

SCHWAIGER



# DSR 5600 TS

## User guide

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# User guide

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# General information

## Guarantee

The guarantee period begins with the purchase of the product. Please confirm this with your proof of purchase (receipt, invoice, delivery receipt etc.). Please keep these documents in a safe place. Our guarantee is based on our guarantee conditions in force at the time of purchase. In the case of a necessary repair, take or send in the unit to your specialist dealer.



The unit carries the CE mark and thus conforms to the fundamental requirements of the European directives 2004/108 EC for EMC and 2006/95 EC for LVD.

## Disposal information for packaging

Packaging materials can be recycled and should always be submitted for recycling. Packaging materials such as plastic bags do not belong in the hands of children.

## Safety and installation information

All of our products at the time of purchase conform to the currently applicable safety regulations and are, when used as intended, completely safe! Please heed the following information to avoid any potential dangers, damage or faults:

### Location

Place the unit on a solid, secure and horizontal surface and make sure that it is well ventilated. Do not place the unit on beds, sofas, soft carpets or similar surfaces as this will block the ventilation slots on the base of the unit and interrupt the necessary air circulation. Make sure that the ventilation slots on the top of the unit are not covered up e.g. by newspapers, tablecloths or curtains. This could possibly cause the unit to catch fire.

As the unit generates heat and has rubber feet, this can lead to discolouration on the surface of furniture. If necessary, place the unit on a suitable base.

The heat generated when the unit is in operation must be dissipated by adequate air circulation, so the unit must not be covered up or situated in a closed cupboard.

You should also bear this in mind if the unit is supplied with an IR mouse (optional) and is situated, for example, behind the television set.

Make sure there is at least 10 cm of clearance around the unit. Radiators or other heat sources in the vicinity of the unit can lead to malfunctions or damage the unit. You must not place any open fire sources, such as burning candles, on top of the unit.

The unit must not be located in rooms with a high level of humidity e.g. kitchens or saunas, as the condensation water may damage the unit.

The unit is designed for use in dry, temperate environments and must not be exposed to dripping or splashing water.

If the unit is moved from a cold to a warm place, condensation may form inside the unit. Therefore leave the unit switched off for a few hours.

## Mains connection

### WARNING:

For units that are supplied with a mains adaptor, only use the original mains adaptor supplied with the unit! The mains adaptor / mains plug must only be connected to a 230 V~/50 Hz mains supply. The mains adaptor / mains plug must be accessible at all times so that the unit can be unplugged from the mains outlet. Only connect the mains adaptor / mains plug to an earthed power outlet!

The mains adaptor / mains plug must only be plugged in once installation has been completed according to the instructions. The unit must not be used if the mains adaptor / mains plug is faulty or the unit is damaged in any other way.

Avoid exposing the unit to water or moisture. Do not use the unit in the vicinity of bathtubs, swimming pools or splashing water.

Do not place any water holding containers, e.g. vases of flowers on top of the unit. These might fall over and the liquid may cause serious damage or lead to a risk of electric shock.

Should any liquids or foreign matter accidentally get into the unit, unplug the mains adaptor / mains plug from the power outlet immediately. Have the unit inspected by a qualified engineer before using it again.

Under no circumstances should you open the unit or the mains adaptor – this must only be carried out by a qualified engineer.

Do not let unsupervised children tamper with the unit. Do not let foreign objects, e.g. needles, coins etc fall into the interior of the unit.

Packaging materials such as plastic bags do not belong in the hands of children.

Do not touch the contacts on the back of the unit with your fingers or metal objects. This could cause a short circuit.

The unit must not be set up in the vicinity of appliances that generate strong magnetic fields (e.g. motors, loudspeakers, transformers). Use a suitable, easily accessible power outlet and avoid using multiple sockets!

Before cleaning the unit, it must be unplugged from the mains outlet. To clean the unit, use a soft dry cloth. Never spray cleaning agents directly onto the unit. Do not use any cleaning solutions that might damage the surface of the unit.

Do not handle the mains adaptor when your hands are wet – risk of electric shock! In the case of any faults or smoke and odours coming from the unit, unplug the mains adaptor / mains plug from the power outlet immediately!

You must not use the unit if water or foreign objects get into the inside of the unit or if the unit or mains adaptor has been damaged. The unit must first be inspected or repaired by a qualified engineer (technical customer service).

The receiver must be unplugged from the power outlet before connecting the antenna, otherwise there is a risk of damaging the antenna.

Before connecting the television to the receiver, the television must be unplugged from the mains outlet, otherwise there is a risk of damaging the television.

The antenna cable must be connected to the system earth of the satellite antenna. The earthing of the system must be carried out according to national safety regulations.

In the case of an impending storm, unplug the mains adaptor and antenna plug.

If the unit will not be in use for an extended period of time, e.g. before a long holiday, unplug the mains adaptor from the power outlet. Also remove the batteries from the remote control, as they may leak and damage the remote control. Normal batteries must not be charged, heated or thrown into an open fire (risk of explosion!).

Do not throw used batteries in the household refuse. Batteries are hazardous waste and must be disposed of accordingly.

# Control elements, displays and connections

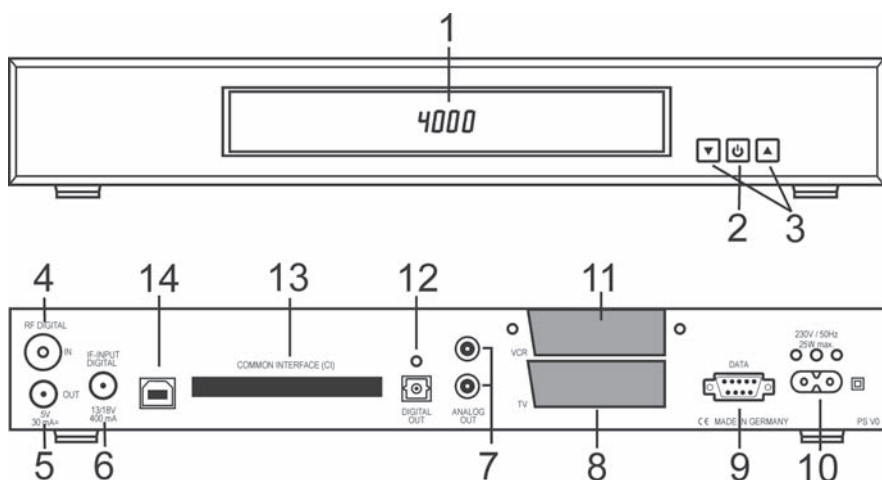
## Front of the device

1 Display or LED:

Display	LED	
-	red	Receiver is on standby
Programme display	green	Receiver is switched on
rEC.		Timer is activated
FAIL		Short circuit or overload at antenna socket

2 ON/OFF button (standby)

3 Buttons for changing programme: ▼ programmes down, ▲ programmes up



## Rear of the device

- 4 VHF/UHF digital input – antenna socket for house or indoor antenna.
- 5 HF output – for connecting an HF cable to the antenna socket of a television or video recorder.
- 6 IF input digital – connection for the LNB of your satellite antenna.
- 7 AUDIO L/R cinch sockets to connect the receiver to an amplifier.
- 8 TV scart socket to connect the receiver to a television.
- 9 Serial interface to connect to a PC, to be able to use the receiver's additional PC-controlled functions.
- 10 Mains socket to connect the mains cable supplied.
- 11 VCR scart socket to connect a video recorder.
- 12 Optical sockets for DOLBY DIGITAL signals
- 13 Common Interface shaft for inserting Conditional Access Modules.
- 14 USB 2.0 socket to connect to a PC (optional for hard disk devices).

## Connecting the receiver

The connections on the rear of the device are marked (see diagram on page 6).

### Connecting a terrestrial antenna

Connect the antenna cable of the house or indoor antenna to the socket RF INPUT DIGITAL (4) of the receiver.

This connection can supply an antenna with signal amplifier with a current of 5 VDC (max. 50 mA).

