search run, in order to scan the complete reception range of TV set for programmes.

2. Extended search
Select this search run, in order to only scan one reception range (FM Radio, Analogue CT, DVB-S, DVB-C or DVB-T) for programmes.

3. Manual search
Select this search run, in order to scan a channel, a frequency or a transponder for an analogue programme or for digital programmes or to search for a certain programme after entering programme-specific PID numbers.

Calling the station search function

> For a programme search run, first call the **main menu** by pressing the **Menu** key.
> Use the **up/down arrow keys** to select the **Station search** line.
> Acknowledge with **OK**.
  The **Station search sub-menu is displayed.**
> Use the **up/down arrow keys** to select the search run method and then acknowledge with **OK**.

9.1 Automatic search

This search run function automatically scans the selected reception ranges for programmes.
> Use the **left/right arrow keys** to specify in the **Search mode** line the required search mode (from **All** programmes to **Only free** programmes)
> Select the individual reception ranges (**DVB-S**, **DVB-C**, **DVB-T**, **Analogue CT** or **FM Radio**) with the **up/down arrow keys**.
> Activate the reception ranges, which you would like scan by means of the **right/left arrow keys** to **Yes**.
  The reception ranges marked with **No** are not scanned during the automatic search run.

9.1.1 Starting the automatic search

> In order to start the search run, press the **green Start search** control key.
  The duration of the search run depends on the selected reception ranges. Pay attention to the screen inserts.

9.1.2 After the search run

After the search run, a message is displayed on the screen with the number of found, new and encoded programmes.

> Acknowledge with **OK**.
> You are now asked, whether you would like to take over the found programmes sorted, unsorted or not at all into the favourites list.

Sorted

> Use the **left/right arrow keys** to select the input **Sorted**, in order to take over the sorted programmes into the favourites list and acknowledge with **OK**.
> The found programmes are sorted into the favourites list according to a pre-programmed list. The order of the programmes is thereby dependent on the transmission area set according to section 11.

Unsorted

> In order to take over unsorted programmes into the favourites list, use the **right/left arrow keys** to select the input **Unsorted** and acknowledge with **OK**.
> The unsorted programmes are added to the end of the favourites list.

No

> Use **right/left arrow keys** to select the input **No** and acknowledge with **OK**, in order to not take over the programmes into the favourites list automatically.

The favourites list can be edited at any time, as described in section 10.

9.2 Extended search

In order to only search for programmes in the reception area, select **Extended search**.

> Call Station search as described in section 9 and select **Extended search**.

Source

> Use the **up/down arrow keys** to select the **Source** line and select by means of the **right/left arrow keys**, whether you would like to search for analogue programmes (**FM Radio** or **Analogue CT**) or digital programmes (**DVB-S**, **DVB-C** or **DVB-T**).

According to the selected source, the further input options differ and therefore also the input menus. These are described in the following sections.

9.2.1 Extended search for analogue radio programmes (FM Radio)

When searching for FM radio programmes, no further settings are required.

> Continue for this search directly with section 9.2.6.

9.2.2 Extended search for analogue TV programmes (Analogue CT)

During extended search of the Analogue CT source, you have the possibility to select a transmission area. The found programmes are sorted according to transmission area after the search run.

Transmission area

> Use the **up/down arrow keys** to select the **transmission area** line.
> Use the **right/left arrow keys** to select the transmission area in which you are located.
> Then continue as described in section 9.2.6.

9.2.3 Extended search for DVB-S programmes

Search mode
> Use the **up/down arrow keys** to select the **Search mode** line.
> Specify with the **right/left arrow keys**, whether you only want to search for freely receivable programmes (**Only free**) or also for encoded programmes **All**).

Satellite
> Use the **up/down arrow keys** to select the **Satellite** line.
> Pressing the **OK** key opens a window with the configured satellites.
> Use the **up/down arrow keys** to select the satellite, which you would like to scan and acknowledge with **OK**.
> Then continue as described in section 9.2.6.

9.2.4 Extended search for DVB-C programmes

Search mode
> Use the **up/down arrow keys** to select the **Search mode** line.
> Specify with the **right/left arrow keys**, whether you only want to search for freely receivable programmes (**Only free**) or also for encoded programmes **All**).

Search run method
Use this line to select between **channel search**, **network search** and **frequency search**.
> For this purpose, select the search run **method** line with the **up/down arrow keys**.
> Use the **up/down arrow keys** to select the required search run method.

Start channel
> Use the **up/down arrow keys** to select the **Start channel** line.
> Use the **right/left arrow keys** to select the channel, where the search should start.

Stop channel
> Use the **up/down arrow keys** to select the **Stop channel** line.
> Use the **right/left arrow keys** to select the channel, where the search should stop.

New symbol rate
Under this line you can see a set of symbol rates. These symbol rates are considered during a search run
> Select the **New symbol rate** line with the **up/down arrow keys**.
> Now use the **numeric keyboard** to enter a symbol rate, which should be added to the list.
> This symbol rate is added to the list, if the input is complete.
> Pressing the **yellow Delete** control key deletes the symbol rate at the last position.
> Then continue as described in section 9.2.6.

