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If you do not know the configuration of your satellite reception system, we recommend you to contact your specialist dealer for the first installation of your receiver.

Safety instructions - important notes

These two pages contain important information about the operation, installation location and connection of the unit. Read these instructions carefully before setting up the device.



Danger!

Mains power cable

Make sure that the mains cable (power supply cable) is not damaged. Units with a damaged mains cable must be disconnected from the mains (unplug it at the socket) and repaired by an electrical specialist before switching on again. Only use the power supply unit supplied (if available)!

Mortal danger due to electric shock!

Cleaning

Disconnect the mains plug before cleaning the unit. Use a dry cloth for cleaning and only clean the outer surface. Never open the casing of the unit.

Touching the parts inside the unit carries a risk of death due to electric shock!

Playing children

Make sure that children do not push any objects into the ventilation slots.

Mortal danger due to electric shock!



Warning!

Earthing

The antenna system must be earthed or equipotentially bonded as specified.

EN 60728/11 and any national regulations must be complied with.

Risk of voltage surges due to lightning strikes!

Power supply voltage

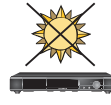
Only operate the unit at the specified mains voltage (indicated on the rear of the unit or on the external power pack). The unit may only be connected to the mains and turned on once it has been connected to the antenna and to the TV set or the cable network and PC.

If the mains voltage is too high, there is a risk of fire!



Moisture, direct sunlight, heat, naked flames

Protect the unit against moisture, dripping and splashed water (do not place any filled objects such as vases on top of the unit). Do not place the unit close to a heater or expose it to direct sunlight and do not operate it in damp locations. Only use the unit in a moderate climate, not in tropical conditions! Do not place naked flames such as candles on top of the unit!



There is a risk of fire!



Batteries

If your unit was supplied with batteries (e.g. for the remote control), take care that the batteries are not exposed to excessively high temperatures, direct sunlight or fire. Replace the batteries only with types that are identical or equivalent, otherwise the batteries or the remote control may be damaged. Also comply with the safety instructions stated on the batteries:



Warning!

There is a risk of explosions!



Warning!

Ventilation

The heat generated in this unit is adequately dissipated. However, the unit should never be installed in a cupboard or on shelves with inadequate ventilation. Never cover the cooling slots on the unit (e.g. with other equipment, magazines, tablecloths, clothing or curtains)!



Do not cover!



Safety instructions - important notes

Do not place any objects on top of the unit. Unless stated to the contrary in the "Connection and set-up" and "Installation" sections in the instructions supplied, maintain a clearance of at least 10 cm above the unit, 2 cm to either side and 5 cm behind the unit, to allow unobstructed dissipation of the heat generated.

There is a risk of fire!



Caution!

Repair

Ensure that any repairs to your unit are carried out by qualified personnel. Opening the unit and attempting to repair it yourself will void all warranty claims! Improper work on the unit may jeopardise the electrical safety of the unit.

The manufacturer accepts no liability for accidents caused by the user opening the unit casing!

Connections

Incorrect wiring of the connections may lead to malfunctions or defects on the unit!

Periods of extended absence, thunderstorms, mains socket accessibility

In order to disconnect the unit from the mains completely, the mains plug must be unplugged from the mains power socket! Therefore install the unit close to a mains socket and make sure this socket is accessible at all times, so that you can disconnect the unit from the mains if necessary.

If you are away for an extended period, and during thunderstorms, always switch the unit off at the mains and unplug the power plug from the socket. This also applies to the other equipment connected to the unit. Isolation from the cable network is also recommended. Note any timer programming (receiver) and turn the unit on again promptly before the recording time.

Installation location

All electronic equipment generates heat. The temperature rise of this unit does however lie within the permissible range. Sensitive furniture surfaces and veneers may become discoloured by the effects of constant heat over time. The feet of the unit can also cause colour changes to treated furniture surfaces. If necessary, place the unit on a suitable stable and flat base!



Electronic equipment is not domestic waste - in accordance with directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 27th January 2003 concerning used electrical and electronic appliances, it must be disposed of properly.

At the end of its service life, take this receiver for disposal at a designated public collection point.



Used batteries are special waste!

Do not throw used batteries into your domestic waste; take them to a collection point for old batteries!



Warning!

The power supply unit and the receiver are for indoor use only! Use the power supply unit supplied with the receiver. The use of any other power supply unit may damage the receiver.

There is a risk of fire!

Safety instructions - important notes

Product return/original packaging

Please keep the original packaging in case you need to return the product at any time! The receivers are fragile due to their construction and are only adequately protected by the original packaging. If the receiver is not shipped correctly the guarantee/warranty on it will be voided.

Fan/ventilation slots on the unit



Warning!

Make sure that the ventilation slots on the unit are not blocked or covered in any way. Otherwise the unit may overheat.

There is a risk of fire!

Switching the receiver off

Before you disconnect the receiver from the mains, you must switch it to the standby mode by pressing the standby button (on/off) on the remote control. In standby mode, any changed or new data that are broadcast will be saved by the receiver. As soon as the receiver is in the standby mode, it can be disconnected from the mains at any time.



**You must not disconnect the receiver from the mains while it is in operation!
This can lead to a loss of data and corruption of the software.**

Other

The information in these operating instructions was correct at the time of going to print. We reserve the right however to make changes at any time and without prior notice. If new software is released for your receiver, and this affects the information in the operating instructions (e.g. changes to the menus and/or functions), if we believe it necessary we will make available new operating instructions for download at "www.kathrein.de".

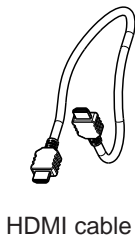
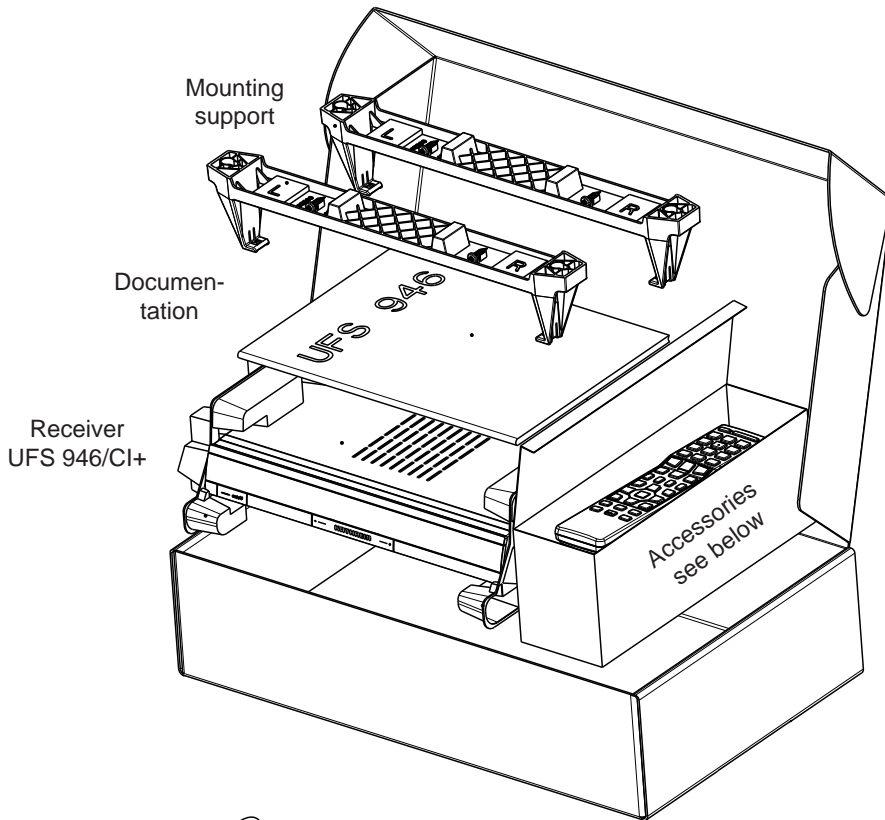
Make a note of the receiver's basic settings (these are set during first installation) so you can restore them if necessary!

Please be aware of your responsibility towards your fellow human beings! Keep these instructions for any questions that arise later, and if the receiver passes to another owner, pass them on to the new owner.

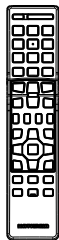
Items supplied

- UFS 946/CI+
- Remote control RC 675
- HDMI cable
- IR (infra-red) sensor
- 12 V connection cable with fused universal plug (cigar lighter and standard 12 V plug-in socket)
- Power supply unit 230 V/12 V
- 2 batteries AAA 1.5 V
- Operating instructions (part 1 and 2)
- Mounting support with wood screws
- Safety instructions (multi-lingual)

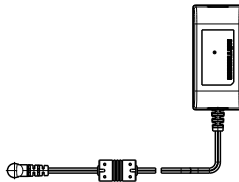
The accessories supplied may differ in appearance from those illustrated!



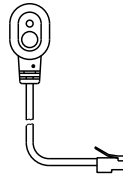
HDMI cable



Remote control
RC 675



Power supply unit
230 V/12 V



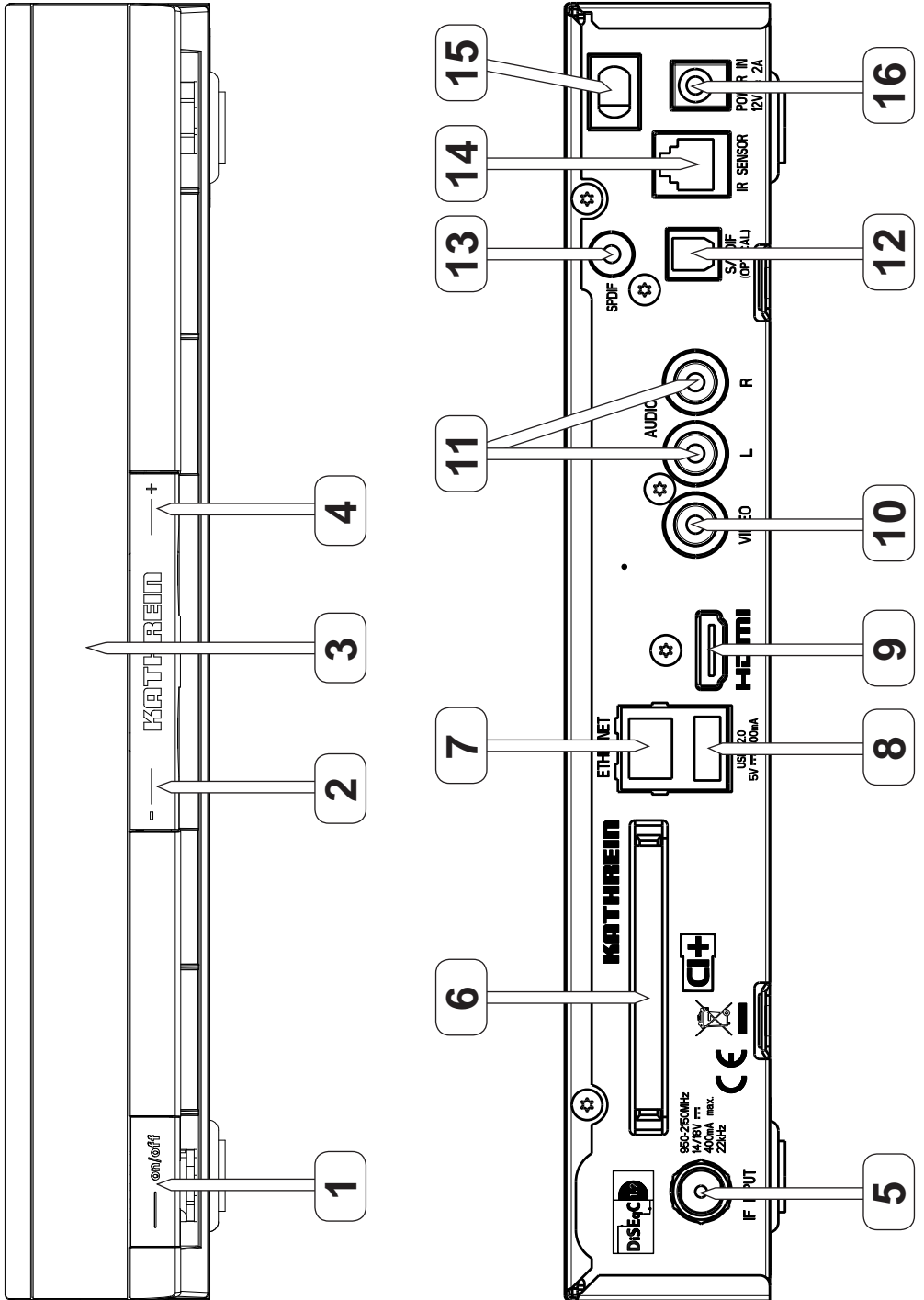
IR sensor



12 V connection
cable with fused
universal plug

Connection and set-up

Front/rear view of the receiver (front flap open)



Connection and set-up

Front view:

1. On/Off button (operation/standby)
2. Channel selection (P-)
3. 16 character display
4. Channel selection (P+)

Rear view:

5. LNB input (IF INPUT)
6. Common Interface for fitting one CI+/CI module for Pay TV cards *)
7. Network connection (Ethernet)
8. USB 2.0 port (USB-A connector)
9. HDMI connection
10. Video output (CVBS) cinch socket
11. Audio outputs (L/R) cinch sockets
12. Optical data stream output (SPDIF/ Sony Philips Digital Interface Format) for Dolby Digital AC 3 audio
13. Electrical digital data stream output (SPDIF/Sony Philips Digital Interface Format) for Dolby Digital AC 3 audio
14. Infra-red sensor connection
15. On/Off switch **)
16. Power supply connection (12 V)

*) CI+/CI modules and Smartcards are not included in the product package

***) Pressing the Off switch does not full disconnect the unit from the mains (see the sections "Safety Instructions - Important Notes" and "Periods of extended absence, thunderstorms, mains socket accessibility")

Tip!

The serial number sticker for the UFS 946/CI+ is located on the underside of the unit.

The information printed on it includes the following:

- the exact designation (e.g. UFS 946/CI+)
- the part number and
- the serial number of the unit.

You do not need this information in order to operate the unit. If however, contrary to expectations, you need to make a claim under warranty and you do not have the packaging for the receiver to hand, you can find the above information about the unit on this sticker.

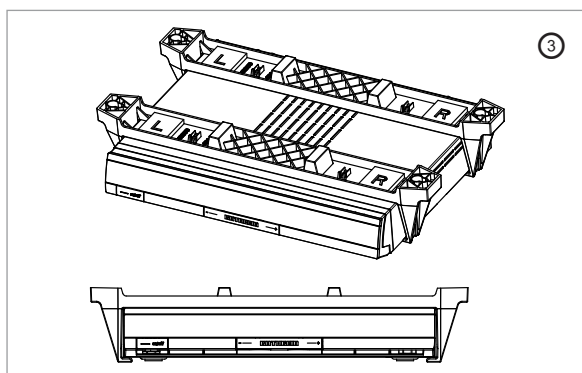
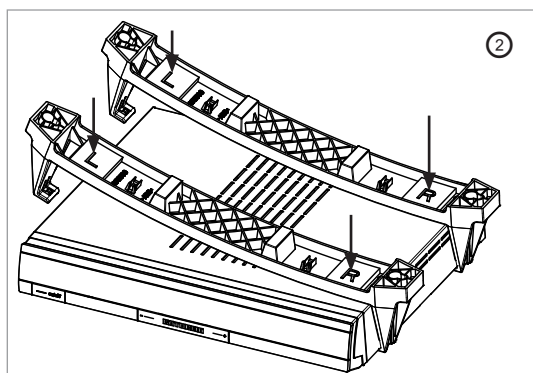
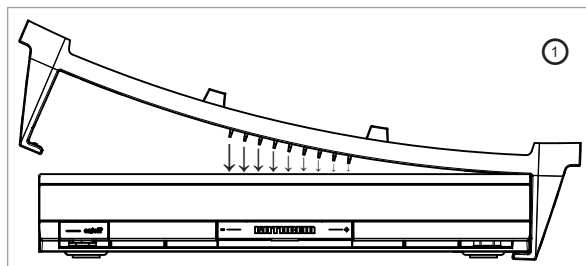
Connection and set-up

Suspended installation (example)

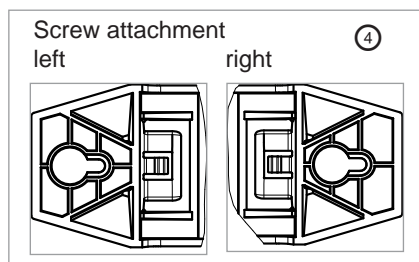
Remove the wood screws supplied from their transport attachment on the top of the respective mounting piece (2 pieces).

Place the two mounting pieces on your receiver as shown in Figures 1-3. During the process the following should be taken into account:

1. Left (L) and Right (R) markings (see arrows Figure 2)
2. The teeth on the underside of the mounting pieces must be inserted in the first and last row of the ventilation slots on the top of the receiver (see arrows Figure 1)

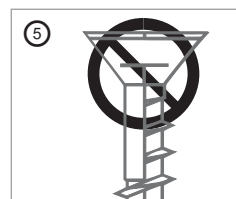


Now hold the receiver, with the installation kit attached, at the installation location. Screw in the wood screws supplied through the smaller holes in the screw attachment area (4 x) (see Fig. 4). Wherever possible, use the wood screws supplied. If these are unsuitable, other screws of adequate size and strength can be used. **Under no circumstances however use countersunk wood screws, since these can damage the attachment area (see Fig. 5).**



Then screw all four screws fully home, so that the installation kit is no longer able to come free.

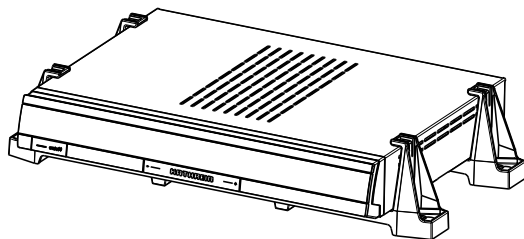
For subsequent disassembly it is sufficient to undo all screws one turn each and to push the receiver to the right (suspended) or left (on top) to release it.



Connection and set-up

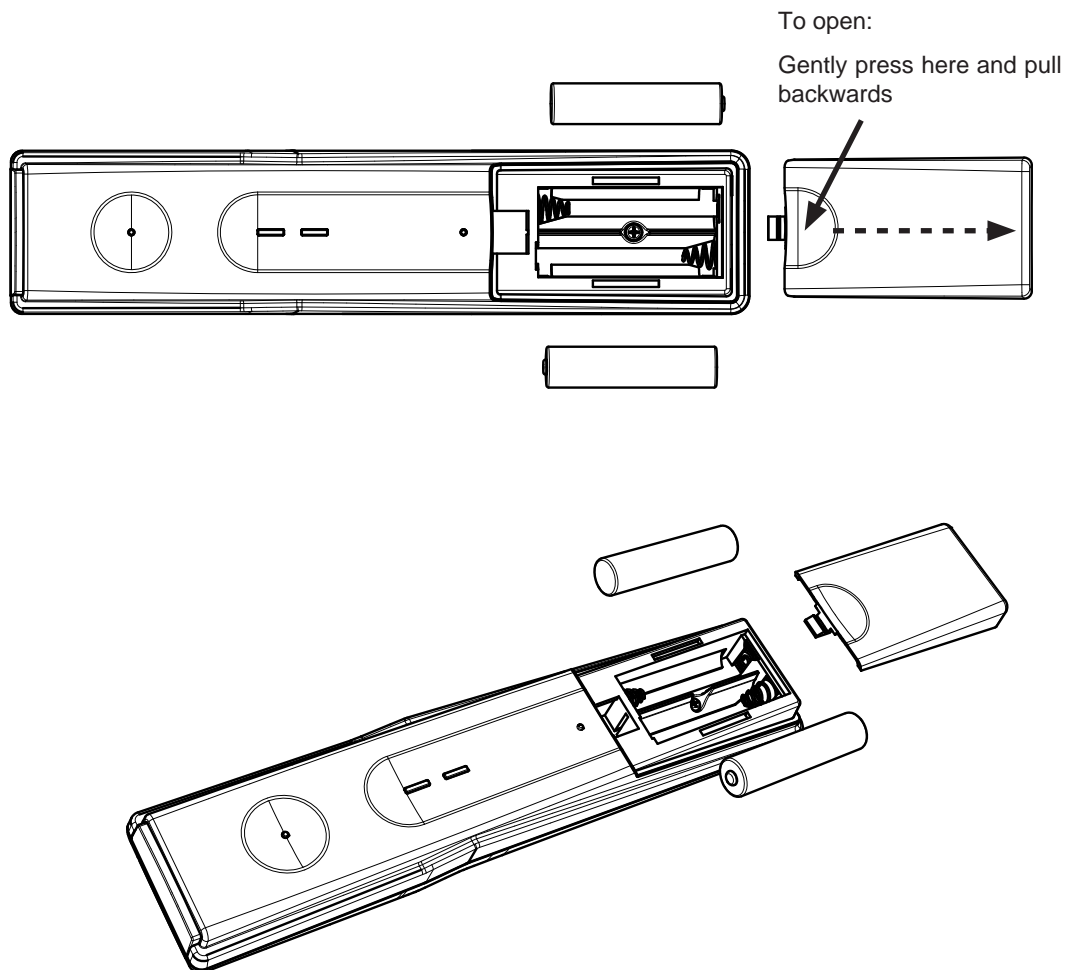
Installation on a fixed flat surface

So as to prevent the receiver slipping or falling, the mounting kit can also be attached to the underside of the receiver. Assembly is the same as for suspended installation, except that the mounting kit is attached to the underside of the receiver.



Inserting batteries into the remote control

Remove the cover on the rear of the remote control. Insert the two batteries supplied into the remote control. Ensure correct polarity of the batteries; the + and - markings are indicated inside the battery compartment. Slide the cover back onto the housing until it locks in place.



