

Operating instructions

HD-S 223 DVR



TechniSat

Foreword

Dear ,

Thank you for purchasing the HD-S 223 DVR receiver from TechniSat.

These operating instructions are intended to help you familiarise yourself with the extensive functions of your new appliance and use them optimally.

It will help you to use the HD-S 223 DVR safely and as intended. It is intended for any person who installs, connects, operates, cleans or disposes of the receiver. Keep the operating instructions in a safe place for future reference.

The range of functions of your device is constantly being expanded by Sokware updates. This may result in the addition of a number of additional operating steps that are not explained in these operating instructions, or the operation or description of existing functions may change.

For this reason, you should visit the TechniSat homepage at www.technisat.de from time to time to download the latest operating instructions.

We hope you enjoy using your TechniSat HD-S 223 DVR!

Yours

TechniSat Team

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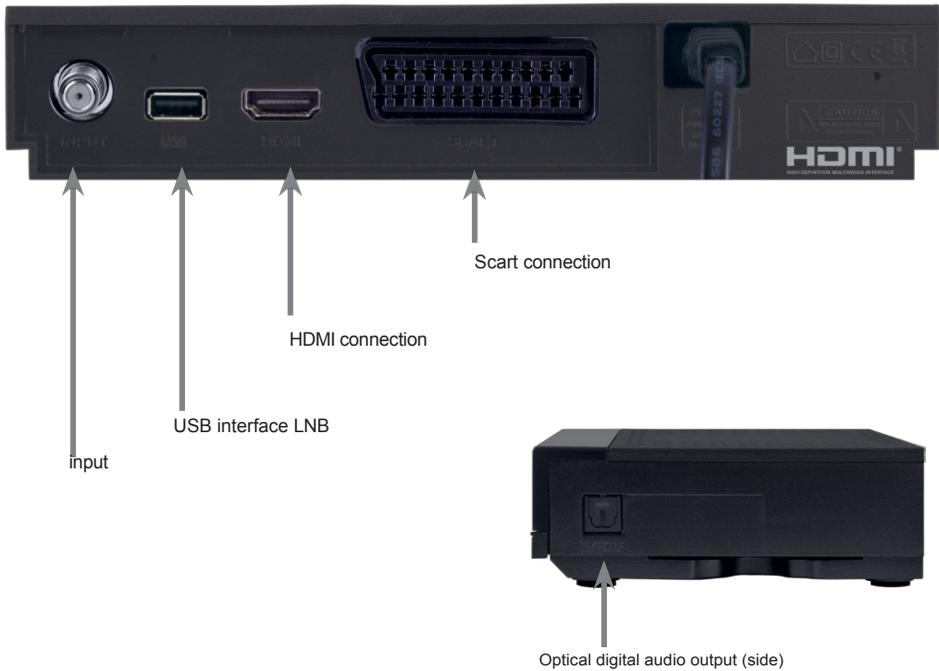
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2 Device illustration

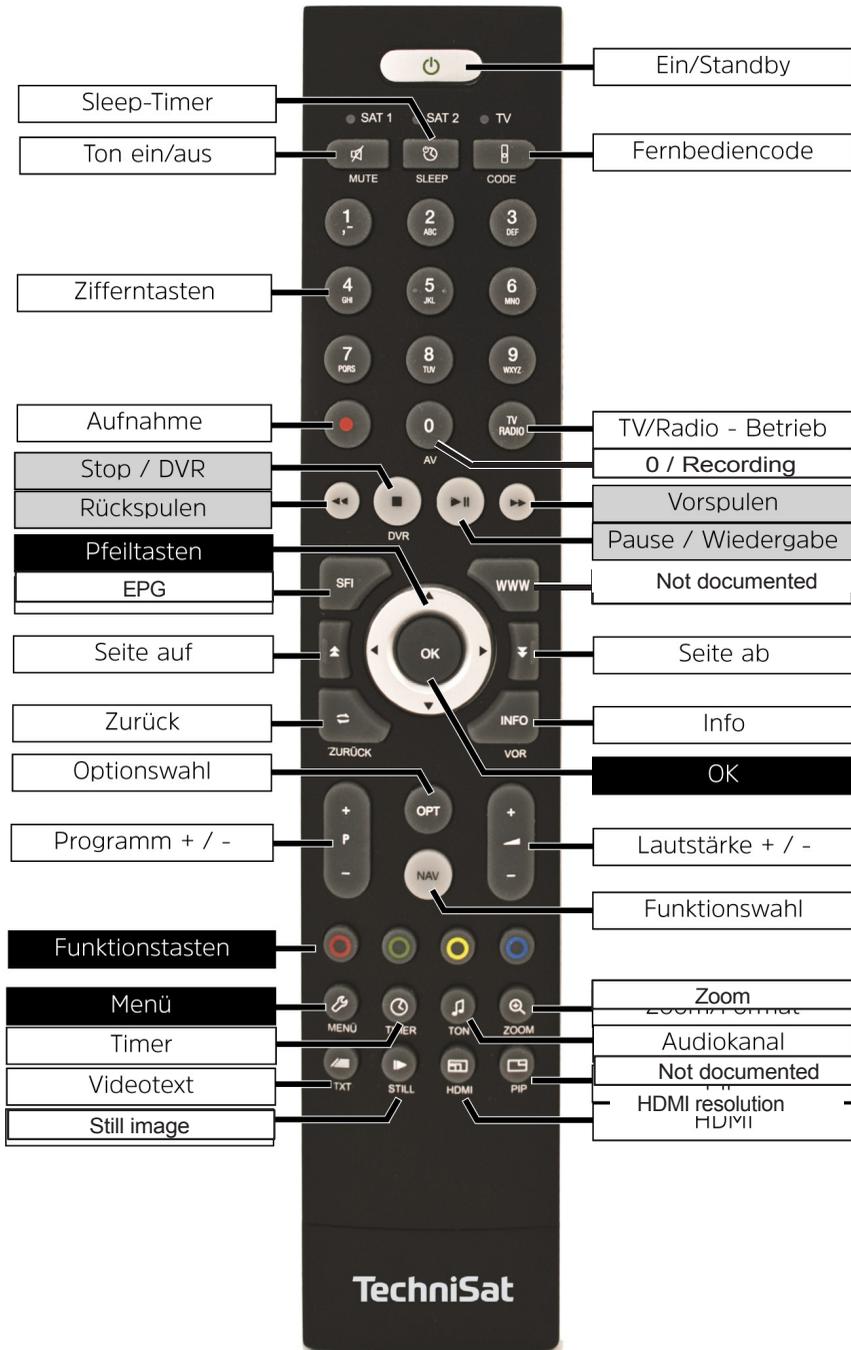
Front view



Back



2.1 Remote control



3 Read biUe first

Before connecting and operating the device, first check that the scope of delivery is complete and familiarise yourself with the safety instructions.

The scope of delivery includes

- 1 TechniSat HD-S 223 DVR receiver,
- 1 Operating instructions
- 1 remote control, batteries (2 pcs. 1.5V AAA microcells)

3.1 Safety instructions

Explanation of symbols



Indicates a safety instruction which, if disregarded, can lead to serious injuries. can lead to injuries or death. Observe the following signal words:

DANGER - Serious injury, possibly fatal **WARNING** -
Serious injuries, possibly fatal **ATTENTION** -
Injuries



Indicates a note that you must observe to avoid device defects, data loss/misuse or unintentional operation. It also describes additional functions for your device.



Warning of electrical voltage. Follow all safety instructions to avoid electric shock. Never open the device or the power supply unit and only connect additional components when the device is switched off.



Indoor use - Appliances with this symbol are only suitable for indoor use.



Protection class II - Electrical appliances in protection class II are electrical appliances with continuous double and/or reinforced insulation and no connection options for a protective conductor. The housing of an insulated electrical appliance of protection class II can partially or completely form the additional or reinforced insulation.

For your protection, you must read the safety precautions carefully, before using your new appliance. The manufacturer accepts no liability for damage caused by improper handling and non-compliance with safety precautions.

Leakage currents may occur in electrical appliances due to their function. These are permissible and harmless, even if they can be perceived as a slight "tingling" sensation. To avoid these leakage currents, the new installation or interconnection of mains-powered devices (receiver, TV set, etc.) must always be carried out in a de-energised state, i.e. all devices must be disconnected from the mains.

⚠ WARNING	
	Electrical voltage. There is a possibility of electric shock. Never open the appliance.