9.2.5 Extended search for DVB-T programmes

Search mode
> Use the **up/down arrow keys** to select the **Search mode** line.

> Specify with the **right/left arrow keys**, whether you only want to search for freely receivable programmes (**Only free**) or also for encoded programmes **All**).

Search run method

Use this line to select between **channel search**, and **frequency search**.
> For this purpose, select the search run **method** line with the **up/down arrow keys**.
> Use the **up/down arrow keys** to select the required search run method.

Start channel
> Use the **up/down arrow keys** to select the **Start channel** line.
> Use the **right/left arrow keys** to select the channel, where the search should start.

Stop channel
> Use the **up/down arrow keys** to select the **Stop channel** line.
> Use the **right/left arrow keys** to select the channel, where the search should stop.

9.2.6 Starting the extendedsearch

> In order to start the search run, press the **green Start search** control key.
  The search run can take over 15 minutes.Pay attention to the screen inserts. A message is displayed on the screen after the search run.

9.2.7 After the search run

After the search run , a message is displayed on the screen with the number of found, new and encoded programmes.
> Acknowledge with **OK**.
  You are now asked, whether you would like to take over the found programmes sorted, unsorted or not at all into the favourites list.
> Use the **left/right arrow keys** to select the input **Sorted**, in order to take over the sorted programmes into the favourites list and acknowledge with **OK**.
  The found programmes are sorted into the favourites list according to a pre-programmed list. The order of the programmes is thereby dependent on the transmission area set according to section 11.
> In order to take over unsorted programmes into the favourites list, use the **right/left arrow keys** to select the input **Unsorted** and acknowledge with **OK**.
  The unsorted programmes are added to the end of the favourites list.
> Use **right/left arrow keys** to select the input **No** and acknowledge with **OK**, in order to not take over the programmes into the favourites list automatically.

The favourites list can be edited at any time, as described in section 10.

9.3 Manual search /Modification of the programme name

If a programme is not found during the automatic search or during the extended search, it can be necessary to carry out a **manual search** for this programme.
> Call Station search as described in section 9 and select **Manual search**.

Source
> Use the **up/down arrow keys** to select the **Source** line.
> Use the **right/left arrow keys** to select, whether you would like to search for an analogue programme (**FM Radio** or **Analogue CT**) or digital programme (**DVB-S**, **DVB-C** or **DVB-T**).

The further procedure of a manual search depends on the selected source. The various procedures are described in the following sections.

9.3.1 Manual search of an analogue radio programme (FM-Radio)

Frequency
> Use the **up/down arrow keys** to select the **Frequency** line.
> Use the **right/left arrow keys** or the **numeric keyboard** to set the required frequency.

Name
> Use the **up/down arrow keys** to select the **Name** line.
> To change the programme name press the **yellow Change** control key.
> Use the **arrow keys** to select the first letter of the name and acknowledge with **OK**.
> Proceeed as described above to complete the entering of the new name.
> Incorrect inputs can be cancelled with the **red Delete** control key.
> The new programme name is accepted by pressing the **yellow Accept** control key.

Compulsory mono
> Use the **up/down arrow keys** to select the **Compulsory mono** line.
> Use the **right/left arrow keys** to turn theCompulsory mono **functionOn** or **Off**.

Saving
> In order to save the settings, press the **green Accept** control key.
> You are then queried, whether the programme should be taken over into the favourites list.
> Use the **right/left arrow keys** to select the input **Yes**, in order to take over the programme in the favourites list and acknowledge with **OK**.
> If you select **No**, the programme will only be stored in the complete list and can be transferred to the favourites list as described in section 10.2.

9.3.2 Manual search for an analogue TV programme (Analogue CT)

Channel
> Use the **up/down arrow keys** to select the **Channel** line.
> Use the **right/left arrow keys** or the **numeric keyboard** to set the required channel.

Channel type
> Use the **up/down arrow keys** to select the **Channel type** line.
> Use the **right/left arrow keys** to set the channel type (Standard TV channel **E-Channel** or special channel, **S-Channel).**

Fine tuning
> Use the **up/down arrow keys** to select the **Fine tuning** line.
> Use the **right/left arrow keys** to fine tune until you have a perfect picture or perfect sound.

Standard

> Use the **up/down arrow keys** to select the **Standard** line.
> Set to the television standard according to the reception channel (**B/G**, **D/K**, **I(+)** or **L(L)**).
> The **B/G** standard is used in Germany.

Name

> Use the **up/down arrow keys** to select the **Name** line.
> To change the programme name press the **yellow Change** control key.
> Use the **arrow keys** to select the first letter of the name and acknowledge with **OK**.
> Proceeed as described above to complete the entering of the new name.
> Incorrect inputs can be cancelled with the **red Delete** control key.
> The new programme name is accepted by pressing the **yellow** control key.

Compulsory mono

> Use the **up/down arrow keys** to select the **Compulsory mono** line.
> Use the **right/left arrow keys** to turn the Compulsory mono **function On** or **Off**.

Saving

> In order to save the settings, press the **green Accept** control key.
> You are then queried, whether the programme should be taken over into the favourites list.
> Use the **right/left arrow keys** to select the input **Yes**, in order to take over the programme in the favourites list and acknowledge with **OK**.
> If you select **No**, the programme will only be stored in the complete list and can be transferred to the favourites list as described in section 10.2.