#### CAUTION:

**The antenna current may be switched on only if the antenna really is an active indoor antenna with signal amplifier and is not already supplied with current through its own power supply (mains transformer or similar). (See also page 18). Otherwise this could cause a short circuit or destroy your antenna.**

The socket RF OUTPUT (5) of the receiver can be connected via an HF cable to the antenna socket of your television (daisy chain function for analogue programmes).

### Connecting a satellite antenna

Connect the coaxial cable of your satellite system with the socket IF-INPUT DIGITAL (6).

**Caution: If, after connecting the receiver to the mains, the screen shows the message “Short circuit or overload at antenna input”, there is a short circuit in the LNB cable or in the LNB. In this case the receiver must be disconnected from the mains immediately, until the short circuit has been remedied.**

### Connecting a television

Connect the socket TV (8) of the receiver via a scart cable with the corresponding scart socket of the television.

### Connecting a video recorder

Connect the socket VCR (11) of the receiver via a scart cable with the corresponding scart socket of the video recorders.

If the video recorder is switched to playback function, the picture and sound signals of the video recorders will be transmitted by the receiver to the television (daisy chain operation).

### Connecting a hifi system

Connect the sockets AUDIO L/R (7) of the receiver via a cinch cable with the corresponding input sockets of your hifi system.

### Connecting a digital multi-channel amplifier





The receiver has an optical (12) DIGITAL OUT socket for a DOLBY DIGITAL signal.

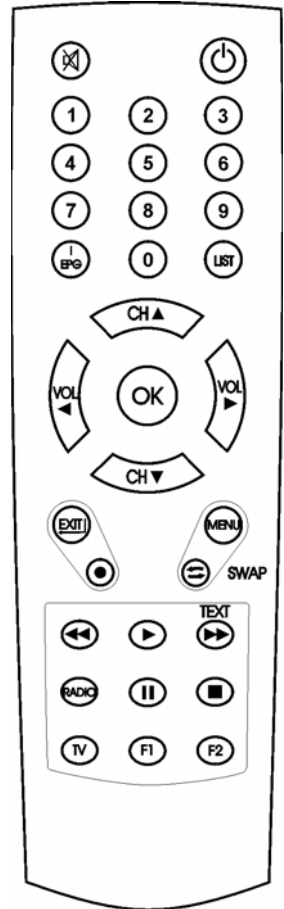
Connect the socket via a corresponding cable with your multi-channel amplifier.

### Connecting a mains cable

Connect the mains cable supplied to the socket 230V~/50Hz (10) of the receiver.

# Remote control

-  On/off button
-  Mute
- 0-9** Direct entry of channel numbers.  
In the menu: entry of programme parameters
- i/EPG** Call up electronic programme guide (EPG).
- LIST** Shows list of stations.
- VOL ◀ ▶** Volume control.  
In the menu: scroll in lists or change entry values.
- CH ▲ ▼** Programme change.  
In the menu: select menu line.
- OK** Brief superimposition of programme information.  
In the menu: open, confirm or alter the entry marked
- EXIT** Exit the currently active menu or the OSD.
-  Red record button, starts recording on the hard disk
- MENU** Activates the main menu. (Back with EXIT).
- SWAP** Switches between the two most recently selected programmes.  
In the menu: move programmes and change lists.
- Red button** Moves the cursor downwards in the video and sound option menus.  
For hard disk operation: fast rewind  
In the menu: delete function
- Blue button** Shows video text.  
For hard disk operation: fast forward
- Green button** Shows the list of recordings, starts playback.
- Yellow button** Switches between the video and sound option menus.  
Opens the information menu. For hard disk operation: Pause button
-  Grey stop button, stops the current recording or playback.
- RADIO** Switches between the TV and RADIO modes.
- TV** Switches between the TV and RADIO modes.  
For timeshift operation: switches to normal TV picture
- F1, F2** In hard disk operation: Setting and managing markers





## Inserting the batteries

Open the battery compartment cover on the underside of the remote control and insert the two 1.5 V batteries (AAA). Make sure they are the right way round

### NOTE:

If some remote control commands are not performed, or not correctly, the batteries should be replaced. Batteries may not be exposed to excessive heat. Dry batteries may not be charged.

## First installation

After you have read through the safety precautions, and successfully gone through the steps described in the Chapter Connecting the receiver, connect the mains plug to the power socket. At the first installation of the device, the Welcome window of the installation assistant will appear. Using this installation assistant you can easily perform the most important settings of the digital receiver.

### Menu language

The first step of the installation is to select your chosen language for all menus using the buttons **CH ▲** or **CH ▼** Confirm with **OK**.



### Country

The next step is to set the country in which your digital receiver will be used. Select the country using the buttons **CH ▲** or **CH ▼** and confirm with **OK**. Use the EXIT button to go back to the first installation step and correct mistakes at any time.



### Antenna

In the next step of the installation assistant, use the **CH ▲** or **CH ▼** buttons to select the satellite you want to have at the beginning of the list of stations and complete the installation with **OK**.

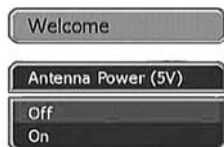
You can make any corrections using the EXIT button.



## Antenna current

In the final step of the installation assistant, use the buttons **CH ▲** or **CH ▼** to select whether the antenna current for an active DVB-T indoor antenna should be switched on or off. Complete installation with **OK**.

You can make any corrections using the EXIT button



### CAUTION:

The antenna current may be switched on only if the antenna really is an active indoor antenna with signal amplifier and is not already supplied with current through its own mains transformer (or similar). Otherwise this could cause a short circuit or destroy your antenna.

The menu for automatic station search and the search process will be started. During the search the window shows Status: scanning. The newly found TV and radio programmes will be listed. Once the search is complete, the message Status: complete is shown. Use **EXIT** to leave the search menu.

### Please note:

New programmes found by the station search will be added to the beginning of the list of stations. You can set out the order of stations as you wish, and delete programmes you do not want. These functions are described on page 27 of the user guide.

# Operating the receiver

## Switching on and off

- You can switch on the receiver with the OK button, the programme change button, or one of the number buttons. The most recently active channel is shown (e.g. 0015)
- The digital receiver is switched to standby using the  $\odot$  button. Display: - or red LED

### NOTE:

The digital receiver is completely separated from mains power only if the plug is pulled out of the mains socket.

## Select mode of operation

You can choose between the operating modes TV (television programmes) and RADIO (radio programmes).

- Use **RADIO** or **TV** to choose the mode of operation.

## Changing the volume

The volume cannot be changed in the operating menu.

- Use **VOL**  $\blacktriangleleft$   $\blacktriangleright$  to set your chosen volume.

A volume scale is shown on the television screen

### NOTE:

Volume changes control the sound signals at the sockets TV, VCR and AUDIO L R of the digital receiver.

## Switching the sound off (Mute)

- Press  $\boxtimes$  button: the sound is muted. A symbol appears in the lower right corner of the screen.
- Press  $\boxtimes$  again: the sound is switched on again.

## Programme selection

### 1. Changing channels normally:

Change to previous or next channel by pressing **CH**  $\blacktriangle$  or **CH**  $\blacktriangledown$  as often as required. To scroll through channels quickly, keep the **CH**  $\blacktriangle$  or **CH**  $\blacktriangledown$  buttons pressed down long enough.

### 2. Changing channels by direct entry

Enter single- or double-digit channel numbers using **1-0** on the remote control and use **OK** to call them up directly. Unoccupied channels are ignored.

### 3. Selecting the programmes from the list of stations:

Pressing the **LIST** button shows the most recently activated list of stations. You can scroll through the list of stations using **VOL**  $\blacktriangleleft$   $\blacktriangleright$ . Use **CH**  $\blacktriangle$  or **CH**  $\blacktriangledown$  to select the programme you want; call it up with **OK**.

The form of reception is shown to the right of the list:

Satellite names (e.g. ASTRA 19.2) for satellite programme or channel names (e.g. Kanal 6) for DVB-T programmes.

Press LIST button twice to display the following menu:

<i>Favourites list:</i>	Personal list of your favourite programmes.
<i>Radio list:</i>	List of saved radio programmes.
<i>TV list:</i>	List of saved TV programmes.
<i>Alphabet:</i>	List of saved TV or radio programmes in alphabetical order.