⚠ WARNING

In the following cases, you must disconnect the appliance from the mains and ask a specialist for help:

- > the power cable or the mains plug is damaged
- > The device has been exposed to moisture or liquid has penetrated
- > in the event of significant malfunctions
- > In the event of severe external damage

As this appliance is disconnected from the mains by pulling out the mains plug, it is essential that it is easily accessible at all times.

32 Intended use

The device is used to receive digital satellite programmes in the private sector. It is intended exclusively for this purpose. Observe all information in these operating instructions, especially the safety instructions. Any other Use other than for the intended purpose may result in damage to property or even personal injury. No liability is accepted for damage caused by improper use.

33 Area of application



Observe all the following instructions for the intended use of the appliance and to prevent appliance defects.

- The appliance may only be operated in a temperate climate.
- To ensure sufficient ventilation, place the appliance on a smooth, level surface and do not place any objects on the lid of the appliance. Do not cover any ventilation slots.

- Do not place any burning objects, e.g. lighted candles, on the appliance.
- Do not expose the appliance to dripping or splashing water and do not place any objects filled with liquid, e.g. vases, on it. If water gets into the appliance, unplug it immediately and contact the service centre.
- Do not operate any heat sources in the vicinity of the appliance that will additionally heat the appliance.
- Do not any objects through the ventilation slots.
- Only use accessories approved for the appliance.
- Check the mains cable regularly for damage and do not use it if it is damaged.
- When disconnecting the mains cable from the socket, pull the plug - not the cable.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and/or knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children must be supervised to ensure that they do not play with the appliance.



Dealing with BaUeries

- Only operate the appliance with the BaUeries approved for this appliance.
- Normal BaUeries must not be loaded. BaUeries must not be reactivated with other MiGels, taken apart, heated or thrown into an open fire (risk of explosion!).
- BaUerie contacts and device contacts must be cleaned before insertion.
- There is a risk of explosion if the BaUerie is inserted incorrectly!
- Replace BaUeries only with BaUeries of the correct type and model number
- Do not expose BaUerien to extreme conditions. Do not place on radiators or expose to direct sunlight!
- Spilled or damaged BaUeria can cause chemical burns if it comes into contact with the skin. In this case, use suitable protective gloves. Clean the battery compartment with a dry cloth.
- If the appliance will not be used for a longer period of time, remove the batteries.

3.4 Breaks in operation

The device must be disconnected from the mains and the antenna cable must be removed during a power failure or during longer breaks in operation (e.g. holidays). Before disconnecting the device from the mains, you should first switch it to standby.

3.5 Important notes on operation

The use of a so-called "On Screen Display" simplifies the operation of the device and reduces the number of remote control buttons.

All functions are displayed on the screen and can be controlled with just a few buttons.

Related functions are summarised as a "MENU". The selected function is highlighted. In the bottom line, the "function buttons" are represented by coloured dots in red, yellow, green and blue. These dots different functions in the individual menus, which are triggered by pressing the correspondingly coloured button ("function button") on the remote control. The "function buttons" are only active if a short description is given in the corresponding field.

Key names and terms that appear in the OSD menu are printed in **feU** in these operating instructions.



The illustrations (screenshots) in these instructions are intended as operating examples and to illustrate the basic operating steps. They may vary depending on the device software used.

3.6 Important note on data backup

We recommend that you remove all storage media or data carriers before returning the device to your specialist dealer for maintenance.

The restoration of data is not part of the maintenance and repair work. TechniSat accepts no liability for the loss or damage of data during the repair.



To prevent data loss, you should back up your data from time to time.

3.7 Disposal instructions

The packaging of your appliance consists exclusively of recyclable materials. BiGe will sort them accordingly and return them to the "Dual System".



At the end of its service life, this product must not exceed the It must not be disposed of as normal household waste, but must be handed in at a collection point for the recycling of electrical and electronic equipment.



The  symbol on the product, the instructions for use or the packaging indicates this.

The materials are recyclable according to their labelling. By reusing, recycling or otherwise recovering old appliances, you are making an important contribution to protecting our environment.

Please ask your local authority for the responsible disposal centre. Ensure that empty remote control baaGerics and electronic scrap are not disposed of with household waste, but disposed of properly (take back by specialised dealers, hazardous waste).



Disposal of the packaging:

Your new device has been protected by the packaging on the way to you. All materials used are environmentally friendly and recyclable.

BiGe and dispose of the packaging in an environmentally friendly manner. Contact your dealer or your local waste disposal centre for information on current disposal methods.



WARNING

Choking hazard due to film and other packaging materials. Do not leave packaging and its parts to children.



Disposal of the appliance:

Old appliances are not worthless waste. Valuable raw materials can be recovered through environmentally friendly disposal. Please enquire at your local authority about the options for disposing of the appliance in an environmentally friendly and appropriate manner. Before disposing of the appliance, any batteries should be removed.



This appliance is labelled in accordance with Directive 2012/19/EU on waste electrical and electronic equipment (WEEE) 



Important note on the disposal of batteries: batteries may contain toxic substances that are harmful to the environment. It is therefore essential that you dispose of batteries in accordance with the applicable legal regulations. Never dispose of batteries in normal household waste. You can dispose of used batteries free of charge at your specialist dealer or at special disposal centres.

3.8 Legal matters

Your appliance bears the CE mark and fulfils all required EU standards.
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TechniSat and HD-S 223 DVR are registered trademarks of the

TechniSat Digital GmbH

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Declaration of Conformity

Hereby, TechniSat declares that the radio equipment type HD-S 223 DVR is in compliance with Directive 2014/53/EU.

The full text of the EU Declaration of Conformity is available at the following Internet address:

[hGp://konf.tsat.de/?ID=23502](http://konf.tsat.de/?ID=23502)



The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

Dolby, Dolby Audio and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

The names of the companies, institutions or brands mentioned are trademarks or registered trademarks of their respective owners.



TechniSat is not liable for product damage due to external influences, wear and tear or improper handling, unauthorised repairs, modifications or accidents.



3.9 Service instructions



This product is quality-tested and comes with a statutory warranty period of 24 months from the date of purchase. Please keep the invoice as proof of purchase. In the event of warranty claims, please contact the dealer of the product. The warranty conditions can be found at the end of this document.



For questions and information or if there is a problem with this device, please contact our technical hotline

Mon. - Fri. 8:00 - 17:00 under Tel.: 03925/9220
1800.



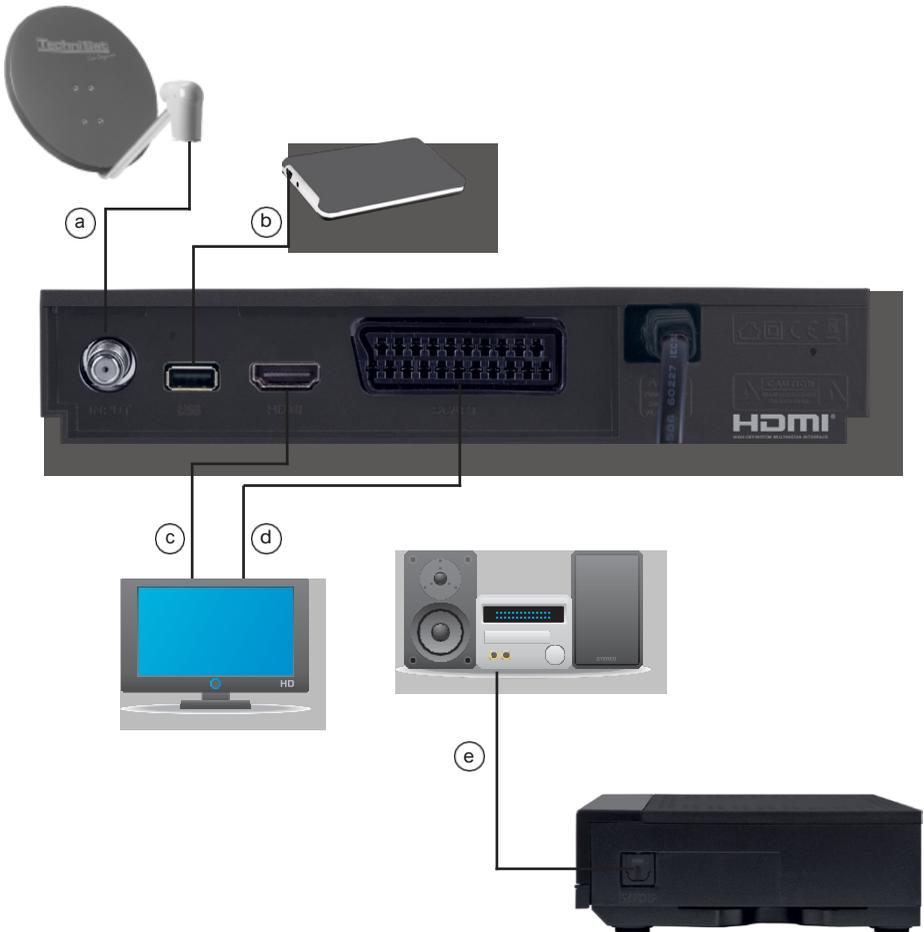
Repair orders can also be submitted directly online at
www.technisat.de/reparatur, can be analysed.