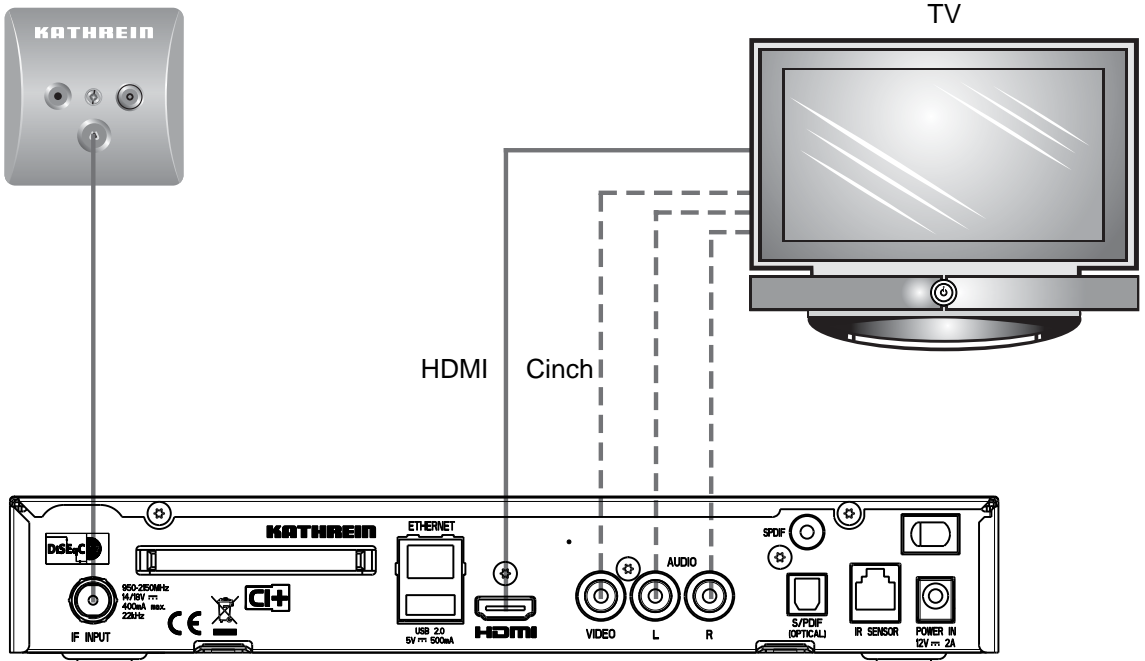
Connection and set-up

Connecting the receiver

Connect the Sat IF input on the receiver to the satellite reception system. Use a coaxial cable with an F connector (see illustration on right).



Conventional DiSEqC™ system



TV connection

Connect the satellite receiver (HDMI or alternatively the video and the two audio sockets) to the TV set using a HDMI or cinch cable (see the connection example above).

Connection and Set-Up

Audio connection

Digital

There are two ways you can access the digital audio.

HDMI

The stereo audio is transmitted to your TV set via the HDMI interface. If your TV set also supports Dolby Digital, you can also receive the Dolby Digital audio via the HDMI interface (providing it is broadcast by the channel provider). Refer to the operating instructions for your TV set for more information.

SPDIF Dolby Digital output (electrical/optical)

The SPDIF outputs are intended for the connection of a Dolby Digital system (see “Advanced connection example” in the technical appendix). Connect the SPDIF output (electrical or optical) to the Dolby Digital system using an appropriate cable.

Analogue

If you want to play the sound on your hi-fi system, connect the audio cinch sockets to the input sockets on the hi-fi system, using an appropriate cable (see “Advanced connection example” in the technical appendix).

Tip!

If you make a recording with an external video/DVD recorder, note the following:

- If the receiver is started automatically by means of a timer recording, there will be no image on your TV set or recorder. You will have to switch on the receiver manually using the Standby button (on/off) as well!
- If the receiver is operated while recording is in progress, all on-screen displays will be recorded as well!

Connection and set-up

First installation



Before you start to use the UFS 946/CI+, read the sections “Safety instructions - Important notes” and “Connection and set-up” through to the item “First installation”.

Do not connect the unit to the mains until all installation work has been properly carried out.

The guidance provided in the “First installation” section assumes that the receiver has been properly connected as per the “Safety instructions - Important information” and “Connection and set-up” sections through to the “First installation” section.

Buttons on the remote control required for first installation:

	Number input		Call up the next step in the first installation
	Go back one step in the first installation		Confirm the changed values/setting; call up the submenus
	Select/change individual menu parameters, navigation		
	Cancel entry, go back		

First switch your TV set on and select the AV-/HDMI input you have used to connect the receiver to your TV set. Switch on the receiver at the power switch on the rear of the unit. Now perform the first installation. If you have any questions or encounter problems, contact your specialist dealer.

The following on-screen display appears:


Tip!

Always check the bar at the bottom of the on-screen display. This provides information on what to do next.




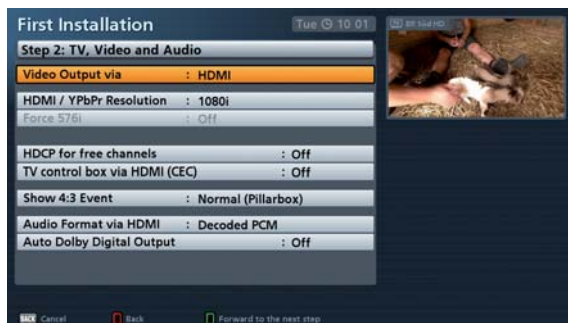
Use the buttons to select the desired menu language for your UFS 946/CI+ and confirm your selection using the button. The selected language is indicated with a tick. The following languages are available: German, English, French, Italian, Spanish, Czech, Dutch, Polish, Turkish and Russian.

Connection and set-up

Press the  (green) button to move to the next menu.

The following on-screen display appears:

Use the  buttons here to select the basic settings for the video and audio output of the receiver to the TV set.



For this, refer to the operating instructions for your TV set and take care to select only those settings that your TV set can process.

Video Output via

The rear panel outputs video via the HDMI socket on the unit's rear panel.

HDMI/YPbPr Resolution

Here you can select the video resolution that will be output at the TV set. Either

- 1080p (resolution 1920 x 1080, full-screen images)
- 1080i (resolution 1920 x 1080, half-screen images)
- 720p (resolution 1280 x 720, full-screen images)
- 576p (resolution 720 x 576, full-screen images) or
- Automatic

Force 576i (must be supported by the TV set otherwise you will not see a TV picture)

You can only and need only make this setting if you have selected the setting “Automatic” for “HDMI/YPbPr Resolution”. If for a programme that is transmitted in the format 720 x 576 (standard TV), the original format is to be transmitted to the TV set, select the “On” setting. If the setting is “Off”, the programme may be automatically scaled up to the HDTV format 720p by the receiver.

HDCP for free channels

Select here whether HDCP (digital copy protection) is to be constantly set to “On” with free channels or is not to be activated, “Off”.

TV control box via HDMI (CEC)

If you select “Off”, the TV set must be switched on or off separately. If you select “On”, the TV set will be switched on automatically as the receiver starts up (but only if the TV set was in standby mode). If the receiver is switched off into standby mode, the TV set will also be switched to standby mode. *Automatically simultaneously switching the TV set on/off by the receiver is available only if the TV set supports this function!*

Connection and set-up

Show 4:3 Event

Here you can select the type of screen display mode for 4:3 broadcasts on a 16:9 TV set. Either

- Normal (Pillarbox)
- Stretched (full screen) or
- Zoom in (Pan & Scan)


Audio Format via HDMI

Here you can select the type of audio signal that is transmitted by the HDMI interface. Select the signal that your TV set can process:

- PCM (Stereo) or
- S/PDIF format (multichannel)

Auto. Dolby Digital Output:

Here you can select whether the receiver should automatically select the Dolby Digital soundtrack (if this is transmitted).

Press the  (green) button to move to the next menu.

Connection and set-up

The following on-screen display appears:



Tip!


If your receiver is connected up as in the connection example (see the illustration in “Connecting the receiver” in this section), only one change/selection is necessary in the rest of the first installation. If you are not familiar with the details of your reception system, note the following:

In many cases the satellite reception system is a DiSEqC™1.0 system.

This type of system is preset. Confirm the current on-screen displays using the  (green) button.

Using the   buttons you then select the required satellites in the satellite selection (in

Germany usually ASTRA 19.2° East) and confirm your choice with the  button. Confirm the

rest of the on-screen displays during the first installation using the  (green) button. This process cannot damage your reception system! If there is no TV picture at the end of the first installation, contact your specialist dealer.



You should perform the tuner configuration/make changes yourself only if you are fully familiar with the particulars of your reception system.

You can set up the tuner configuration for the following types of reception systems:

- DiSEqC™1.0
- DiSEqC™1.1
- Motorized antenna (DiSEqC™1.2/DiSEqC™1.3 (USALS))
- LNB only or
- One Cable
- Mobile antenna - HDZ 60

Now continue as described for the type of reception you selected in the first installation.

Connection and set-up

DiSEqC™1.0



Press the  (green) button.

The following on-screen display appears:

Tuner Configuration (select satellites)

Select the number of satellites present in the signal at the tuner (four max.).

Go to the “Satellite 1:”.

Press the  button.






The following on-screen display appears (example):

Configuration Satellite 1



Define the settings for the first satellite for Tuner 1 here.

Satellite:



Select the desired satellite using the   buttons. Alternatively you can press the  button to view a list of all stored satellites then select the required satellites from this list.

LNB Type:


If your reception system does not have a universal LNB, use the   buttons to select the LNB types that are used in your reception system. You can choose from the following LNB types:

Connection and set-up


- Universal
- Simple or
- User-defined



Refer to the documentation for your LNB or seek assistance from a specialist engineer.

If you do not use a Universal LNB, press the  button. You can now define the settings for your LNB type (simple or user-defined).

LNB Frequencies (MHz):

Enter the LNB frequencies (Low/High/Limit) using the number pad. Now use the  button to save the new values.

DiSEqC™ Repeat:

The setting for how often the DiSEqC™ command must be repeated depends on the configuration of your reception system.


- Off DiSEqC™ command is not repeated
- 1 DiSEqC™ command is repeated once
- 2 DiSEqC™ command is repeated twice
- 3 DiSEqC™ command is repeated three times




Refer to the documentation for your reception system or seek assistance from a specialist engineer.

Test-Transponder:

Select the “Test-Transponder” field. Here you can select a transponder for checking whether your settings are correct using the signal strength bar and signal quality bar.

When you have completed all settings for this satellite, press the  button.

If you have selected more than one satellite (four max.) for Tuner 1, you can now define the settings as described above for the first satellite, for the second satellite and then for the third and fourth satellites, if selected.

When you have completed all settings for the tuner, press the  (green) button.

The receiver will automatically display the screen for the channel search. Continue the first installation with the “Channel search” section.

Connection and set-up

DiSEqC™1.1

Press the  (green) button.

The following on-screen display appears:

Tuner Configuration - Tuner 1

On the “Satellite” line, select the first satellite location. You can use/assign up to 64 satellite locations.




Now go to the next line.

Press the  button.



The following on-screen display appears:



Satellite:

Select the desired satellite using the   buttons. Alternatively you can press the  button to view a list of all stored satellites then select the required satellites from this list.

LNB Type:


If your reception system does not have a universal LNB, use the   buttons to select the LNB types that are used in your reception system. You can choose from the following LNB types:

Connection and set-up


- Universal
- Simple or
- User-defined



Refer to the documentation for your LNB or seek assistance from a specialist engineer.

If you do not use a Universal LNB, press the  button. You can now define the settings for your LNB type (simple or user-defined).

LNB Frequencies (MHz):

Enter the LNB frequencies (Low/High/Limit) using the number pad. Now use the  button to save the new values.

Uncommitted Switch

Set the “Uncommitted Switches” here to match the configuration of your reception system. You can select “Off” or a value from “1” to “16” in single unit increments.



Refer to the documentation for your reception system or seek assistance from a specialist engineer.

Position

Select the field “Position”. Set the “Position” here to match the configuration of your reception system. You can select “Off” or a value from “1” to “4” in single unit increments.


DiSEqC™ Repeat:

The setting for how often the DiSEqC™ command must be repeated depends on the configuration of your reception system. Refer to the documentation for your reception system or seek assistance from a specialist engineer.


- Off DiSEqC™ command is not repeated
- 1 DiSEqC™ command is repeated once
- 2 DiSEqC™ command is repeated twice
- 3 DiSEqC™ command is repeated three times

Test-Transponder:

Select the “Test-Transponder” field. Here you can select a transponder for checking whether your settings are correct using the signal strength bar and signal quality bar.

When you have completed all settings for this satellite, press the  button.

If you wish to set up more than one satellite (64 max.) for the tuner, define the settings as just described for the first satellite, for the second satellite and for any further satellites.

When you have completed all settings for the tuner, press the  (green) button.

Connection and set-up

The receiver will automatically display the screen for the channel search. Continue the first installation with the “Channel search” section.

Motorized antenna (DiSEqC™1.2/DiSEqC™1.3 (USALS))



Press the  (green) button.

The following on-screen display appears:

Select the type of motor control suitable for your reception system.




Refer to the documentation for your reception system or seek assistance from a specialist engineer.

Connection and set-up

Motorized antenna (DiSEqC™1.2)



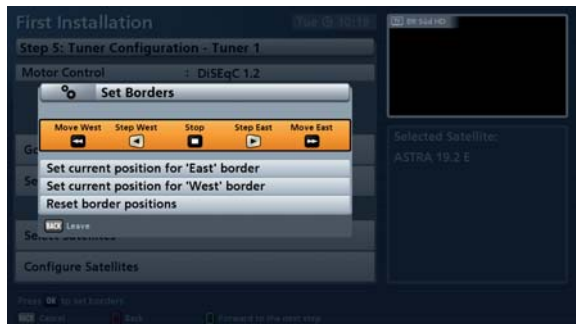
Go to Null Position

Select the “Go to Null Position” selection field. Press the  button to instruct the turntable to move to its null position.






Set Borders


Select the “Set Borders” selection field. In this menu you can set the borders for your turntable. This is particularly necessary if the turntable has only a restricted range in which it may turn before striking an obstruction (such as a wall or tree).

Press the  button. The following on-screen display appears:





The following buttons allow you to control the movement of the turntable:


-  Start slow rotation to West
-  Rotate to the West step by step
-  Stop the current movement
-  Rotate to the East step by step
-  Start slow rotation to the East

Once you have reached the desired “East”/“West” border, switch to the respective field “Set current position for “*****” border” and press the  button to confirm.

Connection and set-up


If you subsequently want to delete the set borders, switch to the “Reset border positions” field and press the  button to confirm deletion of the borders. You can then set new values for the limits. Once you have set all the borders, press the  button.

Select Satellites - Tuner 1


Go to the “Select Satellites” line. Press the  button.

The following on-screen display appears (example):

Here, select up to 64 satellites to be included in the signal on the tuner. Select the satellite you want and confirm

your selection with the  button. The selected satellites will be identified with a tick.



When you have selected the desired satellites, press the  button.

Configure Satellites

Go to the “Configure Satellites” line. Press the  button.




The following on-screen display appears (example):





Connection and set-up

On the “Satellite” line select the satellite whose settings you wish to edit.

Satellite:

Select the desired satellite using the   buttons. Alternatively you can press the  button to view a list of all satellites which you have previously selected, then select the required satellites from this list.


LNB Type:

If your reception system does not have a universal LNB, use the   buttons to select the LNB types that are used in your reception system. You can choose from the following LNB types:


- Universal
- Simple or
- User-defined



Refer to the documentation for your LNB or seek assistance from a specialist engineer.

If you do not use a Universal LNB, press the  button. You can now define the settings for your LNB type (simple or user-defined).

LNB Frequencies (MHz):

Enter the LNB frequencies (Low/High/Limit) using the number pad. Now use the  button to save the new values.

Test-Transponder:

Select the “Test-Transponder” field. Here you can select a transponder for checking whether your settings are correct using the signal strength bar and signal quality bar.

Stop on Signal:

Select the selection field “Stop on Signal”. Here, you can select whether the turntable antenna should stop its rotary movement immediately on reception of a signal from the desired satellite. You can choose between “On” and “Off”.

Move Antenna:

Select the selection field “Move Antenna”. Here you can control the movements of the motorised antenna, using the following buttons:



Start slow rotation to West



Rotate to the West step by step



Stop the current movement

Connection and set-up




Rotate to the East step by step





Start slow rotation to the East

Set the turntable so that both of the bars “Signal-Strength” and “Signal-Quality” on the right of the screen show the highest available percentage values.

When you have reached the best possible signal strength, move to the “Store actual position” line and press the  button. The receiver will now save these values for this satellite and skip automatically to the setting for the next satellite.

If you have selected more than one satellite for the tuner, define the settings as just described for the first satellite, for the second satellite and for any other selected satellites.

When you have completed all settings for the selected satellites, press the  button.

When you have completed all settings for the tuner, press the  (green) button.

The receiver will automatically display the screen for the channel search. Continue the first installation with the “Channel search” section.

Connection and set-up

Motorized antenna (DiSEqC™1.3)


My Longitude

Select the field “My Longitude” and use the number pad here to enter your actual longitude.

My Latitude


Select the “My Latitude” field and use the number pad to enter your actual latitude.

Go to Null Position






Select the “Go to Null Position” selection field. Press the  button to instruct the turntable to move to its null position.


Set Borders

Select the “Set Borders” selection field. In this menu you can set the borders for your turntable. This is particularly necessary if the turntable has only a restricted range in which it may turn before striking an obstruction (such as a wall or tree).

Press the  button. The following on-screen display appears:


The following buttons allow you to control the movement of the turntable:


-  Start slow rotation to West
-  Rotate to the West step by step
-  Stop the current movement
-  Rotate to the East step by step
-  Start slow rotation to the East

Once you have reached the desired “East”/“West” border, switch to the respective field “Set current position for “*****” border” and press the  button to confirm.




Connection and set-up

If you subsequently want to delete the set borders, switch to the “Reset border positions” field and press the  button to confirm deletion of the borders. You can then set new values for the limits.


Once you have set all the borders, press the  button.

Select Satellites - Tuner 1

Go to the “Select Satellites” line. Press the  button.

The following on-screen display appears (example):

Here, select up to 64 satellites to be included in the signal on the tuner. Select the satellite you want and confirm

your selection with the  button. The selected satellites will be identified with a tick.



When you have selected the desired satellites, press the  button.

Configure Satellites

Go to the “Configure Satellites” line. Press the  button.




The following on-screen display appears (example):





Connection and set-up

On the “Satellite” line select the satellite whose settings you wish to edit.

Satellite:

Select the desired satellite using the   buttons. Alternatively you can press the  button to view a list of all satellites which you have previously selected, then select the required satellites from this list.


LNB Type:

If your reception system does not have a universal LNB, use the   buttons to select the LNB types that are used in your reception system. You can choose from the following LNB types:


- Universal
- Simple or
- User-defined



Refer to the documentation for your LNB or seek assistance from a specialist engineer.

If you do not use a Universal LNB, press the  button. You can now define the settings for your LNB type (simple or user-defined).


LNB Frequencies (MHz):


Enter the LNB frequencies (Low/High/Limit) using the number pad. Now use the  button to save the new values.

Test-Transponder:

Select the “Test-Transponder” field. Here you can select a transponder for checking whether your settings are correct using the signal strength bar and signal quality bar.

If you have selected more than one satellite for Tuner 1, define the settings as just described for the first satellite, for the second satellite and for any other selected satellites.

When you have completed all settings for the selected satellites, press the  button.

When you have completed all settings for the tuner, press the  (green) button.

The receiver will automatically display the screen for the channel search. Continue the first installation with the “Channel search” section.




Connection and set-up

Simple LNB



Press the  (green) button.



Satellite:

Select the desired satellite using the   buttons. Alternatively you can press the  button to view a list of all stored satellites then select the required satellites from this list.

LNB Type:

If your reception system does not have a universal LNB, use the   buttons to select the LNB types that are used in your reception system. You can choose from the following LNB types:

- Universal
- Simple or
- User-defined




Refer to the documentation for your LNB or seek assistance from a specialist engineer.

If you do not use a Universal LNB, press the  button. You can now define the settings for your LNB type (simple or user-defined).

Connection and set-up

LNB Frequencies (MHz):

Enter the LNB frequencies (Low/High/Limit) using the number pad. Now use the  button to save the new values.

Test-Transponder:

Select the “Test-Transponder” field. Here you can select a transponder for checking whether your settings are correct using the signal strength bar and signal quality bar.

When you have completed all settings, press the  (green) button.

The receiver will automatically display the screen for the channel search. Continue the first installation with the “Channel search” section.

Connection and set-up

BAS 60 inkl. HDZ 60

Press the  (green) button.



Refer to the documentation included with your mobile reception system or seek assistance from a specialist engineer.






Position determination:

Select here whether you want to undertake position determination by

- List selection (current location is selected from a saved list) or
- Using GPS data (GPS data on the current location can be entered).

List selection

Country: Select your current country using the   buttons.

City: Select your current city or a city in the area (if the city is not saved in the list, select the nearest city from the available cities) using the   buttons.




GPS data

My Latitude: Use the number pad to enter the latitude for your current position.

My Longitude: Use the number pad to enter the longitude for your current position.

Connection and set-up

Satellite:


Select the desired satellite using the   buttons. Alternatively you can press the  button to view a list of all stored satellites then select the required satellites from this list.

Transponder Frequency:

Select the desired transponder using the   buttons. Alternatively you can press the  button to view a list of all transponders stored for this satellite and then select the required transponder from this list.

Test Ton:

Using the test tone you can have the unit output a tone via the TV set to assist with the alignment of

the mobile antenna. Select the required setting using the   buttons:

- On: The nearer the actual value is to the required value, the higher the tone becomes
- Automatic: You only hear a tone once the actual value is the same as the required value
- Off: You will not hear any tone




You can check whether your settings are correct using the signal strength bar and signal quality bar.

When you have completed all settings, press the  (green) button.

The receiver will automatically display the screen for the channel search. Continue the first installation with the "Channel search" section.

Connection and set-up

OneCable system

Select the “Yes” option using the   buttons on the “OneCable System Used” line. Now go to the selection field “Tuner 1 & 2: OneCable System”. Press the  (green) button.



Refer to the documentation for your reception system or seek assistance from a specialist engineer.

In the reception system field select the OneCable system in use:

- EXR .../EXU ... For all Kathrein OneCable matrices
- UAS 481 For the Kathrein OneCable LNB UAS 481
- User-defined For all OneCable systems not covered by the above



Refer to the documentation supplied with your system for the settings for the SCRs, frequencies and any PIN assigned to the tuner. Here, you will find a printed list showing the assignment between the various SCRs and the respective transmission frequencies. You may not be able to freely select the PIN for protection of individual frequencies; this also may be listed in the documentation for the one cable components.