Choose the list you want using **CH ▲** or **CH ▼** and press **OK** to activate. Then use **CH ▲** or **CH ▼** to choose the programme you want and press **OK** to activate.

In the Alphabet list, all the programmes are given in alphabetical order. To search for a programme, use **SWAP** in the window with the letters. Use **CH ▼** and **VOL ◀ ▶** to choose the starting letter of the programme you seek and press **OK** to confirm. Now the page with the list of stations is shown, in which the programmes with the corresponding starting letter are saved. Now use **SWAP** to switch back to the list of stations and choose the programme you want using **CH ▲ ▼** and **OK**.

#### 4. Switching from the current programme to the most recent active one:

The digital receiver remembers the most recently active programme.

- Use **SWAP** to switch from the current to the most recently active programme.
- Use **SWAP** to switch back to the current programme.

Each time you change programme, the title and broadcast time of the current and next programmes will be shown. You can see how far advanced the current programme is on the status indicator under the programme number.

You can also call up this information by pressing the **OK** button.

## Selecting a programme while recording

While one programme is recording, you can watch other programmes.

1. If a DVB-T programme is being recorded, all SAT programmes can be watched at the same time.
2. If a SAT programme is being recorded, all DVB-T programmes can be watched at the same time.
- 2.1. If a SAT programme is being recorded, the SAT programmes on the same transponder as the programme being recorded can be watched at the same time.

**Please note:** If an encrypted programme is being recorded, another encrypted programme *cannot* be watched at the same time.

**Tipp:** During a recording, press the LIST button to see a list of all the programmes that you can watch while recording.

# Settings

The menu *Settings* establishes the basic functions of the receiver.

## NOTE:

The individual menu items are explained in a super at the bottom edge of the screen.

The settings can be changed using the **VOL** ◀ ▶ button. When leaving the menu (EXIT button) you will be asked if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Use the **VOL** ◀ ▶ button to make your selection, and confirm it with the **OK** button.

Switch on the digital receiver using .

Press the MENU button.

The main menu is shown:

The first line of the menu, *Settings* is highlighted.



## Note:

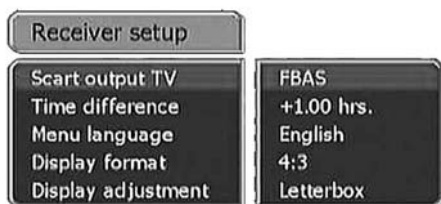
If the receiver is equipped with a hard disk (Option), the main menu will show the menu item: "Manage hard disk".

Press the **OK** button. This menu will appear:

Use the **CH** ▲▼ buttons to make your selection and confirm with **OK**.



## Settings – device setup



### 1) Scart output

To adapt to your television, use the **VOL ◀ ▶** buttons to select the output signal (*FBAS, RGB, YUV or Y/C*) for the scart socket.

### 2) Time difference

After switching on for the first time, you should set the difference between local time and the received GMT. You can use the **VOL ◀ ▶** buttons to set this. For Central Europe, the difference is +1.00 hour in winter and +2.00 hours in summer. You will have to update this setting when the clocks change in autumn and spring.

### 3) Select menu language

Use the **VOL ◀ ▶** buttons to select the language you want for the menu.

### 4) Picture format

To adapt to your television, use the **VOL ◀ ▶** buttons to select the picture format (*4:3 or 16:9*).

### 5) Fitting the picture

Use the **VOL ◀ ▶** buttons to select the scart output signal mode, dependent on signal format: *Pan & Scan, Letterbox, Pillarbox or Centre*.

Press **EXIT** to leave the menu. Use the **VOL ◀ ▶** buttons to decide if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Confirm your choice with the **OK** button.

## Settings – OSD

In the *Installation* menu, move the cursor using the **CH ▲▼** buttons onto the line *OSD* and press the **OK** button. The following menu will appear:



### 1) OSD transparency:

Use the **VOL ◀ ▶** buttons to set the transparency of the OSD.

### 2) Length of superimposition:

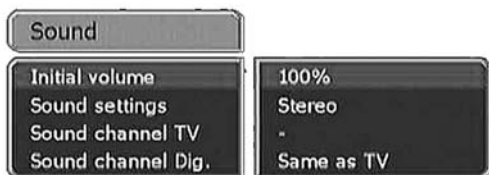
Use the **VOL ◀ ▶** buttons to change how long you want the programme information to be superimposed when you change programme (1-10 seconds).

### 3) OSD colour:

Use the buttons **VOL ◀ ▶** to select the colour of the OSD.

Press **EXIT** to leave the menu. Use the **VOL ◀ ▶** buttons to decide if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Confirm your choice with the **OK** button.

## Settings – sound



### 1) Start volume

Use the **VOL ◀ ▶** buttons to set the starting volume of the receiver.

### 2) Sound setting

Use the **VOL ◀ ▶** buttons to choose between *Stereo, Mono left or Mono right*

### 3) TV sound channel

Use the **VOL ◀ ▶** buttons to select the sound channel for the scart output for the current channel, if the programme being broadcast has several options.

### 4) Digital sound channel

Use the **VOL ◀ ▶** buttons to select the sound channel on the digital output of the receiver for the current programme number.

Press **EXIT** to leave the menu. Use the **VOL ◀ ▶** buttons to decide if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Confirm your choice with the **OK** button.

## Settings – Subtitles



### 1) Subtitles

Use the **VOL ◀ ▶** buttons to switch the subtitles on or off.

### 2) Subtitle language

Use the **VOL ◀ ▶** buttons to select the language in which the subtitles should be shown. If no DVB subtitles are being broadcast, the symbol "-" appears.

Press **EXIT** to leave the menu. Use the **VOL ◀ ▶** buttons to decide if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Confirm your choice with the **OK** button.

## Settings – Child safety lock

Your device is equipped with a child safety lock. This secures the receiver against unauthorised use. If the child safety lock is activated, the receiver can be switched on only after entering a 4-digit PIN.

In the *Main menu*, move the cursor using the **CH ▲▼** buttons onto the line *Child safety lock* and press the **OK** button.

The following menu will appear:



## Child safety lock – device lock

To activate or deactivate the device lock, move the cursor onto the line *Device lock* and press **OK**.

The following menu will appear:



Use the **VOL ◀ ▶** buttons to switch the device lock on or off. If the device lock is on, a PIN must be entered when you switch the receiver on.

Press **EXIT** to leave the menu. Use the **VOL ◀ ▶** buttons to decide if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Confirm your choice with the **OK** button.

## Child safety lock – change PIN

To change the PIN, move the cursor onto the line *Change PIN* and press **OK**.

The following menu will appear:



The factory settings give **0000** as a PIN.

Using the code 9976, you can always switch on the receiver, whatever the PIN set.

Move the cursor using **CH ▲▼** onto the line *New PIN* and press the **OK** button. Enter a 4-digit PIN using the buttons **0-9**. Then press **OK**. Move the cursor using **CH ▲▼** onto the line *Confirm PIN* and press the **OK** button. Now enter your chosen PIN as confirmation. Then press **OK**.

Press **EXIT** to leave the menu. Use the **VOL ◀ ▶** buttons to decide if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Confirm your choice with the **OK** button.

### CAUTION

Do not forget your PIN! If you have forgotten it, you will need to contact your specialist dealer.



# Installation

The menus “Antenna configuration” and “Station search” will differ depending on the type of signal received, **DVB-T (terrestrial)** or **SAT (satellite receiver system)**.

In the main menu, select the line *Installation* using **CH ▲▼** and confirm with **OK**. The Installation menu will appear:



Use the buttons **CH ▲▼** to make your selection and confirm with **OK**.

## Installation – antenna configuration DVB-T

Select the line *antenna configuration* using **CH ▲▼** and confirm with **OK**.



In the line antenna, use the **VOL ◀** or **VOL ▶** buttons to select *Terrestrial*.