If you need to return the device, please use only the following address:

TechniSat Teledigital GmbH
Service Centre
Nordstr. 4a 39418
Staßfurt

4 Preparing the HD-S 223 DVR for operation



4.1 Connection to DVB-S satellite system

- a Connect the **LNB input** of the HD-S 223 DVR to the DVB-S satellite system using a suitable Satellite cable (F connector) with the LNB of your outdoor unit.

4.2 Connection to a television set

c Via HDMI

Connect the **HDMI** output of the receiver to the HDMI input of your TV set.

d About Scart

the TV via the analogue **SCART** output if your TV does not have an HDMI interface.

4.3 Connection of external USB storage medium

- b** Connect an external USB storage medium, e.g. an external hard disc, to the **USB interface** on the back of the receiver using the USB cable of the storage medium.



Depending on the device type, the external USB mass storage device must also be supplied with power via a separate power supply unit. Please read the operating instructions for the USB mass storage device to be used!



There are sometimes considerable differences in the read and write speed of USB storage media, especially USB sticks. This depends on the quality of the USB device. Only use USB sticks from brand manufacturers with correspondingly high speeds to avoid playback errors. Please ensure that the data carrier is formatted in the FAT 32 data format. In addition, the storage medium must first initialise itself on the receiver. This initialisation process can take approx. 20 seconds.

4.4 Connection to a hi-fi/Dolby Digital system

- e** **SPDIF**

If your digital AV amplifier has a corresponding input, connect the **AUDIO OUT DIGITAL** socket of the receiver to the optical SPDIF input of your amplifier.



Depending on the respective station, sampling rates of 32, 44.1 and 48 kHz are available. If broadcast, the Dolby Digital signal (AC3) is also available at this output.

4.5 Remote control / change of model



WARNING

Make sure that BaGerien does not get into the hands of children. Children could put BaGerien in their mouths and swallow it. This can lead to serious damage to health. In this case, consult a doctor immediately! Therefore, keep BaGerien out of the reach of small children.

- > Open the cover of the battery compartment on the back of the remote control by pressing lightly on the marked area and sliding the cover in the direction of the arrow.
- > Insert the baGerien supplied, observing the correct polarity (labelling visible in the baGerien compartment).
- > Close the battery compartment again.

4.6 Mains connection



The HD-S 223 DVR may only be connected to the mains when the device is completely connected to the associated components. This prevents damage to the device or other components.

- > After you have made all the connections as described above, connect the mains plug of the HD-S 223 DVR to a **230V~/50Hz** mains socket.

5 Initial installation

After you have read the safety instructions and connected the device as described in chapter 4, the device can be switched on.



Please ensure that the correct input source is selected on your TV. To view the picture from the receiver on your TV set, the TV set must be switched to the input to which the receiver is connected. To select the input source on your TV set, you will need the remote control for your TV set. Depending on the device manufacturer, you will find a button on the TV remote control for the Input source selection labelled AV, INPUT, SOURCE, or a button with this or a similar symbol:



If you cannot find such a button on the remote control of your television, please read the operating instructions of the television and look there for a description of the input source selection.

Press the **On/Standby** button on the remote control of the receiver. When the device is started up for the first time, the start window of the **AutoInstall** installation wizard appears.

With the help of the installation wizard, you can easily make the most important settings for the digital receiver.

In the following installation steps, you can accept the settings you have made by pressing the **OK** button or the **green** function button to proceed to the next installation step.

Pressing **the red** function button takes you to the previous installation step, allowing you to correct incorrect entries at any time.

The device is equipped with a factory default setting in which reception of the ASTRA 19.2 degrees East satellite is already preset.

Make sure that the connected TV is switched on. Switch the TV to the correct input source.

For the selection of the input source, please refer to the operating instructions of your TV set.

Please also read chapter 7 for information on searching for programmes.

The programmes in the programme list correspond to the channels that can be received via the above-mentioned satellites and are stored ex works in a sequence that corresponds to common viewing habits.

5.1 Operating language

- > When starting the installation wizard, the selection window for the operating language appears first.



- > Use the **up/down arrow buttons** to select the desired operating language.
- > Confirm with **OK** to accept the selection and go to the country selection.

5.2 Country selection



- > Use the **up/down arrow buttons** to select the country you are in and press the **OK** button.

5.3 AV output

- > In this point, select the signal path via which the receiver is connected to the TV.



- > Confirm with the **OK** button to accept the selection and move on to the next setting.

5.4 Antenna setting



Here you can adapt the receiver to your satellite antenna system.



The receiver is preset at the factory with the parameters for receiving Astra 19.2 on a standard satellite reception system. The settings should therefore only be changed if you want to receive satellite positions that have not yet been preset in the device. Please also consult your specialist dealer or Installation mode. If you see a level in the signal strength and signal quality and a TV programme is playing in the background, no changes to the settings are necessary. In this case, press the **green** function button to accept the settings and exit the installation wizard. If changes to the antenna parameters are necessary, please also read chapter 9.4.

6 Menu structure and operation

All settings can be made via the menu in the device.

- > Press the **MENU** button on the remote control to access the main menu.
- > Use the **up/down/left/right arrow keys** to select the settings you want to edit.
- > Press the **OK** button to confirm an entry or move to the next menu item.
- > The **BACK** button always takes you back one step.
- > Press **MENU** or **BACK** if you want to exit the settings or the main menu.



The **main menu** is divided into the following submenus:

- > **Channel search (chapter 7)**
Here you can search for programmes that may not yet be in the programme list.
- > **Editing programmes (Chapter 8)**
Here you can change the order of the stored TV and radio channels according to your wishes, select a switch-on programme and create new favourites lists
- > **Settings (Chapter 9)**
Here you can set various settings such as system clock time, antenna configuration or audio/video output signals as well as the menu language.
- > **Multimedia (Chapter 10)**
You can use your receiver to play music, pictures or films from the connected USB storage device via multimedia.
- > **Timer (Chapter 11)**
In this area, you can set a timer to switch the appliance on at a specific time, to make a recording or to programme a programme change.

> **Language**

You can change the operating language of the device under this item.

7 **Channel search**

Now that you have connected your digital receiver and put it into operation, you can optimise the digital receiver for your application if necessary.

7.1 **Automatic search**

You can perform a complete search within one or more satellite positions. Depending on the selection, all transponders available on the satellite are searched for again.

If you have a satellite system for receiving multiple satellite positions, we recommend selecting **Satellite search**. (see chapter 7.2)

Note: The receiver is already preset at the factory with the parameters for the most common satellite systems and satellite positions. The settings should therefore only be changed if you want to receive programmes or satellite positions that have not yet been preset in the device. Please also consult your specialist dealer or installation company.

- > Press the **Menu** button.
- > Switch to the **Search** menu item and confirm with **OK**.
- > Select the **Automatic search** line and confirm with **OK**.



In the window that opens, decide in the **Channel type** area whether you want to search for **all channels** again or whether you only want to search for **free-to-air channels**. It is recommended that you only search for free-to-air channels with this receiver.

If the **Network search** line is set to **on**, the device searches on all frequencies provided by the satellite operator.

- > Press the **OK** button to start the search.



The search can be cancelled at any time by pressing the **BACK** button. If you want to save the stations already found, confirm the query with **Yes** or **No** after the search has been completed or cancelled.

7.2 Satellite search

If you have a satellite system for receiving several satellite positions, this search is recommended.

- > Select Channel search and confirm with **OK**.
- > Select the **Satellite** line.
- > In the **Satellite** line, use the **right/left arrow buttons** to select the satellite position on which you want to perform a search.



- > In this window, in the **Channel type** area, decide whether you want to search for **all channels** again or whether you only want to search for **free-to-air channels**. It is recommended that you only search for free-to-air channels with this receiver.



If the **Network search** line is set to **on**, the device searches on all frequencies provided by the satellite operator.