Please note also that multiple receivers cannot share the same frequencies/channels - the receivers would interfere with each other.

Continue as described in the first installation for the type of one cable reception you selected.

Connection and set-up

OneCable system - EXR .../EXU ...

Use the   buttons to select “EXR .../EXU ...” on the “Configure System” line. Press the  (green) button.



The following on-screen display appears:



Saving channel with PIN code:

If your single-cable system allows the transmission frequency to be protected by entering a PIN, this can be done in this menu. No other receiver can then use this transmission frequency unless the PIN is input.

Select “Yes”. You can now enter a PIN code (0-255) on the next line “Tuner 1 PIN Code” using the number pad.

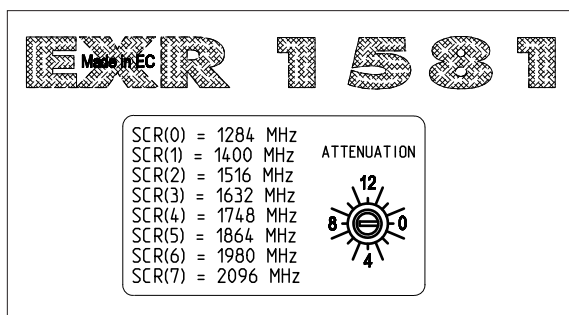
Tuner 1:


Select a free available transmission channel (SCR 0 - SCR 7).

Tuner 1 SCR Frequency:

Select here one of the free available transmission frequencies.

See example on the right (EXR 1581): Assignment of a transmission channel to a transmission frequency.



When you have completed all settings, press the  button.

Connection and set-up

Number of Satellites

Select the number of satellites present in the signal at Tuner 1 (two max.).






Select the line "Satellite 1:". To set or change the currently selected satellite,

press the  button. The following on-screen display appears (example):





On the "Satellite" line select the satellite whose settings you wish to edit.

Satellite:

Select the desired satellite using the   buttons. Alternatively you can press the  button to view a list of all stored satellites then select the required satellites from this list.

LNB Type:

If your reception system does not have a universal LNB, use the   buttons to select the LNB types that are used in your reception system. You can choose from the following LNB types:

- Universal
- Simple or
- User-defined




Refer to the documentation for your LNB or seek assistance from a specialist engineer.

If you do not use a Universal LNB, press the  button. You can now define the settings for your LNB type (simple or user-defined).


Connection and set-up

LNB Frequencies (MHz):

Enter the LNB frequencies (Low/High/Limit) using the number pad. Now use the  button to save the new values.

Test-Transponder:

Select the “Test-Transponder” field. Here you can select a transponder for checking whether your settings are correct using the signal strength bar and signal quality bar.

When you have completed all settings for the selected satellites, press the  button.

If you have selected two satellites, configure the settings as just described for the first satellite for the second satellite.

When you have completed all settings, press the  (green) button.

When you have completed all of the settings, you will automatically see the on-screen display for the channel search. Continue the first installation with the “Channel search” section.

OneCable system - UAS 481

Use the   buttons to select “UAS 481” on the “Configure System” line.

Press the  (green) button.



The following on-screen display appears:




Tuner 1:

Select a free available transmission channel (SCR 0 - SCR 3).

Tuner 2:

Select a free available transmission channel (SCR 0 - SCR 3).


Connection and set-up

When you have completed all settings, press the  button.

Number of Satellites




Only one satellite can be received with the UAS 481. This setting cannot be altered.

Select the line “Satellite 1:”. To set or change the currently selected satellite,

press the  button. The following on-screen display appears (example):




Satellite:

Select the desired satellite using the   buttons. Alternatively you can press the  button to view a list of all stored satellites then select the required satellites from this list.

Test-Transponder:

Select the “Test-Transponder” field. Here you can select a transponder for checking whether your settings are correct using the signal strength bar and signal quality bar.

When you have completed all settings for the selected satellites, press the  button.

When you have completed all settings, press the  (green) button. The receiver will automatically display the screen for the channel search. Continue the first installation with the “Channel search” section.

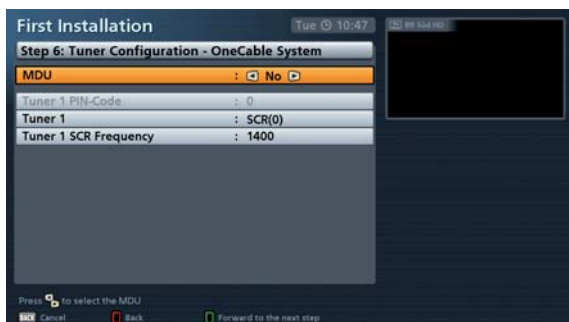
Connection and set-up

OneCable system - User-defined

Use the   buttons to select "Userdefined" on the "Configure System" line. Press the  (green) button.



The following on-screen display appears:



Saving channel with PIN code:

If your single-cable system allows the transmission frequency to be protected by entering a PIN, this can be done in this menu. No other receiver can then use this transmission frequency unless the PIN is input.

Select "Yes". You can now enter a PIN code (0-255) on the next line "Tuner 1 PIN Code" using the number pad.

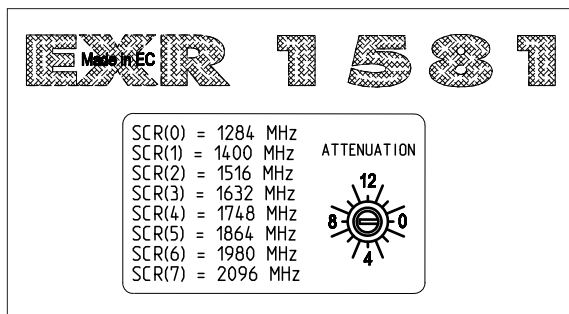
Tuner 1:


Select a free available transmission channel (SCR 0 - SCR 7).

Tuner 1 SCR Frequency:

Select here one of the free available transmission frequencies.

See example on the right (EXR 1581) assignment of a transmission channel to a transmission frequency.



When you have completed all settings, press the  button.


Connection and set-up

Number of Satellites

Select the number of satellites present in the signal at Tuner 1 (two max.).






Select the line "Satellite 1:". To set or change the currently selected satellite,

press the  button. The following on-screen display appears (example):





On the "Satellite" line select the satellite whose settings you wish to edit.

Satellite:

Select the desired satellite using the   buttons. Alternatively you can press the  button to view a list of all stored satellites then select the required satellites from this list.

LNB Type:

If your reception system does not have a universal LNB, use the   buttons to select the LNB types that are used in your reception system. You can choose from the following LNB types:

- Universal
- Simple or
- User-defined




Refer to the documentation for your LNB or seek assistance from a specialist engineer.

If you do not use a Universal LNB, press the  button. You can now define the settings for your LNB type (simple or user-defined).


Connection and set-up

LNB Frequencies (MHz):

Enter the LNB frequencies (Low/High/Limit) using the number pad. Now use the  button to save the new values.

Test-Transponder:

Select the “Test-Transponder” field. Here you can select a transponder for checking whether your settings are correct using the signal strength bar and signal quality bar.

When you have completed all settings for the selected satellites, press the  button.

If you have selected two satellites, configure the settings as just described for the first satellite for the second satellite.


When you have completed all settings, press the  (green) button.


When you have completed all of the settings, you will automatically see the on-screen display for the channel search. Continue the first installation with the “Channel search” section.

Connection and set-up

Channel search



If you do not wish to perform a channel search, press the  (green) button and continue with the section "Time setting".

If you wish to perform a channel search, use the  buttons to select "Yes".


The following on-screen display appears:

Country Select

Using the  buttons, select whether the channels found after the search are to be sorted using a factory channel list for the selected country. Currently this feature is only available for Germany, Austria and Switzerland.



Satellite

Now use the  buttons to choose between the individual satellites you have set up, or select the setting "All Satellites". If "All Satellites" is selected, all the individual satellites you have set up will be searched for new channels. Make sure your reception system is aligned to this/these satellite(s).

Channel Search Mode



Use the  buttons to select the type of channels you want to search for. You have three options:

- "free & scrambled" All channels are searched for
- "only free" Only free-to-air channels are searched for
- "only scrambled" Only encrypted channels are searched for

Connection and set-up

To view encrypted channels you need an appropriate CI (Common Interface) module and a valid Smartcard together with a valid subscription to the relevant Pay TV provider.

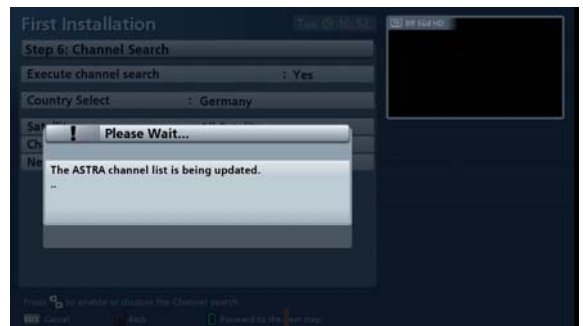
Network Search (NIT)

Use the   buttons (On/Off) to select whether a network scan should be performed. If you set the network search to “Off”, only the factory default transponders for the satellite(s) you previously selected will be searched for new as yet unsaved channels. If you set the network search to “On”, the transponder network enables additional transponders that have not yet been stored to be located. These are then stored and searched for new channels in the same way as the existing transponders.

When you have completed all settings, press the  (green) button. The following displays appear at first (example):

During this process the receiver updates the channel list based on the ASTRA channel list broadcast by ASTRA (LCN list).

*) The ASTRA channel list is used to update the channel list stored on the receiver. See also the Operating Instructions Part 2, section entitled “Mainmenu - Channel Search”, “LCN (Update ASTRA channel list)”.



Connection and set-up

During the search you will see the following on-screen display (example):


Note:

You can cancel the search at any time by

pressing the  button.



After completing the search, you will see the following on-screen display (example):

Press the  button. The newly found channels are added at the end of the existing overall list.



Time setting



Set Local Time (time zone deviation)


Here you can select the local time offset from UTC (formerly GMT) (e.g. for Germany: + 1 hour). You can set the deviation in 30-minute steps. The maximum deviation is 11 hours and 30 minutes (+ and -).

When you have completed the settings, press the  (green) button, to complete the first installation.


Connection and set-up

If there have been changes to the ASTRA channel list, you will see the following on-screen display(s) (example):










If you do not want to edit the channel positions of new channels you can leave the corresponding screen by pressing the  button. The new channels will then be saved in the channel positions recommended by the receiver.

or:

Pressing the  button takes you directly to the "Edit TV-Channellist" menu. If you wish to modify the channel list, please see Operating Instructions – Part 2, section "Mainmenu - Edit TV-Channellist".

Tip!

On completion of a successful first installation (TV picture can be seen) we recommend having the receiver search for any available software update. In order to do this, you must have selected (included in the selection) the satellite ASTRA 19.2° East in the first installation. Press the  button to switch to the Mainmenu. Use the   buttons to select "Service Menu" and confirm by pressing the  button. Now use the   buttons to select "Software Update by Satellite" and then press the  button to confirm. The receiver will now automatically start to search for new software. For information on the rest of the update process, refer to the section "Mainmenu", "Service Menu", "(Software) Update by satellite" in the Operating Instructions – Part 2.

Tip!

Once the first installation has been successfully carried out you may change the channel list(s) as you wish. See Operating Instructions – Part 2, section "Mainmenu - Edit TV-Channellist".

Connection and set-up

Network/Internet connection

An Internet connection is required to use HbbTV!

These settings should not be defined unless the receiver is linked into a network (e.g. for Internet connection) or is linked to a PC/laptop using a cross-over network cable.

Refer to our network function connection examples at the end of these instructions as well as the guidance we provide on this topic on the Internet at “www.kathrein.de” “Service” → “Software and Download” → “Receiver” → “UFS 946”.



To connect the receiver to the network via the PC/laptop, you must have unrestricted rights (administrator rights) for your PC/laptop and on your network.

If you experience problems connecting the receiver to your network directly or via your PC/laptop, consult your PC or network specialist.

This menu can be found in the receiver under: Mainmenu - Interface Setup - Ethernet Settings. After calling up the menu you will see the following on-screen display (example):







The Ethernet interface used in the receiver is a 10/100 base T Ethernet interface.

If you want to connect your receiver to a DHCP server/router, use the   buttons to select the “On” setting. If you wish to connect your receiver to a PC or laptop, the DHCP setting must be “Off”.




**DHCP “On”
(DHCP server/router)**


**DHCP “Off”
(Hub/switch/direct
connection to PC or laptop)**

Individual items are selected using the   buttons. Changes to the current settings can be made using the   buttons or the numeric keypad.

Connection and set-up




Use the   buttons to select the “Get IP Address” field and confirm by pressing the  button.

Your DHCP server/router now indicates the IP address to the receiver. As soon as the receiver has been assigned its IP address by the DHCP server (IP address is displayed), switch to the “Save” field and press the  button to confirm.

If no connection can be established between the receiver and DHCP server/router with the “DHCP On” setting, switch the setting to “DHCP Off” and define the setting as described for DHCP “Off”.



Define the settings for your network as required. When you have completed all the settings, switch back to the “Save” field and press the  button to confirm.

Configuration example:

Receiver:

IP address: 192.168.1.2
Subnet mask: 255.255.255.0

PC/Laptop:

IP address: 192.168.1.4
Subnet mask: 255.255.255.0

Connection and set-up

Common Interface (CI)/Smartcard reader



Always follow the operating instructions from your Pay-TV provider and the instructions supplied with the Smartcard and the CA (Conditional Access) module!

Smartcards and CI modules are not included with this product!

The cards and modules are issued by the respective Pay-TV providers, and contain the subscriber data and details of the channels for which the subscriber has paid. These channels are always scrambled.

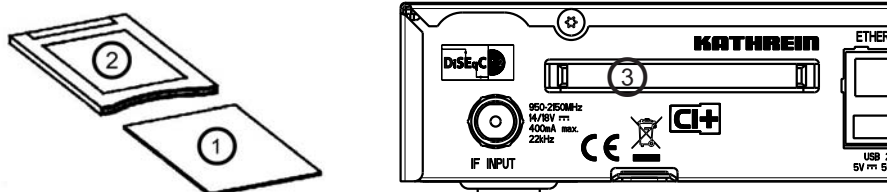
Contact the Pay TV provider if you are interested in subscribing to a particular Pay TV channel.

You are responsible for the use of the Smartcard in the CI module!

The Smartcard sold by the Pay TV provider, specific to a particular encryption technology, is inserted into the CI module.

Store your card and PIN code securely when not in use!

Inserting the Smartcard and the CI Module



Inserting the CI module into the CI

The Common Interface (CI+) (3) on the UFS 946/CI+ is suitable for the use of one CI module. It is on the receiver's rear panel. The CI module (2) accepts the Smartcard (1) (chip contacts pointing upwards and towards the socket board) and is then inserted in the CI+ insert position. (3) The Smartcard should be inserted into the CI module without exerting excessive force. The same applies to inserting the CI module into the CI+ insert position!

Do not use excessive force and follow the instructions supplied with the Smartcard and the CI module. To remove the CI module, pull it out straight to the rear.

Troubleshooting

In the event of a malfunction, first check all the cable connections and operating states:

1. Receiver and TV set power plugs are connected to wall socket
2. Antenna cables are connected to the receiver input
3. Receiver and TV set correctly connected by a HDMI or Scart cable
4. Audio connections are made to the Hi-Fi or Dolby Digital system as appropriate
5. Receiver and TV set (Hi-Fi/Dolby Digital system) are switched on (check power indicators)
6. Receiver is responding to remote control

A selection of troubleshooting tips is offered below.

Problem	Cause	Remedy
A "No signal!" warning appears on some or all channels		Consult an antenna specialist to have it checked and repaired as necessary. Check the settings made in the "Settings", "Antenna & Satellite", "Tuner Configuration" menu, and change them if necessary.
Receiver no longer responds to the remote control	The batteries may be flat or inserted incorrectly in the battery compartment	Check the batteries (see also "Inserting batteries into the remote control" in the Operating Instructions – Part 1)
	Receiver or remote control command set may have been unintentionally changed	Set infra-red code 1 as described in these operating instructions under "Mainmenu settings", "Basic Settings", "Remote Control Code"
Wrong time is displayed	"Summertime" setting wrong. An incorrect time was imported from the reception signal	Under "Settings", "Basic Settings", "Time Setting" in the menu, check the set time deviation to UTC and change as necessary. Use the power switch to switch the receiver off from the current channel, e.g. Das Erste or ZDF, wait 10 seconds and then switch it back on
The following channels cut out or "No or bad signal!" appears: Sport 1, Tele 5, HSE 24 and Sonnenklar TV	DECT telephones operate on the same frequency as these channels. Interference may occur due to inadequate output level or poor shielding of cable	Consult your antenna specialist

Troubleshooting

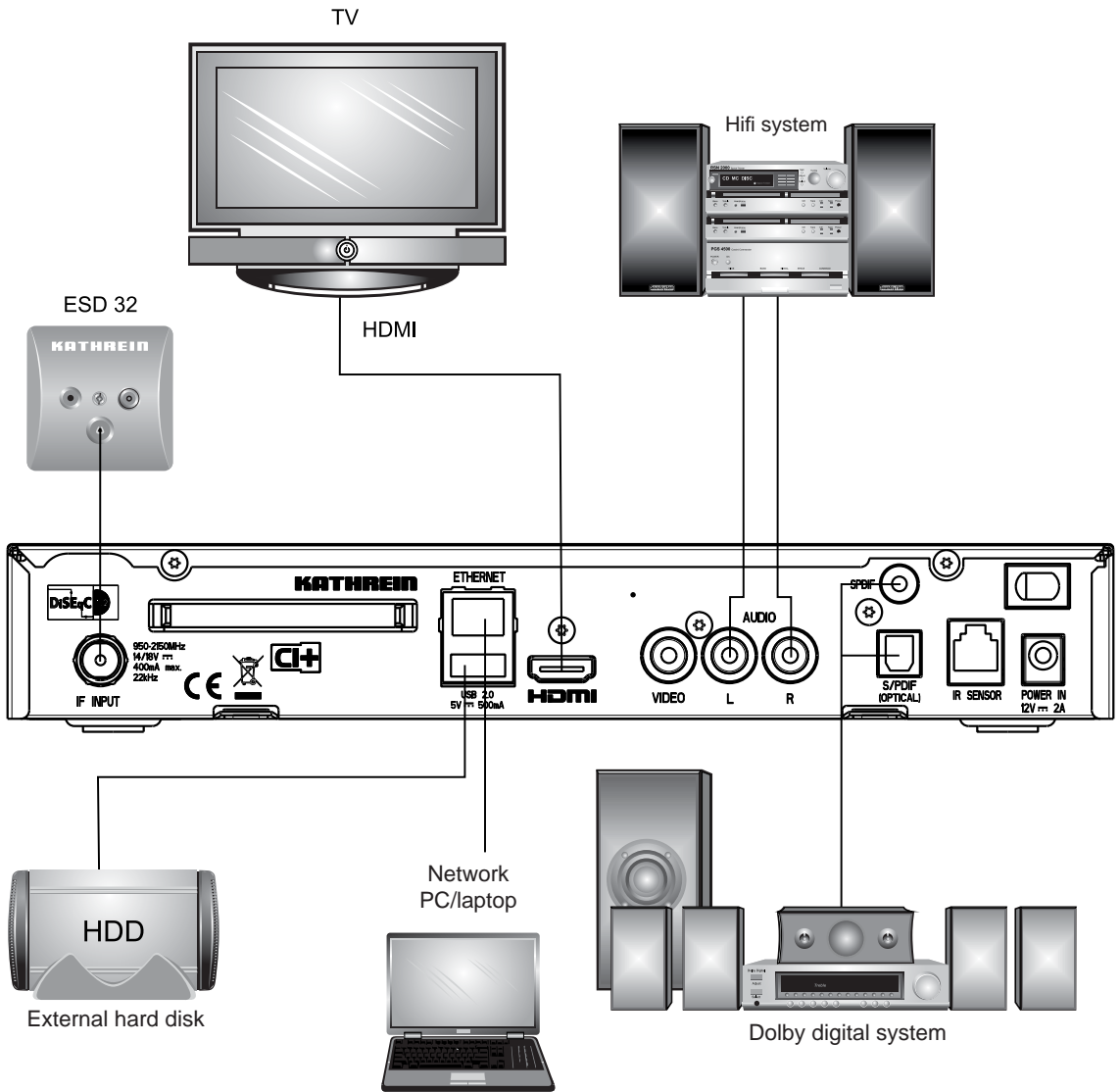
Network problem	No connection to the network possible	Check that the (cross-over) network cable is correctly connected (clicked home) (receiver, router, etc.) Refer to your PC or network specialist
	The selected channel is not provided by HbbTV.	Select a channel/transmitter that is provided by HbbTV (e.g. ARD or ZDF)
HbbTV service is not available	Internet connection is not available	Check that the (cross-over) network cable is correctly connected (clicked home) (receiver, router, etc.) Refer to your PC or network specialist

Service

If, despite studying these operating instructions, you still have questions about getting started with the unit or using it correctly, or if unexpected problems occur, please contact your specialist dealer.