In the line *antenna current* you can switch the current for active indoor antennas (without mains transformers) on and off using the **VOL ◀ ▶** buttons.

### CAUTION

The antenna current may be switched on only if the antenna really is an active indoor antenna with its own signal amplifier and is not already supplied with current through a transformer (or similar). Otherwise this could cause a short circuit or destroy your antenna.

Press **EXIT** to leave the menu. Use the **VOL ◀ ▶** buttons to decide if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Confirm your choice with the **OK** button.

# Installation – SAT antenna configuration

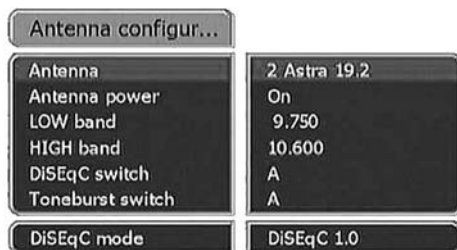
In the Installation menu, select the line *Antenna configuration* using **CH ▲▼** and confirm with **OK**.

## 1) Antenna:

In the line Antenna use the **VOL ◀** or **VOL ▶** buttons to select the satellite you are receiving with the connected satellite antenna, e.g. *ASTRA 19.2*

## 2) Antenna current

Use the **VOL ▲▼** buttons to switch the antenna current on or off.



## 3) LOW Band

Oscillator frequency for LOW Band. Use the **VOL ▲▼** buttons to set this, **or** after pressing the **OK** button, directly, using the buttons **1-0**.

## 4) HIGH band

Oscillator frequency for HIGH Band. Use the **VOL ▲▼** buttons to set this, **or** after pressing the **OK** button, directly, using the buttons **1-0**.

## 5) DiSEqC switch

If the receiver is connected to a satellite system that receives several satellites at once (Multifeed system), assign the input for the LNB in question (menu line 1) on the DiSEqC switch, using the **VOL ▲▼** buttons.

## 6) Toneburst switch

If the receiver is connected to a satellite system that receives several satellites at once (Multifeed system), assign the input for the LNB in question (menu line 1) on the Toneburst switch, using the **VOL ▲▼** buttons.

## 7) DiSEqC mode

Use the **VOL ▲▼** buttons to select the DiSEqC mode. Choose *DiSEqC 1.0* for fixed systems, and *DiSEqC 1.2* for motor-controlled systems. If you have selected *DiSEqC 1.2*, the menu item *Motor settings* will appear in the *Installation* menu.

Press **EXIT** to leave the menu. Use the **VOL ▲▼** buttons to decide if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Confirm your choice with the **OK** button.

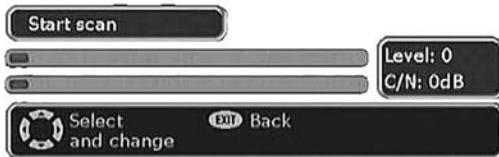
# Installation – station search DVB-T

You can choose between automatic (antenna) and manual (transponder) station search.

The automatic station search checks the whole VHF and UHF range for programmes you can receive.

## Automatic station search

In the Installation menu, move the cursor using the buttons **CH ▲▼** onto the line *Station search* and press the **OK** button. The following menu will appear:



## Performing an automatic station search

1. Select the line *Antenna* using **CH ▲▼** and *Terrestrial* using the **VOL ◀** or **VOL ▶** buttons.
2. Select the line *Search mode* using **CH ▲▼** and *Antenna* using the **VOL ◀** or **VOL ▶** buttons.
3. In the line *Encrypted*, select whether the station search should also include encrypted stations, using the **VOL ◀** or **VOL ▶** buttons.  
*No* = encrypted stations will be ignored.  
*Yes* = encrypted stations will be included in the search.
4. Move the cursor onto the line *Start station search* using the **CH ▲▼** buttons and start the search process by pressing the **OK** button.

Now two windows are shown, listing the newly found TV and radio programmes.

The "Status" window shows how far the search has progressed.

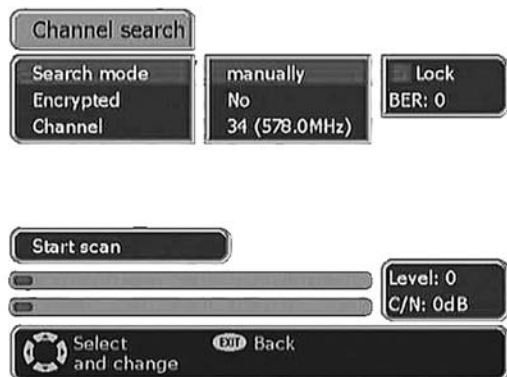
- Display: *Scanning* => Search is active
- Display: *Complete* => Search is finished.

When leaving the menu (EXIT button) you will be asked if you want to save the new programmes (*Yes*) or delete them (*No*). Use the **VOL ◀ ▶** button to make your selection, and confirm it with the **OK** button

## Manual station search

In manual station search, you can enter the channels to be searched directly.

In the *Installation* menu, move the cursor using the buttons **CH ▲▼** onto the line *Station search* and press the **OK** button. The following menu will appear:



**This is how to perform a manual station search:**

1. Select the line *Antenna* using **CH ▲▼** and *Terrestrial* using the **VOL ◀** or **VOL ▶** buttons.
2. Select the line *Search mode* using **CH ▲▼** and *Transponder* using the **VOL ◀** or **VOL ▶** buttons.
3. In the line *Encrypted*, select whether the station search should also include encrypted stations, using the **VOL ◀** or **VOL ▶** buttons.  
*No* = encrypted stations will be ignored.  
*Yes* = encrypted stations will be included in the search.
4. In the line *Frequency*, use the **VOL ◀ ▶** buttons to select the channel that should be searched.
5. Move the cursor onto the line *Start station search* using the **CH ▲▼** buttons and start the search process by pressing the **OK** button.

Now two windows are shown, listing the newly found TV and radio programmes.

The "Status" window shows how far the search has progressed.

- Display: *Scanning* => Search is active
- Display: *Complete* => Search is finished.

When leaving the menu (EXIT button) you will be asked if you want to save the new programmes (*Yes*) or delete them (*No*). Use the **VOL ◀ ▶** button to make your selection, and confirm it with the **OK** button.

# Installation – station search SAT

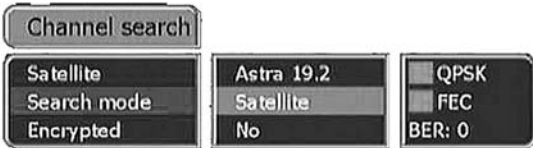
This digital receiver has been preprogrammed at the factory with most of the digital TV and RADIO programmes of the satellites

- Astra 19.2° east,
- Hot Bird 13° east,
- Türksat 1C 42° east,
- Sirius 2/3 5° east,
- Amos 1 4° west,
- Hellas Sat 2 39° east.

You can read which satellite programme have been preprogrammed by calling up the list of stations in TV or RADIO operation, using the **LIST** button.

New satellite programmes are always being broadcast, or satellite parameters being changed. We therefore recommend that you perform a station search from time to time.

In the *Installation* menu, move the cursor using the buttons **CH ▲▼** onto the line *Station search* and press the **OK** button. This menu will appear:



## Station search

1. Move the cursor using the **CH ▲▼** buttons onto the line *Antenna* and set the satellite you want using the **VOL ◀ ▶** buttons.
2. Select the line *Search mode* using **CH ▲▼** and use the **VOL ◀ ▶** buttons to select the search mode you want.  
*Transponder:* In this mode, only one transponder is searched. You will have to enter its frequency, polarisation and the symbol rate.  
*Antenna:* In this mode, the transponders of the stations saved in the list of stations will be searched for new programmes.
3. In the line *Encrypted*, select whether the station search should also include encrypted stations, using the **VOL ◀ ▶** buttons.  
*No* = encrypted stations will be ignored.  
*Yes* = encrypted stations will be included in the search.

The following settings are performed only in the *Transponder* search mode.