- > Press the **OK** button to start the search.
- > Then confirm with **OK**.

7.3 Transponder search

You can search for a specific programme whose transmission parameters are known. This menu item allows you to search for a programme on a known transponder.

- > Select Channel search and confirm with **OK**.
- > the **Transponder search** line.
- > In the **Satellite** line, use the **right/left arrow buttons** to select the satellite position on which you want to perform a search.



- > Switch to the **Frequency** field and press the **OK** button.
 - > Now select a transponder on which you would like to perform a search. Press **OK**.
 - > Switch to the **Polarisation** field and press the **OK** button.
 - > Now select the polarisation on which you want to perform a search. Press **OK**.
 - > If the **Network search** line is set to **on**, the device searches on all frequencies provided by the satellite operator.
 - > In the **Channel type** window, decide whether you want to search for **all channels** again or whether you only want to search for **free-to-air channels**. We recommend that you only search for free-to-air channels with this receiver.
 - > Switch to the **Start search** line and confirm with **OK**.
-  The search can be cancelled at any time by pressing the **BACK** button. If you want to save the stations already found, confirm the query with **Yes** or **No** after the search has been completed or cancelled.
- > The programmes found are added to the end of the programme list.

8 Edit programmes

The **Edit channels** menu item allows you to conveniently edit the available TV and radio channels. Here you can change the order of the stored TV and radio channels according to your wishes and create new favourite lists

- > Press the **Menu** button.
- > Switch to the **Edit programmes** menu item and confirm with **OK**.

The following options are available here:

- Programme management
- Edit favourites lists
- Switch-on programme
- Delete all programmes

8.1 Programme management

Use this menu item to move programmes to an individual position in the programme list, delete, rename or block programmes.

- > Press the **Menu** button.
- > Switch to the **Edit programmes** menu item and confirm with **OK**.
- > Select **Programme management** and confirm with **OK**.



8.1.1 Delete programmes from the list

You can delete one or more preset programmes.

Important note:

This setting deletes all selected programmes! To store programmes in the device again, perform a new search or reset the device to the factory settings.

- > Use the **up/down arrow buttons** to select a programme to be deleted.

- > Press the **red** function button.
- > If you want to delete the programme, confirm the following prompt with **Yes** and the **OK** button.



8.1.2 Locking programmes

The device offers the option of providing programmes with a PIN query. This is useful if you want to protect children from adult content, for example. When calling up the previously blocked programme, a four-digit number must then be entered (PIN) in order to be able to view the programme.

To set this PIN CODE, please also read chapter 9.2.2.

- > Use the **up/down arrow keys** to select a programme to be locked
- > Press the **green** button.
- > A green tick appears after the programme name.



In this way, further programmes can be marked for blocking.

- > To save the changes, press the **BACK** button.



8.1.3 Move

To change the order of the programmes, programmes can simply be moved.

- > Use the **up/down arrow buttons** and **OK** to select a programme to be moved. A yellow tick appears next to the programme name.



- > Use the **up/down arrow keys** to select a new position and then move the programme using the **yellow [move] function key**.

8.1.4 Skip programmes

You can skip one or more programmes in order not to select them during operation using the up/down arrow buttons. The programmes can then only be selected by entering the programme number directly.

- > Press the **blue** function button for further options
- > Use the **up/down arrow buttons** to select a programme to be skipped and press the **red** function button.



- > A red tick appears next to the programme name.
- > Press the **BACK** button twice to save the settings.

8.2 Edit favourite lists

You can add one or more channels to a favourites list. This allows you to call up the favourites list during normal operation and select the channels in the list. Creating a favourites list does not change the main channel list.

To call up a favourites list, please also read chapter 12.2.5.

- > Press the **Menu** button.
- > Switch to the **Edit programmes** menu item and confirm with **OK**.
- > Select **Edit favourites list** and confirm with **OK**.



- > Use the **blue** function button to select a favourites list in which you would like to save programmes.



- > Now use the **OK** button to select programmes to be displayed in this list.



- > Press the **BACK** button to save the settings.

83 Switch-on programme

You can use the **Switch-on programme** function to define a programme with which the receiver is started via the standby button when it is switched on.
 If no setting made here, the receiver always starts from standby with the last selected programme.

- > Press the **Menu** button.
- > Switch to the **Edit programmes** menu item and confirm with **OK**.
- > Select **Switch-on programme** and confirm with **OK**.



- > **Switch on** the function via the **Switch-on programme** line.
- > In the **Start programme mode** line, select whether the receiver should start with a programme from the TV list or with a programme from the radio list.
- > In the **Switch-on programme** line, select the programme with which the receiver should switch on.
- > Press the **BACK** button to save the settings.

8.4 Delete all programmes

You can delete all programmes.

Important note:

This setting deletes all programmes! To store programmes in the device again, perform a new search or reset the device to the factory settings.

- > Press the **Menu** button.
- > Switch to the **Edit programmes** menu item and confirm with **OK**.
- > Select **Delete all programmes** and confirm with **OK**.



- > Confirm the security prompt with **Yes**, or exit the menu with **No**.

9 Settings

In the **Settings** submenu, you can set various settings such as the system clock time, antenna configuration or audio/video output signals as well as the menu language

9.1 Date/Time

Here you can set the time and date of the device.



The device receives the current time and date automatically if an aerial signal is present. It is therefore not usually necessary to change the date. The time usually only needs to be adjusted after a time changeover (winter/summer time/summer/winter time).

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Select the **date/time** and confirm with **OK**.



9.1.1 Date Time Mode

In this menu item, decide whether the time and date should be read in automatically or by a defined programme after the appliance is switched on.

- > Press the **OK** button to open a window.
- > In this window, use the **up/down arrow buttons** to select either **Auto** if you want the receiver to read the time from the broadcast signal or **Manual** if you want to set the time yourself.

9.1.2 GMT time zone

If the setting is set to **auto** under **Date Time Mode**, you only need to correct the time according to your local time.

- > Press the **OK** button.
- > Now use the **up/down arrow buttons** to select the time by which you want to correct the local time and confirm with **OK**. For Germany, this difference is GMT +1 hour.

9.1.3 Summer time/winter time

In the **Summer time** line, switch summer time **on** or **off** according to the current time.

9.2 Customised settings

9.2.1 Language settings

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Switch to the **Customise** menu item and confirm with **OK**.

In the first 4 items in this submenu, you can set the preferred audio language and the subtitle language. Use the **up/down arrow buttons** to select your preferred language and press the **OK** button.



The audio track of the transmitter can also be selected in normal operation using the **TON** be adapted.

9.2.2 Childproof lock

The device offers the option of changing programmes and menu settings with a PIN request. This is useful if you want to protect children from adult content, for example. The programmes that are to be protected with a PIN code can be blocked as described in chapter 8.1. When calling up the previously blocked programme, a four-digit number must then be entered in order to view the programme.

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Switch to the **Customise** menu item and confirm with **OK**.
- > Select **Child Lock** and confirm with **OK**.
- > Enter the 4-digit PIN code using the numeric keypad on the remote control. The factory-set PIN CODE is **0000**.



You can block access to the **Programme editing** menu item under **System lock**. For example, you can block the deletion of programmes or sorting of individual

programmes can be blocked.

Enter the youth protection level under the menu item **Youth protection**. These numbers indicate the age. If, for example, a programme is not suitable for viewers under the age of 16, the PIN must be entered in order to watch the programme. Please note that this function is only available in some countries and depends on the data provided by the broadcaster.

The PIN code is set to **0000** at the factory. You can change the PIN code under **PIN**.

- > the **Change PIN** line using the **up/down arrow buttons**.
- > Confirm with **OK**.
- > After entering the old PIN, enter the new PIN using the numeric keypad on the remote control.
- > Repeat the entry.
- > The password is saved automatically.



To be on the safe side, write down the new PIN code and keep it in a safe place.

If the PIN code is lost or forgotten, the locked functions can no longer be selected.

9.2.3 Auto standby

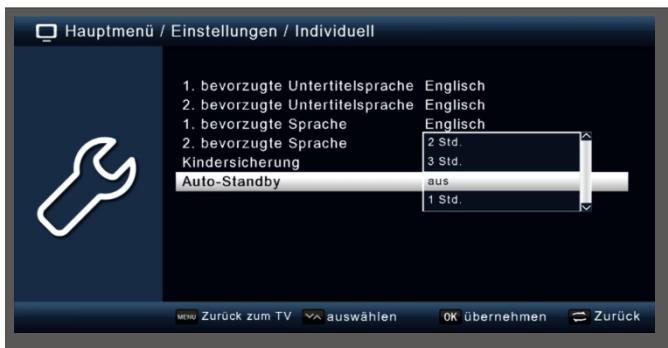
The device's integrated power supply unit complies with a European Union directive on the environmentally friendly design of set-top boxes.

