

DVB-C Receiver

UFD 560/560S

with Common Interface



KATHREIN

Antennen · Electronic

Dear Customer,

The following operating manual will help you obtain the best optimal use of the extensive features of your new cable receiver.

We have written this operating manual as comprehensibly as possible and as concise as necessary.

To conserve energy, separate your receiver from the mains during longer pauses. During short pauses, you should switch the receiver to standby with the remote control, so the least amount of energy is consumed. We wish you a great reception and much enjoyment with your new DVB-C Receiver.

Your

KATHREIN Team

Important Notes

If you have any unexpected problems with your receiver, please contact your specialist supplier, or call our hotline:

Tel.: +49 (80 31) 18 47 00

Fax: +49 (80 31) 18 46 76

With regard to the program allocation, changes always occur. In such cases, it is necessary to carry out new program settings or to download a new channel list (information on software updates of the channel lists are in the “Software Download” section, page 45).

Please keep the original packaging for the purpose of returning the unit!

Contents

Preface	3
Contents	4
Operating elements, connections and displays	6
View of the front side	6
View of the rear side	6
Remote control	7
Instruction set of the remote control	8
Safety instructions	9
Mains lead	9
Cleaning	9
Children-at-play	9
Grounding	9
Repairs	9
Connections	9
Mains supply	10
Extended absence/ thunderstorms	10
Place of installation	10
Ventilation	10
Moisture, exposure to sunlight, heat	10
Smartcard	11
Putting into operation	12
First measures	12
Factory settings of the receiver	13
Notes on operation	14
Menu concept	14
Key functions	14
Alphanumeric inputs	15
Language selection - OSD	15
Screen displays/OSD On Screen Display	16
Important screen displays	16
Help function	16
Channel messages	17
Error message	17
Channel list - RADIO/TV	18
Videotext/Subtitle - program selection	19
Selecting a program	19
Selecting a TV program	19
Reception status	19
Switching over to a radio program	20
Common Interface	21
CA module and smartcard	21
Timer and sound settings	23
VPS Signal	24
Sound settings	24
AC 3	25
Channel list	26
Selecting the last received program	26
Favorite program	26
Search for a program alphabetically	29
Sorting your programs	30
Deleting programs	32
Adding a program manually	33

Contents

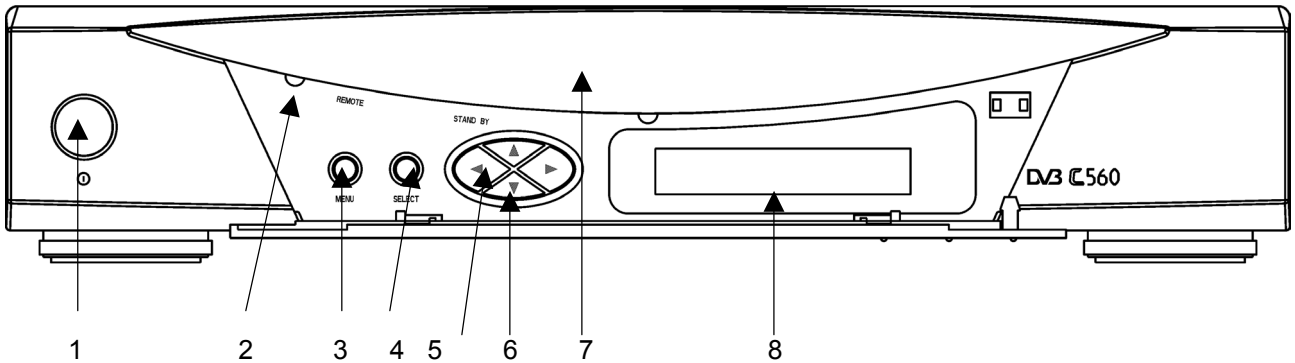
Electronic Program Guide	34
EPG (Electronic Program Guide)	34
EPG timer programming.....	35
Unit password	36
Factory settings	36
Entering the password.....	36
Parental control	38
Operating from the front panel.....	39
Operating without the RC	39
Setting the system parameters	40
System parameters	40
Parental Control.....	41
System Information.....	41
Local time/Timer	41
TV Type	42
Aspect Ratio	42
Screen	42
A/V mode.....	42
Installation menu	43
Signal Check	43
Network Scan (cable network program search).....	44
Factory Set	44
Software Download	45
Automatic software recognition	46
Connecting a videorecorder	47
Recording	47
Playback.....	47
Technical appendix	48
Technical specifications.....	48
Technical data	49
Connection example.....	50
Small technical lexicon / glossary	51
Service	52

Operating elements, connections and displays

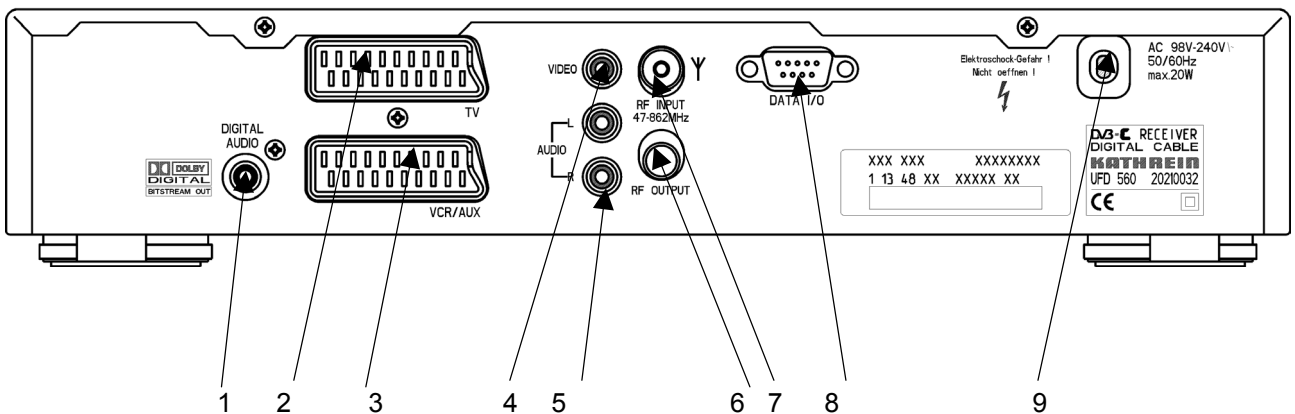
This section contains a short description of the front and rear sides of the receiver.

View of the front side

(Cover closed)



View of the rear side



Operating elements and displays on the front side

- 1 On/Off switch (with mains switch)
- 2 Acknowledgement for remote control signal (orange LED)
- 3 **Menu** button to call up and exit from the menu or submenu
- 4 **Select** button to confirm your selection
- 5 Standby display
- 6 **Cursor** buttons for moving through the menu and program as well as for setting the volume (same as on remote control)
- 7 LED display (four-digit, 7-segment display) for displaying the program number and time
- 8 Common Interface for CA module and smartcards for pay TV (e.g. BBC Prime)*

Operating elements and displays on the rear side

- 1 Dolby Digital output (AC 3)
- 2 SCART connection to TV
- 3 SCART connection to VCR/AUX
- 4 Video output (CVBS)
- 5 Audio output 2 cinch jacks, left and right channels
- 6 TV signal output, looped TV signal
- 7 TV signal input
- 8 DATA jack Interface for serial data transmission (service)
- 9 Power supply cable

*) CA modules and smartcards (e.g. BBC Prime) are not included in the scope of delivery of the digital receiver

Operating elements, connections and displays

Insert the batteries into the remote control

Remove the cover from the front of the remote control and insert the two batteries delivered with the unit. Observe the correct polarity of the batteries, as shown on the base of the battery compartment. Push the lid back into the housing until it clicks into place.



Used batteries are hazardous waste!

Do not throw batteries into domestic waste but deposit them at a central collecting point for used batteries!

Instruction set of the remote control

The remote control has two instruction sets. This allows you to control two receivers independently of each other in one room (not in connection with a twin receiver).

Note:

To do this, program on receiver to instruction set 1 and the second receiver to instruction set 2.

Switch on receiver 1 and receiver 2 with the mains switch off.

Keep the  switch pressed.

Enter "901" using the **numerical** buttons.

To accept the code, switch receiver 1 to standby mode using the



button and then switch it off using the mains switch on the unit.

Switch back on receiver 2.

Keep the  switch pressed.

Enter "902" using the **numerical** buttons.

To accept the code, switch receiver 2 to standby mode using the



button and then back into operation. Now also switch back on receiver 1.

Keep the  switch pressed.

Enter "903" using the **numerical** buttons.

For the first two settings, the remote control must be pointed towards the receiver that is switched on.

You can now switch between the two instruction sets A and B using



the button (toggle function) and operate both receivers alternately.

Instruction set 1 is active when the receiver is shipped from the factory.

If, due to incorrect operation, the active instruction set has been switched and the receiver can therefore no longer be operated then the remote control can easily be switched back to instruction set 1. This procedure has already been described above.

Safety instructions

Important notes regarding operation

The following section contains important relating to the operation, place of installation and connection of the receiver.

Read these notes carefully before putting the unit into operation.

Mains lead



Cleaning

Danger of electric shock!

Make certain that the mains lead (power supply lead) is undamaged.

Never put the unit into operation if the mains lead is damaged!

Danger of electric shock!

Withdraw the mains plug before cleaning the unit. Use a dry cloth for cleaning.

Clean the surface only, and nothing else! On no account open the housing. There is a risk of electric shock if components within the unit are touched!