4. Move the cursor using the buttons **CH ▲▼** onto the line *Frequency*, press the **OK** button and enter the 5-digit frequency of the channel using the buttons 1-0. Confirm your entry with **OK**.
5. Move the cursor using the buttons **CH ▲▼** onto the line *Polarisation* and set polarisation (vertical or horizontal) using the **VOL ◀ ▶** buttons.
6. Move the cursor using the buttons **CH ▲▼** onto the line *Symbol rate*, press the **OK** button and enter the symbol rate using the buttons 1-0. Confirm your entry with **OK**.

Move the cursor using the buttons **CH ▲▼** onto the line *Start station search* and start the search by pressing the **OK** button.

Now two windows are shown, listing the newly found TV and radio programmes.

The "Status" window shows how far the search has progressed.

- Display: *Scanning* => Search is active
- Display: *Complete* => Search is finished.

When leaving the menu (EXIT button) you will be asked if you want to save the new programmes (*Yes*) or delete them (*No*). Use the **VOL ◀ ▶** button to make your selection, and confirm it with the **OK** button.

The newly found programmes are added at the end of the list of stations.

# Installation – software download

This function allows you to update the receiver’s operating software and the Menu texts and programme list via the Astra 19.2° east satellite. The condition is however that your satellite system is set up to receive this satellite. Updating the software will not change your current list of broadcasters.

### CAUTION:

A software update will delete current operating software from your receiver and install a new version of the software.

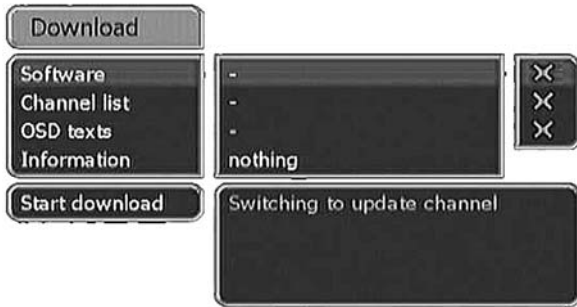
An update will replace the list of stations in the factory settings with a new list of stations.

An update of the OSD texts will delete and update the currently saved menu texts.

The updating process is divided into the following steps:

### 1. Open Update menu:

In the *Installation* menu, use the **CH ▼▲** buttons to select the line *Software download* and confirm with **OK**.



To control the update process, the Download menu will open and the search for the receiver’s download channel will start automatically. Wait until this search has been completed, which may take a few minutes. Then the receiver will check whether data it has found in the data flow are more up-to-date than those currently programmed into the device. The result will be shown in the Download menu, behind the elements to which they refer.

If no new data are available, “-” will be shown. Leave the menu by pressing **EXIT**.

## 2. Selecting the available data:

According to availability, you will be able select between the following downloaded files (New software available) using **CH ▼▲** :

- |                             |   |
|-----------------------------|---|
| a.) <i>Software:</i>        | Operating software for the digital receiver   |
| b.) <i>List of station:</i> | Programme list for the digital receiver   |
| c.) <i>OSD texts:</i>       | All menu texts of the digital receivers shown on the screen   |
| d.) <i>Information:</i>     | <i>Information about the files ready for download, e.g. Version number, what's new, things to note etc.</i> |

For a.) to c.), use OK to select whether you want to update the data (✓) or not (⊗). It is possible that while you are selecting, another point will become active, because the update in question requires additional data.

In the line *Information*, use **VOL ◀** or **VOL ▶** to select whether you would like to receive more information about the available data:

- |                          |                                |
|--------------------------|--------------------------------|
| <i>All:</i>              | on all available files         |
| <i>None:</i>             | on none of the available files |
| <i>Software:</i>         | on the software.               |
| <i>OSD texts:</i>        | on the menu texts              |
| <i>List of stations:</i> | on the programme list.         |

### NOTE:

If you like to read the information before downloading, leave points a.) to c.) inactive (⊗) and under d.) enter the information you would like, then start the information download.

After the information has been loaded you can view it under a.) to c.) using the **yellow** button. Use **EXIT** to close the window again.

## 3. Starting the updating process:

The actual update/download process is started as follows:

- Select the data you want under a.), b.) or c.) using **OK**. (Display ✓)
- Use **VOL ◀** or **VOL ▶** to set the line *Information* to none
- Select the line *Start download* using the **CH ▼▲** buttons and confirm with **OK**.

The progress of the download is shown in the status window after the first data have been received. Since the data are downloaded in blocks, several minutes may elapse between the individual blocks received. As soon as the first data block selected under point 2 has been 100% downloaded, the receiver immediately saves the data. Wait until all the data blocks have been received. At the end of the update process, the receiver will switch to standby mode.

### CAUTION:

As long as the saving process has not yet begun, the download can be aborted at any time with **EXIT**. However, as soon as the first data have been saved, it is no longer possible to stop the process. Interrupting the download (e.g. by pulling out the mains plug) may damage the receiver!

### NOTE:

If the download contains a new list of stations, the receiver must be returned to its factory settings in order to activate the list.



## Installation – Factory settings

This function enables you to return the receiver to its factory settings.

### CAUTION:

This will also delete the list of stations and the station search will be reactivated. In the *Installation* menu, move the cursor using the **CH ▲▼** buttons onto the line *Factory settings* and press the **OK** button.

You will now be asked to decide whether to save the new settings (*Yes*) or keep the old ones (*No*). Use the **VOL ◀ ▶** buttons to make your selection and confirm with the **OK** button.

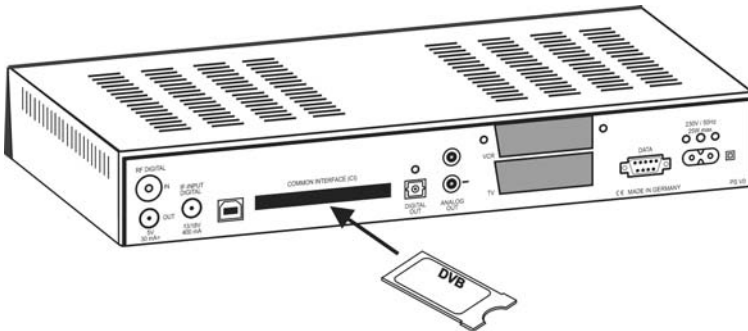
Afterwards the menus will lead you, as at the first installation, through the three starting menus.

## Installation – Common Interface (CI)

The rear side of the digital receiver has a Common Interface shaft. This interface, together with a card module (CAM Conditional Access Module) and corresponding Smart Card, enables encrypted programmes to be unencrypted.

The Conditional Access Module (CAM) can be inserted and removed while the receiver is being operated. You can also remove or re-insert the Smart Card at any time, without having to switch off the receiver. Please observe the module manufacturer's instructions.

Slide the module in carefully, pressing lightly, until the contacts click into place.



After the module and the Smart Card have been inserted, the corresponding programmes can be selected. It may take a few seconds until the programme is activated.

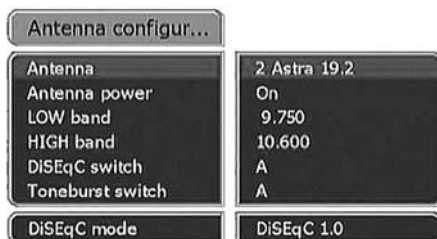
### NOTE:

The Conditional Access Modules have their own software and menus for onscreen display.

To call up a module's menu, open the Installation menu. The name of the module is shown, according to its type, e.g. "AlphaCrypt" or "CryptoWorks". Use **VOL ▲** or **VOL ▼** to choose this line, and call it up with **OK**.

This takes you into the menu that comes from the module.

If you remove a module, the corresponding menu item is removed again.



#### Please note:

If a encrypted programme is being recorded, another encrypted programme *cannot* be watched at the same time.

## List of stations

You can lay out the order of pre-programmed stations as you wish, or delete programmes you do not need. You can use these functions for TV and radio programmes.

In the *List of stations menu*, move the cursor using the buttons **CH ▲▼** onto the line *List of stations* and press the **OK** button. This menu will appear:



## List of stations – sorting manually

In the menu *List of stations*, move the cursor using the buttons **CH ▲▼** onto the line *Manual sorting* and press the **OK** button.