According to this guideline, the appliance automatically switches to standby after 3 hours of operation if no operating functions such as programme selection, volume etc. have been carried out during this period.



This function is activated on delivery. You can deactivate the function under this menu item.

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Select **Customise** and confirm with **OK**.
- > the **Auto standby** line.
- > Use the **up/down arrow buttons** to select a different time or switch this function **off**.



- > Press the **OK** button to save.

9.2.4 Standby clock

Here you can switch the standby clock, which is shown on the display in standby mode, on or off.



When the standby clock is switched on, the power consumption in standby mode also increases.

9.3 Audio-video settings

In this menu, you can adjust your receiver to your TV to ensure the best display.

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Select **Audio/Video** and confirm with **OK**.

9.3.1 AV output

Here you can select the preferred AV output, depending on whether you have connected the digital receiver to the TV via the HDMI connection or via the SCART connection. Depending on the selected resolution (see next point 9.3.2), different picture formats are also available here.

- > Select **AV output** and press **OK**.
- > Change the AV output using the **up/down arrow buttons** and press the **OK** button.



The TV picture is always output in parallel via HDMI and SCART. Separate configuration is not possible.

9.3.2 Resolution

In this setting, you can select the resolution according to your TV set.

- > Select **Resolution** and press **OK**.
- > Change the resolution using the **up/down arrow buttons** and press the **OK** button.



To optimise the resolution your TV set, select the format according to your TV set. Please also refer to the instructions and technical data provided by the manufacturer of your TV set.



If you have selected one of the resolutions **480p/i** or **576p/i**, you can now adjust the picture format under **AV output**. The following options are available here: **Full Screen, 4:3 LB, 4:3 PS** and **16:9**. This setting is particularly useful for picture transmission via the SCART connection in order to adapt the analogue picture sent by the receiver to your TV set.

9.3.3 HDMI audio

You can preset the preferred HDMI audio format here.

- > Select **HDMI Audio** and press **OK**.
- > Change the audio format using the **up/down arrow buttons** and press the **OK** button.

9.3.4 SPDIF

If you have connected a Dolby Surround amplifier to the receiver via the digital optical output, you can make settings here.

- > Select **Audio/Video** and confirm with **OK**.
- > Select **SPDIF** and change the format using the **up/down arrow buttons**.
- > Press the **OK** button to save.

9.4 Antennen settings

You can use the antenna setting to adjust the satellite receiver to the connected satellite antenna.

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Use the **up/down arrow buttons** to select the "**Antenna settings**" option and confirm with **OK**. The antenna settings are opened.



The receiver is preset at the factory with the parameters for the most common satellite systems and satellite positions. You should therefore only change the settings if you satellite positions that are not yet preset in the device. Please also ask your specialist dealer or installation company about this.

Procedure:

Several parameters for reception can be set in the antenna configuration. The following data is required:

Satellite	Satellite position according to the orientation of the satellite antenna
LNB type	LNB type of the previously set satellite position
LNB frequency	LNB IF frequency for the low band LNB IF frequency for the high band
Transponder	Transponder frequency on which a search is performed can be realised.
22KHz	22KHz signal
LNB voltage	Setting the LNB supply voltage
Tone burst mode	Switch the sound here according to your satellite system. Burst mode on or off.
DiSEqC	DiSEqC position setting
IF frequency	Only with LNB type Unicable 1 or 2 (SAT-CR EN50494 and EN50607). Setting the IF frequency and the Index (user band) according to the SAT-CR system used.
Sat position	Only for LNB type Unicable 1 or 2 (SAT-CR). Setting the SAT position according to the SAT-CR system used.

A display in the lower menu area provides information about the quality and strength of the received signal.

9.4.1 Satellite

In this section, set the satellite positions that you can receive with your satellite system.

- > Select the **Satellite** item using the **up/down arrow buttons**.
- > Press the **OK** button. A list opens with the available satellites, which you can then select using the **up/down arrow buttons**.
- > Then confirm with **OK**.



9.4.2 LNB type

Here you can use the **up/down arrow buttons** to select the LNB type with which the satellite position is to be received.

9.4.3 LNB frequency

Use the numeric keypad to set the IF frequencies specific to the LNB in the high and low bands.

9.4.4 Transponder

Select the transponder on which the receiver should receive a signal from the selected satellite.

9.4.5 22 KHz

The 22 KHz circuit is used to realise control commands for satellite systems, such as low and high band switching. Use the **up/down arrow buttons** to switch the 22 KHz signal **on** or **off** or switch the setting to **Auto** (depending on the LNB type set).

9.4.6 LNB voltage

Use the **up/down arrow buttons** to set the supply voltage for the LNB used.

9.4.7 Tone burst mode

Switch the tone burst here according to the connected satellite system. This setting depends on the satellite reception system and the associated modules.

9.4.8 DiSEqC

In these fields, use the **up/down arrow buttons** to set the satellite position that is controlled via DiSEqC. This setting depends on the satellite reception system and the associated modules.

9.4.9 Sat-CR configuration

To activate the SCR configuration, the Unicable 1 (EN50494) or Unicable 2 (EN50607) LNB must first be selected under **LNB type**. The **IF Frequency** and **Sat Position** options now appear at the end of the list. First select **IF frequency** and press the **OK** button. You can now enter the user band (IF Index) and the corresponding frequency (IF Frequency). Press the **OK** button to accept. Under **Sat Position**, you can select the satellite position used by your satellite system.

9.4.10 Transponder list and transponder search

You can search for a specific programme whose transmission parameters are known. You can also add new transponders.

- > Switch to the **Transponder** field and press the **OK** button to open the transponder list.



- > Select a transponder on which you would like to perform a search.
- > Press the **blue** function button to start the search.
- > If the Network search line is **to on**, the device searches on all frequencies provided the satellite operator. Switch this function **off** if you only want to search on the selected transponder.
- > In the **Channel type** window, decide whether you want to search for **all channels** again or whether you only want to search for **free-to-air channels**. It is recommended that you only search for free-to-air channels with this receiver.
- > Switch to the **Start search** line and confirm with **OK**.



The search run can be cancelled at any time by pressing the BACK button.



If you want to save the channels already found confirm the query with **Yes** or **No** after the search has been completed or cancelled.



The programmes found are added to the end of the programme list.

9.5 Software Update

To improve the functions of the device, it may be necessary to update the operating software. There are several ways to update the device's software. Furthermore, the database (programme list and settings) can be backed up and restored in this menu.

9.5.1 Software via USB

You can use the USB interface to update the operating software of your receiver, which, if necessary, can be downloaded from the download area of your receiver on the TechniSat website www.technisat.de.

The software provided on the website must be unpacked. Then transfer the unpacked file to a suitable storage medium and connect it to the receiver via USB.



Please also observe the instructions supplied with the new software.

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Select **Softwareupdate** and confirm with **OK**.



- > Select **Softwareupdate via USB** and confirm with **OK**.
- > Select the Software file and confirm again with **OK**.

The update will start automatically. Once the update process is complete, the receiver will restart automatically. To activate the update, call up the factory settings after the software update. Please also read chapter 9.6.

ATTENTION!

Do not disconnect the USB storage device from the receiver under any circumstances during the charging process and do not disconnect the receiver from the mains.

9.5.2 Software update via satellite

The receiver can load new software via satellite if this is available. To load the software, the satellite and frequency must be specified.

- > Select **Softwareupdate via Satellit** and confirm with **OK**.

The following parameters are preset and do not usually need to be changed:

Satellite	Astra
Frequency	12604
Symbol rate	22000
Polarisation	Horizontal
Download PID	1302
Automatic update	on



The parameters specified are correct at the time these instructions were created and may differ from the current parameters. also contact your specialist dealer regarding these parameters.



- > To start the update via satellite, switch to the line **Softwareupdate via satellite** and confirm with **OK**.

ATTENTION!

Do not disconnect the receiver from the mains under any circumstances during the charging process.

9.5.3 Backup/restore database

Insert an empty USB storage medium into the USB socket on the back.

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Select **Softwareupdate** and confirm with **OK**.
- > Select **Softwareupdate via USB** and confirm with **OK**. Select the USB storage medium to display the main directory.