Technical appendix

Advanced connection example



Technical appendix

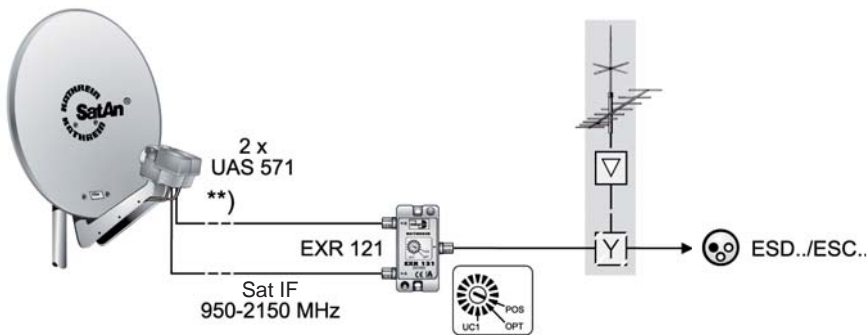
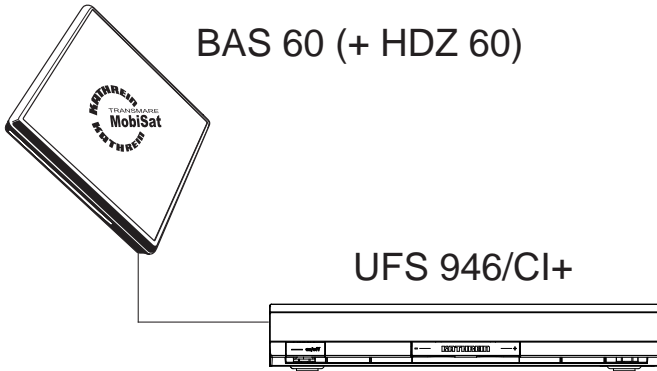
Technical specification

Type		UFS 946/CI+
Part no.		20210222
Colour		Black
RF section		
Sat IF band	(MHz)	950-2150
Input level range	dB μ V	44-78
Modulation, FEC, demultiplexer		DVB-S/DVB-S2 standard
Video resolution		CCIR 601 (720 x 576 rows), 576p, 720p, 1080i, 1080p
Video decryption		MPEG-2, MPEG-4/H.264, Xvid
Input data rate	MSymb/s	2-45 (30 for DVB-S2/8PSK)
TV system Audio		
Decryption		AC 3/MPEG-1, layer 1, 2 and 3 (mp3)/HE-AAC
Sampling rate	kHz	32/44.1/48
Power Supply		
Power supply voltage	V/Hz	230 (\pm 10 %)/50-60
DC	V	12
Power consumption (max./typ. operation/stand-by)	W	< 34 / Typ. 16/<0.5
LNB supply (horiz./vert.)	V/mA	14/18; max. 400
Control signal	kHz	22; DiSEqCT TM 1.0/-1.1/-1.2, USALS, SCR single cable (EN 50494)
Connections		
Sat IF input		1 x F sockets
TV connection		
Video output (analogue)		1 x Cinch sockets
Video/audio output (digital)		1 x HDMI
Audio output (analogue)		2 x Cinch sockets
Audio output digital (optical/electrical)		Standard fibre-optic (S/PDIF)/1 x Cinch socket
Common Interface/encryption system		For 1 CI+/CI module
Data interfaces		
USB		1 x 2.0
Ethernet		1
Miscellaneous		
Ambient temperature	°C	Max. +5 to +40
Unit dimensions (W x H x D)	mm	270 x 34 x 167
Weight	kg	< 2

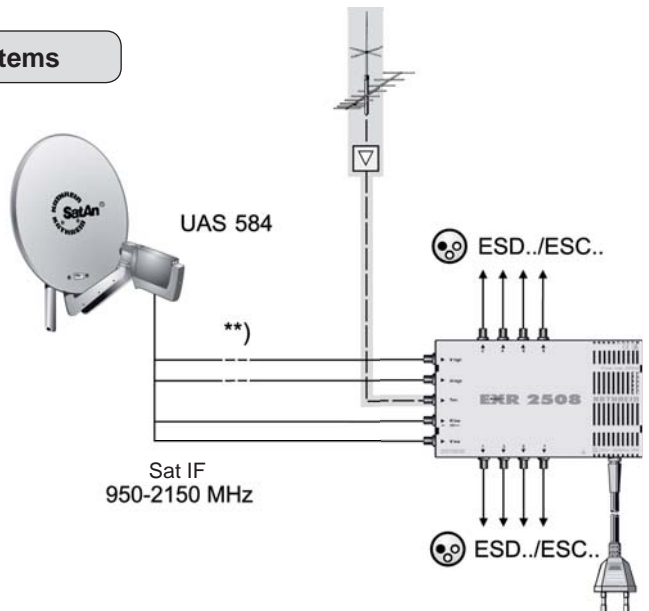
Technical appendix

Sat IF connection examples

Individual reception systems

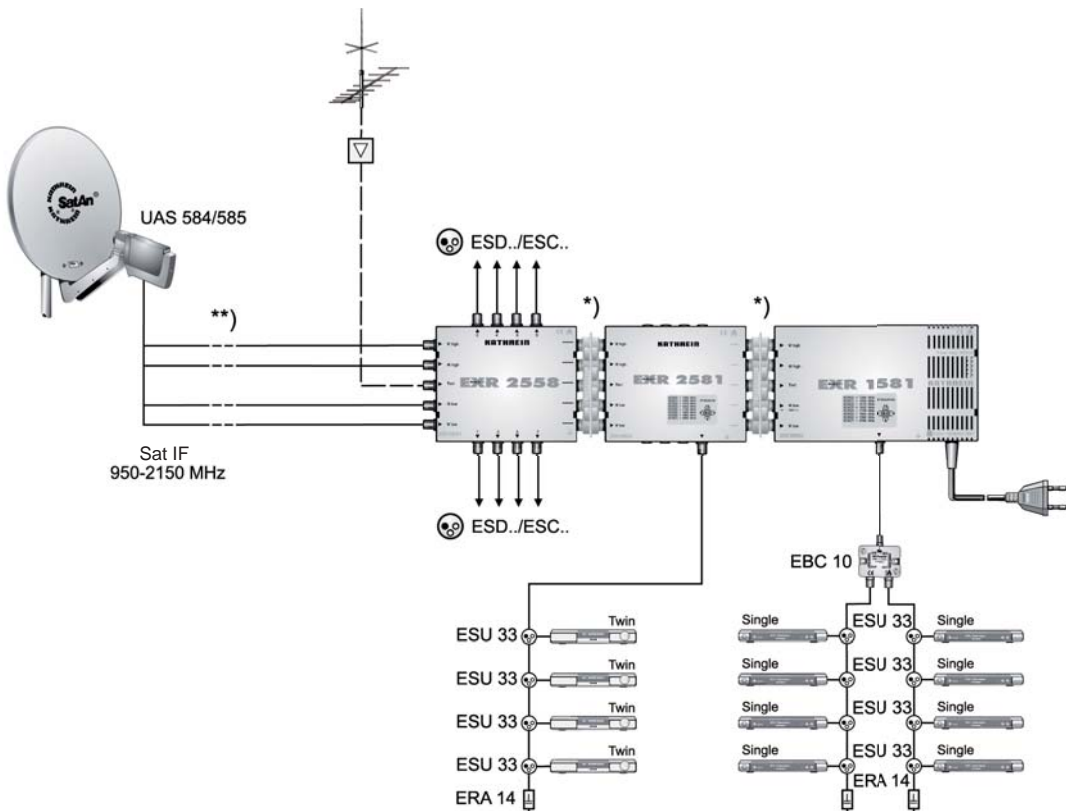
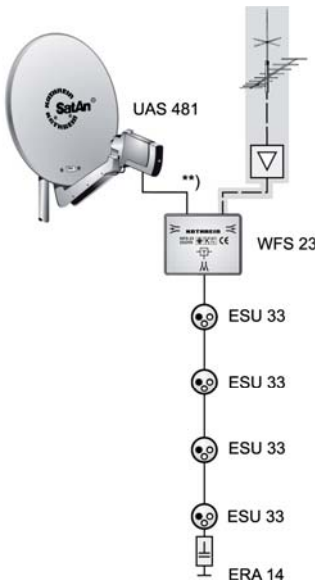


Community antenna network systems



**) Overvoltage protection KAZ 11/KAZ 12

Single cable systems

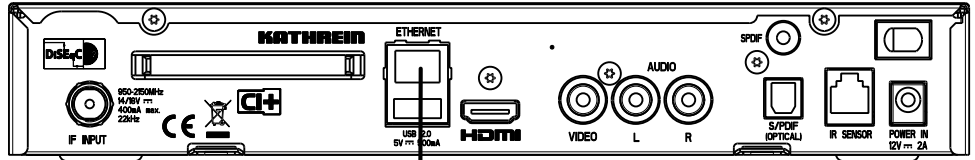


Technical appendix

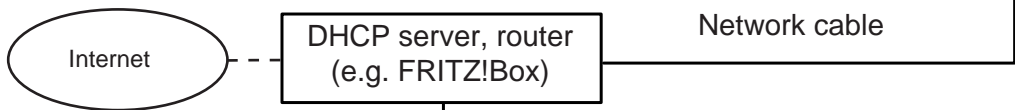
Connection examples for the network function

DHCP (Receiver): ON

UFS 946/CI+



TCP/IP address:
automatical



Wireless connection

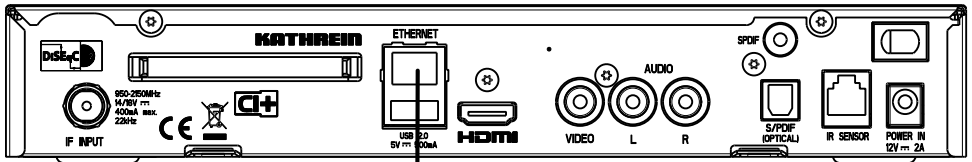


PC/laptop

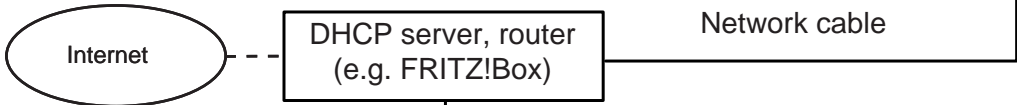
Technical appendix

DHCP (Receiver): ON

UFS 946/CI+



TCP/IP address:
automatical



Wireless connection

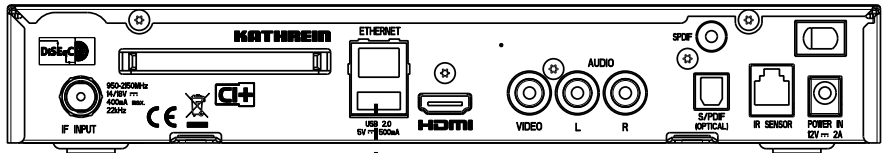


PC/laptop

Technical appendix

DHCP (Receiver): ON

UFS 946/CI+



UFZ 130 *)
WLAN/USB adapter
BN 20410041

*) The WLAN/USB adapter UFZ 130 is not included with the receiver.

TCP/IP address:
automatical

(Wireless connection only
possible with UFZ 130)

Wireless connection

DHCP server, router
(e.g. FRITZ!Box)

Internet

Wireless connection

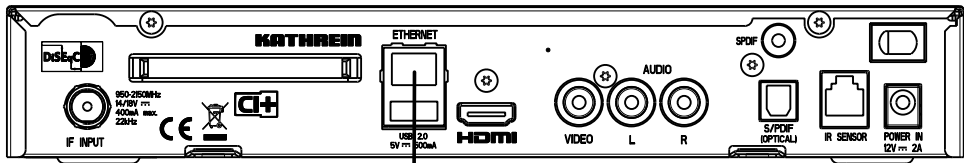


PC/laptop

Technical appendix

DHCP (Receiver): OFF

UFS 946/CI+



IP address:
192.168.0.11

Cross-over network cable



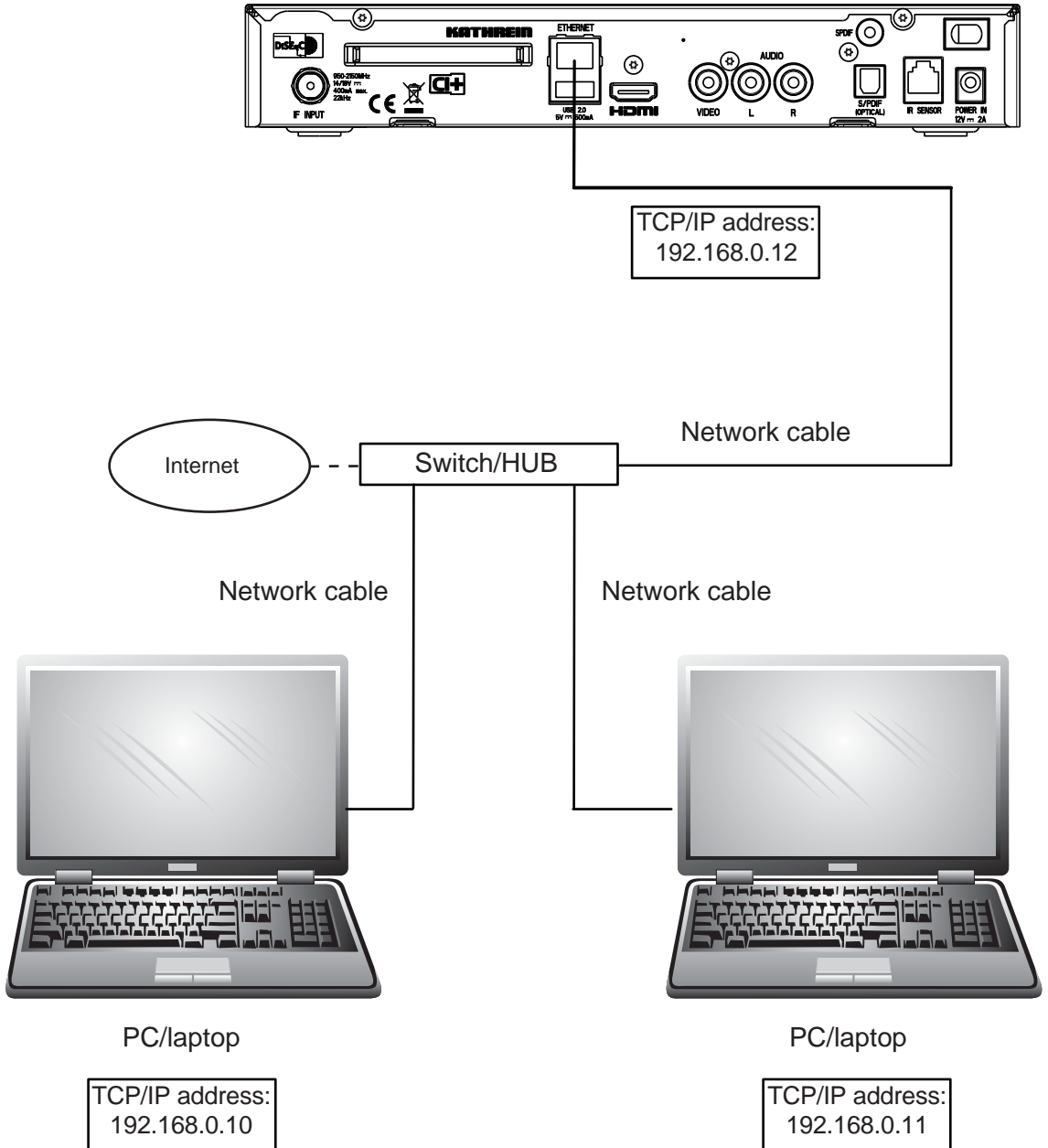
IP address:
192.168.0.10

PC/laptop

Technical appendix

DHCP (Receiver): OFF

UFS 946/C1+



Technical appendix

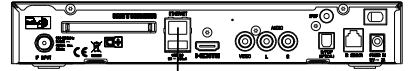
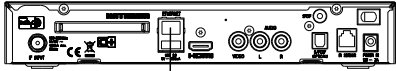
DHCP (Receiver): OFF

TCP/IP address:
192.168.0.12

UFS 946/CI+

TCP/IP address:
192.168.0.13

UFS 946/CI+



Network cable

DHCP server, router
(e.g. FRITZ!Box)

Network cable

Network cable

Network cable



PC/laptop

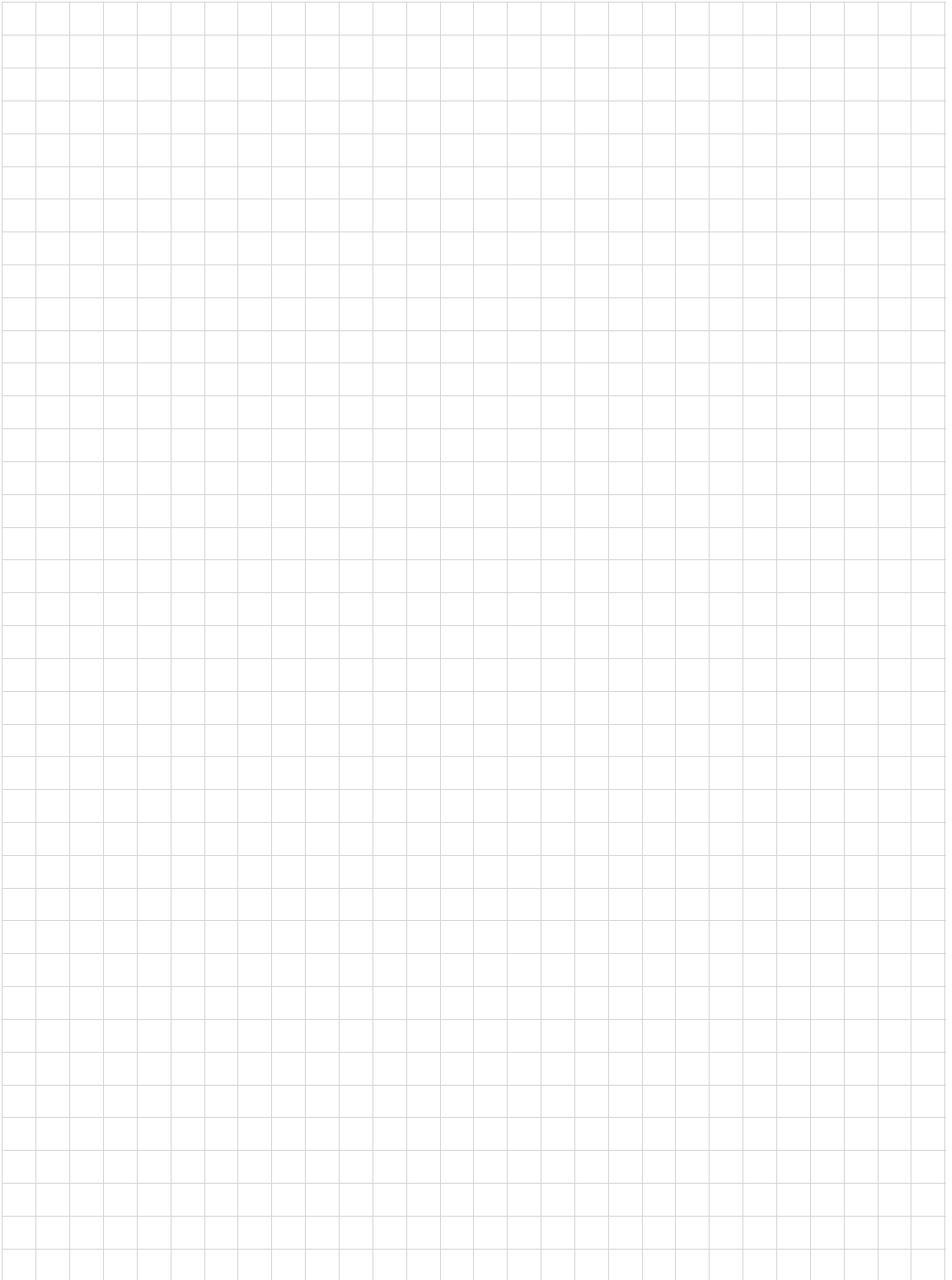
TCP/IP address:
192.168.0.10



PC/laptop

TCP/IP address:
192.168.0.11

For your notes





Receivers	Part no.	Operating instructions valid as of software version:
UFS 946/CI+	20210222	1.00

Preface

Dear customer,

these operating instructions are intended to help you make the fullest use of the extensive range of functions offered by your new receiver.

We have tried to make the operating instructions as easy as possible to understand, and to keep them as concise as possible. To help you understand particular specialist terms that cannot be translated, we have added a short glossary at the end of the operating instructions.

The power switch and auto standby function (see Safety Instructions - Important Information) are environmentally friendly features. If you will not be using your receiver for an extended period, you should use the on/off switch to disconnect it from the power supply and save energy. For shorter breaks, you can use the remote control to switch the receiver to standby, which uses only a minimal amount of energy.

We hope your reception will always be brilliant and you will enjoy using your new HDTV receiver.

Your
KATHREIN team

Legal information

Note on Audio MPEG Inc. and S.I.SV.EL, S.P.A:

This unit makes use of legally protected technologies, which are protected by patents in the USA and also by other intellectual property rights in other countries.

KATHREIN-Werke KG has obtained licences from Audio MPEG Inc. and Societa' Italiana per lo sviluppo dell'elettronica, S.I.SV.EL, S.P.A to use these technologies. These licences carry certain restrictions which also apply to you as the customer. Accordingly this unit may only be used by the end customer for private non-commercial purposes and for the licensed content. It may not be used for commercial purposes. The use of products or processes that are sold or used with this unit is not included in this statement. The use of reverse engineering is not permitted in respect of the licensed technologies, nor is disassembly.

Note on DiSEqC™:

The term DiSEqC™ used in these operating instructions is a registered trade mark of the European Telecommunication Satellite Organisation (EUTELSAT).

Note on Macrovision:

The product is equipped with copyright technology, which is protected by patents in the USA and by other intellectual rights of the Rovi Corporation. Use of reverse engineering or disassembly is prohibited.

Legal information



Manufactured under licence from Dolby Laboratories. "Dolby" and the double-D symbol are registered trademarks of Dolby Laboratories.



HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and in other countries.



CI+ and the CI+ logo are trade marks or registered trade marks of CI Plus LLP. The UFS 946/CI+ satisfies the minimum requirements of CI+.



YouTube™ and the YouTube logo are trademarks or registered trademarks of YouTube, LLC.



SHOUTcast™Radio and the SHOUTcast™Radio logo are trademarks or registered trademarks of Nullsoft Inc.

Please note that the receiver's functions for viewing, CI+ encrypted channels may be restricted because of CI+ requirements.

Included in the software for this receiver is software that is licensed under the GNU (General Public Licence). The source code of the program is available at: www.kathrein.de/linux/receiver/ufs946

Software changes/use of applications

Any modifications to the receiver software, or the use of applications not provided by Kathrein will invalidate the warranty! You will have to bear the costs yourself for shipping and repairing any receiver that requires attention due to modifications to the software and use of applications other than those provided by Kathrein!

For this reason, you should only use software and applications provided by Kathrein for your receiver. These are available to download from the satellite or from our Internet pages (www.kathrein.de).

Kathrein assumes no liability for the loss of recordings/data on internal hard disks or external storage media.

The software installed on the device/product before dispatch from the factory is suitable for its function and is of the quality usual for this type of software. It has not been technically possible to fully eliminate all bugs during the software development process. However the software as delivered is defective only if it fails to perform the functions usual for the device/product. A shortcoming that causes only an insignificant reduction in quality does not rank as a defect. Functional shortcomings in the software or program that result from hardware defects, ambient conditions, incorrect operation or the like do not rank as software defects.