### a) Deleting programmes

Select the programme you want to delete using **CH ▲▼** and mark it with **OK**. You can now select further programmes using **CH ▲▼** and highlight them with **OK**. To delete the highlighted programmes, press the red button.

### b) Sorting programmes

Select the programme you want to move using **CH ▲▼** and mark it with **OK**. You can now select further programmes using **CH ▲▼** and highlight them with **OK**. Use **CH ▲▼** to select the channel in front of which you want the highlighted programmes to be inserted. To move the programmes, press the **yellow** button.



## List of stations – Managing favourites

You can save your favourite programmes in a *Favourites list*. In the menu *List of stations*, move the cursor using the buttons **CH ▲▼** onto the line *Manage favourites list* and press the **OK** button.

Two tables are now shown:

- The *Overall list*, which lists all the saved programmes.
- The *Favourites list*, into which the programmes you select will be copied.

In the *Overall list*, select the programmes you want and copy them into the *Favourites list*. Select the programme you want using **CH ▲▼** and mark it with **OK**. You can now select further programmes using **CH ▲▼** and highlight them with **OK**.

Press **SWAP** to go to the Favourites list.

Use **CH ▲▼** to select the channel in front of which you want the highlighted programmes to be inserted. Press **OK** to insert the programmes into your Favourites list. You can use **SWAP** to go back to the overall list.



Press **EXIT** to leave the menu. Use the **VOL ◀▶** buttons to decide if you want to save the changes you have made (*Yes*) or keep the previous settings (*No*). Confirm your choice with the **OK** button.

You can set up another Favourites list for radio programmes in the Radio mode.

## Timer

You can get your digital receiver to switch off at a preselected time, or programme a recording for a connected video recorder.

There are 10 timer recordings available.

In the *Main menu*, move the cursor using the **CH ▲▼** buttons onto the line *Timer* and press the **OK** button. The following menu will appear:



## Timer – Sleep timer

In the *Timer* menu, move the cursor using the **CH ▲▼** buttons onto the line *Sleep timer* and press the **OK** button. The following menu will appear:



## Enter shutoff time:

1. Select the line *Switch off at* and confirm with **OK**.
2. Use **0-9** to enter the time you want and confirm with **OK**.
3. Select *Activate* using **CH ▲▼**.
4. Activate (*On*) or deactivate (*Off*) the shutoff timer with **VOL ◀ ▶**.
5. Complete your settings by pressing **EXIT** and then **OK**.

Hide the menus using the **EXIT** button. The digital receiver will switch off at the programmed time (standby).

## Timer – Timer recording

Move the cursor in the menu *Timer* with the buttons **CH ▲▼** onto the line *Timer recording* and press the OK button. This menu will appear:

Record timer	13:18
Timer index (1...10)	1 (inactive)
Start at	00:00 o'clock
Stop time	00:00 o'clock
Date of recording	03.08.07
Station	1 Das Erste
Repetitions	nothing

Activate

## Programming Timer recording:

1. Select the line *Timer* (1...10) using **CH ▲▼**.
2. Use **VOL ◀ ▶** to select a Timer.
3. Select the lines *Start time*, *Stop time* or *Date of the recording* using **CH ▲▼** and confirm with **OK**.
4. Use **0-9** to enter the time or date.

TV List	
1	Das Erste
2	ZDF
3	RTL Television
4	SAT.1
5	Kabel 1
6	RTL2
7	ProSieben
8	Super RTL
9	VOX
10	KiKa

Astra 19.2

5. Confirm your entry by pressing **OK**.
6. Select the line *Programme* using **CH ▲▼** and confirm with **OK**.
7. Select a programme from the Programme list using **CH ▲▼** and **VOL ◀ ▶** and confirm with **OK**.
8. Select *Repeat* using **CH ▲▼** and the desired function using **VOL ◀ ▶**.
9. Select *Record* using **CH ▲▼** and the desired function using **VOL ◀ ▶**.
10. Select the line *Activate* using **CH ▲▼**.

11. Use **VOL ◀ ▶** to activate (*On*) or deactivate (*Off*) Timer recording.
12. Complete your settings by pressing **EXIT** and then **OK**.

Use the **EXIT** button to hide the menus. The digital receiver will switch on at the set time. The display will then show “**rEC**”. If a timer is activated, the receiver cannot be operated further. You can however call up the *Timer recording* menu and deactivate the timer.

**NOTE:**

The local time of the receiver must be set correctly, and your video recorder programmed accordingly.

## Information

In the *Main menu*, move the cursor using the buttons **CH ▲▼** onto the line *Information* and press the **OK** button.

The reception properties of the active programme will now be shown. You can also activate the menu in normal TV or radio operation via the **yellow** button on the remote control.



The top section of the menu shows the programme parameter and the activated programmes. The bottom section of the menu shows the signal properties

*Livello:* The further to the right the bar is, the better the signal received.

*C/N:* The further to the right the bar is and the higher the dB value, the better the signal quality is.

**NOTE:**

The signal strength depends not only on your receiver system, but also on the currently active channel. Remember this when you check the direction of your antenna using the signal strength display.

Use **VOL ◀ ▶** or the yellow button to superimpose two further windows giving programme and software-/hardware information. You can change the programme using **CH ▲▼** and **SWAP**.

Leave the menu using **EXIT**.

## Video text

Switch on the programme from which you want to receive video text. Then press the blue button to switch on the video text. The start page is page 100.

Enter the three-digit page number using the buttons **0-9**. Your entry is shown in the top left-hand corner of the screen. After you have entered the complete page number, the device will search for the page you want. Since video text pages are transmitted one after the other, it may take a few seconds to find your page.

Use the **CH ▲▼** buttons to scroll backwards or forwards.

Press the **blue** button again to switch to Mix operation. This shows the video text page transparently, so that you can see the current programme and video text at the same time. Use the **blue** button to switch back to Normal operation.

To leave video text, press **EXIT**.

## Managing the hard disk (option)

The hard disk functions are available only if the receiver is equipped with a hard disk.

In the Main menu choose the line Manage hard disk with **CH ▲▼** and confirm with **OK**. This menu will appear:



## Managing the hard disk – hard disk information

In the menu *Manage hard disk*, move the cursor using the buttons **CH ▲▼** onto the line *Hard disk information* and press the **OK** button.

In the superimposed window you will see details about the built-in hard disk:

- hard disk type
- hard disk serial number
- hard disk firmware
- total capacity
- access times

Use **EXIT** to leave this super.

## Managing the hard disk – hard disk maintenance

Allows you to format the hard disk. Formatting the hard disk will completely delete what is on it. Afterwards the full recording capacity will again be available, as when the device was first supplied.

In the menu *Manage hard disk*, move the cursor using the buttons **CH ▲▼** onto the line *Hard disk maintenance* and press the **OK** button.



Use **VOL ◀ ▶** to choose whether you want to format the hard disk (*Yes*) or not (*No*). After formatting the number of recordings will be reset to zero. *Free memory* shows the maximum recording capacity available on the hard disk.

Use **EXIT** to leave the window.

### CAUTION:

If you format the hard disk, all recordings on it will be irretrievably lost.

## Managing the hard disk – switching off the hard disk

The receiver is able to switch off the built-in hard disk in normal television operation if no recording or playback is taking place. This helps to lower energy costs, reduces waste heat, and increases the lifespan of the hard disk. The receiver also produces less noise.

If you want to record or play a programme, the hard disk will automatically switch on again. Please note that a few seconds will elapse before the hard disk is ready for operation, and that there will be an initial delay in the corresponding functions – recording, playback and the hard disk menu display.

You can set the time at which you want the hard disk to switch off if it is not being used. In the menu Manage *hard disk*, move the cursor using the **CH ▲▼** buttons onto the line *Switch off hard disk*.

Use the **VOL ◀ ▶** buttons to select the time at which you want the hard disk to switch off if it is not being used

### NOTE:

The hard disk will not switch off if you select the setting “–”.