- > Press the **blue Database backup** function button. 4 files are now backed up on the USB storage medium, which can also be selected again directly to restore them:
 - userdb_XXXX.bin** -> Contains the current satellite programme list.
 - dbsystemset_XXXX.bin** -> Contains all current settings.
 - systemset XXXX.bin** -> Contains the current satellite programme list and all settings.
 - userdb-as-ddb_format XXXX.bin** -> This function is used to replace the factory programme list with the currently created programme list.

Select one of the files and press the **OK** button to restore it. The receiver will then restart.

9.6 W work settings

You can reset all settings that you have made on the receiver to their original state using the factory settings. This is useful if you have made changes that subsequently lead to the device not functioning optimally.

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Select **Factory settings** and confirm with **OK**.
- > You must then enter the 4-digit PIN code using the numeric keypad on your remote control. The factory-set PIN is 0000.



- > The device is reset to the factory settings.

9.7 Version

To check the current software version of the receiver, the information can be called up via this menu item.

- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.

- > Select **Version** and confirm with **OK**.
- > You will receive information on the software and hardware status of the device.



10 Multimedia

Your receiver is equipped with a USB 2.0 interface that can be used to connect USB mass storage devices such as a USB stick or an external hard disc (device requirements: File format FAT 32, speed for external hard discs: 5400 rpm).

i Depending on the device type, the external USB mass storage device must also be supplied with power via a separate power supply unit. Please read the operating instructions for the USB mass storage device to be used!

i There are sometimes considerable differences in the read and write speed of USB storage media, especially USB sticks. This depends on the quality of the USB device. Only use USB sticks from brand manufacturers with a correspondingly high speed and sufficient free storage space to recording and playback errors.

You can use the USB function on your receiver to play music, pictures or films from the connected USB storage device.

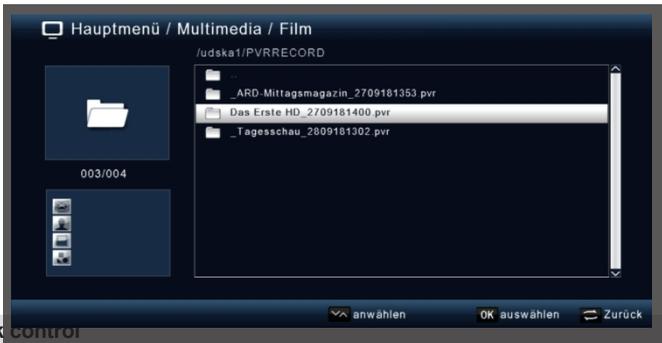
You can also save your own programme list to a USB data carrier. This allows you to restore this programme list to the receiver after a factory reset, for example.

You can use the USB interface to update the operating software of your receiver, which may be available for download at www.technisat.de. You can then transfer this to an appropriate storage medium and connect it to the receiver via USB.

10.1 Film

- > Press the **Menu** button.
- > Switch to the **Multimedia** menu item and confirm with **OK**.

- > Select
Use the **arrow buttons** to select the "**Film**" menu item.
- > Confirm with **OK**.
- > Then select the path for the file you want to play and press the **OK** button.



10.1.1 Playback control

You can control film playback using the **play/pause**, **stop**, **fast forward** and **rewind** buttons. and **rewind** control.

Play/pause  Stop

 Fast forward

 Rewind

10.2 Photo

- > Press the **Menu** button.
- > Switch to the **Multimedia** menu item and confirm with **OK**.
- > Use the **arrow buttons** to select the "**Photo**" menu item.
- > Confirm with **OK**.
- > Then select the path for the file you want to play and press the **OK** button.

10.3 Music

- > Press the **Menu** button.
- > Switch to the **Multimedia** menu item and confirm with **OK**.
- > Use the **arrow buttons** to select the "**Music**" menu item.
- > Confirm with **OK**.
- > Then select the path for the file you want to play and press the **OK** button.

10.4 Recording management

You can **delete**, **rename** or **delete all** DVR recordings in the recording management.

- > Press the **Menu** button.
- > Switch to the **Multimedia** menu item and confirm with **OK**.
- > Use the **arrow buttons** to select the "**Recording management**" menu item.
- > Confirm with **OK**.
- > Use one of the **function buttons** to select a function:
Red - Delete **Green** -
Rename **Blue** -
Delete all

10.5 File manager

In this menu item, you have the option of formatting the connected USB storage medium. Here you can copy data from a connected USB data carrier to another connected USB data carrier.

- > Press the **Menu** button.
- > Switch to the **Multimedia** menu item and confirm with **OK**.
- > Select **File manager** and confirm with **OK**.



- > A corresponding window opens in which you can use the **arrow buttons** to select the desired partition.
- > You can also specify whether the data carrier should be formatted in NTFS or FAT 32.
- > To do this, select the corresponding function using the coloured function buttons.
- > Confirm the entries with **OK**.



All existing files on the data carrier will be deleted during formatting!



You will be asked whether you really want to format the data carrier.

- > To format, use the **left/right arrow buttons** to select **OK**. If you do not want to format the data carrier, press the **BACK** button.

11 Timer

Similar to a video or DVD recorder, you can use the receiver to programme recordings in order to record programmes when you are not at home, for example.

You have 2 options for this.

You can programme a recording directly from the Electronic Programme Guide EPG. Please also read chapter 13.3.1. This is the quicker way to programme the recording.

You can also set a timer manually to activate a recording on the connected USB data carrier or on a video/DVD recorder connected via Scart.

- > Press the **Menu** button.
- > Switch to the **Timer** menu item and confirm with **OK**.



- > You receive an overview of timer events.
- > Select a timer that you would like to set and press the **yellow** function button.
- > A new timer window opens with the following settings, which you can select/change using the **left/right/up/down arrow buttons**.



- Date** Enter the date on which the recording should start here.
- Programme name** Set the programme you want to record here.
To do this, press the **OK** button in the **Programme name** line and select the programme to be recorded in the newly opened window. Confirm with **OK**.
- Start time** Highlight the **Start time** line, press **OK** and enter the time here using the numeric buttons on the remote control at which you want to start the programme.
the timer is to be activated.
- End time** The end time is automatically after setting the duration.
- Duration** Enter the duration of the recording here (only for timer type recorder) using the number keys.
- Mode** Here you can set whether the activated timer should be executed **once, daily** or always on a specific day.
- Type** With the **Switch off** setting, the receiver is switched off when the set time is reached.
In the **channel change** setting, the receiver changes to the set programme at the specified time.
In the **Recorder** setting, the receiver makes a recording to a connected USB data carrier at the specified time.
- > Once you have made all the entries, exit the timer menu by pressing the **blue Save** function button. The entries are saved and the timer is activated.

12 Operation

If you have connected the device via the mains plug and connected it to the LNB and the TV set, the red power LED on the front of the device lights up. The device is in standby mode.

12.1 Switching on and off

- > Press the **On/Standby** button on the remote control. After approx. 10 seconds

the receiver is booted up and starts with the last programme set.

- > Press this button again to switch the appliance off again.



Depending on the setting, the time is also shown on the display in standby mode (see chapter 9.2.4).

12.2 Programme selection

12.2.1 Using the programme up/down buttons

- > Switch the programmes up or down by one programme position at a time using the **up/down** or **P+/- arrow buttons** on the remote control.

12.2.2 Using the number keys

- > Use the **numeric keys** to enter the desired programme number. For example:

1 for programme position 1
1, then 4 for programme position 14
2, then 3, then 4 for programme position 234

When entering multi-digit programme numbers, you have approx. 2 seconds after pressing a button to complete the entry.

If you only want to enter a single-digit or two-digit number, you can speed up the switching process by pressing the **OK** button after entering the last digit.

12.2.3 Programme selection via programme list

To make it easier to find the individual programmes, your device has a programme list overview.

- > Press the **OK** button while the programme is running. The list of programmes appears.



- > You can now select the desired programme using the **up/down arrow buttons** in increments of 1 and the **page up/down** buttons in increments of 10 and confirm with **OK**. The programme list disappears again by pressing the **OK** button or the **BACK** button again.



The device can only display the programmes if the satellite system is designed to receive the respective satellite positions. The standard satellite position for receiving most German-language programmes is Astra 19.2 degrees East. If you can also receive other satellite positions with your reception system, a search must be carried out as described in chapter 7.2.