Children-at-play



Danger of electric shock!

Pay attention that children do not insert objects into the ventilation slots.

There is a risk of mortal danger due to electric shock!

Grounding



Warning of short-circuit!

The parabolic antenna is to be grounded in accordance with regulations. The relevant local and/or German VDE regulations are to be complied with here!

Repairs



Attention! Attention! Loss of guarantee!

Only have qualified specialists carry out repairs and adjustments to your receiver. Unauthorized opening of the receiver and attempts at repair entail loss of guarantee.

Unauthorized tampering with the unit can jeopardize the electrical safety of the receiver.

The manufacturer is not liable for accidents occurring to the user as a result of opening the receiver

Connections



Caution!

The unit may be rendered inoperative or not work properly if the connections are not wired up properly.

Safety instructions

Mains supply



Caution!

Caution! Operate the receiver only with a mains voltage of 230 V/50 Hz.

First connect the antenna and the television set, before connecting the receiver to the mains power supply and switching it on.

Extended absence/ thunderstorms

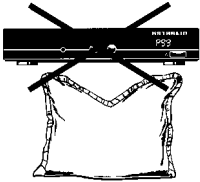


Notice!

Always switch the unit off via its mains switch located on the left on the front panel during periods of extended absence or at the onset of thunderstorms. This also applies to any other equipment which is connected to the receiver.

However, take into account any possible timer programming, and switch the unit on again in good time prior to the recording time.

Place of installation



Important notes for installation and the place of installation.

Notice!

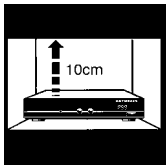
Every electronic unit generates heat. The rise in temperature, however, lies within a safe range. Slight color changes may occur to sensitive furniture surfaces and veneers over the course of time due to the constant effect of heat. In conjunction with treated furniture surfaces, the units rubber feet can, likewise, give rise to changes in color. Where necessary, place the unit on a suitable pad.

Ventilation



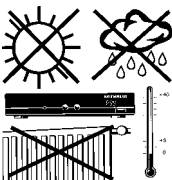
Notice!

The heat which is generated in this unit is dissipated quite adequately. Never install the receiver in a cabinet, shelf or rack with inadequate ventilation. Never block the cooling slots on the unit.



Do not place objects on top of the unit. Maintain a clearance of at least 10 cm above the unit, so that the heat generated within the unit can disperse without obstruction.

Moisture, exposure to sunlight, heat



Notice!

Protect the unit against moisture, drips and splashing.

Do not place the unit close to radiators nor expose it to direct sunlight.

Connection the receiver

The following section has been specially written for the dealer. You only need to observe the instructions listed here if you are carrying out the installation yourself.

A sample configuration is shown in the "Example of Connections" sections.

Only connect the unit to the power supply after all installation work has been professionally carried out.

In this regard, please observe the "Safety Instructions" section.

Cable connection

Connect the RF input of the receiver to the antenna cable.

Use a coaxial cable with a connection plug in accordance to the IEC standard.

TV and video recorder connection

Connect the DVB-C receiver (TV SCART socket) and TV set with a SCART cable.

The video recorder can also be connected with a SCART cable to the receiver (VCR/AUX-SCART socket).

Audio connection

If you want to reproduce the sound via the hi-fi system, then connect the audio Cinch sockets and the input sockets of the hi-fi system with a suitable cable.

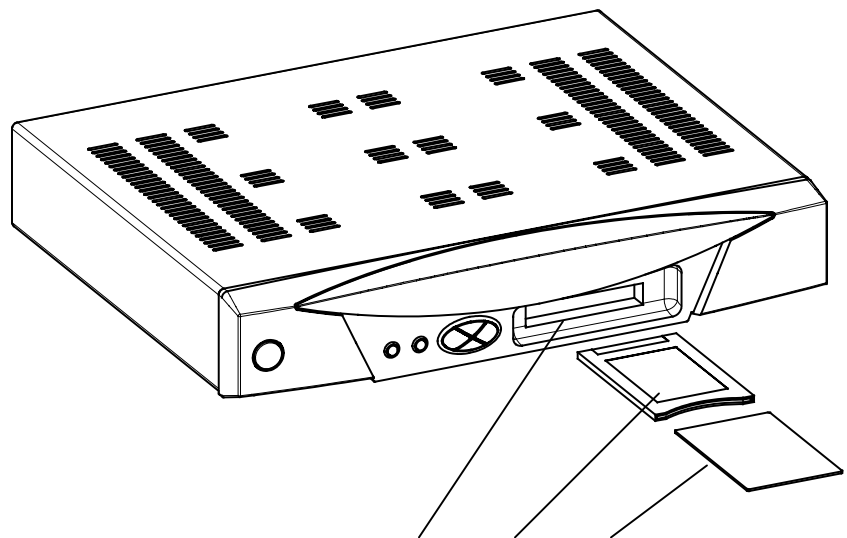
Dolby connection

The Dolby Digital output (AC 3) is for connecting the receiver to a Dolby Digital system.

Smartcard



*The Smartcard should be easily inserted into the CA module. This also applies to the CA module in the CI slot!
Do not use any force and observe the instructions delivered with the smartcard and the CA module.
Press the eject button to remove the module!*



(1) (2) (3)

To receive encrypted programs you will require an appropriate smartcard (3) and a CA module (2). The smartcard is slotted into the CA module (the chip contacts point upwards and towards the socket panel) and in then pushed into the CI slot (1).

Putting into operation

First measures

Connect the unit to the power supply and switch the receiver on using the power switch at the front.


“- - - -” appears in the LED display and the LED for the operation indicator lights up red; the unit is now in standby mode.


Switch on the receiver using the **Standby** button .

Every time a button is pressed on the remote control, the orange LED on the front of the receiver lights up.








Note:

The channel list is empty on delivery. The receiver therefore switches automatically to the “Search” menu after switching on the unit for the first time. To start an automatic search you must now press the

-button. *The remaining parameters (start, frequency, etc.) are only required for special applications and do not need to be changed here.*

When the search is completed, confirm this by pressing  twice.



You can now receive the TV and radio programs received during the search and call them up using the  -buttons. You set radio programs using the - and  -buttons. You return to the TV programs by once more pressing the - or -button.

The “Channel Lists for TV/Radio” section explains how you can store additional TV and radio programs.

The last viewed program is automatically called up when switching on the unit.

Please check the time for summer/winter time.

Putting into operation

If “Bad or No signal” appears on the display and the last received program is shown then you should check the antenna cable and/or the settings of the receiver. If this only effect individual programs then this may be caused by an interruption of the signal from the transmitter or a fault in the cable system.

You should then first check the connection configuration and then whether the basic settings of the receiver are correct for your system. When in doubt, have an expert do this.

Factory settings of the receiver

Please make a note of the basic settings of your receiver before changing them! This will allow you to switch back to the original settings at any time.

Notes on operation

Menu concept

The menu concept has been constructed according to logical sequences

The selected menus, submenus and positions as well as the parameters to be set are each color-coded and are mostly self-explanatory.



Observe the strip at the lower border of the screen with the instructions regarding the respective menu item.

The main menu is called up using the **M**-button. The positions in the menus as well as the submenus are selected with the **▲** **▼**-buttons. The submenus can be accessed by pressing **OK**. The settings in the various positions are either carried out using the **◀** **▶**-buttons or by using the **numerical** buttons. The main menu and submenus as well as the positions are quit using the **L**- or **M**-button.

Key functions

- i** Switchover button (help function or TV channel list)
- TV** Function switchover button (Radio to TV)
- Ⓞ** Switch on button with menu functions
- L** Exits settings and menus
- Ⓞ** Switches on with menu functions
- F** Switches on with menu functions
- R** Function switchover button (TV to Radio)

Notes on operation

 Function switchover button (cancel by re-pressing)

Note:











Most of the buttons have additional functions within the menus;

you can see these by pressing the -button in the respective menu.

Alphanumeric inputs

Use the **numerical** buttons to enter program names. You can enter numbers and letters in the name fields of the corresponding menu. Place the bar cursor on the name field. The first position is automatically darkened. You can now also enter letters using the **numerical** buttons by pressing the appropriate button repeatedly. For example A, B and C are located on “2” (refer to the following table).

Alphanumeric assignment of the number buttons of the remote control:

Key	1 x	2 x	3 x	4 x	5x
	1	.	,	?	1
	2	A	B	C	2
	3	D	E	F	3
	4	G	H	I	4
	5	J	K	L	5
	6	M	N	O	6
	7	P	R	S	7
	8	T	U	V	8
	9	W	X	Y	Z
	0	EMPTY	0	EMPTY	0

Language selection - OSD

Set the language for the OSD as follows



Language available are German, English, Italian, French, Dutch, Portuguese, Spanish and Turkish.

Screen displays/OSD On Screen Display

Important screen displays

The receiver's functions are controlled by a microprocessor and extensive software. The following explanations are intended to explain all procedures and to help in narrowing the search in case of a fault. You receive the following messages after switching on the unit:




and




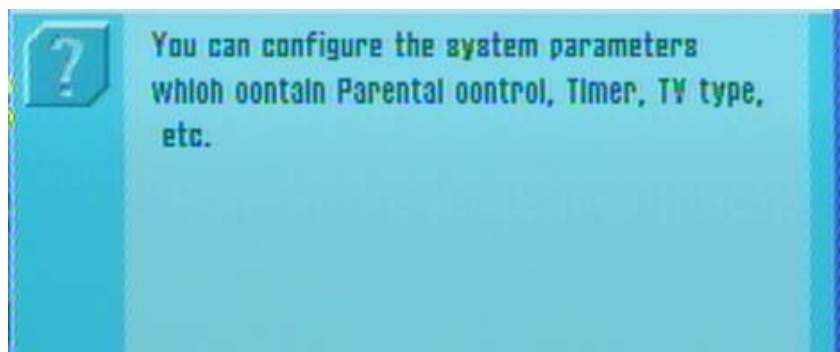
depending on whether there is a CA module with smartcard slotted into the CI module.