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Safety instructions - important notes

These two pages contain important information about the operation, installation location and connection of the unit. Read these instructions carefully before setting up the device.



Danger!

Mains power cable

Make sure that the mains cable (power supply cable) is not damaged. Units with a damaged mains cable must be disconnected from the mains (unplug it at the socket) and repaired by an electrical specialist before switching on again. Only use the power supply unit supplied (if available)!

Mortal danger due to electric shock!

Cleaning

Disconnect the mains plug before cleaning the unit. Use a dry cloth for cleaning and only clean the outer surface. Never open the casing of the unit.

Touching the parts inside the unit carries a risk of death due to electric shock!

Playing children

Make sure that children do not push any objects into the ventilation slots.

Mortal danger due to electric shock!



Warning!

Earthing

The antenna system must be earthed or equipotentially bonded as specified.

EN 60728/11 and any national regulations must be complied with.

Risk of voltage surges due to lightning strikes!

Power supply voltage

Only operate the unit at the specified mains voltage (indicated on the rear of the unit or on the external power pack). The unit may only be connected to the mains and turned on once it has been connected to the antenna and to the TV set or the cable network and PC.

If the mains voltage is too high, there is a risk of fire!



Moisture, direct sunlight, heat, naked flames

Protect the unit against moisture, dripping and splashed water (do not place any filled objects such as vases on top of the unit). Do not place the unit close to a heater or expose it to direct sunlight and do not operate it in damp locations. Only use the unit in a moderate climate, not in tropical conditions! Do not place naked flames such as candles on top of the unit!



There is a risk of fire!



Batteries

If your unit was supplied with batteries (e.g. for the remote control), take care that the batteries are not exposed to excessively high temperatures, direct sunlight or fire. Replace the batteries only with types that are identical or equivalent, otherwise the batteries or the remote control may be damaged. Also comply with the safety instructions stated on the batteries:



Warning!

There is a risk of explosions!



Warning!

Ventilation

The heat generated in this unit is adequately dissipated. However, the unit should never be installed in a cupboard or on shelves with inadequate ventilation. Never cover the cooling slots on the unit (e.g. with other equipment, magazines, tablecloths, clothing or curtains)!



Do not cover!



Safety instructions - important notes

Do not place any objects on top of the unit. Unless stated to the contrary in the "Connection and set-up" and "Installation" sections in the instructions supplied, maintain a clearance of at least 10 cm above the unit, 2 cm to either side and 5 cm behind the unit, to allow unobstructed dissipation of the heat generated.

There is a risk of fire!



Caution!

Repair

Ensure that any repairs to your unit are carried out by qualified personnel. Opening the unit and attempting to repair it yourself will void all warranty claims! Improper work on the unit may jeopardise the electrical safety of the unit.

The manufacturer accepts no liability for accidents caused by the user opening the unit casing!

Connections

Incorrect wiring of the connections may lead to malfunctions or defects on the unit!

Periods of extended absence, thunderstorms, mains socket accessibility

In order to disconnect the unit from the mains completely, the mains plug must be unplugged from the mains power socket! Therefore install the unit close to a mains socket and make sure this socket is accessible at all times, so that you can disconnect the unit from the mains if necessary.

If you are away for an extended period, and during thunderstorms, always switch the unit off at the mains and unplug the power plug from the socket. This also applies to the other equipment connected to the unit. Isolation from the cable network is also recommended. Note any timer programming (receiver) and turn the unit on again promptly before the recording time.

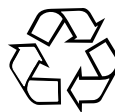
Installation location

All electronic equipment generates heat. The temperature rise of this unit does however lie within the permissible range. Sensitive furniture surfaces and veneers may become discoloured by the effects of constant heat over time. The feet of the unit can also cause colour changes to treated furniture surfaces. If necessary, place the unit on a suitable stable and flat base!



Electronic equipment is not domestic waste - in accordance with directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 27th January 2003 concerning used electrical and electronic appliances, it must be disposed of properly.

At the end of its service life, take this receiver for disposal at a designated public collection point.



Used batteries are special waste!

Do not throw used batteries into your domestic waste; take them to a collection point for old batteries!



Warning!

The power supply unit and the receiver are for indoor use only! Use the power supply unit supplied with the receiver. The use of any other power supply unit may damage the receiver.

There is a risk of fire!

Safety instructions - important notes

Product return/original packaging

Please keep the original packaging in case you need to return the product at any time! The receivers are fragile due to their construction and are only adequately protected by the original packaging. If the receiver is not shipped correctly the guarantee/warranty on it will be voided.

Ventilation slots on the unit



Warning!

Make sure that the ventilation slots on the unit are not blocked or covered in any way. Otherwise the unit may overheat.

There is a risk of fire!

Switching the receiver off

Before you disconnect the receiver from the mains, you must switch it to the standby mode by pressing the standby button (on/off) on the remote control. In standby mode, any changed or new data that are broadcast will be saved by the receiver. As soon as the receiver is in the standby mode, it can be disconnected from the mains at any time.



**You must not disconnect the receiver from the mains while it is in operation!
This can lead to a loss of data and corruption of the software.**

Automatic stand-by of the receiver after four hours

If the receiver's remote control is not operated for four hours the receiver automatically switches to standby mode. Before the receiver enters standby mode you get a message that you can stop this by pressing any button on the remote control. You can deactivate this function by selecting "Mainmenu - Settings", "User Defined Settings", "Customize Screen Menu".

Channel assignment

The channels available on the satellites and transponders are subject to continual change. In such cases, it is necessary to reset the channels as the factory preset programming corresponds to the situation on the date of manufacture. The information for these settings can be found on the Internet or in relevant magazines.

Safety instructions - important notes

Updating the receiver software

Your receiver is equipped in the factory with the latest software version. We are, however, constantly working on adapting the software to the wishes of our customers and to developments in technology. Further information on this will be found in the sections "Mainmenu - Service Menu".

Network function

To connect the receiver to the network via the PC/laptop, you must have unrestricted rights (administrator rights) for your PC/laptop and on your network. For this refer to the section "Mainmenu", "Interface Setup", "Ethernet Settings".

Other

The information in these operating instructions was correct at the time of going to print. We reserve the right however to make changes at any time and without prior notice. If new software is released for your receiver, and this affects the information in the operating instructions (e.g. changes to the menus and/or functions), if we believe it necessary we will make available new operating instructions for download at "www.kathrein.de".

Make a note of the receiver's basic settings (these are set during first installation) so you can restore them if necessary!

Please be aware of your responsibility towards your fellow human beings! Keep these instructions for any questions that arise later, and if the receiver passes to another owner, pass them on to the new owner.

Please see the UFS 946/CI+ Operating Instructions – Part 1, "Connection and set-up" for details on how to connect the receiver and carry out first installation.

The following description of the menus and functions assumes that the UFS 946/CI+ has been correctly connected and installed (as detailed in the operating instructions part 1 "Connection and set-up").

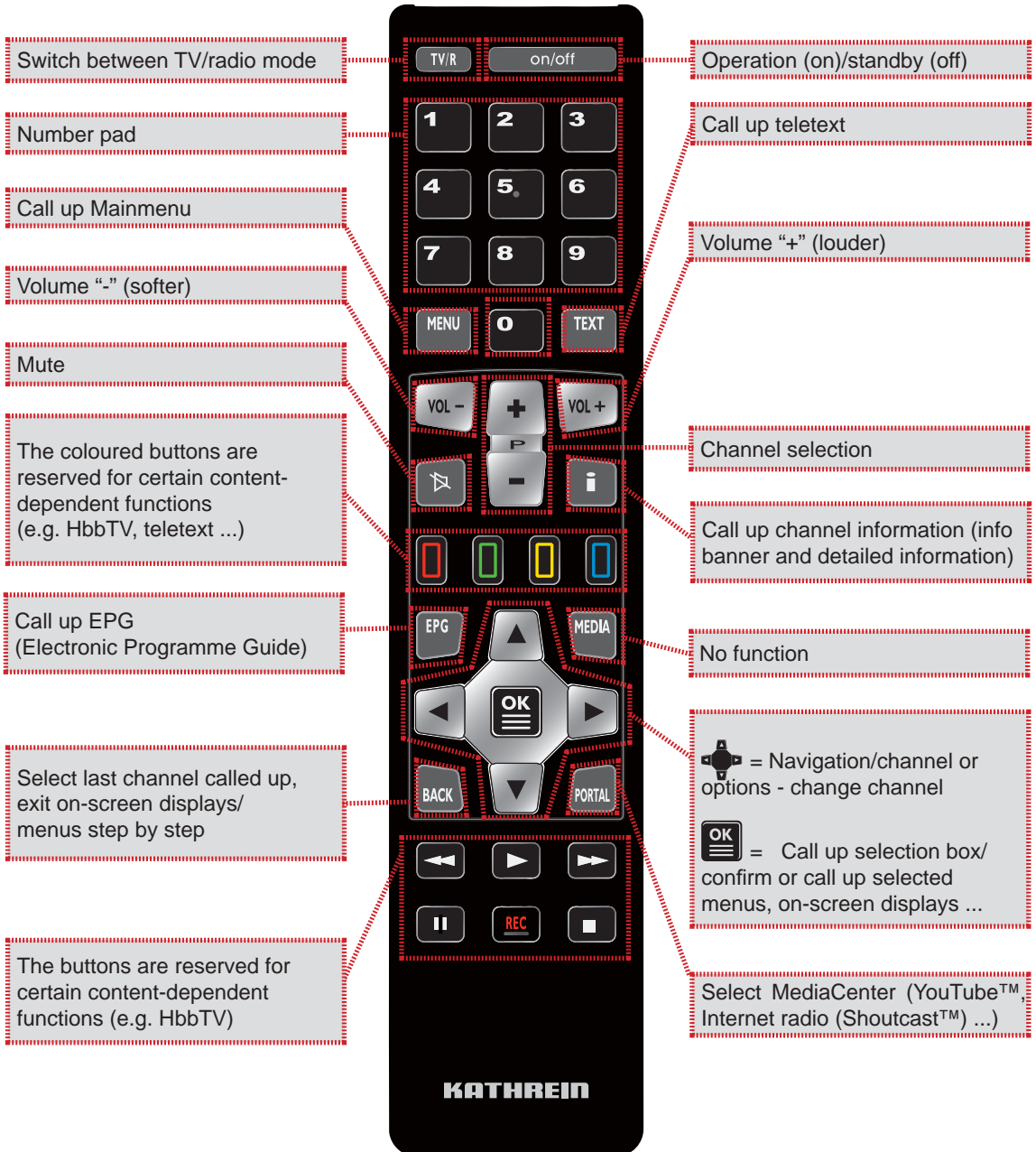
Basic functions

Following an overview of the remote control, a simple explanation will be provided of the receiver's most important functions (with all the required buttons on the remote control). The explanations in the sections "I would like to..." merely demonstrate the most simple use of the relevant receiver functions without going into any great detail.

For more detailed explanations of the functions, refer to the relevant sections.

Basic functions

Remote control in live mode (TV/radio)

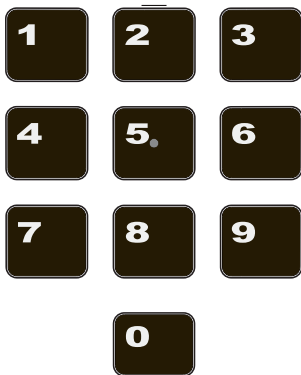


Basic functions

I want to watch TV ...



- Use to increase or decrease the volume
- Use to switch channels
- Use to display and hide again additional channel information
- Press to mute sound



- Press ... to enter the channel number directly



- Press to open the selection box, to select the channel list and to call it up
- Press to select a channel
- Press twice to call up a channel and close the channel list



Basic functions

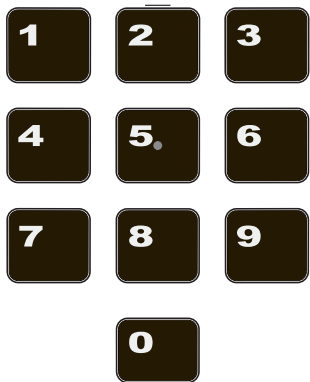
I want to listen to the radio ...

TV/R

- Press **TV/R** to change to radio mode



- Use **VOL -** **VOL +** to increase or decrease the volume
- Use **+** **-** to switch channels
- Use **i** to display and hide again additional channel information
- Press **🔇** to mute sound



- Press **0**...**9** to enter the channel number directly



- Press **OK** to open the selection box, **+** to select the channel list and **OK** to call it up
- Press **+** to select a channel
- Press **OK** twice to call up a channel and close the channel list



TV/R

- Press **TV/R** to change back to TV mode

Basic functions

I want to access teletext ...

TEXT

- Use **TEXT** to call up teletext

1

2

3

- Use **0**...**9** to enter the required page directly
or

4

5

6

- Use **▲** **▼** to page forward/back

7

8

9

0

TEXT

BACK

- Use **TEXT** or **BACK** to return to TV

Basic functions

Editing and selection options in the menus









In some menus/displays this box is shown with a particular colour gradation. Each colour gradation represents a specific view/selection. The table below shows which colours are assigned to which buttons. Where the functions of these buttons are assigned for the current menu/view, they are also shown in the line at the bottom of the on-screen display.



Tip!

Always check the bar at the bottom of the on-screen display. This provides information on what to do next.

In many menus all editing and selection options for the respective menu will appear at the bottom of the on-screen display. Where a specific remote control button is required for executing them or calling them up, this also will be shown (see screenshot example above).

	Colour	Button on the remote control
	Green	
	Yellow	
	Red	
	Blue	

Basic functions

Alphanumeric entries

For entries such as names of favourites or search expressions, use the keyboard displayed on the screen (see screenshot example).



The letters assigned to the number pad also apply to your remote control. They are used in a similar way to those on a mobile phone. The following buttons can be used for entry or to select an action:






Button	Assigned character/action				
	1 x	2 x	3 x	4 x	5 x
	.	ß	?	!	1
	a	b	c	2	ä
	d	e	f	3	
	g	h	i	4	
	j	k	l	5	
	m	n	o	6	ö
	p	q	r	s	7
	t	u	v	8	ü
	w	x	y	z	9
	1 x space, 2 x 0				
	Last character is deleted				






Basic functions

Switch between letters and digits/
special characters



	Switch to QWERTZ keyboard (control using the arrow buttons and the OK button) - see screenshot at top right
	Switch between upper case and lower case letters
	Confirm the term entered
	Cancel entry without saving
	Cancel entry without saving



After entering the desired term, press the  button to transfer the name/search expression, etc. or the  or  button to abort the entry.

Basic functions

Switching between TV and Radio operation


Press the  button to switch between TV and radio operation.



Adjusting the volume

Adjust the volume using the   buttons.


Channel selection

... directly



The  button allows the channel to be selected from the sorted channel list/favourites list currently selected. If the channel slot in the channel list is known, the desired channel can also be called up directly by entering the channel slot, using the number pad on the remote control (example: BR-alpha is at channel slot 10 in the currently selected channel list - to call it up, successively press

the   buttons on the remote control).

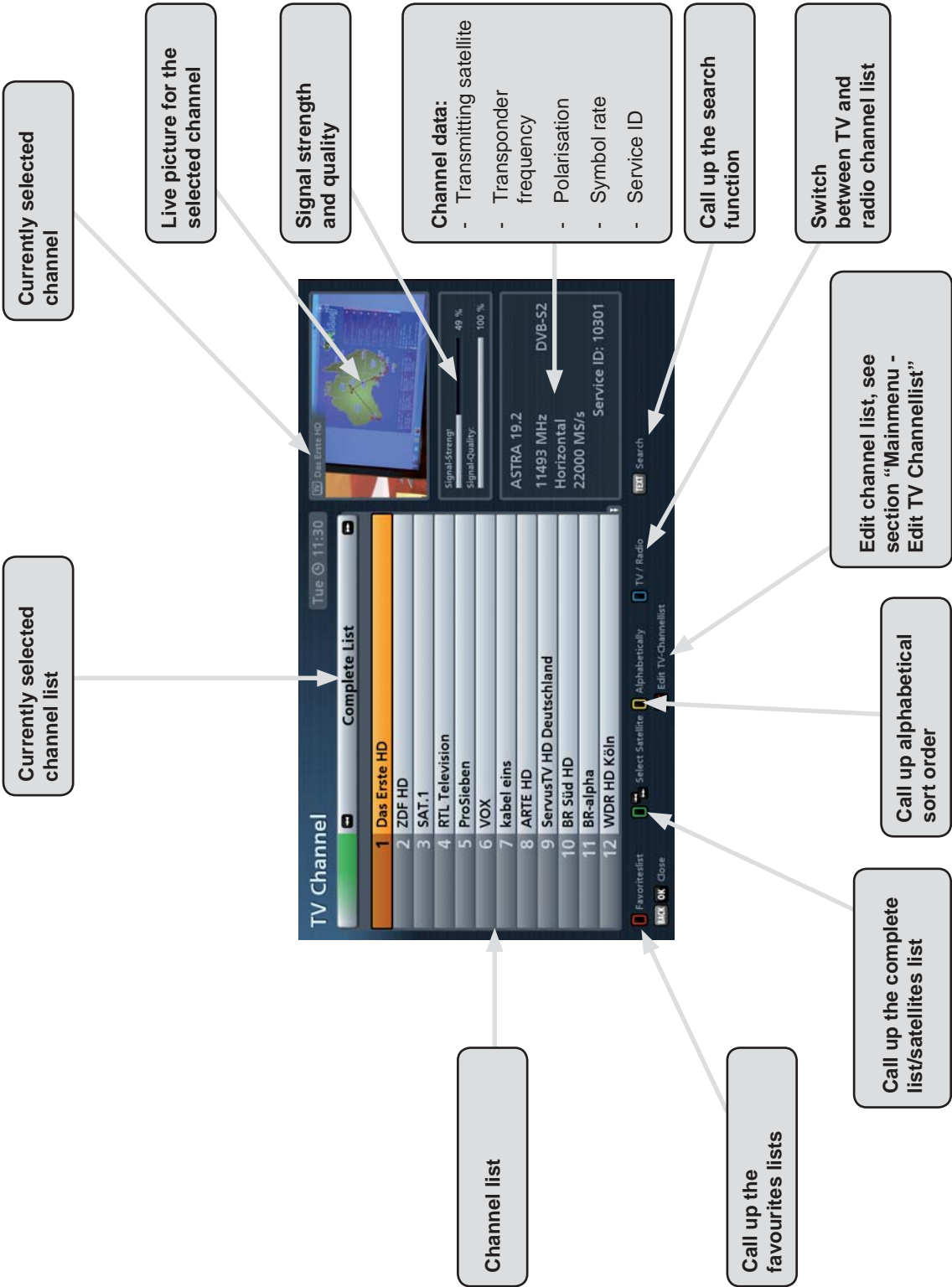
... from the channel list

Press the  button to open the selection menu. The following on-screen display appears:




Use the  buttons to select "Open the channel list" and confirm by pressing the  button. The following on-screen display appears:

Basic functions



Basic functions

Now use the relevant coloured button to select the category from which you want to open a channel list:

 (red) button: Call up the "Favoriteslist"

Contains the following channel lists:

- Favourites lists 1-8




 (green) button: Call up the "Complete List"

Contains the following channel lists:

- Complete list
- Channel lists ordered by satellite





 (yellow) button: Call up alphabetically sorted lists

Contains the following channel lists:

- A-Z
- Z-A
- 0-9
- Sorted by individual letters




Use the   buttons to scroll through the currently available channel lists. If you wish to see an overview of the currently available channel lists, you must once again press the respective coloured button for the selected category; you will then obtain the following on-screen display (for example the favourites lists):

Basic functions

Use the cursor () buttons to select the desired channel list and call it up using



the  button.

After selecting the desired channel list, the desired channel is selected using the





cursor () buttons and called up using

the  button.



Press the  button again or press the  button to exit the channel list and return to the TV picture.

Tip!

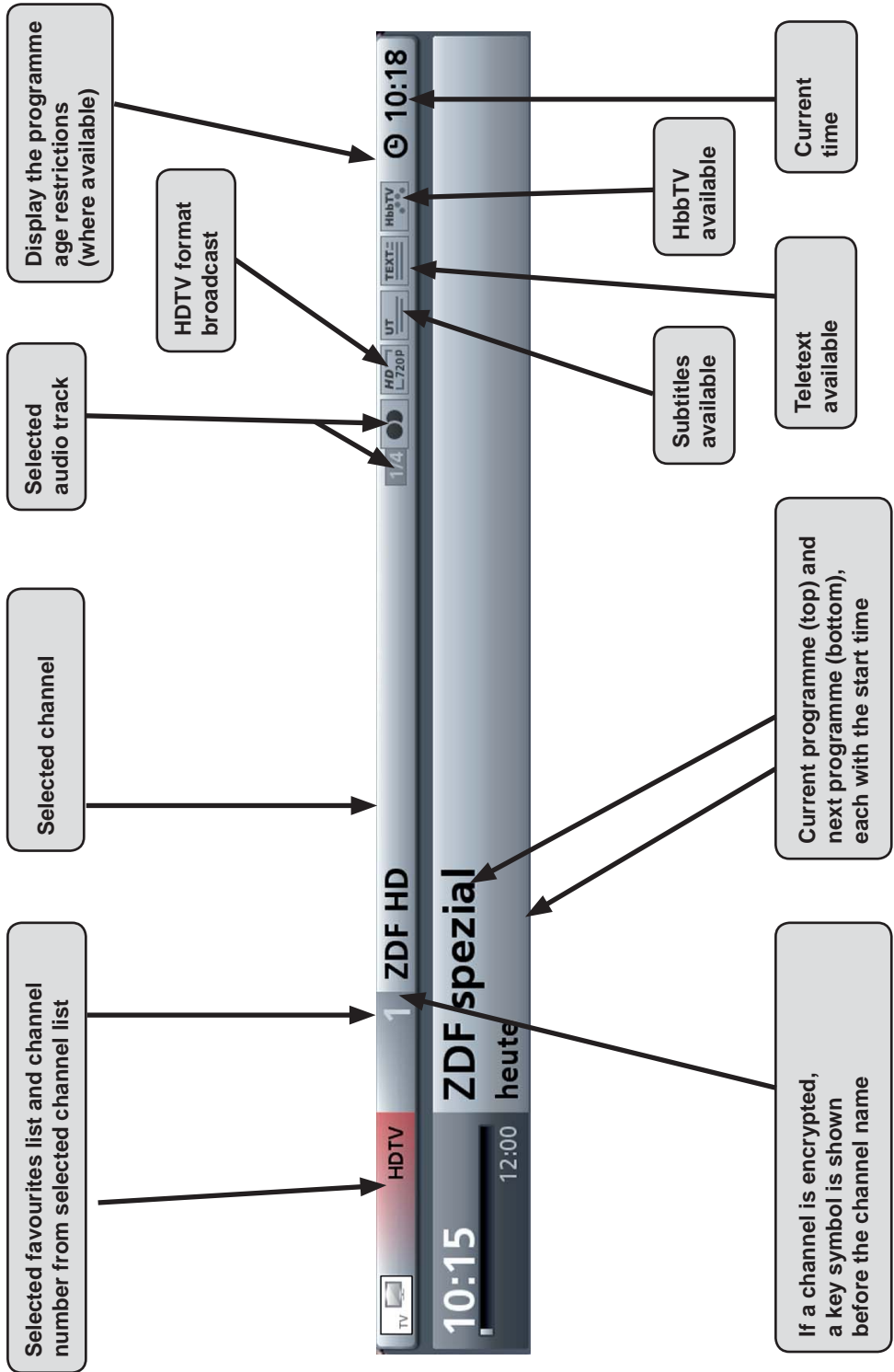
You can also call up favourites lists via the selection menu (using the  button). Then use the cursor () buttons to select the desired favourites list and confirm using the  button. The receiver automatically selects the first channel saved in the favourites list and returns to the TV screen. You can now select the sequence of channels saved in the selected favourites list, using the  buttons.