1224 Further functions of the programme list

- > Press the **OK** button while the programme is running to call up the programme list.
- > Press the **red Satellite** function button in the programme list view. You can now display the programmes sorted by satellite.
- > You can use the **green FAV** function button to call up your own favourites lists (see chapter 8.2) (see chapter 12.2.5)
- > By pressing the **yellow Search** function button, you can search for a specific programme using a virtual keyboard.
- > By pressing the **blue Programme list** function button, you can sort the programmes according to the type of encryption system.
- > Press the **BACK** button or select a programme to exit the programme list and return to TV or radio mode.

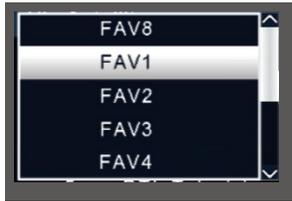
1225 Call up Programm in a favourites list

First create a favourites list as described in chapter 8.2. To call up the created favourites list, proceed as follows:

- > Press the **OK** button while the programme is running to call up the programme list.



- > Press the **green** function button.
- > Select a **favourites** list from which you would like to view the channels.



- > Confirm with **OK**.



The favourites list you have created is now displayed.

12.3 Info box

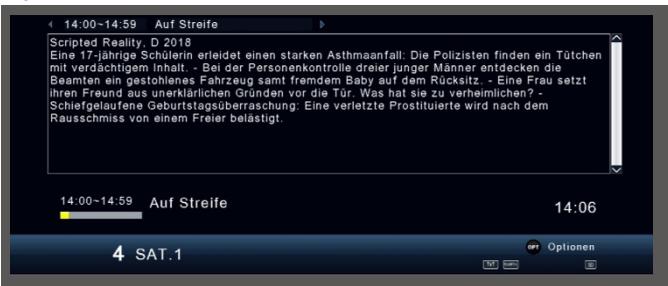
After each programme change, an info box appears briefly with the programme characteristics such as programme position, programme name and programme title. In addition, further programme characteristics are displayed, such as teletext, as well as a display showing whether EPG data is available.

- > You can also call up the info box by pressing the **INFO** button.
- > Press the **BACK** button to hide the info box again.



12.3.1 Further programme information

- > If you press the **INFO** button twice, you will receive additional information about the current programme:



- > To longer information texts, navigate in the text window through the **Arrow keys up/down**.
- > Press the **BACK** button to return to normal operation.

124 Volume control

You have the option of controlling the volume of your receiver. This makes it easier to use the receiver, as you have all the important functions on one remote control and rarely have to use the remote control of your TV set. have to fall back on. After switching on the receiver, the sound is played back at the last set volume.

- > Adjust the volume of your receiver using the **volume buttons +/-**.
Alternatively: Use the **right/left arrow keys**.
- > Pressing the **sound on/off** button (mute) switches the sound off and pressing this button again switches it on again.

125 TV/radio switching

The pre-programmed channel list contains radio programmes as well as television programmes.

- > Press the **NAV** button on the remote control, select Radio on and confirm with **OK**.



The receiver now switches to the last radio programme you listened to.

- > Programmes can be selected in radio mode in exactly the same way as in TV mode. To return to the TV programmes, press the **NAV** button, switch to **TV** and confirm with **OK**.





This also takes you directly to the multimedia area **Film, Photo, Music and DVR**. See chapter 10 for more details.

126 Dolby Digital (AC3 operation)

The receiver can receive digital sound. If a programme is broadcast with digital sound (AC3), this sound can be activated.

If you want to play the programme in digital format (AC3), switch your receiver to AC3 mode as follows:

- > Press the **Audio** button. The Audio screen appears.



- > If the programme is broadcast in AC 3, you can now select AC3 mode using the **up/down arrow buttons** and confirm with **OK**. You can now listen to the programme in digital sound.



Please note that with the AC 3 setting, the analogue sound via the Scart socket or the analogue audio output is switched off or can be turned down.

127 Return to the last set programme

- > Press the **OPT** button.
- > Select the **Last seen** field and confirm with **OK**.



- > Press the **OK** button. You will see an overview of the most recently selected programmes.



- > Select the desired programme and confirm with **OK**.

12.8 Teletext

If broadcast, you can use the integrated teletext decoder to display the teletext information of the individual programmes.

- > Switch on the programme from which you want to view teletext information.
- > Press the **TXT** button to switch on the teletext.



- > Use the **number keys** to enter the desired teletext page. Your entry is displayed in the top left-hand corner of the screen.
After you have entered the desired teletext page, your device searches for this page.



As the teletext pages cannot all transmitted at the same time, it may take a few seconds for your device to find the page and display it on your TV screen. For all teletext operators, page 100 is the contents page.

- > Use the **up/down arrow keys** to scroll one page forwards or backwards.
Press **the TXT** button again to return to normal operation.

12.9 Subtitle

Some programme providers broadcast subtitles for various programmes. To switch on the subtitle display function, proceed as follows:

- > Press the **OPT** button. Use the **up/down arrow buttons** to switch to the **"Subtitles"** field and press **OK**.
- > In the bottom line, you can change the language using the **up/down arrow buttons**. select.



Only languages broadcast the broadcaster are available. Please note that this function is only available if subtitles are actually being broadcast and make sure that this setting is not retained after switching programmes.

13 DVR recordings

It is possible to record programmes with the receiver. To do this, you need a USB storage medium, e.g. a USB hard drive or a USB stick, which is inserted into the USB port on the back of the receiver. The recordings can then be played back.



Please note that recording cannot start immediately after connecting the hard disk or USB stick, as the device must first initialise itself on the receiver. This initialisation process can take approx. 20 seconds.



Depending on the device type, the external USB mass storage device must also be supplied with power via a separate power supply unit. Please read the operating instructions for the USB mass storage device to be used!



There are sometimes considerable differences in the read and write speed of USB storage media, especially USB sticks. This depends on the quality of the USB device. Only use USB sticks from brand manufacturers with a correspondingly high speed and sufficient free storage space to recording and playback errors.



Please that the data carrier is formatted in the FAT 32 data format.

13.1 Direct recording

You can record a programme directly during operation.

- > Press the **Record** button while a programme is running.

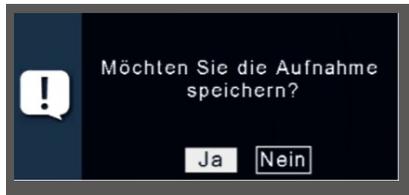


A recording control window is displayed. Here you can see which programme is being recorded. The device also shows you the amount of free space on the USB data carrier. You can close the window by pressing the EXIT button.



It may take approx. 5 seconds for the process to start.

- > To stop recording, press the **Stop** button and select the current recording with the **OK** button.



- > Confirm the prompt to save the recording with **Yes** or **No** and press **OK**.

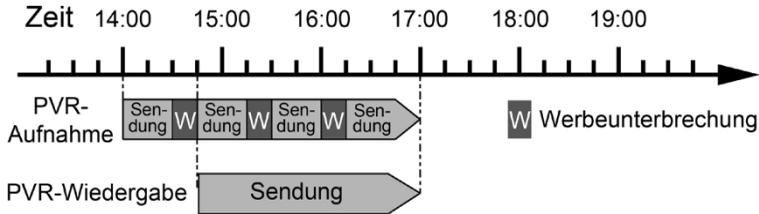
132 Timeshift

The receiver has a so-called timeshift function in USB recording mode. This function utilises the possibility of simultaneous playback and recording. This makes time-shifted television possible (timeshift). This is useful if you want to pause a current programme in order to continue watching it at a later point in time from the paused position.

Example: Skipping commercial breaks

Would you like to a programme without commercial breaks?

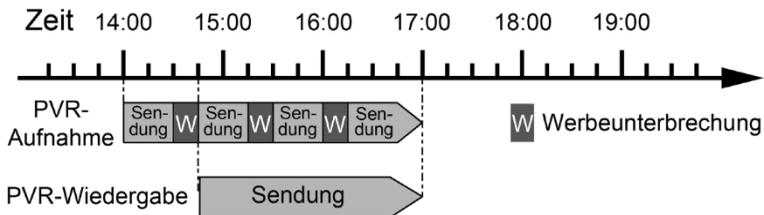
With the DVR recorder, you can easily skip the recorded adverts.



Example: Time-shifted playback

Missed the start of the Formula 1 race? No problem!

The DVR recorder shows you the race at a later time while it is still recording.



132.1 Start Timeshift



It may take approx. 5 seconds for the recording to start. A USB data carrier must be connected to the USB port!

- > Press the **Play/Pause** button while the programme is running. The programme is paused.