Help function

You can call up a short help screen for every menu and every menu function. These help functions provide you with a short description of the most important functions of the selected menu



For example, you reach the main menu by pressing on the -button.

The help display for the "System Parameters" menu item is reached by pressing the -button.



You can find a detailed description of the menu function called up in the corresponding chapter of the operating instructions.

You can exit the help function and return to the main menu by

pressing the - or -button. You can return to the originally

Screen displays/OSD On Screen Display

received program by once more pressing on the **L**-button.

Channel messages

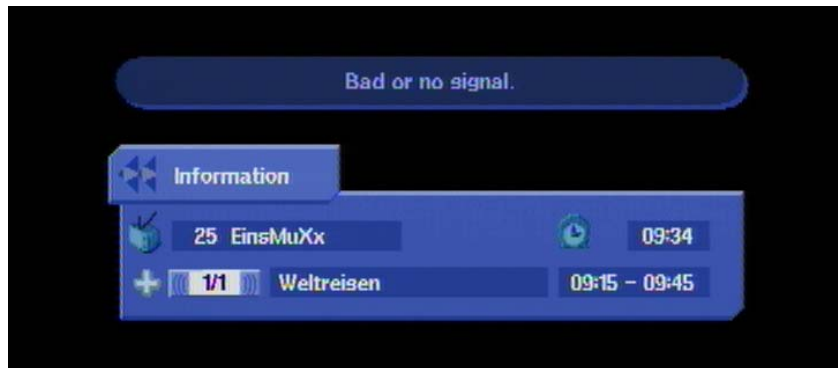
Channel message TV/Radio



The channel message is displayed for a few seconds every time a program is switched or displayed continually by pressing the

OK-button. The “**i**” shows you that a channel is being received, even if you do not see a picture (e.g. radio). The TV symbol shows a TV channel and next to it the selected program and whether videotext and subtitles are being received, and the time. The “+” in the third line is for program selection from the entire list. If the favourite list is selected then the “Apple Symbol” is shown here. This is followed by the program title as well as the start and end times of the program currently being shown, if this data is transmitted.

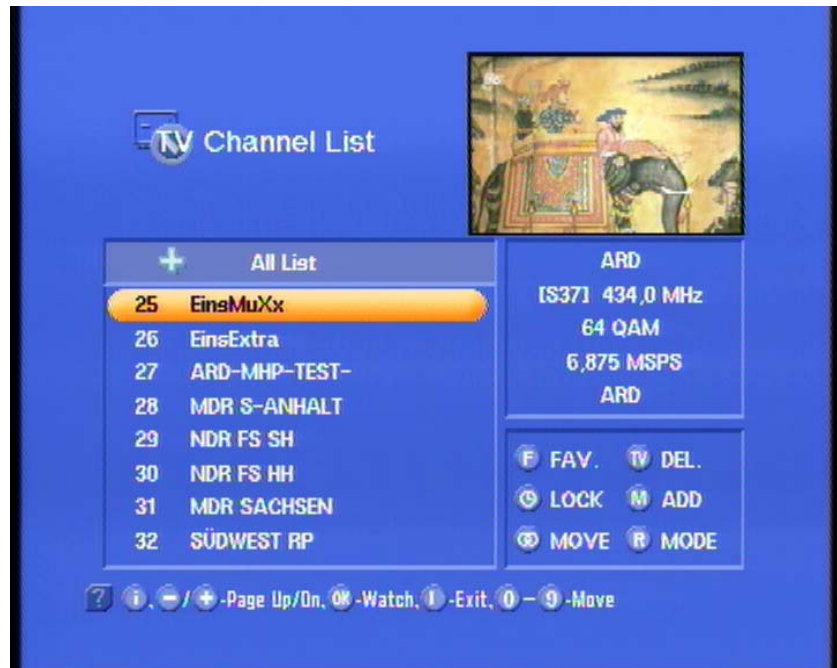
Error message



Bad or no signal? shows that there is an error in the reception or in the settings of the receiver. Instead of “**i**” the channel message displays Information. Check the RF connection at the rear of the receiver.

Screen displays/OSD On Screen Display

Channel list - RADIO/TV



You can reach the channel lists by pressing the **i**-button. At the top left there is an “+” for the entire list; the column below this contains information regarding the channel, the program provider and whether the program is currently being transmitted with encryption (scrambled). The column on the top right contains information regarding the channel received and its frequency, the symbol rate and the encryption.

The required program can be selected using the bar cursor or using by numerical input and then confirmed with the **OK**-button.

The “Program/Channel Settings” menu is in the bottom right-corner of the screen. The program and channel settings set at the factory can be changed here.

Pressing the





- F** (FAV.) button adds the displayed channel to your list of favourite channels
- G** (LOCK) button locks the displayed channel
- TV** (DEL.) button deletes the displayed channel
- M** (PLUS) button adds a new channel
- R** (MODE) button selects the program mode of the channel list
- @** (Move) button moves the channel to another position. Additional information is contained in the “Programme Selection” chapter.

Videotext/Subtitle - program selection



As soon as symbols for videotext or subtitles appear on the screen this means that the receiver is preparing these additionally transmitted signals (videotext also even in case of encrypted signals) to be shown on the screen. The video text is called up by the 0-button and is shown immediately.

The individual pages can be called up using the **numerical** buttons. During a search, a star appears in the top-left corner.

The subtitles can be called up using the  - and  -button. The required language can be set using the  -buttons. You can then exit the menu by pressing .

Selecting a program

This chapter explains how you can select TV programs with your receiver and set the desired volume.

We assume when describing these functions that the receiver has been correctly connected.



If you want to make these connections yourself then please read the previous sections

- Safety instructions
- Connecting the receiver and
- Putting into operation


Selecting a TV program

Reception status

The following explains how you can select additional programs and what the screen display looks like in each case.

To select additional TV programs in their ascending or descending order in the program memory, all you need to do after switching on the unit is to press the   -buttons.

After each press of the button, a channel message (see page 17) is shown in an info list displaying the time, the starting and ending times of the program and the title of the program (if this data is transmitted).

You can permanently display the info bar by pressing the  -button. Re-pressing the button removes the bar.


If you choose an encrypted channel then you receive the message "Scrambled channel".





Videotext/Subtitle - program selection

You can only receive these channels using a CA module and a smartcard.


If there is a CA module in the CI slot that is not correct for this channel then you will also receive a similar message, depending on the respective module.

Another way of selecting another program is by pressing the -button. The TV channel list is then displayed (refer to Channel list - RADIO/TV page 18):

Selecting the TV program by entering a number


When viewing a program, you can select another TV program by entering the program number. Use the **numerical**  ... -buttons to enter the number of the program.

Switching over to a radio program

To do this, press the -button on the remote control and the receiver then switches to the last received radio program. The LED display shows a small "r" together with the number of the program.

Note:

The screen goes blank (dark) after a few seconds!

You can return to the PV program using the same button or by pressing . The screen then shows the corresponding details for TV-channel reception.

The radio program is selected and the radio channel list is called up in identical fashion to that for TV programs.

Common Interface

Note:



Please observe the instructions delivered with the smartcard!

*Observe the operating instructions of your program provider. You **alone** are responsible for the use of a smart card!*

The Common Interface for slotting in up to two CA modules is behind the front cover.

The smartcards and CA modules are issued by the provider of the respective program(s) and contain the subscriber data and data referring to the respective pay-TV program. These programs are usually encrypted.

Contact a specialist dealer or the program provider if you are interested in viewing a pay-TV channel.

When not in use, store the smartcard and the PIN code securely.

CA module and smartcard

A CA module that is suitable for just one form of encryption must be inserted into the Common Interface slot. An appropriate smartcard is then inserted into this CA module.

Note:

Smartcards and CA modules are not included with this unit!

As soon as you insert a smartcard into the CA module, you receive the following message after switching on the unit:



Note for Conax, SECA, Viaccess and CryptoWorks users

Please note that the program providers activate (unlock) smartcards at various monthly activation-intervals. The card may therefore be activated some days prior to or after the end of the month. The CA module and the smartcard must be inserted into the CI slot during this activation time and the receiver must be switched on and set to the channel you have subscribed to. Please also observe the instructions of the subscribed TV channel!

If your smartcard is nevertheless not activated then we recommend that (with the unit switched on) you pull the CA module and smartcard out of the unit and then re-insert it.