9.3.3 Extended search for DVB-S programmes

Satellite

> Use the **up/down arrow keys** to select the **Satellite** line.
> Pressing the **OK** key calls a table with the configured satellites.
> Select the required satellites with the **arrow keys up/down.**
> Acknowledge by pressing the **OK**key.

Frequency

> Use the **up/down arrow keys** to select the **Frequency** line.
> Use the **numeric keys** to enter the transponder frequently, which you would like the scan.

Symbol rate

> Use the **up/down arrow keys** to select the **Symbol rate** line.
> Use the **numeric keys,** to enter the symbol rate.

Polarisation

> Use the **up/down arrow keys** to select the **Polarisation** line.
> Use the **left/right arrow keys** to set the polarisation of the transponder.
> Then continue with section 9.3.6.

9.3.4 Manual search for DVB-C programmes

Search run method
Use this line to select between **channel search**, and **frequency search**.
> For this purpose, select the search run **method** line with the **up/down arrow keys**.
> Use the **right/left arrow keys** to select the required search run method.

Channel^{only during channel search}
> Use the **up/down arrow keys** to select the **Channel** line.
> Use the **right/left arrow keys** or the **numeric keyboard** to set the required channel.

Channel type^{only during channel search}
> Use the **up/down arrow keys** to select the **Channel type** line.
> Use the **right/left arrow keys** to set the channel type (Standard channel **C-Channel** or special channel, **S-channel**).

Frequency^{only during frequency search}
> Use the **up/down arrow keys** to select the **Frequency** line.
> Use the **right/left arrow keys** or the **numeric keyboard** to set the required frequency.

Symbol rate
> Use the **up/down arrow keys** to select the **Symbol rate** line.
> Use the **numeric keyboard,** to enter the symbol rate.

Modulation
> Use the **up/down arrow keys** to select the **Modulation** line.
> Use the **right/left arrow keys** to enter the channel modulation.
> Then continue with section 9.3.6.

9.3.5 Manual search for DVB-T programmes

Channel
> Use the **up/down arrow keys** to select the **Channel** line.
> Use the **right/left arrow keys** to set the required channel.

9.3.6 Starting the manual DVB-S/DVB-C/DVB-T search

> In order to start the search run, press the **green Search** control key.
  Pay attention to the screen inserts.

9.3.7 After the search run

After the search run a query is displayed, asking you whether the found programmes should be added as sorted, unsorted or not at all to the favourites list.
> Use the **left/right arrow keys** to select the input **Sorted**, in order to take over the sorted programmes into the favourites list and acknowledge with **OK**. The found programmes are sorted into the favourites list according to a pre-programmed list.

The order of the programmes is thereby dependent on the transmission area set accor-
ding to section 11.
> In order to take over unsorted programmes into the favourites list, use the **right/left
arrow keys** to select the input **Unsorted** and acknowledge with **OK**.
The unsorted programmes are added to the end of the favourites list.
> Use **right/left arrow keys** to select the input **No** and acknowledge with **OK**, in order
to not take over the programmes into the favourites list automatically.
The favourites list can be edited at any time, as described in section 10.

9.3.8 PIDsearch (DVB-S/DVB-C/DVB-T)

The PID search serves to look for a specific digital programme with the help of programme-spe-
cific PID numbers.
> First, enter the data for the DVB-S-, DVB-C- or DVB-T-PID search as described in the
sections 9.3.3, 9.3.4 or 9.3.5.
> Press the **yellow PID search**control key, in order to open the input window of the PID
numbers.
> Select one after the other the lines **Audio PID**, **Video PID** and **PCR-PID** with the
up/down arrow keys and enter in the respective line the appropriate PID number by
means of the **numeric keyboard**.

9.3.9 Starting the PID search (DVB-S/DVB-C/DVB-T)

> In order to start the search run, press the **green Search** control key.
Observe the screen inserts.

9.3.10 After the PID search

After the PID search run a query is displayed, asking you whether the found programmes
should be added as sorted, unsorted or not at all to the favourites list.
> Use the **left/right arrow keys** to select the input **Sorted**, in order to take over the
sorted programmes into the favourites list and acknowledge with **OK**.
The found programmes are sorted into the favourites list according to a pre-programmed
list. The order of the programmes is thereby dependent on the transmission area set
according to section 11.

10 Programme management

This section describes, how you can modify the favourites programme list according to your
requirements. This function is also required, in order to sort programmes newly found during a
search run into the list.
For this you should know the following: IYour TV set is equipped with two programme lists, the
favourites list and the TV list or radio list. The favourites programme list contains all program-
mes, which can be added as described as follows. The TV list or radio list contains all program-
mes available after a search run. This also contains programmes, which have not been added
to the favourites list.
This chapter also describes how you can delete programmes. The favourites programme list is
displayed when the programme list is called by pressing the **OK** key.

10.1 Calling the programme management

> Call the **main menu** by pressing the **menu** key.
> Select the line **TV list management**,
to edit the TV list or to edit the **radio list** with the **up/down arrow keys.**
> Acknowledge with **OK**.