Channel banners (information)

Channel information is shown for a few seconds each time the channel is changed (this can be changed under "Settings", "User Defined Settings", "Customize Screen Menu") or displayed continuously by



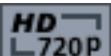















pressing the  button.

Basic functions










Basic functions


The following icons (symbols) may appear in the channel information:

	Broadcast transmitted in HDTV standard 1080i		Teletext is available
	Broadcast transmitted in HDTV standard 720p		Receiver registers the programme as a live broadcast
	Portal channel (channel options available)		Receiver registers the programme as a film
	Dolby Digital audio track selected		Receiver registers the programme as a series
	Audio selection is: Mono		FSK 6. Programme unsuitable for children under the age of 6 years
	Audio selection is: Mono left		FSK 12. Programme unsuitable for children under the age of 12 years
	Audio selection is: Mono right		FSK 16. Programme unsuitable for children under the age of 16 years
	Audio selection is: Stereo		FSK 18. Programme unsuitable for children under the age of 18 years
	Subtitles are available		HbbTV is available

Calling up the channel options

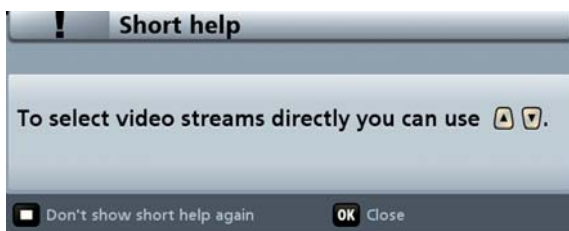
If the channel banner contains the following icon  this indicates that it is a portal channel. Open the selection box (with the  button) and press  to select “Sound, Picture, Subtitle”. Confirm with the  button. Use the   buttons to select “Channel options” and press the  button to confirm. The following on-screen display then appears (example):



Basic functions

The desired channel list is selected using the cursor buttons ( ) and called up using the  button.






The following on-screen display appears:






Press the  if you want to be reminded of this function next time, or the  button if you don't want to see this message again.



After selecting a channel option using the   buttons, skip through the other channel options in your selected portal channel.

Audio selection

If the channel banner displays "1/3" in front of the symbol for the selected audio track, this tells you that you have currently selected the first of the three available audio tracks. Open the selection box (with the  button) and press  to select "Sound, Picture, Subtitle". Confirm with the  button.








Use the   buttons to select "Select Audio track" and confirm by pressing the  button. The following on-screen display then appears (example):






Use the cursor () buttons to select the desired sound track option and press the  button to confirm.

Basic functions

Select subtitle


If the channel banner includes the following symbol for subtitles , you can call up the “Subtitle” function as follows: Open the selection box (with the ) and press  to select “Sound, Picture, Subtitle”. Confirm with the  button. Use the   buttons to select “Subtitle” and confirm by pressing the  button. The following on-screen display then appears (example):




Use the   buttons to select the desired subtitles and confirm by pressing the  button. The receiver will automatically return to the TV picture.

Basic functions

Teletext









This symbol  in the channel banner indicates whether teletext is available for the selected channel.

When you press the  button, the receiver processes the videotext/Teletext service data for your TV set to display, even when the signal is encrypted.

During the search, the page which is being searched for is displayed in the top left-hand corner with the time and date displayed at the top right. When the search is finished, the teletext broadcast by the relevant channel provider appears.



There are several options for opening the desired pages:

- Entry using the number pad
- Scroll backwards and forwards using the   buttons
- Scroll up and down in the sub-pages (e.g. 1/2 and 2/2) using the   buttons
- Selection using the options indicated by the coloured buttons  (red),  (green),  (yellow) and  (blue)

Press  or  to exit teletext.

Electronic Programme Guide (EPG)

General information on the programme guide

What is the programme guide?

The electronic programme guide (in the following section referred to as the EPG for short) provides all programme information free of charge (EPG data) and informs you up to a week in advance. However, this programme information must be broadcast by the related channel provider. If no EPG data is available the receiver shows the message “no data available” instead of showing information on the current programme.

EPG data update


The EPG data for the currently selected channel is updated automatically in the background while you are watching a TV channel. You can also have the EPG data updated automatically by the receiver. Make the related setting on the menu “Mainmenu - Settings”, “User Defined Settings”, “EPG Setup” and “EPG Grabbing Time”. The receiver switches itself on at the selected time and updates the EPG data. After updating the data, the receiver switches back to standby mode.

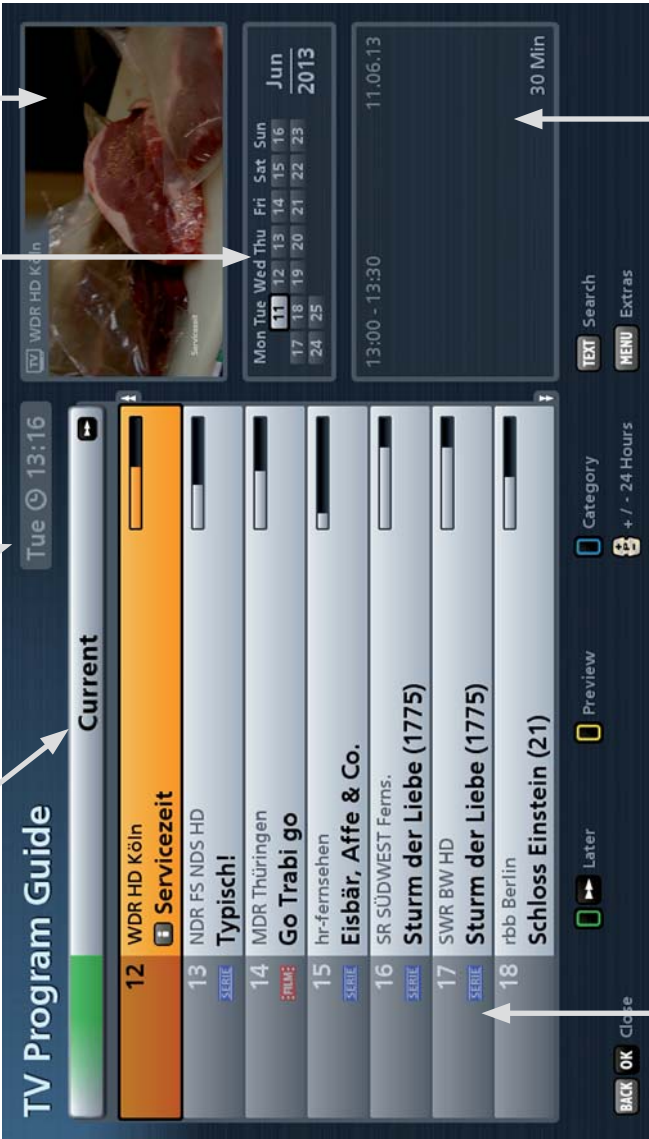


Information on current or subsequent programmes is only visible in the EPG only if this data has been made available/broadcast by the channel provider. If no EPG data are available the receiver, instead of showing information on the current programme, shows the message “No data available”. The data, if available, are loading after switching to a channel.

Electronic Programme Guide (EPG)

Calling up the EPG

The EPG is called up by pressing the  button. You will automatically see the view you selected in the menu ("Settings", "User-Defined Settings", "EPG Setup") - irrespective of which view you selected last time before exiting the EPG. The following on-screen display appears (example):



The screenshot shows the 'TV Program Guide' interface. At the top, it displays the current day and time: 'Tue 13:16'. Below this is a 'Current' tab and a list of programs. The first program is 'Servicezeit' on 'WDR HD Köln' at 12:00. Other programs include 'Typisch!', 'Go Trabi go', 'Eisbär, Affe & Co.', 'Sturm der Liebe (1775)', and 'Schloss Einstein (21)'. A '14 day calendar for the programme schedule' is visible in the top right, showing dates from Monday to Sunday. A 'Current picture of the selected channel' is shown in the top left. A 'Selected EPG view' is indicated by a green bar at the top left. A 'Channel number from complete list, channel name, current programme with progress bar' is shown for the first program. A 'For selection options see the "Navigation" section' callout points to the 'Category' and 'Preview' options. A 'Specifies the date and time of the selected recording, and the category, duration and age restriction (only where supplied by broadcaster)' callout points to the '13:00 - 13:30' and '30 Min' information. A 'If you selected a favourite list before opening the EPG, you will see in the EPG only the data for the channels that are included in this favourite list. Press the EPG button a second time to view the EPG for all channels.' callout points to the 'WDR HD Köln' channel name.

Current picture of the selected channel

14 day calendar for the programme schedule

Current day of the week and time

Selected EPG view

Channel number from complete list, channel name, current programme with progress bar










For selection options see the "Navigation" section

Specifies the date and time of the selected recording, and the category, duration and age restriction (only where supplied by broadcaster)




If you selected a favourite list before opening the EPG, you will see in the EPG only the data for the channels that are included in this favourite list. Press the EPG button a second time to view the EPG for all channels.



Electronic Programme Guide (EPG)

Navigation (remote control buttons in the EPG)

Button	Function
 (green)	Call up "Current" view (displays all channels in the order of the overall list)
	Navigation in the individual views (e.g. skip forward 15 minutes in the "Current" view)
 (yellow)	Open a preview of the currently selected channel (programme listings)
 (blue)	Open the category selection (sorting the programs by categories such as movie, sport, series etc.)
	(P+) to jump forward 24 hours in the EPG, (P-) to jump back 24 hours in the EPG (e.g. in "Current" view and "Preview")
	Select the currently highlighted channel in all views. Pressing the OK or the Back button again closes the EPG and the selected channel is shown again on the TV screen
	Search for a particular programme or certain programme content (e.g. key word search from the detail information) or other programme times (enter the search expression using the number pad on the remote control – see also the section "Operating instructions", "Alphanumeric entries")
	If present, shows further information on the selected programme
	Call up the Extras menu




Navigation within each EPG view is always performed using the cursor buttons . The  buttons allow you to select individual channels/programmes, and the  buttons allow you to scroll from page to page in the currently selected list.

Pressing the  or  button exits the EPG and returns to the TV picture.



Electronic Programme Guide (EPG)

EPG views

“Current” view


Press the  (green) button to call up the “Current” view in EPG. In the “Current” view you can see all channels displayed in the order of the complete channel list. Provided that EPG data has been supplied by the channel provider, the receiver shows the current programme running on each channel, with start time, finish time, duration and progression bar.






Use the cursor () buttons or the number pad to select the desired channel. Use the  button to view further information, if available, on the selected programme.


If you want to view the programme currently being shown on a channel, you need not exit the EPG,

just select the desired channel and press the  button. At the top right of the screen you will see the

current TV picture for the selected channel. The picture however only appears once the  button has been pressed. Prior to this the picture from the old channel that had previously been selected is visible, even though the EPG is no longer set to that channel.

The  button allows you to look ahead to future programmes on the channels in 15-minute steps (press the  button to return to the current time).

By pressing the  (green) button in the “Current” view, you can display a schedule in 15-minute steps (see screenshot on the right). The desired time

is selected using the cursor buttons ()

and confirmed using the  button.





Electronic Programme Guide (EPG)



“Preview” view (programme magazine)


The “Preview” view can be called up at any time in the EPG by pressing the


 (yellow) button.


In the “Preview” view you will see all programmes to be shown for the channel previously selected in the “Current” view. Provided that EPG data has been supplied/transmitted by the channel provider, the receiver displays the programme lists for up to two weeks in advance.

You can use the cursor () buttons to select the desired programme and, if available, you can use the  button to display further information on the desired programme.

You can use the   buttons to scroll through the programmes in the order of the overall list of programmes (programmes can also be selected by entering digits with the number pad); you remain however in “Preview” mode.


You can also press the  (yellow) button to select the desired channel. The overall channel list is then displayed (see screenshot right). Use the cursor

buttons () to select the desired channel. Confirm your selection with the

 button. The receiver automatically returns to the “Preview” view.




The  button allows you to scroll backwards and forwards a day at a time.

Using the  button you can load the selected programme into the recording settings (see “Recording” section).

Electronic Programme Guide (EPG)

Categories view

The categories overview can be called up at any time in the EPG by pressing the

 (blue) button.



In the “Category” view you can see all programmes sorted by category and starting time.


The following main categories are available for selection: Tip-of-the-Day, My hints (see “Extras menu”), Movie, Series, Entertainment, Sport, News, Children, Music, Special Interest, Movie Rating and HD transmissions.





Some main categories are further subdivided into sub-groups, such as movie (action, comedy, crime, etc.).

Programmes can be assigned to the above categories only if the EPG data have been supplied by the channel provider.

Select the desired category using the   buttons.


You can also press the  (blue) button to select the desired category. The list of categories is then displayed (see screenshot right). Select the required

category using the cursor buttons (.


Confirm your selection with the  button. The receiver automatically skips back to the “Category” view.



You can then use the cursor buttons () to select the desired programme in that category and, if

available, you can use the  button to view further information on the desired programme.


The  button allows you to scroll backwards and forwards a day at a time.

Using the  button you can load the selected programme into the recording settings (see “Recording” section).


Electronic Programme Guide (EPG)




Search function

The search function can be called up in the EPG at any time by pressing the

 button. The following on-screen display appears (see screenshot on the right). The following search options are available:



- Search further broadcasts (in the example “Go Trabi Go”)
- Key word search in detailed information
- Full-text search (called up by pressing the  button again)



The selection is made using the   buttons. To open the menu for “More Episodes” and “Keywordsearch in detailed information”, press the  button.



For the “on YouTube” function please refer to the “Kathrein portal (Media centre)” guide which can be downloaded from “www.kathrein.de”.

More episodes

The following on-screen display appears (see example on the right):


The selection is made using the   buttons.



Electronic Programme Guide (EPG)

Key word search in detailed information

The following on-screen display appears (see example on the right):

Use the cursor () buttons to select the first letter of the word by which you want to search the available EPG information. At the start of the selection process,

press the  button. You can now

use the   buttons to select the desired word (see example on the right).

Pressing the  button again starts the search for this key word.


You will then see a listing of all programmes that contain your key word in their detailed information.




Electronic Programme Guide (EPG)

Full-text search

After calling up the search function, select

Full-text search and confirm using .

The following on-screen display appears (see example on the right): The last search expression used may appear

by default. By pressing the  button you can delete your input or a search expression provided by the receiver.

Search expressions are input using the number pad as described in “Operating instructions”, “Alphanumeric entries”.

Pressing the  button starts the search for this search expression.


You will then see a listing of all programmes that contain this search expression in their detailed information.



Electronic Programme Guide (EPG)

Extras menu

The “Extras” menu is opened in the EPG

by pressing the  button. This menu offers you the following additional sorting/search option:


- My hints




The selection is made using the   buttons and confirmed by pressing the  button.


My hints

You can create your own categories within

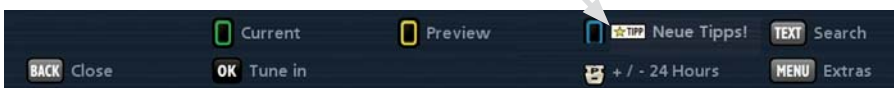
this section. Press the  button to activate the input field. Now you can enter the search/category expression for your new category. Alphanumeric characters are entered as described in “Operating instructions”, “Alphanumeric entries”.

To search the available programmes for one of your hints/categories, you merely need to select the desired hint/category in the Categories view (called up

using the  (blue) button) or in the “My

hints” window, and press the  button to confirm.

If programmes are available for your hints (categories) this will in future be indicated by an asterisk when opening the EPG. Each time the EPG is updated the programmes for the picks you created will be updated automatically.



HbbTV

An Internet connection is required to use HbbTV *) to its full extent! Some broadcasters provide restricted use of HbbTV functions via satellite (e.g. Das Erste HD).

See Operating Instructions Part 1, "Connection and set-up", "Network/Internet connection" for configuration of the Ethernet settings.




If HbbTV is available for the channel currently selected, the receiver will show the following on-screen display in the bottom right-hand corner:

If you do not want to be automatically informed of the availability of HbbTV by the receiver, you can select "No" for the "Start HbbTV applications" option in the "Applications" menu.



To call up an available HbbTV application, press the  (red) button. The following on-screen display appears (example):

The content is provided by each respective programme provider. This is operated as displayed in the respective menu. In most cases it is operated using the coloured

buttons  and the cursor  button in combination with the  button.



 (yellow) button

For example:
Media library for the channel "Das Erste"



HbbTV content is provided by each respective programme provider/broadcaster, **not Kathrein**. Kathrein also does not accept any liability for any inaccurate, incomplete or out-of-date content that may be provided. Use of HbbTV is the responsibility of the user, and is at their own risk.

*) Hybrid broadcast broadband TV - combination of TV and Internet services. The receiver must be connected to the Internet.

Kathrein portal (Media centre)

For all applications of the Kathrein portal please refer to the separate guide "Kathrein portal (Media centre)" (see picture below) which you can download from "www.kathrein.de".

Anleitung

Deutsch

UFS 946sw



Kathrein-Portal (Mediacenter)

KATHREIN
Antennen · Electronic

Mainmenu

Calling up the main menu and introduction

The main menu is opened by pressing the  button. The following on-screen display appears:








Tip!



Always check the bar at the bottom of the on-screen display. This provides information on what to do next.



The picture for the programme on the currently selected channel appears in the top right-hand corner of the main menu.

The selected menus, submenus and positions as well as the parameters to be set are each marked in colour.


The submenus are selected using the   buttons and called up with the  button. The submenu items are also selected with the   buttons. The settings of the various parameters in the individual items are performed using the   buttons or the number pad.

You can quit the main menu and submenus step-by-step using the  button. Press the  button to return directly from one of the menus to the TV picture.

Mainmenu

Overview of the main menu submenus

Mainmenu


(Call up by pressing the  button)


Edit Channel List	Channel Search	Service Menu	Settings	Interface Setup	Applications	Language Selection
	Automatic Channel Search	Software Update by Satellite	First Installation (See Operating Instructions Part 1, section "Connection and set-up", "First installation")	CI+ Decryption System	Start FTP access at booting	
	Manual Channel Search	Software Update by USB	Basic Settings	Ethernet Settings	Start UPnP server at booting	
	Search with Service ID	Factory Reset	User Defined Settings	Wake On LAN	Start HbbTV applications	
	ASTRA channellist management (LCN)		Antenna & Satellite			

Mainmenu - Edit TV-Channellist







All changes to the channel lists and favourites lists which you can make as described in the following section are not saved by the receiver unless, when you


exit the menu by pressing the  button, you answer “Yes, save changes” to the

question “Save changes?”, using the  button. If you give the answer “No, do not save the changes”, all the settings/changes you made will be discarded and not saved.


Calling up the menu

From the TV picture, press the  button to open the main menu. Now select the “Edit Channel List” option, using the   buttons, and confirm the call up from the menu using the  button. The following on-screen display appears:

The receiver notifies you that the editing options in the menu can be called up

using the  button. If you do not want to see this notification again when next

you call it up, press the  button.

Otherwise, press the  button.



Mainmenu - Edit TV-Channellist

Current picture of the selected channel

Current day of the week and time

Selected view/sort order

Edit TV-Channellist

Tue 13 40

Complete List

- 9 **ServusTV HD Deutschland** FAV
- 10 BR Süd HD
- 11 BR-alpha FAV
- 12 WDR HD Köln
- 13 NDR FS NDS HD
- 14 MDR Thüringen
- 15 hr-fernsehen
- 16 SR SÜDWEST Ferns.
- 17 SWR BW HD
- 18 rbb Berlin
- 19 ANIXE HD FAV
- 20 SAT.1 Bayern

Signal-Strengi: 48 %
Signal-Quality: 100 %

Channel data:

- Transmitting satellite
- Transponder frequency
- Polarisation
- Symbol rate
- DVB type

ASTRA 19.2
11302 MHz
Horizontal
22000 MS/s
DVB-S2
Service ID: 4914

Favoriteslist
 Select Satellite
 Alphabetically
 REC Edit
 TV / Radio
 Mark

Signal strength and quality for currently selected channel










Channel data:

- Transmitting satellite
- Transponder frequency
- Polarisation
- Symbol rate
- DVB type




For selection/sorting options, see the "Navigation" item in this section


Mainmenu - Edit TV-Channellist

Navigation (remote control buttons in “Edit TV-Channellist” menu)

Button	Function
 (green)	1 x Call up the overall list 2 x Overview of available sort orders for the overall list (list view)
 (yellow)	1 x Call up alphabetical sort order 2 x Overview of the sort options (list view)
 (blue)	Switch between TV and radio channel lists
 (red)	1 x Call up favourites list 2 x Overview of favourites list (list view)
	Change/select the sort order in each selected category
	Switch to selected channel
	Call up the edit menu
	Call up the search function (enter search expression using number pad on the remote control, see the section “Basic functions”, “Alphanumeric entries” for details)
	Select channels



Navigation within each view is always performed using the cursor () buttons. You can use the  buttons to select individual channels, and the  buttons to scroll from page to page of the currently selected list.