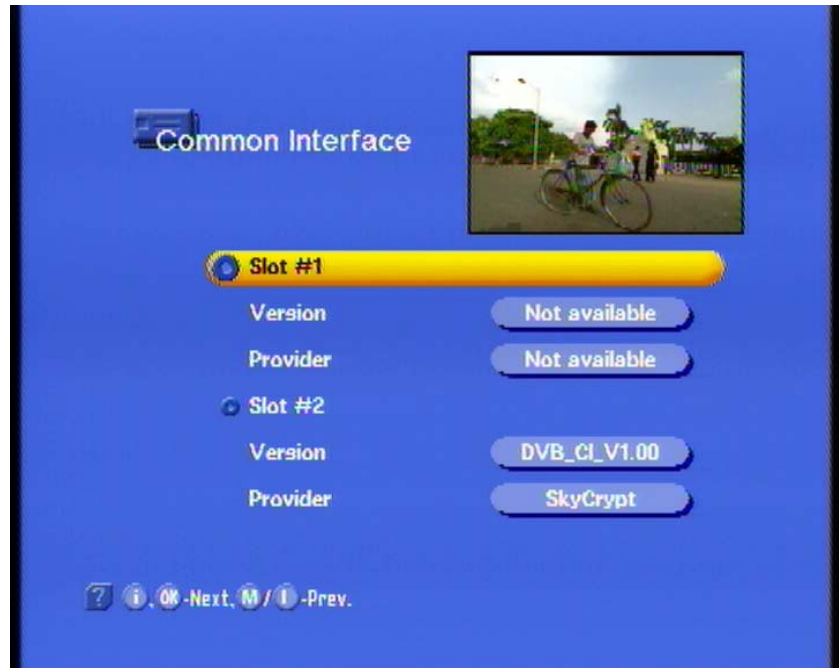
This instruction has nothing to do with the characteristics of the unit but is intended solely to help you solve the problem.

Common Interface

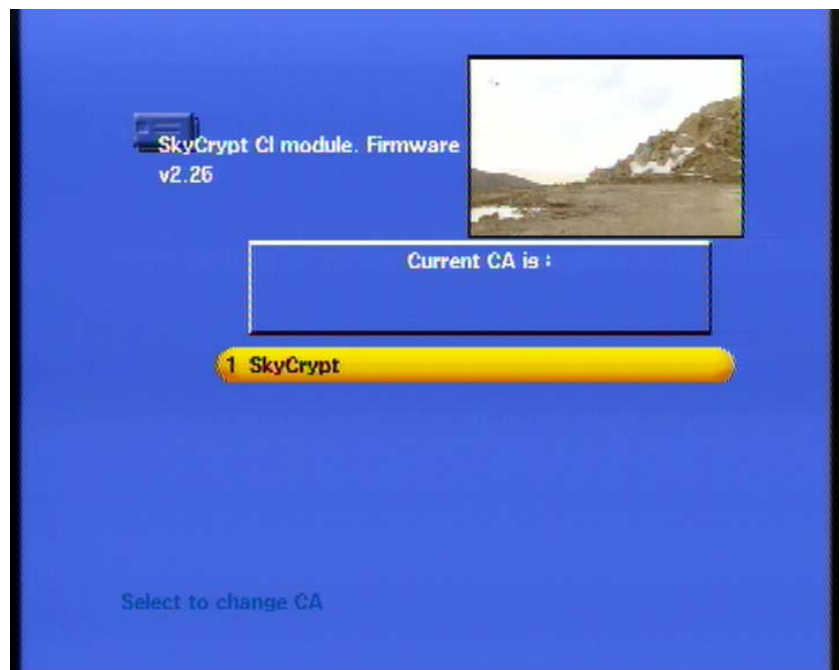
You can find out which smartcard is inserted into the CA module (or whether one is inserted) via the “Common Interface” menu in the installation menu.

Example:

There is a SkyCrypt CA module with a smartcard (BBC Prime) in Slot 1.



Click **OK** on the corresponding slot and you enter the corresponding CI (CA) module menu.










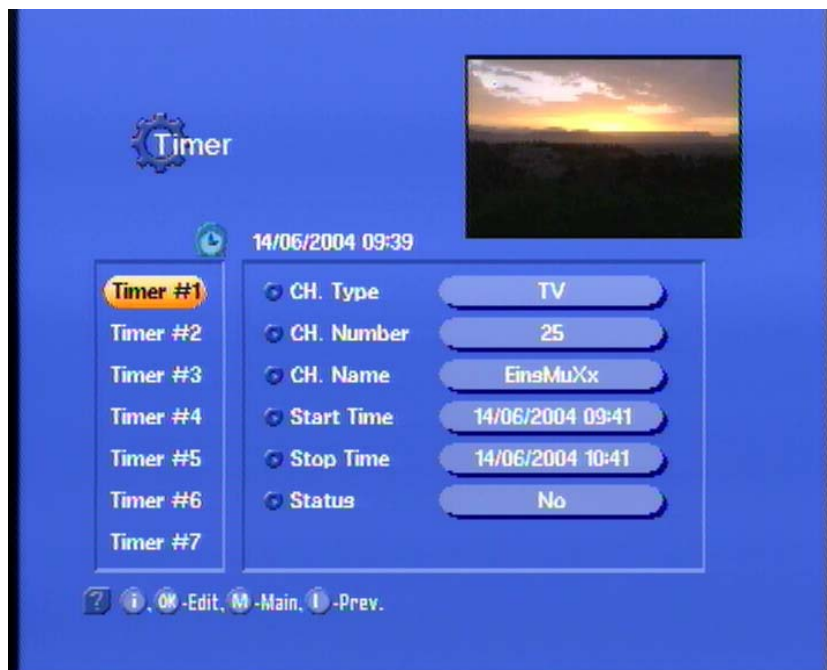
The CA module, the validity of the card and the software version of the module are displayed in the submenu. Follow the instructions contained in the operating instructions from your program provider. As soon as you have loaded the new software for your CA module, exit the menu by pressing on **L**, switch the unit off using the mains switch and then, after a short pause, switch the unit back on to stand-by mode.





Timer and sound settings

To record a program with a videorecorder at the correct time, you can use the timer. There are 14 timers and these can be set to various program start and end times.

You can access the timer program via the main menu with the

-button, then with the  -buttons on system parameter, then  and   on the local time/timer and finally . This display is shown on the screen:





Using the  -buttons, move the cursor to the required timer and confirm by pressing . You can exit the timer by pressing . *Incorrect times will not be accepted!*

Note:

You can select and set

- the type of channel (TV, radio or software download)
- the channel number
- the starting time (date, month, year, hour, minutes)
- the stop time, and
- the status of the timer (no/once/daily/weekly)

for 14 timers. Leading zeros must be entered for the time.

Make the settings using the  or -button and the **numeric** buttons.



The current time is shown as the start time; you must re-enter this. If no other details are provided then the end time is automatically set to the same date and one hour after the start time.

Timer and sound settings



Note:

If you select a pay-TV program that you have subscribed to then you will be automatically requested to enter the PIN code that you received with your subscription documents and that you must now enter

here. Finally, confirm your settings by pressing  or  3 times.

If you have programmed a download using the timer then all subsequent timers are ignored after the update has been successfully downloaded!


VPS Signal

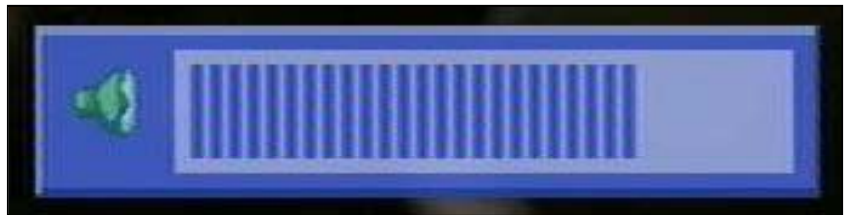
Please note that there is no VPS signal in the digital TV signal.

You must therefore program your external videorecorder to the same timer settings in your receiver.

Sound settings


Setting the volume



Set the required volume using the -buttons on the receiver remote control. A scroll bar is displayed on the screen showing the set volume.




Stereo and dual channel playback




Call up the sound and language selection by pressing the -button and make the appropriate settings (if they are included in the received


signal). You can select the menu items using the  -buttons

and make the setting using the -buttons. You can exit the menu

by once more clicking on the -button.

If subtitles are also transmitted then you can select the language using

the -buttons in the "Subtitle Track" bar and confirm this by

pressing .

Timer and sound settings

AC 3



The receiver has an audio output for AC 3 (Dolby Digital). This allows you to have cinema sound in your own living room. Only connect the digital sound output to a system suitably equipped for this!


Observe the instructions delivered with your Dolby Digital system.

To be able to play back the AC 3 format, set the receiver in the subtitle/audio menu at the "Audio Track" position, e.g. to "2 of 2" or "3 of 3 (3 Ch)". In the "Dig. Output" position, Dolby Digital is then displayed when the program is transmitted in this format.

Only a few program providers transmit in AC 3. If no AC 3 signal is received then only the normal stereo and mono settings can be made or the additionally transmitted languages selected.

Switching off the sound

Press the -button on the remote control. The sound is switched off. The screen displays .

The sound is switched back on by re-pressing the -button. The normal scroll bar then appears for a few seconds.

You can change the program when the sound is switched off (mute) but the sound stays off until you cancel this or you make a correction to the volume.

Channel list

The programs and channel settings made at the factory can be changed in the "Channel List" menu. The menu is selected with

the **i**-button, the **▲▼**-buttons and with **⏪+** for TV or RADIO and **OK**. If a password has been stored then this must also be entered.

Selecting the last received program

The last received program is displayed by pressing the **L**-button (as long as the program was selected for at least 6 seconds).

Favorite program



You can organize and sort your favorite TV and radio programs, e.g. all English-language programs or only those that are not interrupted by adverts. The name of the program is displayed by the "apple symbol" in the "TV Channel List" or "Radio Channel List", which you

can access using the **i**-button. Select the required favorite program using the **⏪+** and **▲▼**-buttons; the program is then shown highlighted on a color bar.