Programme management is displayed for editing the respective favourites list (TV or radio list). The favourites list is displayed in the right half of the picture.The alphabetically sorted TV list or radio list is displayed in the left half of the picture. The complete list contains all available channels.

10.1.1 Selecting a favourites list

> Press the **green favourites list** control key to change from the complete list or provider list to the favourites list.

10.1.2 Selecting the full list

> Use the **red complete list** control key to change the selection from the favourites list (right side) to the left side (Complete or provider list).
The complete list or a provider list is now displayed according to which list was previously selected.
> If necessary, press the **red complete list** control key again.
> Use the **up/down arrow keys** to select **Complete list** and acknowledge with**OK**.

10.1.3 Selecting the provider list

> Use the **red complete list** control key to change the selection from the favourites list (right side) to the left side (Complete or provider list).
The complete list or a provider list is now displayed according to which list was previously selected.
> If necessary, press the **red complete list** control key again.
An additional selection window is displayed.
> Use the **up/down arrow keys** to select the **Provider list** and acknowledge with **OK**.A list containing the available providers is now displayed on the left half of the screen.
> Now select the required provider with the **up/down arrow keys** and acknowledge with **OK**.
The programmes of the selected provider are now displayed.

10.2 Adding programmes to the favourites list

In order to add programmes from the TV or radio list to the favourites list, call as described in section 10.1 the Programme management menu.
Programmes, which are already contained in the favourites list, are identified by the appropriate programme position number.
> Use the **arrow keys** to select a programme, that you want to add to the favourites list.
> Press the **blue Functions** control key.
The available options are then displayed in a selection window.
> Select the **Add** line with the **up/down arrow keys.**
> Acknowledge with **OK**.
> Press the **yellow Add** control key to add the selected programme to the. favourites list.

Selecting blocks

In order to select several programmes at the same time proceed as follows:
> Press the **OK** key to jump to select mode.
> Use the **arrow keys** to additionally select the following/previous programmes.
> After selecting the required programmes in this manner, press the **yellow Add**, control key, in order to add the selected programmes to the. favourites list.

10.3 Deleting programmes

10.3.1 Removing (deleting) from the favourites list

In order to remove programmes from the favourites list call programme management as descri-bed in section 10.1 and select the **favourites ist**.

> Use the **up/down arrow keys** to select the programme, that you would like to remo-ve from the favourites list.
> Press the **blue Functions** control key.
> The available options are then displayed in a selection window.
> Select the **Remove** line using the **up/down arrow keys.**
> Acknowledge with **OK**.
> Press the **yellow Remove** control key.
> You are then asked, if you really want to delete the programme.
> In order to really delete the programme, select the **Yes** field and acknowledge with **OK**.
> In order to remove several programmes at the same time, select these as described in section 10.2 (Selecting blocks).
> After you have selected the required programmes, press the **yellow Remove** control key.
> You are then asked, if you really want to delete the programme.
> In order to really delete the programmes, select the **Yes** field and acknowledge with **OK**.

These deleted programmes are however retained in the complete list and can be added to the. favourites list again at any time.

10.3.2 Deleting from the complete list

> In order to delete programmes from the complete list, call as described in section 10.1 the **TV list** or **Radio list management** menu and change to the complete list or provider list.
> Select the programme that you would like to delete from the complete list with the **up/down arrow keys.**
> Press the **blue Function** control key.
> The available options are then displayed in a selection window.
> Use the **up/down arrow keys** to select the **Delete** line.
> Acknowledge with **OK**.
> Press the **yellow Delete** control key.
> You are then asked, if you really want to delete the programme.
> In order to really delete the programme, select the **Yes** field and acknowledge with **OK**.
> In order to remove several programmes at the same time, select these as described in section 10.2 (Selecting blocks).
> After you have selected the required programmes, press the **yellow Delete** control key.
> You are then asked, if you really want to delete the programme.
> In order to really delete the programme, select the **Yes** field and acknowledge with **OK**.

10.4 Sorting programmes

In order to sort the channels contained in the favourites list according to your requirements call the favourites list as described in Section 10.1..

> Select the programme that you want to relocate to a different position in the list with the **up/down arrow keys.**

> Press the **blue Function** control key.
The available options are then displayed in a selection window.
> Use the **up/down arrow keys** to highlight the **Sort** line.
> Acknowledge with **OK**.
> Now press the **yellow Sort** function keyt..A double-headed arrow is now displayed next to the selected programme
> You can now move the highlighted programme using the **arrow keys** and/or the **numerical keypad** to another position in the programme list.
> Press the **OK** key to save the programme at the new position.
> In order to sort several programmes at the same time, select these as described in section 10.2 (**Selecting blocks**).
> Now press the **yellowSort** control key.
A double arrow is displayed alongside the selected programme block.
> You can now move the selected programmes with the **arrow keys** and/or the **numeric keyboard** to the programme list position, where you would like it located and acknowledge with **OK**.

11 Special functions

To set the following special functions, proceed as follows:
> Call the **main menu** by pressing the **menu** key.
> Select the **Settings** line with the **up/down arrow keys** and acknowledge with **OK**.
> Use the **up/down arrow keys** to select the **special functions** line and acknowledge with **OK**.
The **Special functions** menu is displayed.
> Select the respective line with the **up/down arrow keys** and set the function according to your requirements with the **right/left arrow keys**.