Press the  button to exit the menu again and return to the main menu.

Mainmenu - Edit TV-Channellist

Views (sort orders)



(green)

Complete list view. You can use the



buttons to choose between the sorting criteria "Complete List" and "Sorted by Satellite" (e.g. ASTRA 19.2°)



(yellow)

Alphabetical sort order view. Use the



buttons you can choose between the available sorting options A-Z, Z-A, 0-9, A, B, C ... and Z.




(blue)

Changeover between TV and Radio channels list



(red)

Favourites list view. Using the  buttons you can choose between the available favourites lists



Mainmenu - Edit TV-Channellist

Selection of the channel/s to be edited

For selection of a channel, select the desired channel in the selected channel

list/favourites list, using the cursor (⬆️⬇️⬆️⬇️) buttons (see example screenshot on the right).

To select several channels for editing at the same time, if they are not listed directly following each other in the selected channel

list, use the cursor (⬆️⬇️⬆️⬇️) buttons to select the first channel to be selected, and then

press the **⏸** button. The channel is highlighted in colour. Now select the other channels to be edited at the same time,

using the cursor (⬆️⬇️⬆️⬇️) buttons, and select each further channel to be edited, using

the **⏸** button (see example screenshot on the right). To select several channels that are listed directly following each other in the selected channel list, you can start block highlighting (see "Edit channels" "Start Blockselection").



Edit channels (channel lists)

After selecting the channel(s) to be edited,

press the **REC** button. The following on-screen display appears (see screenshot on the right):




"Start Blockselection" only appears if one channel only has been selected.


Mainmenu - Edit TV-Channellist


Move

Use the   buttons to select

“Move” and confirm with the  button.

The following on-screen display appears (see example screenshot on the right):

Use the cursor  buttons or the number pad to select the new channel memory position(s), then confirm the

insertion with the  button.






Delete




Channels that are deleted from a list other than a favourites list are deleted irrevocably and can only be restored by performing a new channel search.

Only channels that are deleted from a favourites list still remain present in the overall list; the deletion only applies to the selected favourites list.


Use the   buttons to select “Delete” and confirm with the  button. The selected channel(s) will be deleted.

Skip

Use the   buttons to select “Skip”

and confirm with the  button. The following on-screen display appears (see example screenshot on the right):

The channel that is to be skipped in future is shown in grey in the channel list. If you want to select it in future, you can do this only by selecting it directly from the channel list. When manually zapping through the channels using the

 buttons, the channel will be skipped and no longer displayed.




This function can be cancelled using the edit menu (select: “Unskip”).

Mainmenu - Edit TV-Channellist

Lock

Use the   buttons to select

“Lock” and confirm with the  button.
To lock the channel, you now need to enter your four-digit PIN code (factory setting: 0000). The following on-screen display appears (see example screenshot on the right):





The locked channel is now displayed in the channel list with a padlock on the right hand side, and in future can only be viewed by entering the four-digit PIN code (factory setting: 0000).

This function can be cancelled using the edit menu (select: “Unlock”).

To Favourite

Use the   buttons to select “To

Favorite: ***”. Now use the   buttons to select the desired favourites list (see example screenshot on the right), to which you want to copy the channel(s). Confirm your selection with the

 button.






The selected channel(s) are copied into the favourites list you selected.

Mainmenu - Edit TV-Channellist


Start Blockselection




Use the   buttons to select "Start Blockselection" and confirm by

pressing the  button. You can now

use the   buttons to start block selection in the previously selected channel. This selects the channels in the sequence in which they appear in the previously selected channel list and applies a coloured background to them (see example screenshot on the right):




Now press the  button. You can now carry out all the editing functions channel by channel individually for all the selected channels. Select the desired action ("Move", "Delete", "Skip", "Lock" or

"To Favorite"), using the   buttons, and confirm by pressing the  button. You can find an explanation of the individual editing options in this section.

Mainmenu - Edit TV-Channellist

Editing favourites lists

After selecting the channel(s) in a favourites list you want to edit, press

the  button. The following on-screen display appears (see screenshot on the right):






“Start Blockselection” only appears if one channel only is selected.

Move

See “Edit channels (channel lists)”, “Move” in this section.

Remove from favoritelist

Use the   buttons to select “Remove from favoritelist” and confirm by pressing the  button. The selected channel(s) is/are deleted from the previously selected favourites list, but not from the overall list.

Lock

See “Edit channels (channel lists)”, “Lock” in this section.

Start Blockselection

See “Edit channels (channel lists)”, “Start Blockselection” in this section.

Mainmenu - Edit TV-Channellist

Rename favoritelist


Use the   buttons to select "Rename favoritelist" and confirm by

pressing the  button.

You can now rename the favourites list you selected.

The following on-screen display appears (see example screenshot on the right):





Alphanumeric characters are entered as described in "Basic functions", "Alphanumeric entries".

Confirm your favourites list selection using the  button.



Mainmenu - Channel Search




Calling up the menu

From the TV picture, press the  button to open the Mainmenu. Now select the “Channel Search” using the   buttons and confirm by pressing the  button. You now see the following on-screen display:



You have three different search options:



Search type	Description
Automatic Channel Search	Channel search via a satellite or via all satellites that are set
Manual Channel Search	Channel search via a certain frequency of a certain satellite
Search with Service ID	Channel search for a channel at a certain frequency on a certain satellite using the service ID of the channel sought
ASTRA channellist management (LCN)	Using, updating and resetting the ASTRA channel list

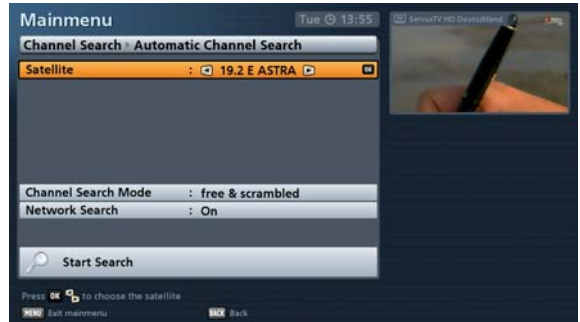
Use the   buttons to select the desired search type and confirm using the  button.

Mainmenu - Channel Search



Automatic channel search

After calling up the menu you will see the following on-screen display:



The   buttons allow you to select different sets of parameters for the search.



Satellite

Now use the   buttons to choose between the individual satellites you have set up, or select the setting "All". If "All Satellites" is selected, all the individual satellites you have set up will be searched for new channels. Make sure your reception system is aligned to this/these satellite(s).



Channel Search Mode




Use the   buttons to select the type of channels you want to search for. You have three options:

- "free & scrambled" All channels are searched for
- "only free" Only free-to-air channels are searched for
- "only scrambled" Only encrypted channels are searched for

To view encrypted channels you need an appropriate CI (Common Interface) module and a valid Smartcard together with a valid subscription to the relevant Pay TV provider.

Network Search


Use the   buttons (On/Off) to select whether a network scan should be performed. If you set the network search to "Off", only the factory default transponders for the satellite(s) you previously selected will be searched for new as yet unsaved channels. If you set the network search to "On", the transponder network enables additional transponders that have not yet been stored to be located. These are then stored and searched for new channels in the same way as the existing transponders.

Once you have defined all the settings, use the   buttons to switch to the "Start Search" selection field and confirm the start of the search using the  button.

Mainmenu - Channel Search


During the search you will see the following on-screen display (example):

The newly found channels are added and identified with the suffix "new" (see example screenshot on the right).


You can cancel the search at any time by pressing the  button.



After completing the search, you will see the following on-screen display (example):

Press the  button. The newly found channels are added at the end of the existing overall list.





Press the  button to return to the TV picture. The new channels can now be selected in the channel list.

Mainmenu - Channel Search



Manual channel search



After calling up the menu you will see the following on-screen display:


The   buttons allow you to select different sets of parameters for the search.





Satellite



Use the   buttons to select the satellite on which the transponder you want to scan is located.


By pressing the  button at this point, you can view a list of the installed satellites. Use the 

buttons to select the satellite you want and confirm with the  button. Make sure your reception system is aligned to this/these satellite(s). If you want to search several transponders on one satellite, you should start an automatic search of the transmitting satellite.

Transponder Frequency


Use the   buttons (transponder frequency already saved) or the number pad (transponder frequency not yet saved) to select the transponder frequency on which the channel being sought

is transmitted. By pressing the  button at this point, you can view a list of the transponders stored for the selected satellite. Use the  button to select the desired transponder and confirm

with the  button. At the bottom right of the on-screen display, the receiver shows the current signal strength and signal quality of the selected transponder.

The “Polarisation” and “Symbol Rate” options need be specified only if the transponder has yet to be saved.

Polarisation


Press the   buttons to select the correct polarisation (horizontal or vertical).

Symbol Rate

Use the number pad to enter the corresponding symbol rate.

Mainmenu - Channel Search


Channel Search Mode

Use the  buttons to select the type of channels that are to be searched for. You have three options:

- "free & scrambled" All channels are searched for
- "only free" Only free-to-air channels are searched for
- "only scrambled" Only encrypted channels are searched for


To view encrypted channels you need an appropriate CI (Common Interface) module and a valid Smartcard together with a valid subscription to the relevant Pay TV provider.

Network Search

Use the  buttons (On/Off) to select whether a network scan should be performed. If you set the network search to "Off", only the factory default transponders for the satellite(s) you previously selected will be searched for new as yet unsaved channels. If you set the network search to "On", the transponder network enables additional transponders that have not yet been stored to be located. These are then stored and searched for new channels in the same way as the existing transponders. Once you

have defined all the settings, use the  buttons to switch to the "Start Search" selection field and confirm the start of the search using the  button.



The following on-screen displays that appear during and in connection with the search are identical to those for an automatic search.

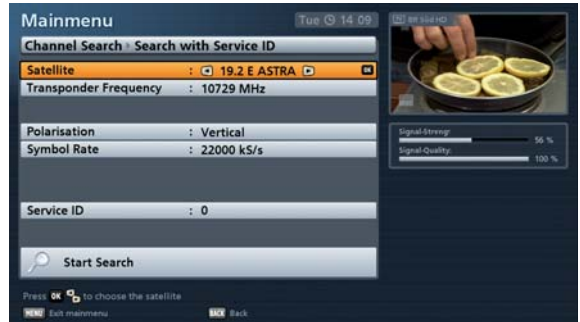
You can cancel the search at any time by pressing the  button.

Mainmenu - Channel Search






Channel scan with service ID

After calling up the menu you will see the following on-screen display:






The   buttons allow you to select different sets of parameters for the search.



Satellite



Use the   buttons to select the satellite that is transmitting the channels to be searched. By pressing the  button at this point, you can view a list of the installed satellites. Use the  buttons to select the satellite you want and confirm with the  button. Make sure your reception system is aligned to this/these satellite(s).

Transponder Frequency

Use the   buttons (transponder frequency already saved) or the number pad (transponder frequency not yet saved) to select the transponder frequency on which the channel being sought is transmitted. By pressing the  button at this point, you can view a list of the transponders stored for the selected satellite. Use the  button to select the desired transponder and confirm with the  button. At the bottom right of the on-screen display, the receiver shows the current signal strength and signal quality of the selected transponder.

The “Polarisation” and “Symbol Rate” options need be specified only if the transponder has yet to be saved.

Polarisation

Press the   buttons to select the correct polarisation (horizontal or vertical).

Symbol Rate

Use the   button or the number pad to enter the applicable symbol rate.


Service ID

Use the number pad to enter the service ID of the channel to be searched for.

Mainmenu - Channel Search



Once you have defined all the settings, use the   buttons to switch to the “Start Search” selection field and confirm the start of the search using the  button.

The following on-screen displays that appear during and in connection with the search are identical to those for an automatic search.

You can cancel the search at any time by pressing the  button.



ASTRA channellist management (LCN)

After calling up the menu you will see the following on-screen display:

Select the desired line using the   buttons.



Use ASTRA channellist

Here you can use the   buttons to select between the “On” and “Off” settings.

With the “On” setting the receiver tells you automatically about changes to the ASTRA channel list. You can then incorporate the changes into your channel list or simply ignore them.

With the “Off” setting you must update the channel list manually.

Tip!

Channels which you have deleted from the channel list will not be added to it again when the ASTRA channel list is updated! This only happens with the “Reset ASTRA channel list” function.

Mainmenu - Channel Search

Update ASTRA channel list

Press the  button. The ASTRA channel list is updated.

If your channel list is already fully up to date, the following on-screen display appears:



After showing this on-screen display the receiver automatically reverts to the "ASTRA channel list menu".


If there are new channels available, the following on-screen display appears (example):




If you do not want to edit the channel positions of new channels you can leave the corresponding

screen by pressing the  button. The new channel list is stored anyway and the receiver returns to the "LCN menu".

Or:

Pressing the  button takes you directly to the "Edit TV-Channellist" menu. If you want to modify the channel list, please see the section "Mainmenu - Edit channel list" section.

Reset ASTRA channel list





Press the  button. The ASTRA channel list currently stored in the receiver is deleted and replaced by the list currently available from the satellite. The on-screen displays are the same as those in the "Update ASTRA channel list" selection (see above).

Tip!

Channels which you have already deleted from the channel list are appended again to the end of the channel list!

Mainmenu - Service menu

Calling up the menu

From the TV picture, press the  button to open the Mainmenu. Now select "Service Menu", using the   buttons, and confirm the call up of the menu using the  button. The following on-screen display appears:

You can choose between various different menus:

- Software Update by Satellite
- Software Update by USB
- Factory Reset



Operating software currently in use on the receiver with change date

Use the   buttons to select the desired menu and confirm with the  button.

Mainmenu - Service menu

Automatic software update

The receiver automatically searches for any new software available every day when updating the EPG data.



The receiver does not make the changes automatically without your approval, but saves them temporarily until the next time the receiver is started. The next time the receiver is started you will see the following on-screen display.

If new software is found, you will see the following on-screen display the next time you start the UFS 946/CI+ (the original on-screen displays may vary from these example screenshots):

Press the  button to perform the software update.

! New software available

Information UFS 946/CI+ date xx.xx.xxxx

Dear customer,
New software V x.xx is available.

xxx

You will find more information at
www.kathrein.de

 Cancel

 Update Software

The receiver saves the new data and then restarts.

! Note

Data will be stored! Don't switch off the receiver! Receiver will start automatically!



Do not switch off the receiver during this process; wait until the automatic restart has been completed. The software in the unit may otherwise be corrupted! You can use the Service menu to check whether the new software has been installed. After performing a software update, check the time setting on the receiver!

After the restart, the update is complete.

Mainmenu - Service menu

(Software) update by satellite

After calling up the menu, you will see the following on-screen display:

All available s modules/components for your receiver will be loaded and then displayed.

Software updates from the satellite are available for limited periods. If a software update is no longer available from the satellite, it can still be downloaded from the Internet. See also "Software Update by USB" in this section.


You now see the following on-screen display (the actual on-screen displays may differ from these examples):

Use the   buttons to select the parameters to be updated during the update procedure.




The loading process may take up to 60 minutes



New software is available:	x.xx
Channel list is available:	xx.xx.xxxx
	Show infotext
Update software:	Yes
Update channel list:	Yes
Start update	

Show infotext (information about the software version)

Press the  button to display the info text for the available downloads. This indicates the main features of the new operating software, on the basis of which you can decide whether you want to install the new software on your receiver.

Update software


Select "Yes" here if you want to install new software; select "No" if you are satisfied with your old software version and the changes in the new software are not relevant to you.

Update channel list

Select "Yes" here if you want to install the new channel list, or "No" if you want to retain your old channel list. Prior to doing this, you can also save your old channel list via "Software Update by USB", "Save Channel List to USB" however, so that if you do not like the new channel list you can revert back to the old one.

If a new channel list is loaded, this will be automatically regenerated after each factory reset (Factory Reset) (see "Service Menu", "Factory Reset", "Reset Channel List").

Mainmenu - Service menu

Once you have made all the settings for updating your receiver, switch to the “Start update” field and press the  button. The receiver will now automatically start updating the components you selected.



Read all on-screen displays and follow the instructions on the receiver! Do not switch off the receiver during this process; wait until the automatic restart has been completed. The software in the unit may otherwise be corrupted!

**You can use the Service menu to check whether the new software has been installed.
After performing a software update, check the time setting on the receiver!**

Tip!

You can also download the updates from the Internet. The address is: www.kathrein.de

These updates can also be performed via the receiver's USB interfaces (see “Software Update by USB” in this section)

Mainmenu - Service menu

Software Update by USB

After calling up the menu, you will see the following on-screen display:




Updating over the USB port will require a blank USB stick with FAT32 format which only contains the operating software or channel list you wish to load. It is essential that the operating software to be loaded is stored on the USB stick under the following directory structure:


Main folder: kathrein
Subfolder: └ ufs946

You can also download the updates from the Internet. The address is: www.kathrein.de

Load operatingsoftware

First connect your USB stick (containing the new operating software) to the receiver, using a free USB port on the receiver. Now select the "Update Firmware" field and confirm the start of the update

by pressing the  button. The receiver will ask you to confirm that you are sure you want to update

the operating software. Press the  button to confirm the displayed message. The receiver now automatically performs the update of the operating software.



Read all on-screen displays and follow the instructions on the receiver! Do not switch off the receiver during this process; wait until the automatic restart has been completed. The software in the unit may otherwise be corrupted!

You can use the Service menu to check whether the new software has been installed.

After performing a software update, check the time setting on the receiver!

Mainmenu - Service menu


Update Channel List

The process for updating the channel list via the USB port is identical to that used for updating the software (channel list name: channel.xml).

Save Channel List to USB

The receiver offers you the option of saving the channel list you are currently using to a USB stick, so that you can recover it later if required.

First connect your USB stick to the receiver using a free USB port on the receiver. Now select the “Save

Channel List to USB” selection field and confirm you want to start saving by pressing the  button. During the saving process you will see the “Update via a USB” menu; however you cannot navigate within this menu until the saving process has been completed.

The function “Update Channel List” allows you to reload the saved channel list to the receiver at a later date, should you so require.



The channel list “channel.xml” is copied to the USB storage medium using the following folder structure:



Main folder: kathrein
Subfolder: L ufs946

Factory Reset

After calling up the menu, you will see the following on-screen display:

Here you can restore the channel list and the installation settings to the factory


settings. You can use the   buttons to select the components to be restored to their factory settings. In each case use

the   buttons to select “Yes” or “No”.







In addition you can select whether, after restoration, the first installation should be started automatically, as with the initial set-up.

Once you have defined all the settings, use the   buttons to switch to the “Factory Reset”

selection field and confirm the start of the search using the  button. The components you selected will now be reset to their status at the delivery of the unit.

Mainmenu - Settings

Calling up the menu

From the TV picture, press the  button to open the Mainmenu. Then select the “Settings” item, using the   buttons, and confirm the call up from the menu using the  button.

The following on-screen display appears:



You can choose between the following menus:

Menu	Submenus
First Installation	
Basic Settings	Video Settings Audio Settings Time Setting Remote Control Code
User Defined Settings	Parental Lock Customize Screen Menu EPG Setup Mediacenter Setup Automatic channel name update
Antenna & Satellite	Sat Finder Tuner Configuration Edit Satellites Edit Transponders

Use the   buttons to select the desired menu and confirm with the  button.

Mainmenu - Settings

First Installation

See Operating Instructions Part 1 "Connection and set-up".

Basic Setting

After calling up the menu you will see the following on-screen display:







Use the   buttons to select the desired menu and confirm with the  button.

Mainmenu - Settings

Video Settings

After calling up the menu you will see the following display (depending on the selected signal output):



Individual items are selected using the   buttons. Changes to the current settings can be made using the   buttons.



For this, refer to the operating instructions for your TV set and take care to select only those settings that your TV set can process.

Video Output via

The rear panel outputs video via the HDMI socket on the unit's rear panel.

HDMI/YPbPr Resolution

Here you can select the video resolution that will be output at the TV set. Either

- 1080p (resolution 1920 x 1080, full-screen images),
- 1080i (resolution 1920 x 1080, half-screen images),
- 720p (resolution 1280 x 720, full-screen images),
- 576p (resolution 720 x 576, full-screen images) or
- Automatic

Force 576i (must be supported by the TV set otherwise you will not see a TV picture)

You can only and need only make this setting if you have selected the setting "Automatic" for "HDMI/YPbPr Resolution". If for a programme that is transmitted in the format 720 x 576 (standard TV), the original format is to be transmitted to the TV set, select the "On" setting. If the setting is "Off", the programme may be automatically scaled up to the HDTV format 720p by the receiver.

Mainmenu - Settings

HDMI standard setting

Here you can set the connection over which you want to connect the TV set and the receiver. Choose either HDMI or DVI.

HDCP for free channels

Select here whether HDCP (digital copy protection) is to be switched on or off with free channels.

TV control box via HDMI (CEC)

If you select "Off", the TV set must be switched on or off separately. If you select "On", the TV set will be switched on automatically as the receiver starts up (but only if the TV set was in standby mode). If the receiver is switched off into standby mode, the TV set will also be switched to standby mode.

Automatically switching the TV set on/off by the receiver is available only if the TV set supports this function!

Show 4:3 Event

Here you can select the type of screen display mode for 4:3 broadcasts on a 16:9 TV set. Either

- Normal (Pillarbox),
- Stretched (full screen) or
- Zoom in (Pan & Scan)

Mainmenu - Settings

Audio Settings

After calling up the menu you will see the following on-screen display:

Individual items are selected using the



buttons.

Changes to the current settings can be

made using the  buttons.



Preferred Audio Language

Here select your preferred audio language. You can choose between the following languages: German, English, French, Italian, Spanish, Czech, Dutch, Polish, Turkish or Russian.

Preferred Subtitle Language

Here select your preferred subtitles language. You can choose between the following languages: Disabled (off), German, English, French, Italian, Spanish, Czech, Dutch, Polish, Turkish or Russian.