The bars can be shifted one at a time or in pages using the **cursor** buttons. You can also enter the required program number using the **numeric** buttons.


You can access the list for selecting favorite channels by pressing the **F**-button.

Using the **▲▼**-buttons, you can select in which list to store your favorite program from favorite lists 1 to 5. You can store several different programs within one list.

Channel list



Using the favorites list, every user can store his or her own favorite programs and call them up at any time. The programs can be protected from unauthorized access by means of a password (refer to chapter "Password"). Each list selected is highlighted by a color bar. The selected program appears in the picture in the top corner of the screen.

Using the -button, the highlighted line can now be marked using the "Apple symbol".

The next program is automatically selected from the channel list and appears on the small screen in the top-right corner.

You can assign names to the individual favorite channels in order, e.g. to gather programs together thematically (such as "film" or "sport"). You can also enter the name of the user.

Channel list

The **i**-button moves you to the channel list and the **F**-button displays the favorite list. You can select a favorite here using the

▲▼-buttons. It is highlighted by a color bar.



Write-mode is accessed by pressing the **R**-button. The first letter is now marked. Using the **numerical** buttons, you can now proceed to rename your favorite channel (refer also to the operating instructions,






“Alphanumeric Input”). Pressing the **▲▼**-buttons accesses the other favorites, which can now also be re-named.

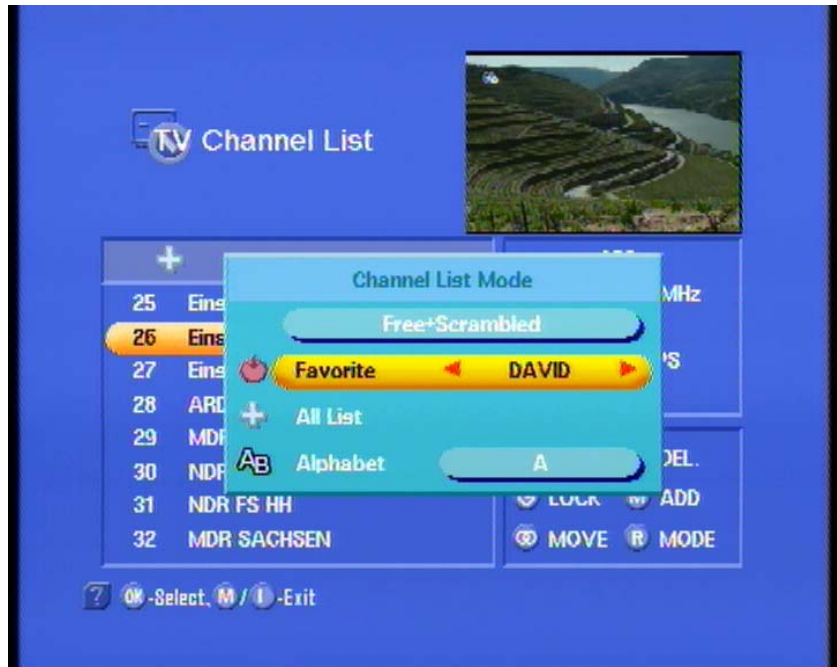
After entering all letters, confirm by pressing on the **OK**-button. The program then returns you to the channel list.




Pressing **L** moves you back to the TV picture. You receive confirmation that your changes have been stored and the info screen for the currently received program is displayed for a few seconds on the screen.






To call-up a favorite program, press the **i**- and **R**-button.

Channel list

Using the  -buttons, first select the line with the “apple symbol” and then select the required list by pressing the  -buttons. Press the -button and the required favorite list appears on the screen.




Select your required program by pressing the  -buttons; the program is highlighted by a color bar and is shown in the top-right corner. Your selected favorite program is then shown after pressing the -button.



If you want to delete a program from the list then first select the favorite list in which the program is stored by pressing the  -buttons and the -button and then delete the “Apple symbol” by pressing on the  and -button.



Search for a program alphabetically

You receive a survey of the programs with the same initials as in the list. This therefore allows you to find a particular program very quickly from the entire list of available programs.


You access the channel list by pressing the -button.

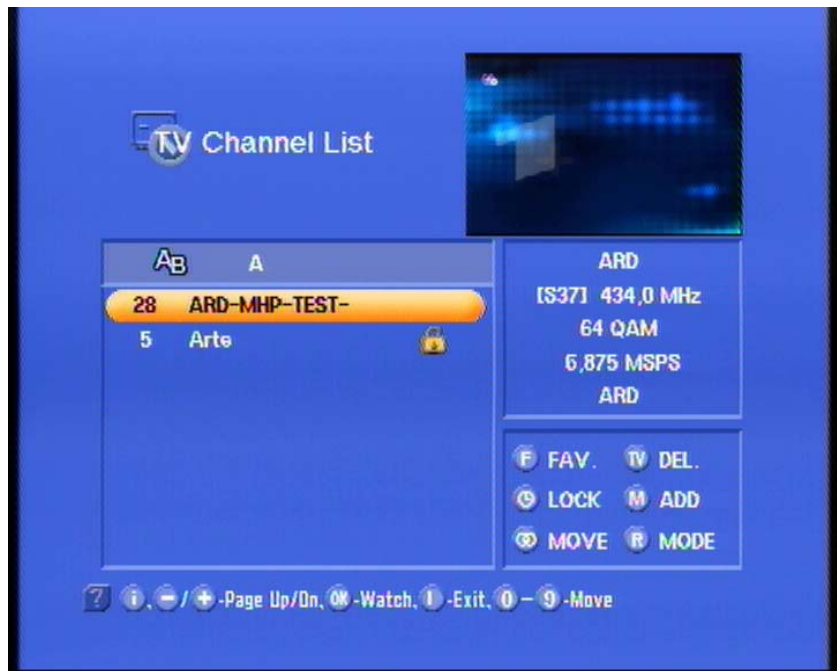
Press on the -button again and you are moved to the “channel list mode”.




Select the “Alphabet” bar by pressing the  -buttons.

You can access the required letter via the  -buttons which also allow you to run through the alphabet sideways. Every letter is shown in the “alphabet bar”.

Channel list

Confirm the letter by pressing the -button. All programs beginning with this letter are then displayed.






Using the  -buttons, you can select the required transmitter. This is then highlighted by a color bar and is displayed in the top-right corner of the screen. You can then confirm your selection with the -button.



To move back to the Channel List (displays all programs), first press the -button and then press the -button.

Sorting your programs

You can sort your programs as required. Programs are sorted by moving their entries within the channel list.





Press  to move to the channel list.
The screen now shows the required channel list.

Select the program that you want to move with the   and

 -buttons. The line with the program currently being shown is highlighted in the list by a color bar and the program appears in the top corner of the screen.

Channel list



“Hold” the program to be moved by pressing on the -button. The program is now highlighted with another color and you can now move it to the required position using the  and the -buttons and place it on the corresponding program location using .

The changed storage position is confirmed and appears for a few seconds on the screen. The moved program appears on the screen.

Channel list

Deleting programs

You delete programs in the same way that you sort them.

Access the "channel list" by pressing the **i**-button.
Select the position of the program you want to delete by pressing

the **←** and the **→**-buttons.

Press the **TV**-button to delete the program.
The control program prompts you:



Do you want to delete
this program?




Confirm the deletion using the appropriate button (Yes / No).


Pressing **OK** deletes the program location and pressing **I** cancels the procedure.

The change is confirmed and the program from the next transmitter in the channel list appears on the screen.

Channel list

Adding a program manually

Access the channel list by pressing the  menu button.


On pressing the -button, the screen now displays the menu for adding a program.



You can now make the entries required for a new program here. The first line in the list is highlighted by a color bar. The bar can be moved vertically to the required position using the


-buttons.

The respective position, i.e. the respective entry, is made using the

-buttons and the **numerical** buttons.

Note:

*PID (Programme Identification), PCR (Programme Clock Reference)
Only alphanumeric or decimal entries are accepted.*

Press  to move back to the channel list. You receive confirmation that your changes have been stored and the info screen for the currently set program is displayed for a few seconds on the screen. The new program is added to the existing program list.

The required PID's can be found in the appropriate magazines, in the Internet and in Videotext of SAT.1. The "Operating Instructions" section describes how you can make alphanumeric entries.

Note:







Never change the details of the PID without a reason as these effect the way in which the reception signal is detected.



This function is only required for programs that are not transmitted according to the DVB standard. All programs that correspond to this standard are automatically detected and stored during a search run.

Electronic Program Guide

EPG (Electronic Program Guide)

The EPG-button  provides you with a survey of all currently available programs together with times and duration (see display at top of screen) if these are transmitted with the Electronic Program Guide (EPG), such as, e.g. ARD and ZDF. The abbreviated program titles and the time of the transmission that has already lapsed are shown in the column to the right. In the column to the left, the cursor can be placed on a program (using the  -buttons) that is to be switched to using the -button. The subsequent transmissions are shown by once more pressing the -button. Additional information regarding the program being shown is obtained by pressing the -button.








On pressing the EPG-button  and , you are provided with the program sequence of the transmitter currently being received together with the time and duration (see bars on the screen), if this information is transmitted by the Electronic Program Guide (EPG).

The length of the channel list depends on the respective program provider and can cover/contain several days.


Electronic Program Guide


EPG timer programming

You can then move the colored bars within the list using the  -buttons and select a program for timer programming. The timer is selected with .

Here, you can select various timer settings using the - or -buttons, e.g. whether the required program is to be recorded just once or daily/weekly.