Time zone settings
Select the time zone in this line, in which the device is operated.
The time is set automatically according to your selection and also adapted to summer and winter time.

Transmission area
Enter the transmission area, in which the device is operated. The programmes are sorted according to this selection after a search run.

AV copying
The signals of the Scart socket are conducted to the respective other Scart socket, if this function is activated. This enables e.g. the signals of a DVD player connected to Scart socket AV1 to be connected to the Scart socket AV2, in order to record by a video cassette recorder, which is connected to Scart socket AV2.

Source Autostart/stop
Select the source, which triggers the Autostart or Autostop function.

Autostart
If this function is activated, your television set, if it is in standby mode , is switched on by a signal activated by the previously selected source (e.g. by switching a DVD player on).

Autostop
If this function is activated, your television set, if it is in operation mode, is switched to the standby mode by a signal activated by the previously selected source (e.g. by switching a DVD player off).

Picture in radio mode

This function enables you to turn the picture off in the radio mode. The screen is therefore less stressed and the power consumption is reduced.

Off: The picture is turned off in the radio mode after approximately 30 seconds and stays tur-ned off even if the programme is changed.

Auto: The picture is turned off in the radio mode after approximately 30 seconds and is turned on automatically for a short period, if the programme is changed.

On: The picture is also turned on in the radio mode.

YUV 576/480p mode

If you would like to play signals in 576p or 480p mode via the component input, you have the option to select, whether these signals are to be processed again before they are displayed on the screen or whether they should be played back directly without further processing. Which set-ting is preferable, depends on the used signal source and should be assessed on the basis of the picture quality.

DPS: Select this setting, if the signal should be played back unprocessed (directly).

VSP: Select this setting, if the signal should be processed prior to playback on the screen.

Teletext mode

Some programme providers transmit the teletext in different teletext modes. Default is level 1.5. Various programme providers also support the graphically more fastidious HiText level 2.5. This line provides the possibility for you to manually adjust the teletext mode. You should normally select the **HiText Level 2.5** mode.

Analogue decoder

You can connect an analogue decoder to the Scart socket AV2 according to section 4. Set the functions in this line by selecting EURO-AV2.

12 Service settings

You can reset the factory settings at any time. You can also completely delete the programme list, if this is obsolete due to change of programme provider, in order to then accomplish a new search run. Please note, that after deleting you must start a search run and and then copy the required pro-grammes from the complete list into the favourites list.

> Call the **main menu** by pressing the **menu** key.
> Select the **Settings** menu line by using the **up/down arrow keys** to highlight it.
> Acknowledge with **OK**.
   The **Settings sub/menu is displayed**.
> Use the **up/down arrow keys** to select the **Service settings** menu line.
> Acknowledge with **OK**.
   The **Service settings** sub-menu is displayed.

12.1 Factory settings

The programming as set in the factory is reset after calling this function, your own set-tings are deleted and the installation assistant **AutoInstall** is started.

> Use the **up/down arrow keys** to select the **Factory settings** line.
> Press the **OK** key.
   The message "**All settings will be deleted is displayed. Really activate the factory settings?**".

>   Select **Continue** or Abort with the **left/right arrow keys**.
>   Acknowledge the input with **OK**.

12.2 Software update

You also have the possibility to update the system software of your device. During satellite reception, you receive this data channel from the ASTRA satellite system (19.2° East).In order to also receive the appropriate data channel via DVB-C or DVB-T, this must be available in your cable network or DVB-T reception area.

>   Select the **Software update** line with the **up/down arrow keys.**
>   The **Software update** sub/menu is opened after pressing the **OK** key.
>   If you want your device to carry out the update automatically, use the **up/down arrow keys** to select the **Software update** line.
>   Use the **left/right arrow keys** to select yes.
>   Set the time at which the software update should be run in the **Update time** line using the **numeric keypad**.
>   To manually start the system software update, press the **green Test** control key.

You can carry out corrections in this menu, if the data channel parameters for importing the software have changed. The current data can be inferred from your specialist dealer. You should normally not have to make any changes in this menu.

Note:
The device must be in the standby mode to automatically download the new software.

12.3 Updating the programme list   ISIPRO ^{only DVB-S}

The ISIPRO programme list update automatically updates the programme list of your TV to keep it up-to-date. An up-to-date programme list is regularly broadcast via satellite (ASTRA 19.2° East) for this purpose and can be downloaded by your television.

You can carry out corrections in this menu, if the data channel parameters for importing the programme list have changed. Your specialised dealer can inform you on the up-to-date transponder data. You should normally not have to make any changes in this menu.

Please note, that this function is only available for satellite programmes of the programme list.

>   Using the **up/down arrow keys,** select the **Programme list update** line **(DVB-S)**.
>   The **Programme list update (DVB-S)** sub/menu is opened by pressing **OK**.
>   In order for your television to check automatically,whether a new programme list is available, select the **Update list** line.
>   Set the automatic programme list update with the **right/left arrow keys** to **Yes**.