## Managing the hard disk – testing the file system

This tests the integrity of the file system. In case of faults, the question “Delete recording?” will appear. If you then press “Yes”, the recording will be deleted, if “No”, the device will attempt to repair the recording, and afterwards the file system check will continue.

## List of recordings

In normal operation, press the **green button** to open up the list of recordings.

### Deleting recordings

You can delete recordings you no longer need from the hard disk.

Use **CH ▲▼** to select the programme you wish to delete.

Then press the yellow button. A security question, asking whether you really want to delete the recording, will appear. Use the **VOL ◀ ▶** buttons to select whether you really want to delete the recording (Yes) or not (No). Confirm your choice with the **OK** button.



## Sorting recordings

In normal operation, press the **green button** to open up the list of recordings. Press the **LIST** button. The menu "Select list" will appear.

Use the **CH ▲ / CH ▼** buttons to select the sorting criteria and then press **OK**. The list of recordings will be sorted as follows:

"Alphabet"	The recordings will be put in alphabetical order
"Recording date":	Sorted according to the date of the recording (oldest recording first)
"Archiving":	Sorted according to where the recording is filed on the hard disk
"Recording length":	Sorted according to the size of the recording

## Renaming recordings

While a recording is being made, its name will be formed automatically from the broadcast information. You can however rename the recordings manually.

In normal operation, press the **green** play button. The list of recordings appears. Use **CH ▲▼** to select the programme you would like to rename.

Then press the **blue** button. This menu will appear:



In the lower window you will see in the first line the name of the selected programme. Below it, available characters are shown. Use the **green** button to switch between capital and lower-case letters.

In the name, use the **red** and **blue** buttons to select the characters you wish to change. The current position that can be changed is highlighted in colour.

Now use the **CH ▲▼** and **VOL ◀ ▶** buttons to select the character you would like to insert. Then press **OK**, to insert the character in the name.

To accept the new name press **EXIT**. The newly modified name will now be shown in the list of recordings.



# Operating the hard disk

Your digital receiver is equipped with an integrated hard disk drive, so that you no longer need an external storage medium (e.g. a video recorder) to make recordings. The recording capacity depends on the size of the hard disk and the data volume of the broadcast material.


## Recording

Various modes of recording are available for you to record programmes onto the hard disk.

### 1. Immediate recording

Switch on the channel on which the programme you want to record is being broadcast.

Press the **record** button to record the current programme. While the recording is running, the programme continues to be shown on the screen.

To stop an immediate recording, press the **grey** stop button .

### 2. Timer recording

You can record programmes onto the integrated hard disk in your absence using the Timer recording function. Programme a Timer recording as described on page 28. Select the menu item *Record on the hard disk*.

## Timeshift function


The Timeshift function enables you to record and playback at the same time. This gives you various options:


1. Time-delayed television. You can watch the beginning of the recording and jump over recorded passages (e.g. commercial breaks).

Press the **red** record button  to start a timeshift recording.

To watch the partially recorded programme, press the **green** playback button. The programme is then played from the moment of recording, while the current programme continues to be recorded in the background.

If you want to stop the playback and return to normal TV operation, press the **TV button**.

To stop a timeshift recording press the **grey** stop button .

2. Recordings saved on the hard disk can be played during timeshift recording.  
During the timeshift recording, press the **green** playback button **twice** to open the list of recordings. Use **CH ▲▼** to select the recording you wish to see. Press **OK** to start the playback. The playback information will be shown briefly in a super.  
If you want to stop the playback and return to normal TV operation, press the **TV button**.  
To stop a timeshift recording press the **grey** stop button .

## Choosing the audio channel for recordings


When playing back recordings, you can choose between the different audio channels.

During playback, press the button F2 twice. Now a menu with the available audio channels will be shown.

Use the **CH ▲▼** buttons to select the audio channel you want to use and press the **OK** button. Pressing the **EXIT** button to hide the menu again.

## Playback

In normal operation, press the **green button** to open the list of recordings. Use **CH ▲▼** to select the recording you wish to see. Press **OK** to start the playback. The playback information will be shown briefly in a super. *Note:* While this display is on the screen, you can switch the slow motion function on and off using the **OK** button.

Playback is stopped using the **grey stop button** .

## Operating the hard disk – fast forward and rewind

During playback, press the **blue Forward** button or the **red Rewind** button. The symbol “▶▶” or “◀◀” will appear, and the recording will be played faster in the desired direction. Press the **blue** or **red** button again to increase the speed. The symbols ▶▶▶ or ◀◀◀ will appear. Press the **blue** or **red** button once more, and the speed will be increased to the maximum. The symbols ▶▶▶▶ or ◀◀◀◀ will appear. Once you have found the spot you were searching for, press the **green** button to return to normal playback operation.

During fast forward or rewind, you can use the **VOL ◀ ▶** buttons to change position within the file. This enables you easily to jump over longer sections of film.

Overview of symbols displayed:

Indicazione	Meaning
▶	Playback
▶▶	Fast forward
▶▶▶	Very fast forward
▶▶▶▶	Maximum speed forward
●	Record
● ▶	Timeshift operation
◀◀	Fast rewind
◀◀◀	Very fast rewind
◀◀◀◀	Maximum speed rewind

## Managing recordings

In normal operation, press the **green** play button. The list of recordings will appear.

The menus and their operation are similar to the description Managing the hard disk – list of recordings on page 31.

## Operating the hard disk – Setting and managing markers

During the timeshift function or playback, you can mark places on the recording. A marker is shown as a coloured triangle in the status indicator. Press the button **F1** at the playback position to set a marker.

You can use the button **F2** to show a list of all the markers. A recording always has the markers *Start* and *End*.

Using **CH ▲▼** you can now select a single marker. Press the OK button to continue playback at the selected marker.

When the list of markers is open, you can use the button **F1** to assign a particular function to a marker, so that when playback reaches this marker the function is automatically performed.

You can assign the following functions to markers:

- Press the button **F1** once – the marker is interpreted as a loop. When the playback reaches a loop marker, it jumps to the previous marker. A loop marker is labelled **L** in the list of markers. A yellow vertical line is shown in the status indicator.
- Press the button **F1** twice – the marker becomes a jump marker. When the playback reaches a jump marker, it jumps to the next marker. A jump marker is labelled **J** in the list of markers. A white vertical line is shown in the status indicator. Use jump markers, e.g. to jump over commercial breaks.
- Press the button **F1** three times – this marker has no special function, but can be used during playback as place for a loop or jump.

Press the **red** rewind button to delete the selected marker from the list. The *Start* and *End* markers cannot be deleted.

In playback operation, you can use the **SWAP** button to jump to the next marker. The **red** record button  takes you to the previous marker.

Press the **F2** button or **EXIT** to close the list.



## EPG – Electronic programme guide

DVB-compliant stations provide information such as the title, broadcast times and a description along with their programmes.

Press the **i/EPG** button to call up the *Preview* menu. This shows you all the programmes that the particular station is broadcasting, with their times of broadcast. The current programme is highlighted in colour.

Use **CH ▲▼** and **VOL ◀▶** to select the programme about which you wish to find information. Pressing the **OK** button will give you detailed information about this programme. Use the **CH ▲ ▼** buttons to scroll forwards, if the volume of text is too great for one menu window.

Use **EXIT** to leave the super.

## Audio language of the soundtrack

If a programme is being broadcast in several languages, this is shown on the screen when you change programme.

Use the red and green buttons on the remote control to choose the language you want and activate it with **OK**. You can call up the super at any time using **OK** and change the language.



## DOLBY DIGITAL – AC 3 operation

If a programme is being broadcast in DOLBY DIGITAL format, this is shown on the screen when you change programme (AC-3).

Use the red and green buttons on the remote control to choose AC-3 operation and activate it with **OK**. You can call up the super at any time using **OK** and change the sound format.



If you have a DOLBY DIGITAL 5.1 channel amplifier, you can listen to any films broadcast in this audio format. You will have to connect the DOLBY DIGITAL output of your receiver via a suitable cable to the corresponding socket of your hifi amplifier.