Confirm your selection with . The following acknowledgement appears on the screen for a few seconds:

The program is then redirected to the videorecorder to be recorded at the set time. You can exit this position without storing the timer by pressing twice on .

Unit password

You can lock your DVB-C receiver to protect it from third-party access or unauthorized access. The receiver is thereby protected against changes to the receiver settings by unauthorized persons. Simultaneously, you can also activate a child lock (parental control) to lock various programs.

Note:




Please note that the password for the unit and the PIN code for the smartcard(s) are different and have nothing to do with each other.

Keep the PIN code in a safe place so that you always have access to your programs - even when you forget the code.




Factory settings

The unit password is set as inactive at "0000" at the factory.

Entering the password




Press the -button to enter the main menu.

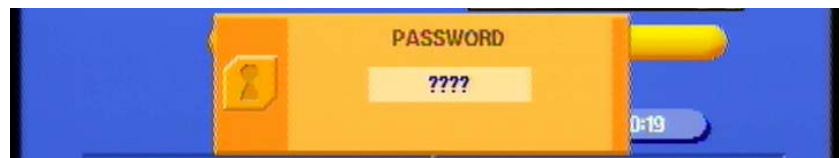
Here, select the "System Parameters" position by pressing the

 -buttons and confirm with .



Now, select the "Parental Control" position by pressing the

 -buttons and confirm again with . When appropriate, you will be requested to enter a password (unit code):



Unit password



You can make the following settings here:

- Age Limit: This setting is only effective when appropriate locking signals are transmitted.
- Lock Channel Editing: Yes/No. This allows you to lock or to enable the editing function for the program lists.
- Lock Installation: Yes/No. This allows you to lock or to enable access to the installation menu.
- New Password: Enter the (new) unit password using the **numerical** buttons.
- Verify Password: Enter the (new) unit password a second time (for confirmation) using the **numerical** buttons.
- Personal: Here, enter the unit ID that the unit itself reports on switching on. This can be useful for identification purposes in case of theft. The "Operating Instructions" section provides details on how to use the **numerical** buttons on the remote control in order to make alphanumeric entries. The factory setting is "UFD 560".








You have now made all settings to secure and to identify your DVB-C receiver.

If you forget the password then you must contact your dealer to have the unit unlocked.



Unit password


Parental control

In the same way as you identify the favorite programs using the “Apple symbol”, you can also set the parental control (child lock) to prevent unauthorized access by children. The programs are marked by the “padlock” symbol in the program lists “TV” or “Radio”.

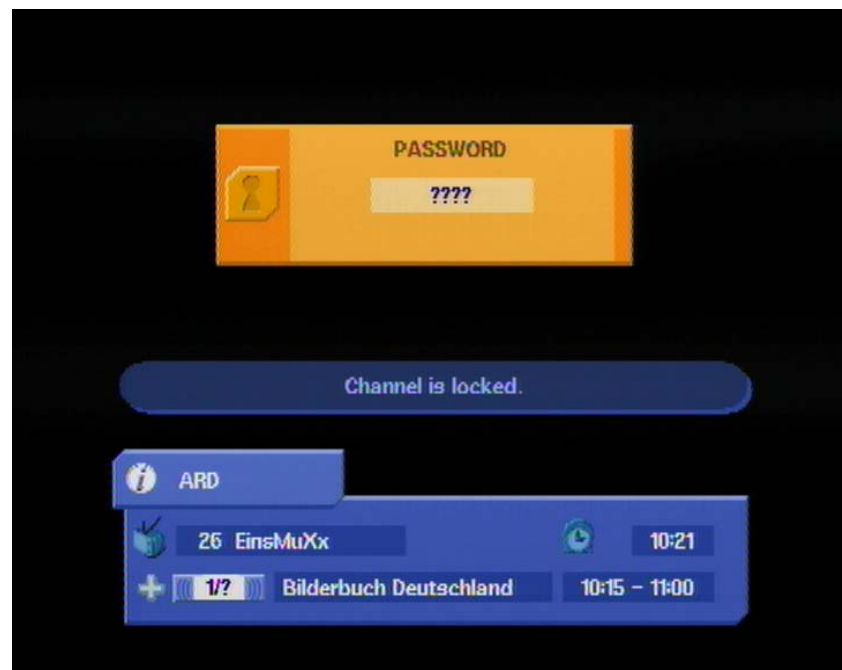
Press  to move to the channel list. Here, select the program that you want to lock with the   and -buttons. The bars can be shifted one at a time or in pages using the  and -buttons. The selected program is marked by a colored bar. Confirm the selection using the -button; the “padlock” symbol appears in the strip.

The next program in the channel list is now automatically displayed.

You can now lock another program using the -button or by re-pressing the -button, you can remove the lock - the “padlock” symbol vanishes.

The change to the list is displayed after pressing the -button. The next program then appears in the channel list and the information screen is shown for a few seconds.

After calling up the locked program, the message “Channel is locked” appears.



On calling up the locked program, you will be prompted to enter the password. The program is then shown after entering the password.

Operating from the front panel


If you have misplaced your remote control or the batteries are empty then you can operate the receiver from the front panel.

Operating without the RC


There are six buttons on the front panel.

The **On/Off**, **Menu**, **Select** buttons as well as the **Cursor** buttons with horizontal and vertical arrows.

You can switch the unit on and off from standby using the **On/Off** button.

The **Menu** button takes you to the main menu, as does the -button on the RC.

The vertical arrow buttons have the same functions as the

-buttons and access the submenus.

The horizontal arrow buttons have the same functions as the

-buttons.

The **Select** button has the same function as the -button.



Note:

*As there are no **numerical** buttons, no functions or programs that have been locked by PIN code or by a password can be called up!*

Setting the system parameters

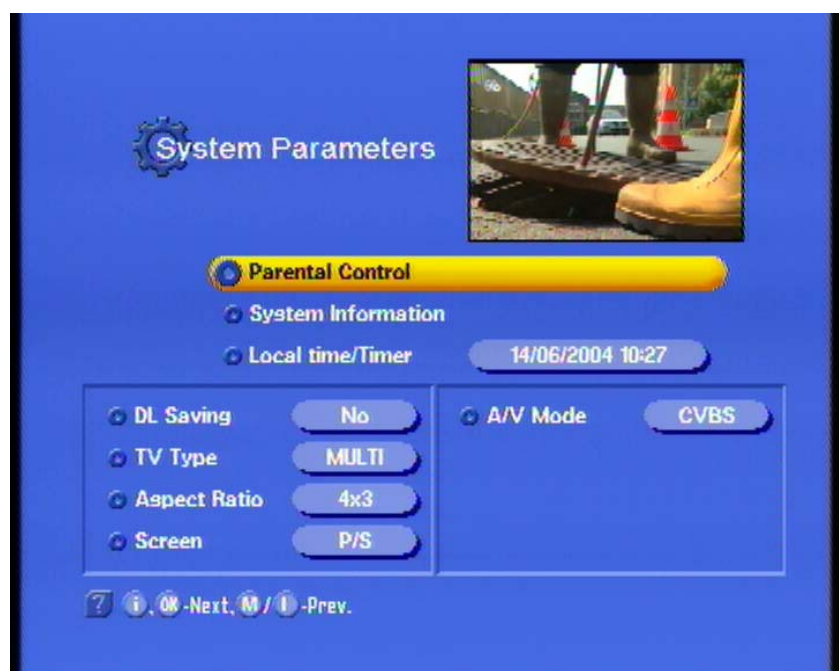
System parameters

You should not change the following settings without a reason as these are factory settings or operational settings.

The "System Parameters" menu can be selected with the menu button-**M**, the   buttons in the main menu and with **OK**. You can always get help regarding the menu item currently selected by pressing the **i** button. You can exit the help program by re-pressing the **i**-button.



The "System Parameters" menu is comprised of the following submenus:



Setting the system parameters

Parental Control

The basic settings that can be made here are described in the settings for parental control in the “Password” chapter.

System Information

The “System Information” position contains factory settings that can not be changed and that are only intended for servicing.

Press on **L** to return to the “System Parameters” submenu.

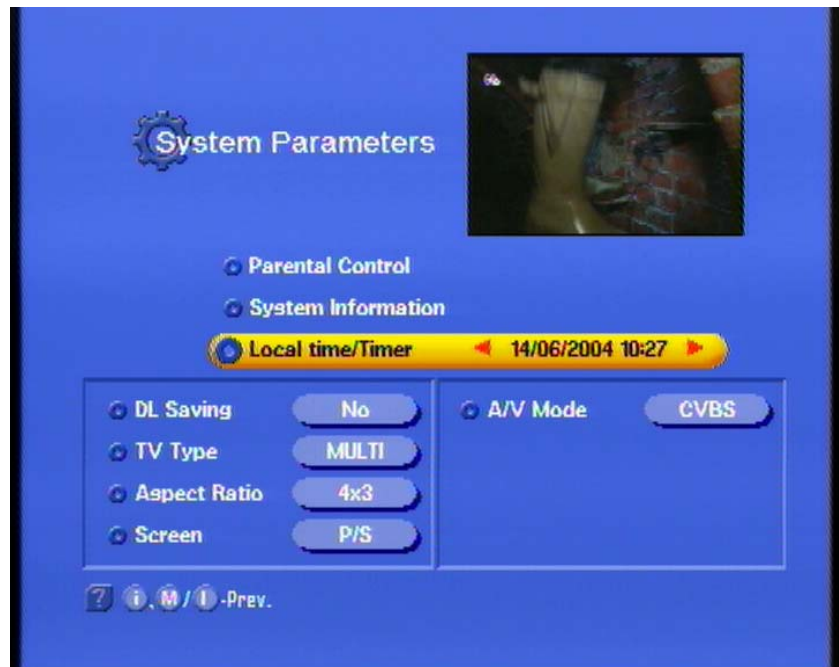
Local time/Timer

At the factory, the receiver shows the “UTC” (Universal Time Coordinate, previously Greenwich Meantime). This time is correct in the UK, but must be corrected for other locations (e.g. in Germany, CET is applicable - UTC + 1 hour).