12.3.1 Manually starting the programme list update

>   To manually update the programme list , press the **green Update** control key.
>   It is now examined, whether a newer programme list is available.
>   Use the **right/left arrow keys** to select the **Yes** field, if you would like to start the update and to acknowledge with **OK**.
>   The new programme list will now be downloaded.

12.3.2 Message "New programme list available"

If a new programme list is available, then an appropriate message is displayed when the device is turned on, if list updating is activated in the programme list update (DVB-S) menu.

>   If you would not like to download the new programme list immediately, but at a later

point in time, press the **yellow Later** control key.
The query is displayed, when you turn your television on the next time.
> If you do not want to download the new programme list, press the **red Reject** control key.
The message is then only displayed, if a newer programme list is transmitted.
> In order to download the new programme list immediately, press the **green Update** control key.
The programme list update is started and can be watched on the screen.

After the programme list has been completely downloaded, the update of your programme list starts. The favourites list available in your television is compared to the new programme list. If this comparison shows, that you have not yet accomplished any changes to the factory programme list available on your television, then the complete programme list is replaced by the new list. If you have however made changes to the programme list, then your favourites list will be updated in several steps. The differences between your favourites list and the new programme list are thereby displayed. You can decide, which changes are to be carried out and which not. The number of steps is dependent on the amount of changes in the new list and can therefore differ from download to download.

12.3.3 Channel optimisation

The programmes of your favourites list are displayed in this step, if the reception data have changed or are not up-to-date. It is possible that these programmes cannot be correctly received with this data any more. So these can continue to be received without any problems, the amendments suggested should be carried out.
> The reception data of the selected programmes are updated by pressing the **green OK** control key.
> If you do not want to update the data of the displayed programmes, press the **red Reject** control key.

12.3.4 Deleting programmes

In this step you can delete programmes that are in your favourites list , but are no longer being broadcast.
> If you want to delete a displayed programme, that is no longer being broadcast, acknowledge by pressing the **green OK** control key.
> If you would nevertheless like to keep these programmes in your favourites list press the **red Reject** control key.

12.3.5 Adding TV or radio programmes

The individual programmes of the new programme list are displayed in the next step, which you can add to your own favourites list, as these are not yet contained there.

Storing individual programmes

> Pressing the **green OK** control key, stores the displayed programme at the suggested programme position of the favourites list (TV or radio)

or

> Use the **up/down arrow keys** in order to move the displayed programme to another , position in the favourites list or enter the required programme position with the help of the **numerical keyboard**.
> In order to store the displayed programme at the selected position of the favourites list, press the **green OK** control key.

Storing all programmes

> In order to add all new programs without any previous examination, press the **yellow All** control key.
> The programmes will then be added to the favourites list according to specified criteria.

Rejecting programmes (not storing)

> If you do not want to add the displayed programme to the favourites list, press the **red Reject** control key.

12.4 Deleting all programmes

This function will delete the entire programme memory.
> Select the line **Delete all programmes** with the **up/down arrow keys.**
> Press the **OK** key.
> The message "**Do you really want to delete all programmes?**" is displayed.
> Select **Yes** or Abort with the **left/right arrow keys.**
> Acknowledge the input with **OK**.

12.5 System configuration

You can view the specific equipment data in this menu option
> Select the **Systems configuration** line with the **Arrow keys up/down**.
> Press the **OK** key to confirm.
> Pressing the **Menu** key returns you to normal operation.

13 Operating language (Menu language)

This menu item enables you to set the menu language according to your requirements.
Proceed as follows to change the operating language:
> Call the **main menu** by pressing the **menu** key.
> Select the **Operating language** menu line by highlighting with the **up/down arrow keys.**
> Acknowledge with **OK**.
> The **Operating language sub-menu is displayed**.
> Select the required language with the **up/down arrow keys.**
> Store the input by pressing the **OK** key.
> Press the **Return** key, to return to the **Main menu** without changes.

14 Encoding system

This menu option will take you to the sub-menus of the inserted smart card as well as of the CI module. After acknowledging with **OK**, you can call information on the used CI module (1st entry) or on the inserted smart card (2nd entry).

Manually initialising the CI module

> Press the **green CI reset** control key to manually initialise the CI module.

15 Technical data

LCD panel

Diagonal	82 cm (HD-Vision 32 PVR)
	102 cm (HD-Vision 40 PVR)
Panel type	16:9 TFT LCD
Resolution	1366 x 768
Brightness	500 cd/m^2
Contrast ratio	1200:1
Response time	8 ms
Viewing angle	170° V / 170° H

Picture

Freeze image	Yes
Manual zoom	Yes
Automatic multi-aspect ratio	4:3/16:9
Adjustable format default	4:3, 16:9, Optimal and Optimal 16:9

Audio

Mono/Stereo/dual tone	Yes
Sinus output in W	2 x 15
Number of loudspeakers	4

Operation

Programme memory	4000 (Complete list) / 2000 favourites für TV/Radio
TTS	Yes
OSD menu guide	Yes
Child lock	Yes
Time	Yes
Sleep Timer	Yes
Hard disk timer	Yes
Station change timer	Yes
Video cassette recorder timer	Yes
Station search run	Yes
Menu languages	G, GB, F, E, I, TR, P, RUS, GR, PL, CZ, H, NL, S