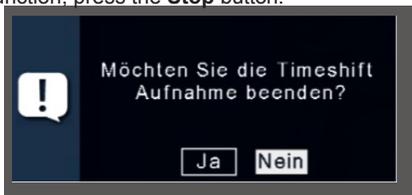


- > To continue watching the programme at the paused point, press the  **Play/Pause** button again.
- > You can now continue the programme from the point at you started the timeshift. The programme will continue to be recorded in the background.



While the timeshift is active, you can fast-forward or rewind the recording within the timeshift time.

- > To exit the timeshift function, press the **Stop** button.



- > Confirm the query with **Yes** or **No** and press **OK**.

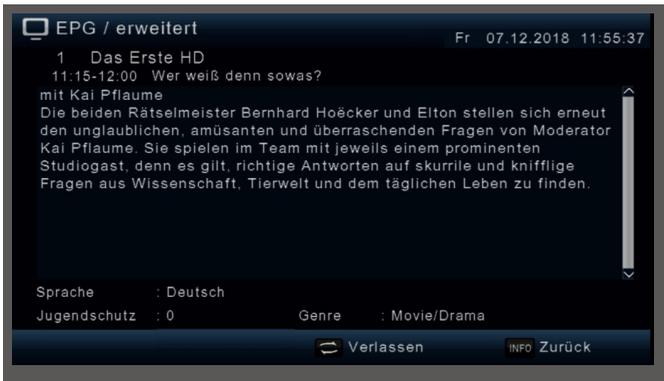
13.3 Electronic Programme Guide EPG

With the help of the EPG function (Electronic Programme Guide), it is possible to display programme listings and content of various programmes on the TV screen. This gives you a very quick overview of the programmes and their content.

- > Press the EPG button on the remote control while the receiver programme is running.
- > The electronic programme guide will now appear on the screen.



- > The programme name and the title of the current programme are also displayed. When changing programmes, it may take a few seconds for the EPG information of the set channel to be displayed.
- > Use the **arrow buttons** to highlight the programme for which you would like to see more information. To read the details, press the **INFO** button. A window will now open with information on the respective programme.



- > You can view the EPG data for the individual programmes for the next 7 days. To change the date from which you want to read programme information, use the **blue** function button to select the next day or the **yellow** function button to select the previous day.
- > To return to normal TV operation, press the BACK button.

13.3.1 EPG Timer programming

You can programme a recording directly in the EPG overview, which can then be recorded on a connected USB device.

You can also set a reminder in the EPG overview.

If you have marked a selected programme for a reminder, the device automatically to the desired programme position at the start of the programme. This means you will not miss the start of the programme.

- > In the EPG overview, select the programme that you want to record or that you want the device to switch to automatically.
- > Then press the **red Timer** function button.



A reminder for automatic switching of the programme is set. A clock symbol appears next to the programme name.



- > If you want to programme a recording, press the **red Timer** function button.



A red symbol appears next to the programme name.



If you want to change a timer programmed in this way at a later date, you must do this manually via the timer menu (see chapter 11).

13.4 Sleep timer

The receiver has a sleep timer. A time can be set after which the device switches off automatically.

- > Press the **SLEEP TIMER** button on the remote control several times. Each time you press the button, the time increases up to a maximum of 120 minutes.



You can also change this setting via the options menu using the **OPT** call.

13.5 Zoom function

You can enlarge the picture content during TV operation, for example to make it easier to read fonts and overlays.

- > Press the **ZOOM** button several times to enlarge the picture. Use the arrow buttons to select the image section.
- > To exit ZOOM mode again, press the BACK button.



You can also change this setting via the options menu using the **OPT** call.

13.6 Save programme lists

If you have changed the order of programmes according to your wishes or deleted or added channels from the list, you can save these changes to a USB data carrier in order to transfer them to another device of the same series or to be able to restore the data the receiver after a factory reset.

13.6.1 Save programme list to USB

You can save a programme list to a USB data carrier under this menu item. To do this, proceed as follows:

- > a USB data carrier to the device.
Please also note the information on USB data carriers.
- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Select **SoLwareupdate** and confirm with **OK**.
- > Select **SoLwareupdate via USB** and confirm with **OK**.
- > Press the **blue Database backup** function button to save the programme list to the USB data carrier.



A backup of the programme list is created and saved as a file.



Do not under any circumstances disconnect the USB storage medium from the receiver during the storage process!



To transfer the list to another receiver or to the programme list to the receiver again, proceed as described in the next chapter 13.6.2.

13.6.2 Read programme ammlist from USB

You can restore a saved programme list to the receiver under the menu item Programme lists. To do this, proceed as follows:

- > Connect a USB data carrier with a backed-up database to the device. Please also note the information on USB data carriers.
- > Press the **Menu** button.
- > Switch to the **Settings** menu item and confirm with **OK**.
- > Select **SoLwareupdate** and confirm with **OK**.
- > Select **SoLwareupdate via USB** and confirm with **OK**.
- > Open the folder on the storage medium in which the desired programme list was saved



The file has the extension **.bin**.

- > Select the file using the **up/down arrow buttons** and confirm with **OK**.
- > The saved programme list is now loaded automatically.



Do not disconnect the USB storage device from the receiver under any circumstances during the charging process!

14 Technical data

DVB-S/S2 tuner

Input frequency range:	9502150 MHz
Input level range:	- 65 dBm ... - 25 dBm
DVB-S2 tuner input:	F - socket
Input/output impedance:	75 Ohm
Output for 1. ZF:	9502150 MHz (loop through)
Demodulation:	QPSK S2
Symbol rate:	245 Mbaud/s
Viterbiraten:	1/2, 2/3, 3/4, 5/6, 7/8

Video decoding

Video compression:	MPEG-4,264, MPEG-2, Up to MP@ML
Profile level:	MP@HL, MPEG 4 /AVC
Video standard:	PAL / NTSC
Active picture area:	480i, 576i, 576p, 720p, 1080i
Aspect ratio:	16:9, 4:3 LB, 4:3 PS

Audio decoding

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

LNB power supply

LNB current:	500mA max.; short-circuit proof
LNB voltage vertical:	13V
LNB voltage horizontal:	18V
DiSEqC:	DiSEqC 1.0
22 kHz modulation:	22 kHz +/- 4KHz Amplitude 0.6 V +/- 0.2 V
Demultiplexing:	according to ISO 13818-1
SAT-CR	EN50494, EN50607

USB playback

Video Codec:	MPEG 2/ MPEG 4
Audio Codec:	MPEG 1 Layer 2

Connections

HDMI output:	HD video/audio
USB:	2.0 Host
S/SPDIF:	SPDIF digital optical
AV output Scart	Video analogue FBAS Audio stereo analogue

Remote control

Remote control system	RC-5
Modulation frequency	36 kHz
Infrared wavelength	950 nm

Power consumption

Power consumption:	Max. 10 WaG in operation; Max. 0.5 WaG in standby mode
Input voltage:	100-240V / 50/60 Hz alternating voltage

15 Troubleshooting aids

Error	Possible cause	Remedy
No picture, no sound, display/LED does not light up	No mains voltage	Check mains cable and plug
No reception for programmes that were previously OK	Antenna misaligned or defective	Check antenna
	Programme is transmitted another transponder	Carry out a search
	Programme is no longer transmitted	none
Various programmes are not displayed in the programme list	Wrong programme list selected	Select another programme list
Sound OK, no TV picture	Radio mode switched on	Switch to TV operation
Programmes such as DMAX via satellite are disrupted	Interference from "DECT telephones" (radio telephones)	Increase the distance between the receiving station and receiver
Device cannot be operated	Defective data stream >Device blocked	Pull out the mains plug for approx. 5 seconds, Then restore the device Switch on
USB functions cannot be operated	USB storage medium not connected	Reconnect USB storage medium, check power connection if necessary
At times, square blocks appear in the picture. The device occasionally switches to still image, no sound. Screen black at times with the display "no signal".	Heavy rain or snow	Remove snow from mirrors
	Antenna incorrectly aligned	Re-align antenna, use larger mirror
	Mirror is too small at the receiving location	Re-align antenna
	An obstacle stands between the mirror and the satellite (e.g. a tree)	Mirrors with "clear view" mounted

No picture, no sound, display/LED lights up	Short circuit in the LNB supply line	Switch off device, eliminate short circuit, put device back into operation
	Defective or missing cable connection	Check all cable connections
	Defective LNB	Replace LNB
	Wrong outdoor unit set on the receiver	Correct setting
	Antenna incorrectly aligned	Re-align antenna