Note:

You may have to correct for summertime.

You can make these corrections yourself in half-hour steps using the **-** **+** buttons, or manually using the **numerical** buttons.




To do this, move the cursor bar with the **▼** button to the “Local time/Timer” position. To conclude your entry, press the **M**-button twice. The receiver stores the new setting.

Note:

After doing this, do not switch the receiver using the power switch, but instead use the remote control as the settings will otherwise be lost!

Setting the system parameters


TV Type

Here, you can set the type of TV connected to the receiver using the  buttons. Possible types of TV are:

- PAL,
- Multinorm or
- NTSC unit

Confirm by pressing  twice.


Aspect Ratio

Here you can select the type of picture format (aspect ratio) **that is correct for your TV** by pressing the -buttons. This is either

- 4:3 or
- 16:9 or
- Auto

Confirm by pressing  twice.


Screen

Here, select the type of screen display using the -buttons

- Normal (P/S) = full-format for 4:3 screens or
- Wide (Letterbox) - in this setting, widescreen format is forced for 4:3 displays

Confirm by pressing  twice.

A/V mode

Here, select the type of video signal at the SCART connection using the -buttons. Select the signal that your TV is able to process.

Note:







Observe the operating instructions of your TV!

- CVBS – composite video baseband signal
- RGB – Red/Green/Blue signal or
- Y/C – S-VHS signal (luminance/chrominance)

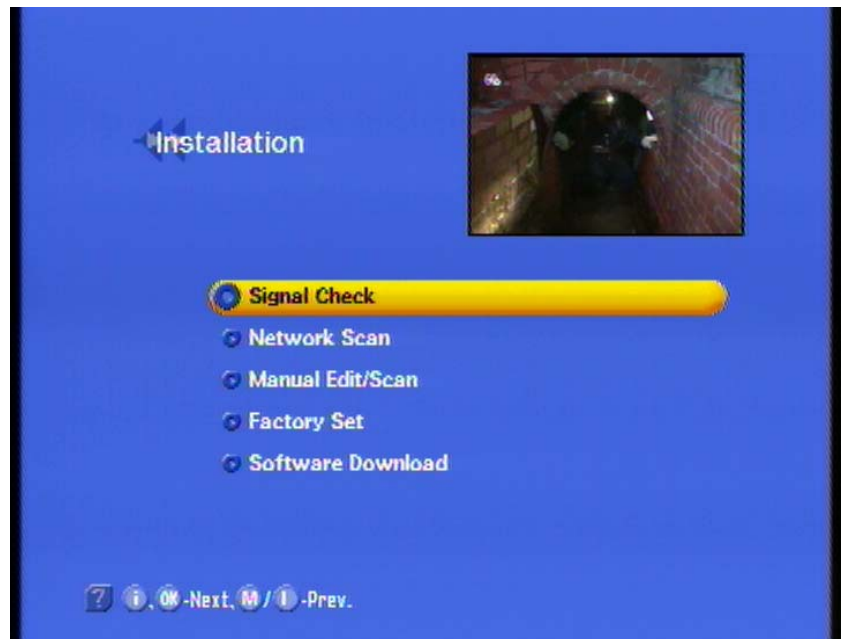
Confirm by pressing  twice

Installation menu



You should not change the following settings without a reason as these are factory settings or operational settings.

The "Installation" menu can be selected with the menu button-, the  -buttons in the main menu and with . If a password is stored then you must enter it. The additional positions are selected using the  -buttons.

The Installation menu is comprised of the following submenus:



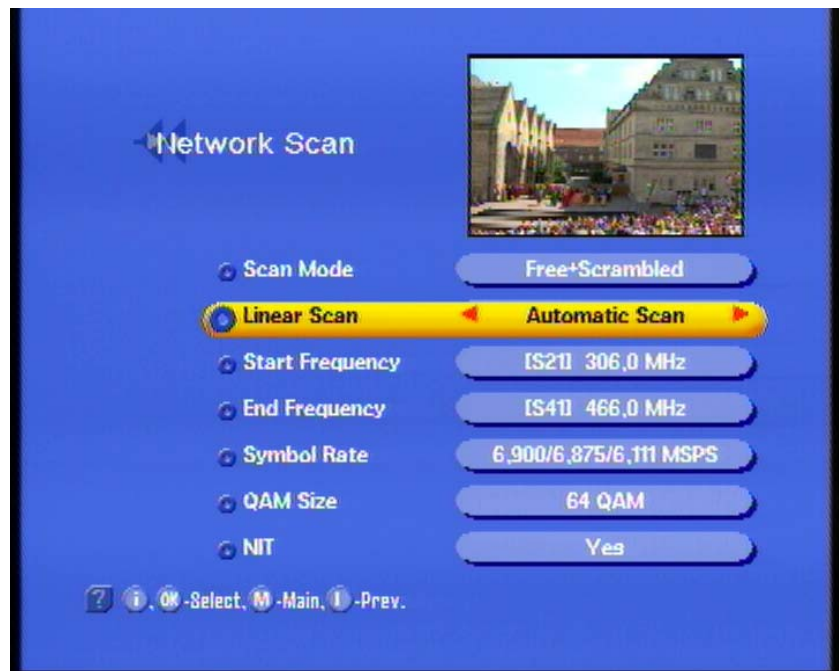
Signal Check


The quality of the reception signal of the selected channel is displayed in the "Signal Check" submenu. You can switch channels using the  -buttons and check its receive signal.



Installation menu

Network Scan (cable network program search)




In "Scan Mode" you can select whether you want to search for "Only Free" or "Free + Scrambled" programs (using the -buttons).

The program information of all programs can be loaded using the NIT program scan; all available channels of the cable network will thereby be scanned.

Factory Set



Note:


In this position, all settings can be reset to those at the factory by pressing the -button.

You may have to re-enter all of your personal settings after re-setting the unit!

Installation menu

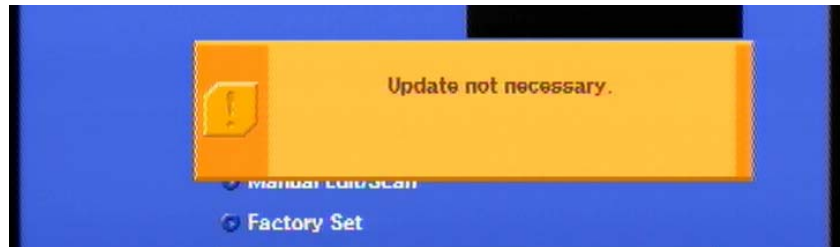
Software Download

Thanks to digital technology, the software and the channel list of your receiver can also be updated via the cable network. You can find out whether a new software or a new channel list is available via the “Software Download” submenu.



Select the main menu by pressing the **M**-button and then the “Installation” submenu by pressing   and **OK**. Now place the cursor bar on the “Software Download” position and select it with **OK**.

Your receiver now searches automatically for new software and channel lists; this can take a few minutes.





If there are no new versions then you will be informed of this on the screen.




You can move the bright cursor bar in “Software Download” with

 . With **OK** in the “Display Info” position, you receive information on the software being transmitted and on the channel list. The “Display Info”, “Operating Software”, and “Channel List” positions are automatically checked “Yes” if new information and content is available. The bar to the left shows the relative signal strength.

Installation menu

Using the bright cursor bar   and  or , you can decide which position you want to deactivate (No). Positions that have already been deactivated can not be changed. If you only want to update the software but want to leave the channel lists as they are then deactivate the “Channel List” field, and vice-versa. Similarly, you can also only request the “Info Text”.

To start the update, move the cursor bar to “Start” and confirm with . The receiver then commences with the update.

Automatic software recognition


Your receiver detects automatically when new software is being transmitted.

Approx. 5 minutes after the unit has been switched to standby it switches itself back on and checks whether new software is available. “----” appears in the display for a few seconds.

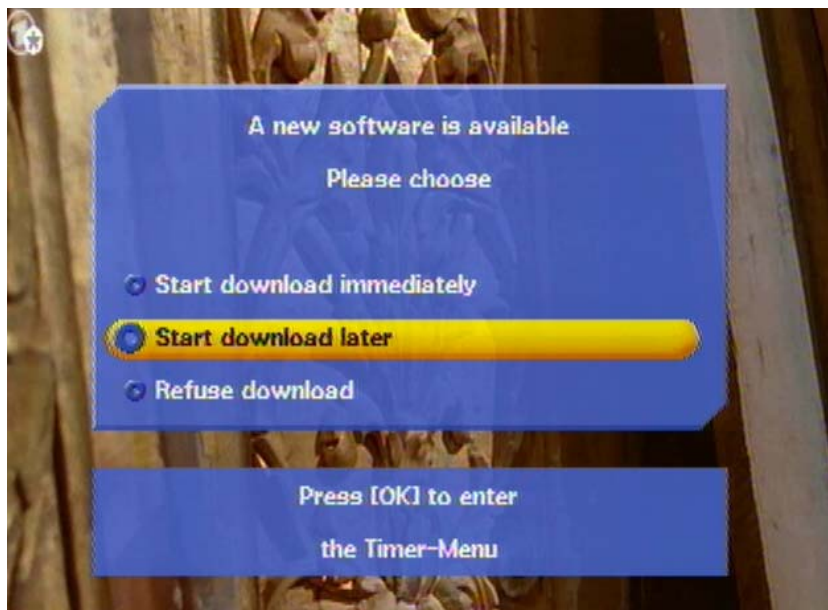
If this is the case then the receiver will inform you of this with the message indicated below the next time you switch it on. You can then decide what to do.