Teletext

Toptext	Yes
Megatext (1000 pages)	Yes
HiText Level 2.5	Yes (selectable)

Connection - HDMI 1/HDMI 2

Video

Connector	HDMI Type A
Type	Single link
TMDS Protocol	DVI 1.0 and HDMI 1.0
Encoding:	RGB or YCbCr
Sampling Modi:	4:4:4 or 4:2:2

Audio

Streams	1

Channels	2
Bits per sample	16
Sampling rates	32.0, 44.1, 48 KHz

Connection S-Video input (Hosiden)

Input signal level	Y: 1Vss/75Ohm
	C: 0.3Vss/75Ohm
Audio R/L	Cinch

Connection Video Input

Video	Cinch
Audio R/L	Cinch

Connection - Scart socket (AV 1/AV 2)

Input	
	Audio R/L
Function switching voltage	0...2 V TV off
	4.5...7 V Picture size 16:9
	9.5...12 V Picture size 4:3
Input signal level	R: 0.7 Vss/75Ohm
	G: 0.7 Vss/75Ohm
	B: 0.7 Vss/75Ohm
Audio input level R/L	0,5 V r.m.s. (nominal)
Audio input impedance	>40 KOhm

Connection component input

Input signal level	Y: 1.0 Vss/75Ohm
	Pr: 0.7 Vss/75Ohm
	Pb: 0.7 Vss/75Ohm

Connection- VGA input

Supported resolutions	640x480, 800x600, 1024x768, 1366x768

Supported timing VGA/DVI for VESA standard:

Mode	Resolution	Horiz. freq. in kHz	Vert. freq. in Hz	Sync-Pol. H/V	Pixels gross	Active pixels	Sync-width H/V (Pixels)	Frontporch H/V (Pixels)	Backporch H/V (Pixels)	Pixel cycle in MHz
VGA	640x480 @60Hz	31,469	59,94	-/-	800*525	640*480	96 / 2	16 / 10	48 / 33	25,175
SVGA	800x600 @56Hz	35,156	56,25	+/+	1024*625	800*600	72 / 2	24 / 1	128 / 22	36
SVGA	800x600 @60Hz	37,879	60,317	+/+	1024*628	800*600	128 / 4	40 / 1	88 / 23	40
XGA	1024x768 @60Hz	48,363	60,004	-/-	1344*806	1024*768	136 / 6	24 / 3	160 / 29	65

Native resolution of the panel for VGA/DVI output for the following timing (VESA CVT):

Mode	Resolution	Horiz. freq.in kHz	Vert. freq. in Hz	Sync-Pol. H/V	Pixels gross	Active pixels	Sync-width H/V (Pixels)	Frontporch H/V (Pixels)	Backporch H/V (Pixels)	Pixel cycle in MHz
Native	1360*768 @50Hz	39,564	49,892	-/+	1744*793	1360*768	136 / 5	56 / 3	192 / 17	69

The HDTV formats 720p and 1080i at 50 and 60Hz are additionally supported via the DVI(HDMI) input.

Connection serial interface RS 232

Type	RS 232, bidirectional
Bit rate	115,2 kBit/s max.
Connector	D-SUB socket, 9-pin
Function	Update f. system software and preprogramming

Connection USB port

Type	USB 1.1 (OHCI)
Function	Software update per USB Stick

Connection audio output analogue

Right	Cinch
Left	Cinch
Sub-woofer	Cinch

Connection audio output digital

SP/DIF output electrical	Cinch
SP/DIF output optical	TOSLINK

Connection - Headphone jack

Type	3.5 mm jack (stereo)

Analogue UHF-/VHF-/CATV tuner

Input frequency range	46 … 860 MHz
Channels	E02-E12/E21-E69 / S01-S41
Input impedance	75 Ohm
Tuner input	IEC socket (female)
Standards	BG stereo, DK mono, L, L´, I, NICAM

Analogue FM tuner

Input frequency range	87.5 MHz….108 MHz
Input impedance	75 Ohm
Tuner input	IEC socket (female)

DVB-S tuner

Input frequency range	950...2150 MHz
Input level range	- 65 dBm... - 25 dBm
DVB-S tuner input	F - connector
Input impedance	75 Ohm
AFC catchment area	+/- 3 MHz
Demodulation	Shaped QPSK
Symbol rate	1... 45 Mbaud/s, SCPC/ MCPC
FEC	Viterbi and Reed-Solomon
Viterbi rates	1/2, 2/3, 3/4, 5/6, 7/8
	automatic adaptation
Roll-off factor	35 %

LNB Power supply

LNB current	400 mA max
	short-circuit proof
	< 14 V without load,
	> 11.5 V at 400 mA

LNB voltage horizontal	< 20 V without load,
	> 17.2 V at 400 mA
LNB deactivation in standby mode	Yes

22 kHz modulation

22 kHz	Yes
Amplitude	0.6 V +/- 0.2 V

DiSEqC

DiSEqC 1.0	Yes

DVB-C tuner

Input frequency range	47 - 862 MHz
Input level range	47 - 70 dBμV
Input impedance	75 Ohm
Tuner input	IEC socket (female)
Noise figure	< 8 dB
Demodulation	16/64/128/256 QAM
FEC	Reed-Solomon
Symbol rate	1... 7 Mbaud