## Using the serial interface

The serial interface offers you the possibility of connecting the device to a PC. For this you will need a PC and a serial cable with 1:1 pin mapping, i.e. all pins are directly connected. On the PC side, the cable has a 9- or 25-pole SUB-D socket, according to which serial interface your PC has. On the receiver side you will need a 9-pole SUB-D plug.

You can use this connection to perform e.g. software updates or list of stations uploads and downloads. You can find the procedure for this in association with the necessary programmes on the website of the manufacturer or your supplier.

## Faults

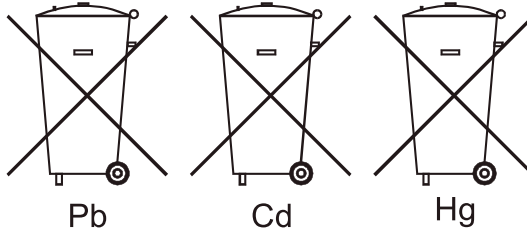
All electrical devices may have faults from time to time. This does not always mean the device itself is faulty. The cause is usually to be found in inadequate supply lines, socket connections or faults at the connection. So before you take your device for service, please check the following points:

Problem	Possible causes	Remedy, tips
Device cannot be switched on	<ul style="list-style-type: none"> <li>• Device is not connected to the mains</li> <li>• The batteries in the remote control are empty</li> </ul>	<ul style="list-style-type: none"> <li>• Check how the mains plug sits, try out the socket with another device</li> <li>• Replace the batteries</li> </ul>
No picture, or a bad one	<ul style="list-style-type: none"> <li>• The wrong input channel is selected on the television</li> <li>• Connecting cable may be defective or incorrectly connected</li> </ul>	<ul style="list-style-type: none"> <li>• Check connection and settings of the television</li> <li>• Replace cable, or connect it properly</li> </ul>
No sound	<ul style="list-style-type: none"> <li>• Volume has been set too low</li> <li>• Cable is defective or incorrectly connected</li> </ul>	<ul style="list-style-type: none"> <li>• Turn the volume up</li> <li>• Check cable and connections</li> </ul>
Remote control does not work	<ul style="list-style-type: none"> <li>• Distance is too great</li> <li>• Batteries incorrectly inserted</li> <li>• Remote control receiver is covered</li> <li>• Timer is activated</li> </ul>	<ul style="list-style-type: none"> <li>• Go closer to the device and point directly at the receiver</li> <li>• Insert batteries correctly</li> <li>• Remove obstacles between remote control and receiver</li> <li>• Deactivate timer</li> </ul>
Defective radio reception	<ul style="list-style-type: none"> <li>• Weak antenna signal</li> </ul>	<ul style="list-style-type: none"> <li>• Check antenna and if necessary change its direction</li> </ul>
Menu appears: "Short circuit or overload at antenna input"	<ul style="list-style-type: none"> <li>• Coaxial cable damaged</li> <li>• LNB damaged or faulty</li> </ul>	<ul style="list-style-type: none"> <li>• Check coaxial cable and F-plug or replace them</li> <li>• Check LNB or replace it</li> </ul>
Picture disturbances for SAT programmes with a frequency of about 12480 MHz	<ul style="list-style-type: none"> <li>• Disturbance may be caused by wireless phone (DECT) near the receiver.</li> </ul>	<ul style="list-style-type: none"> <li>• Move wireless phone further away.</li> </ul>
No picture, "Faulty signal" appears for SAT programmes	<ul style="list-style-type: none"> <li>• Cable is defective or incorrectly connected</li> <li>• Sender has changed transponder</li> <li>• Satellite antenna is kinked</li> <li>• Settings in the LNB configuration menu are faulty</li> </ul>	<ul style="list-style-type: none"> <li>• Check cable and connections</li> <li>• Perform station search</li> <li>• Straighten out satellite antenna</li> <li>• Correct settings or return to factory settings</li> </ul>
"Faulty signal" appears	<ul style="list-style-type: none"> <li>• Cable is defective or incorrectly connected</li> </ul>	<ul style="list-style-type: none"> <li>• Check cable and connections</li> </ul>
Wrong time is shown	<ul style="list-style-type: none"> <li>• Time difference from local time not set correctly</li> </ul>	<ul style="list-style-type: none"> <li>• Set time difference from local time correctly</li> </ul>
Timer is activated at the wrong time	<ul style="list-style-type: none"> <li>• Time difference from local time not set correctly</li> </ul>	<ul style="list-style-type: none"> <li>• Set time difference from local time correctly</li> </ul>

## ***Make a contribution to protecting the environment***

Batteries do not belong with household rubbish. As a consumer, you are legally required to return used batteries. You can take your old batteries to public collection points in your municipality, or hand them in at any shop that sells batteries of that sort.

These symbols can be found on batteries that contain pollutants:



**Pb** = Battery contains lead

**Cd** = Battery contains cadmium

**Hg** = Battery contains mercury

### **Notes on environmental protection**

Once this device has worn out, you should not just throw it away with household rubbish. There will be a recycling depot in your municipality that takes back used devices and recycles their parts.



## Technical data

<b>General</b>	<ul style="list-style-type: none"> <li>• Memory for 4000 programmes</li> <li>• Video text and video text generating for playback on TV</li> </ul>
<b>Fast OSD</b>	<ul style="list-style-type: none"> <li>• Quick channel switching for zapping</li> <li>• No delay in building menus</li> <li>• Large typeface for better legibility</li> <li>• Easily understandable online help for all menus</li> <li>• OSD transparency and length of superimposition can be set</li> </ul>
<b>EPG</b>	<ul style="list-style-type: none"> <li>• Electronic Programme Guide for max. 64 days</li> </ul>
<b>List of stations editor</b>	<ul style="list-style-type: none"> <li>• Copying, moving, deleting</li> <li>• Operates in blocks</li> </ul>
<b>Station search</b>	<ul style="list-style-type: none"> <li>• Completely automatic station search</li> <li>• Recognition of unencrypted programmes</li> <li>• Manual transponder search</li> </ul>
<b>Further</b>	<ul style="list-style-type: none"> <li>• Simple installation through menu-based installation assistant</li> <li>• Display of signal strength and quality</li> <li>• Separate setting of audio outputs for SCART and Digital</li> <li>• Jump back to previous station with a single button</li> <li>• Serial interface for updates and list of stations, updates available from the Website</li> </ul>
<b>Hardware</b>	
Hard disk (optional)	<ul style="list-style-type: none"> <li>• 2,5", 40/60/80 GB</li> </ul>
CPU	<ul style="list-style-type: none"> <li>• 32 bit RISC CPU</li> </ul>
Video	<ul style="list-style-type: none"> <li>• 2 x SCART with RGB, FBAS, YUV or Y/C support</li> <li>• 16:9 signalling</li> </ul>
Audio	<ul style="list-style-type: none"> <li>• 24bit Audio DAC</li> <li>• Stereo output</li> <li>• 32-level volume controls</li> </ul>
A/V	<ul style="list-style-type: none"> <li>• VCR through line to TV</li> </ul>
Reception	<ul style="list-style-type: none"> <li>• DVB-T: 174–862 MHz (Band III, IV, V), DVB-S: 950–2150 MHz</li> <li>• DVB-T: 7 or 8 MHz bandwidth switching</li> </ul>
Antenna current	DVB-T: +5 V, max. 30 mA, SAT: +14/+18 V, max. 400 mA
Controls	<ul style="list-style-type: none"> <li>• Remote control, front controls</li> </ul>
Mains connection	<ul style="list-style-type: none"> <li>• 230 V AC, 50 Hz</li> </ul>
Power consumption	<ul style="list-style-type: none"> <li>• In operation approx. 10 W (not including LNB)</li> <li>• In standby approx. 4 W</li> </ul>
Batteries for remote control	<ul style="list-style-type: none"> <li>• 2x1.5 V (size AAA)</li> </ul>
Environmental temperature	<ul style="list-style-type: none"> <li>• Da +5 °C to +40 °C</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>• W x H x D: 325 x 55 x 140 mm</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• approx. 1.000 g</li> </ul>

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