If you want to start the download later (e.g. because you want to watch a program that is currently being broadcast), then you will be shown a further message and can call up the timer menu using the

 button (refer to instructions for the timer). You can then set the time for the download in this menu.

Installation menu



The download then commences at the time you have set.

After the update has been completed, the receiver is re-initialized and starts normal operation. In case of an error or a missing signal then the **"Download Failed"** message is displayed

Never switch the receiver off during an update as you will then lose all of the software on the unit. The unit must then be brought to a factory/workshop or the software must be re-installed using a PC and null modem cable. During the download, the message

"Please Wait" flashes on the screen.

*After the prompt:
"Display Info"
a message is displayed on the screen.
You must comply with this message.*

Note:



Observe all screen messages! You have to reset the time after a software update!

You can also call up the updates from the Internet. The URL is: www.esc-kathrein.de/download/ufd/

Instructions on how to proceed are also located here.

Connecting a videorecorder

The connection diagram at the end of these operating instructions and the description of your video recorder contain information on how to connect your video recorder to the receiver.

Recording

To make a VCR recording (Record), the DVB-C receiver must be switched on and/or the timer must be preprogrammed (refer to the "Timer Settings" section).

Playback

Both in standby mode and when switched on, the signal path is connected from VCR playback (Play) to the VCR-/AUX-SCART connector.

Technical specifications

- Reception of digital TV and radio programs
- Common Interface for two CA modules
- Suitable for software update via HF signal and RS 232- interface
- Electrical audio output for Dolby Digital (AC 3)
- EPG (ELECTRONIC PROGRAM GUIDE)
- 14 timers
- 2,000 storage locations each for TV and Radio
- 5 favorite program lists
- 8 menu languages (D, GB, F, I, E, NL, TR, P)
- Program scan (search run)
- Aspect ratio detection 4:3/16:9
- CVBS, RGB and S-VHS signal output via SCART socket
- Language selection for multi-language transmissions
- Videotext
- 4 digit LED display
- Power switch to switch off from mains
- IR remote control with switchover of instruction set
- Deliverable in black and silver

Technical appendix

Technical data

HF range

Frequency range (HF) [MHz]	47-862
Input level range [dB μ V]	40-90
Reception threshold (EB/NO) at QAM 64 [dB]	≤ 16

Digital TV system

Modulation, FEC, demultiplexer	DVB-C standard; 16, 32, 64, 128, 256 QAM
Video resolution	CCIR 601 (720 x 576)
Input data rate [MS/s]	1,5-7
Video decoding	MPEG-1 and 2 compatible
Bit rate [MB/s]	1.5-15
Frequency range [MHz]	0.02-5
Output voltage/impedance [V/ Ω]	1/75
S/N [dB]	≥ 53
Output voltage (at 10 k Ω) [mV]	770
S/N [dB]	≥ 65
Audio decoding	MPEG-1 and 2, layer 1 and 2
Sampling rate [kHz]	32/44.1/48
Frequency range [MHz]	0.04-20

Memory

Flash RAM [MB]	2
D-RAM [MB]	8 [SDRAM]
Processor clock rate [MHz]	81

Power supply

Mains voltage [V/Hz]	100-240/50
Power consumption in operation/stand-by	$\leq 25/\leq 10$

Connections

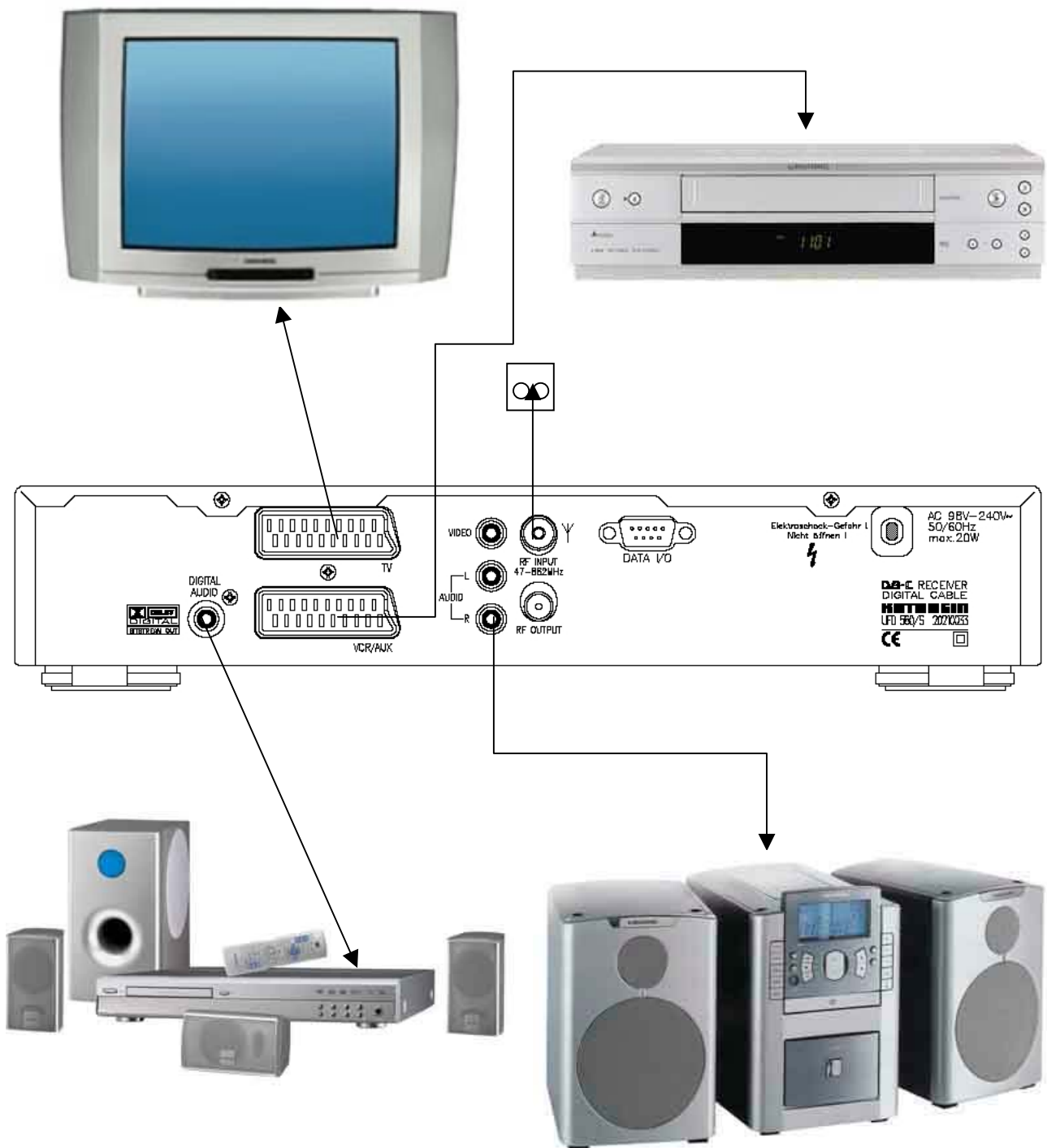
HF input	IEC socket
HF output	IEC plug
TV/VCR	2 x SCART socket
Audio (HiFi)	2 x RCA/cinch jack
Audio digital output (AC 3)	Cinch jack
Data interface	RS 232, Sub D 9-pin

General

Ambient temperature [°C]	+5 to +40
Dimensions (W x H x D) [mm]	335 x 68 x 285
Packaging unit, weight [St./kg]	1/2.6

Technical appendix

Connection example



Small technical lexicon / glossary

DVB-C	DVB is the short-form for Digital Video Broadcasting. DVB-C indicates the mode of transmission (C = Cable).
EB/NO ratio.	This ratio indicates the signal-to-noise ratio of the digital signal. Reception is generally not possible at EB/NO values under 5 dB.
FEC	is the short-form for "Forward Error Correction". The FEC error rate is the same as the Viterbi rate.
PID	The PID number (Packet Identification) is an identification number for video and audio signals within a digital data stream. The receiver establishes a unique assignment of the video and audio data transmission using this number.
CI	Common Interface (general interface)
LED	display display at the receiver
Scart cable	21 pin connection cable
Decoder	decoding unit for Pay-TV
OSD	On Screen Display
PIN	Personal Identification Number
RGB	video signal composed of three single-color signals (red, green, blue)
Stand-by	standby mode
Timer function	clock (timer) function for preprogramed switch-on and switch-off times
VCR	videorecorder
RF input	slot for antenna cable at the rear of the receiver
Symbol rate	transmitted data rate of the RF signal
Software download	loading of external data (e.g. new software via cable)

Service

Important Note:

If you have any unexpected problems with your receiver,
please contact your specialist supplier, or call our hotline

Tel.: +49 (080 31) 18 47 00

Fax: +49 (080 31) 18 46 76

936.2609/-/0704/ZWT- Subject to technical changes!