DVB-T tuner

Input frequency range	174 … 230 MHz/470 … 860 MHz
Input impedance	75 Ohm
Tuner input	IEC socket (female)
Noise figure	<8 dB
Max. input level	-32 dBm
Antenna supply	
Power supply	5 V DC / 0.1 A ; short circuit proof
Demodulation	COFDM
Transmission mode	2k/8k
Bit rate	4,35512 Mbit/s... 31,66845 Mbit/s

Video decoding

Video compression	MPEG-2 and MPEG-1 compatible up to MP@ML (main profile @ main level)
Video standard	PAL / 25 Hz
Active screen area	720 pixel x 576 lines

Audio decoding

Audio compression	MPEG-1 & MPEG-2 Layer I and II
Audio mode	Dual (main/sub), Stereo
Sampling rate	32 kHz, 44.1 kHz, 48 kHz

Common Interface

Type	1 Common Interface slot for CI module
Power consumption	max. 0.3 A / 5 V

Card reader

Type	1 Slot card reader for integrated Conax system

SFI data

Automatic update	Yes
SFI preview	maximum 7 days
Category	Overview/Programme and genre overview
Start category	Yes (adjustable)

Hard disk

Hard disk model	2.5 inch
Hard disk controller	intended for 80 GB
Number recordings	999 (max.)

Remote control

System	RC-5
Modulation frequency	36 kHz
Infrared wavelength	950 nm
Mains adapter	
Rated voltage	230 V / 50 Hz

Power consumption HD-Vision 32 PVR

Standard operation	140 W
Radio mode(with deactivated LCD panel)	<35 W
Software update(from standby mode)	<25 W
SFI update(from standby mode)	<25 W
Standby	<3 W

Power consumption HD-Vision 40 PVR

Standard operation	160 W
Radio mode(with deactivated LCD panel)	<35 W
Software update(from standby mode)	<20 W
SFI update(from standby mode)	<20 W
Standby	<2,5 W

General

HD-Vision 32 PVR with side LS:	
Dimensions in cm	100.5 x 51.0 x 11.0 (without pedestal)
	100.5 x 57.5 x 20.0 (with pedestal)
Weight in kg	approximately 21.5 (TV without glass pane)
	approximately 23.5 (TV with glass pane)
HD-Vision 32 PVR with bottom LS:	
Dimensions in cm	80.5 x 51.0 x 11.0 (without pedestal)
	80.5 x 68.0 x 20.0 (with pedestal)
HD-Vision 40 PVR with side LS:	
Dimensions in cm	120.5 x 61.0 x 11.0 (without pedestal)
	120.5 x 67.5 x 20.0 (with pedestal)
Weight in kg	approximately 30.5 (TV without glass pane)
	approximately 33.5 (TV with glass pane)
HD-Vision 40 PVR with bottom LS:	
Dimensions in cm	100.5 x 61.0 x 11.0 (without pedestal)
	100.5 x 77.5 x 20.0 (with pedestal)

16 Troubleshooting aids

Error	Possible cause	Corrective
No picture, no sound, LED does not light up	No power supply	Mains connection / Check mains cable or switch main switch on
No station on the screen	Antenna cable not inserted	Insert antenna cable
	No station set	Carry out search run
Ghost image/reflection	Antenna signal disturbed	Check antenna and antenna cable
Various programmes are not displayed in the programme list	Incorrect programme list selected	Selected other programme list (see section 6.2.3.1)
Device cannot be operated	Defective data stream --> Device blocked	Turn the device off with the main switch, wait for some seconds, and turn on again
USB device is not recognised	USB device is formatted in an incorrect file system	Format USB device in the FAT32 file system
No hard disk recordings possible anymore	Hard disk is full	Delete stored recording(s)
Deleting hard disk recordings is not possible	File system of the hard disk damaged	Check hard disk (Section 7.3.3.1)
No teletext	The station is not transmitting any teletext	none
Disturbed teletext	Antenna signal disturbed	Check antenna and antenna cable
No colour	Colour intensity set to minimum Incorrect colour standard	Increase colour intensity Set correct colour standard
Remote control does not work, Operation on device possible	Batteries are drained	Replace batteries
	Incorrect remote control option set	Set the correct remote control option (see page 3)
Sound OK, no TV picture	Radio operation activated	Switch to TV operation
Some programmes are disturbed occasionally	Disturbances by "DECT telephones" (Radio phones)	Distance between receiving equipment and TV set enlarge
Small squares appear occasionally in the picture. The device occasionally switches to freeze image, no sound. Screen black occasionally with the message "no signal".	Defective data stream--> Device blocked	Turn the device off with the main switch and turn on again
	Antenna incorrectly aligned	Align antenna again
	Antenna is not suitable for the channels to be received	Use suitable antenna
	The gain of the antenna is too low	Use antenna with larger gain
No reception of programs, which were previously ok	Antenna misaligned or defective	Check antenna
	Programme is broadcast on a different channel	Carry out a search run (see section Punkt 9)
	Programme is not being broadcast anymore	none

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