Audio Format via HDMI

Here you can select the type of audio signal that is transmitted by the HDMI interface together with the TV picture. Either

- PCM (Stereo) or
- S/PDIF (multichannel)

Automatic Dolby Digital Output

Here you can select whether the receiver should automatically output the Dolby Digital signal (if this is transmitted). Either

- On or
- Off

Audio Delay (Lip Sync)

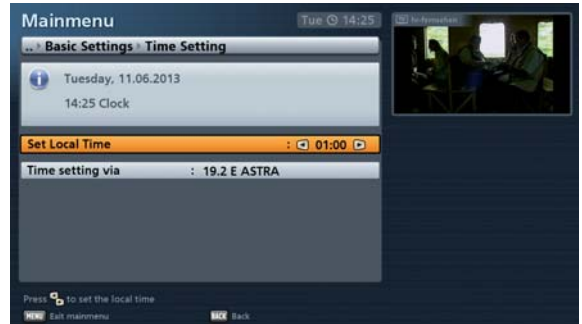
Here you can set a delay in milliseconds, if the sound output from your receiver is out of synch with the TV picture (lip sync). The delay can be adjusted in 10 millisecond steps from 10 ms up to 150 ms and then in further steps of 25 milliseconds up to 250 ms.

Mainmenu - Settings

Time Setting

After calling up the menu you will see the following on-screen display:

Changes to the current setting can be made using the   buttons.



Set Local Time

Here you can select the time zone deviation to UTC (formerly GMT) (e.g. for Germany +1 hour). You can set the deviation in 30-minute steps. The maximum offset is 13 hours (+ and -).

Time setting via

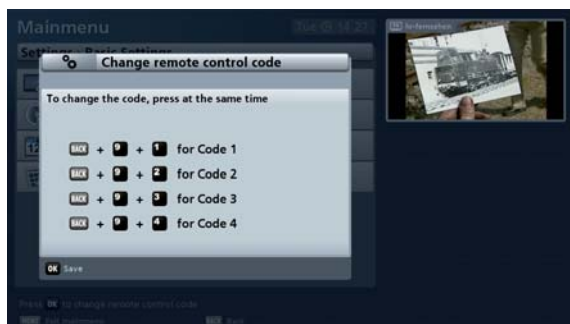
Select here the satellites from which you want to obtain the time information. You can only select satellites that you can receive with your system and the you have selected in the tuner configuration.

Mainmenu - Settings

Remote Control Code

After calling up the menu you will see the following on-screen display:

You can use this function to allow you to operate several receivers (e.g. four UFS 946/ CI+ units) using the same remote control. You can assign each receiver its own remote control code. This pre-supposes that the receiver was supplied with the RC 670 remote control (e.g. UFS 946/CI+) or with the RC 660 remote control (e.g. UFS 902).



You can now use the remote control for your receiver to set a new remote control code (the remote control code 1 is set as standard). Press the following buttons simultaneously:

- + + for remote control code 1
- + + for remote control code 2
- + + for remote control code 3
- + + for remote control code 4

Now press the button. If the receiver does not close the on-screen display, the receiver and the remote control are not set to the same remote control code. Check your setting again.

To set the remote control for whichever remote control code is required in future, proceed as follows:

- + for remote control code 1
- + for remote control code 2
- + for remote control code 3
- + for remote control code 4

Mainmenu - Settings

If you have another Kathrein receiver in use that was supplied with the RC 660 remote control, you can use the UFS 946/CI+ remote control to operate that other receiver also. On the UFS 946/CI+ remote control, the remote control codes for the RC 660 begin with "5":

 +  = Remote control code 1 for RC 660

 +  = Remote control code 2 for RC 660

 +  = Remote control code 3 for RC 660

 +  = Remote control code 4 for RC 660

Mainmenu - Settings

User Defined Settings

After calling up the menu you will see the following on-screen display:

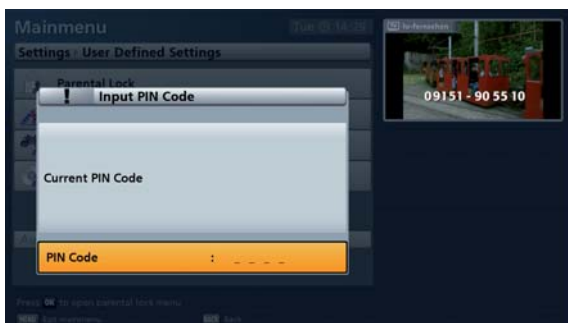


Use the   buttons to select the desired menu and confirm with the  button.

Parental Lock

After calling up the menu you will see the following on-screen display:

In order to access this menu, you must enter the four-digit PIN code (factory setting: "0000").



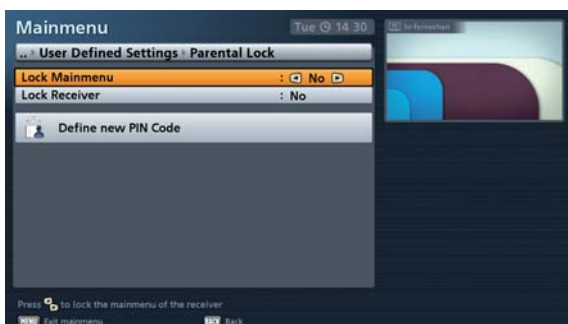
The following on-screen display appears:

In this menu you can set various restrictions/parental controls. Individual items are selected using the

  buttons.

Changes to the current settings can be

made using the   buttons or the number pad.



Mainmenu - Settings

Lock Mainmenu

Select here whether the main menu should be locked. If the main menu is locked, the four-digit PIN code will be requested when it is called up. Without the four-digit PIN code (factory setting: "0000"), the main menu cannot be viewed and no changes can be made to the device settings. Either


- Yes or
- No

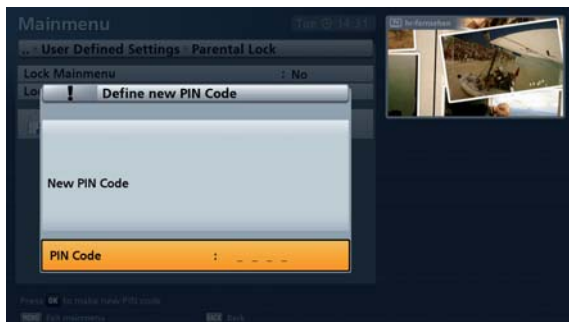
Lock Receiver

Select here whether the receiver should be locked. If the receiver is locked, the four-digit PIN code will be requested when it is switched on. Without the four-digit PIN code (factory setting: "0000"). Either

- Yes or
- No

Define new PIN Code

Confirm your selection with the  button. The following on-screen display appears:



Use the number pad to enter your new four-digit PIN code. You must now confirm the new PIN code for security reasons (enter the new four-digit device PIN code again).

Your device PIN code has now been changed.



Keep your four-digit PIN code in a safe place, so that you always have access to your channels should you ever forget it.

If you ever forget your password you will need to contact your dealer who will be able to unlock your receiver for you.

Mainmenu - Settings

Customize Screen Menu

After calling up the menu you will see the following on-screen display:

Individual items are selected using the





Changes to the current settings can be


made using the  buttons.



Sleep Timer

You can use the “Sleep Timer” function to set an inactive time period, after which the receiver will automatically switch to “Standby” mode. To do this, use the  buttons to select “On”. Exit the

menu using the  button. Now press the On/Off button. The receiver now displays a window in which

you can use the  buttons to select the desired inactive time period for the receiver. The receiver will then continue running in the normal way and then when the selected inactive time period expires, automatically switch into “Standby” mode.

If you do not start to enter the inactive time period within five seconds of the window appearing, the receiver will automatically revert to “Standby” mode.

Automatic standby after 4 hours

If this function is activated “On”, the receiver will switch automatically to the standby mode four hours after the remote control was last used.

Channel Banner Duration (channel information)

Select here how long the channel information should be displayed after a change of channel. The options available are 1, 2, 3, 4, 5 or 6 seconds.

Playback Banner Duration (playback information)

Select here how long the playback information should be displayed after the start of playback. The options available are 1, 2, 3, 4, 5 or 6 seconds.

Display Volume Bar

Select here whether, on changing the volume using the receiver remote control, the volume bar should be displayed on the TV screen (select: “On”) or not (select: “Off”).

Mainmenu - Settings

Front Display Brightness

Set the front display brightness here. Select the most comfortable setting for your ambient lighting. Your available options are:

- Bright
- Medium
- Dark or
- Off (display is not switched on/lit during operation)

Front Display Notification

Select here whether, during operation, the front display should display the name of the channel you are currently watching (setting: "Channel") or whether, after a brief on-screen display after changing the channel, the time should be continuously on the front display (setting: "Time").

Mainmenu - Settings

Programme Guide (EPG Setup)

After calling up the menu you will see the following on-screen display:

Individual items are selected using the



Changes to the current settings can be

made using the  buttons.



EPG Grabbing

Select here whether the EPG data are to be automatically updated at the time selected in “EPG Grabbing Time” (selection: DVB-SI) or automatic EPG updating is not required (selection: Off).

EPG Grabbing Time

Select here the time at which the receiver's EPG data is to be updated. Since updating can take up to 45 minutes it is recommended that the grabbing time is during the night when the receiver is not being used. The receiver (which must be in standby mode) switches itself on from standby mode and updates the EPG data. After updating the data, the receiver switches back to standby mode. Scheduled recordings do not affect this; in such cases the receiver automatically carries out the update once the recording is finished.

Start View

Select here the view that you generally want to see at the start of the EPG. You can choose between the “Current” view (green) and the “Preview (programme listings)” view.



On the usage of a mobile antenna (e. g. BAS 60) it must be ensured that the antenna is aligned on the correct satellite and ready.

The antenna is not aligned automatically by the receiver.

Mainmenu - Settings

Mediacenter Setup

After calling up the menu you will see the following on-screen display:

Individual items are selected using the




Changes to the current settings can be


made using the  buttons.



Simple MP3 Mode

Here you can use the  buttons to select “Simple MP3 Mode” (On/Off). You need to define this setting if the receiver, in conjunction with the UPnP server, encounters problems with playing MP3 files.

MP3 Player Screensaver

Here you can use the  buttons to select “MP3 Player Screensaver” (On/Off). If you select “On” only playback information for the file currently played back is displayed during the playback of MP3 files. The position of the playback information changes approx. every five seconds.

Auto. channel name update

No changes possible.

Mainmenu - Settings

Antenna & Satellite



You should only make changes to the “Tuner Configuration”, “Edit Satellites” and “Edit Transponders” menus if you are very familiar with the configuration of your satellite reception system! If you do not know the configuration of your satellite reception system, contact your specialist dealer.

After calling up the menu you will see the following on-screen display:



Use the   buttons to select the desired menu and confirm with the  button.





Sat Finder

After calling up the menu you will see the following on-screen display:

If you do not have a meter for adjusting your reflector, you can use the sat finder as an alignment aid.

However the Sat Finder cannot replace a meter entirely!





Individual items are selected using the   buttons. Changes to the current settings can be made using the   buttons or the number pad.

Satellite

Select the satellite on which the transponder to be tested is located. Make sure your reception system is aligned to this/these satellite(s).

Mainmenu - Settings

Transponder Frequency

Use the   buttons (transponder frequency already stored) or the number pad (transponder frequency not yet stored) to select the transponder frequency to be tested. At the bottom right of the on-screen display, the receiver shows the current signal strength and signal quality of the selected transponder.

The “Polarisation” and “Symbol Rate” options need be specified only if the transponder has yet to be saved.

Polarisation

Select the correct polarisation (horizontal or vertical).

Symbol Rate



Use the number pad to enter the corresponding symbol rate.

Tuner Configuration




You should make changes only if you are thoroughly familiar with the configuration of your satellite reception system! If you do not know the configuration of your satellite reception system, contact your specialist dealer.

Instructions on how to perform the antenna configuration can be found in the Operating manual Part 1, “Connection and set-up”, “First installation”.

Individual menus for the settings are not selected from the Mainmenu using the  (green) button, instead they must be called up manually using the  button.



You do not need every time to open the menu for setting/aligning the BAS 60 incl. HDZ 60 via the Mainmenu - Settings - Antenna & Satellite - Tuner Configuration, instead you can open this menu straight from the live picture using the  (green) button).

Mainmenu - Settings

Edit Satellites



You should make changes only if you are thoroughly familiar with the configuration of your satellite reception system! If you do not know the configuration of your satellite reception system, contact your specialist dealer.

After calling up the menu you will see the following on-screen display:

Individual items are selected using the



buttons.

If you need to access submenus, they can



be called up using the

Changes to the current settings can be

made using the



buttons or the number pad.

Satellite

Select here the satellite that you want to edit/delete, or whose name you want

to change. Pressing the



button at this point will show you a list of the satellites stored in the receiver. Use

the



buttons to select the satellite

you want and confirm with the



button.

Transponder Frequency

Select the required transponder

frequency. Pressing the



button at this point will show you a list of the transponders stored in the receiver for

this satellite. Use the



button to select the desired transponder and confirm

with the



button.



Mainmenu - Settings

Polarisation

The polarisation is permanently assigned to each transponder stored and cannot be changed.

Symbol Rate

The symbol rate is permanently assigned to each transponder stored and cannot be changed.

Satellite Longitude

A fixed longitude is assigned to each satellite stored and cannot be changed.



New Satellite

Pressing the  button calls up the input screen for you to store a new satellite. The following on-screen display appears:




Satellite Name:

Use the number pad to enter a name for the new satellite. Alphanumeric characters are entered as described in “Operating instructions”, “Alphanumeric entries”.

Confirm the entered name using the  button.


Satellite Longitude:

Use the number pad to enter the required orbital position in the “Satellite Longitude” input field.

Use the   buttons to choose between E (East) and W (West).


Band:

Use the   buttons to select the correct band for the new satellite.

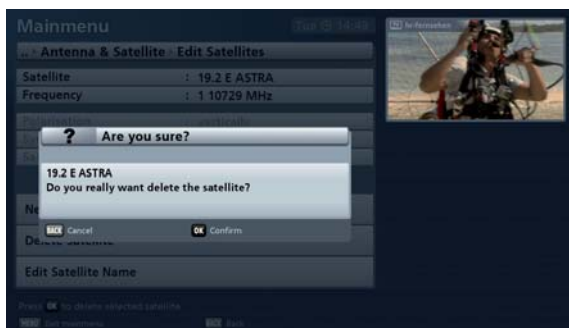
When all settings have been defined, press the  button to store the new satellite.

Mainmenu - Settings


Delete Satellite

Press the  button to delete the satellite currently selected. For security reasons you are asked to confirm that you really want to delete the satellite

by pressing the  button.



Edit Satellite Name

Pressing the  button calls up the input screen which allows you to change the name of the satellite currently selected. Use the number pad to enter a new name for the satellite. Alphanumeric characters are entered as described in "Operating instructions", "Alphanumeric entries".



Edit Transponder




You should make changes only if you are thoroughly familiar with the configuration of your satellite reception system! If you do not know the configuration of your satellite reception system, contact your specialist dealer.

After calling up the menu you will see the following on-screen display:

Individual items are selected using the

  buttons.

If you need to access submenus, they can

be called up using the  button.

Changes to the current settings can be

made using the   buttons or the number pad.





Mainmenu - Settings

Satellite

Select here the satellite for which you want to edit/delete the transponder, or for which you want to add a new transponder.

Pressing the  button at this point will show you a list of the satellites stored in the receiver.





Use the  buttons to select the satellite you want and confirm with the  button.

Transponder Frequency

Select the transponder frequency you wish to edit/delete.

Pressing the  button at this point will show you a list of the transponders stored in the receiver for this satellite.

Use the  button to select the desired transponder and confirm with the  button.



Polarisation

The polarisation is permanently assigned to each transponder stored and cannot be changed.

Symbol Rate

The symbol rate is permanently assigned to each transponder stored and cannot be changed.



Mainmenu - Settings

New Transponder

Pressing the  button calls up the input screen to store a new transponder. The following on-screen display appears:

Frequency:

Use the number pad to enter the transmission frequency for the new transponder.




Polarisation:

Select here the applicable polarisation for the selected transponder. Either "Horizontal" or "Vertical".


Symbol Rate:

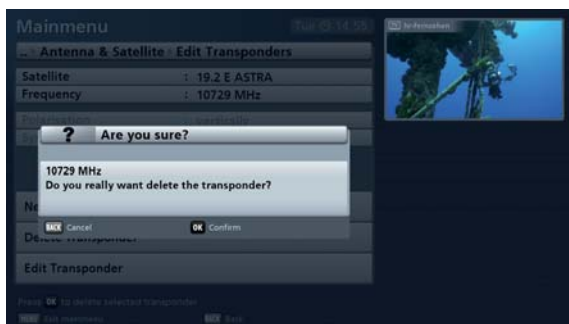
Use the number pad to enter the corresponding symbol rate.

When all settings have been defined, press the  button to save the new transponder.

Delete Transponder


Press the  button to delete the transponder currently selected. For security reasons you are asked to confirm that you really want to delete the

satellite by pressing the  button.



Mainmenu - Settings

Edit Transponders

Pressing the  button calls up the input screen which allows you to edit/change the settings of the previously selected transponder.

Frequency:

Here you are shown the selected transponder to be edited. The transponder frequency cannot be changed.



Polarisation:

Select here the applicable polarisation for the selected transponder. Either "Horizontal" or "Vertical".





Symbol Rate:

Use the number pad to enter the corresponding symbol rate.

When all settings have been defined, press the  button to save the changes.

Mainmenu - Interface Setup

Calling up the menu

From the TV picture, press the  button to open the Mainmenu. Now select “Interface Setup”, using the   buttons, and confirm the call up of the menu using the  button. The following on-screen display appears:



You can choose between the following menus:

Menu	Submenus
CI+ Decryption System	Slot Multidecryption
Ethernet Settings	Please refer to the separate instructions “Kathrein portal (Media Centre)” which can be downloaded from “ www.kathrein.de ”.
Wake On LAN (starting via network)	Wake on LAN allows other devices within the same network to “wake up” the receiver from standby mode.

Use the   buttons to select the desired menu and confirm with the  button.




Mainmenu - Interface Setup

CI+ Decryption System

After calling up the menu you will see the following on-screen display (example):

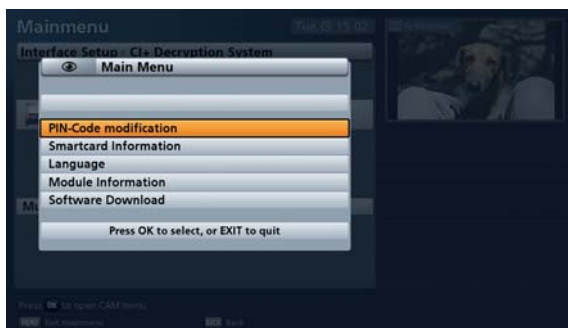
For details on fitting the CI module and Smartcard in the receiver's CI slot, see Operating Instructions Part 1, "Connection and set-up", "Common interface (CI)" section.



Use the   buttons to select the desired CI slot and confirm using the  button. The receiver opens the menu generated by the module.

The screenshots below depend on the specific module and card and are therefore only intended as examples.

The module on-screen displays may be shown in German, even if you have selected English as the menu language, because the menu is generated directly by the module!




From this menu, your card and your PIN code allow you to access various channels from your Pay TV provider.

Here "HD+ CI Plus Modul" has been selected as an example. The details may be different for each CI module. Always follow the instructions supplied by your Pay-TV provider!

Mainmenu - Interface Setup

Multidecryption

If your CI module is capable of decrypting multiple channels, you can press the  buttons to select whether the module should always decrypt only one channel (Off) or multiple channels simultaneously (On).

This function is optimised for “AlphaCrypt” modules and may lead to malfunctions with other modules.

Mainmenu - Interface Setup

Ethernet Settings

After calling up the menu you will see the following on-screen display (example):

The Ethernet interface used in the receiver is a 10/100 base T Ethernet interface.



An Internet connection is required to use HbbTV!

These settings should not be defined unless the receiver is linked into a network (e.g. for Internet access) or is linked to a PC/laptop using a cross-over network cable.



Refer to the network function connection examples at the end of the Operating Instructions Part 1 “Connection and set-up” and the instructions available on the Internet at “www.kathrein.de”.

To connect the receiver to the network via the PC/laptop, you must have unrestricted rights (administrator rights) for your PC/laptop and on your network.

If you experience problems connecting the receiver to your network directly or via your PC/laptop, consult your PC or network specialist.





To configure the network settings please refer to the Operating Instructions Part 1 “Connection and set-up”, “Network/Internet Connection” and the separate instructions “Kathrein portal (Media centre)” which you can download from “www.kathrein.de”.

WOL (Wake on LAN)





Wake on LAN allows other devices within the same network to “wake up” the receiver from standby mode. Select “On” or “Off” with the   buttons.

Mainmenu - Applications

Calling up the menu

From the TV picture, press the  button to open the Mainmenu. Then select “Applications”, using the   buttons, and confirm the call up of the menu using the  button. The following on-screen display appears:



Use the   buttons to select the setting to be changed and make the changes using the   buttons.

Start FTP access at booting:

Here, you can select whether “FTP” is to be activated when starting the receiver.

Start UPnP server at booting

Here you can select whether the receiver's internal “UPnP server” is to be activated when starting the receiver.

Start HbbTV applications





Here you can select whether or not the receiver shows an available HbbTV service for the channel currently selected. If it is set to “Yes” and there is a service available, the receiver shows the following display in the bottom right-hand corner of the screen (example):






Press the  or  button to exit the settings.


Mainmenu - Language Selection

Calling up the menu

From the TV picture, press the  button to open the Mainmenu. Then select "Language Selection" using the   buttons, and confirm the call up of the menu using the  button. The following on-screen display appears:



Use the   buttons to select the desired menu language and confirm your selection using the  button.

Press the  button to exit the settings again.

Operation from the front panel (without remote control)

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

Backup operation



There are three buttons on the front of the receiver:

On/Off button:

The on/off button allows the receiver to be switched On (operation) and Off again (stand-by mode).

Channel down -:

The channel down button switches to the next channel down in the currently selected channel list.

Channel up +:

The channel up button switches to the next channel up in the currently selected channel list.

After the receiver has been switched off and on again, the last function to be selected is active.



Because there is no number pad, no password/PIN-protected functions can be displayed.

Operation from the front panel (without remote control)

Software Update by USB



Updating over the USB port will require a blank USB stick with FAT32 format which only contains the operating software or channel list you wish to load. It is essential that the operating software to be loaded is stored on the USB stick under the following directory structure:

Main folder: kathrein
Subfolder: └ ufs946

You can also download the updates from the Internet. The address is: www.kathrein.de

1. Switch the receiver to standby mode
2. Switch off the receiver at the main switch at the rear of the unit
3. Now connect your USB stick (with the new operating software, in the required directory structure) to the receiver using the USB port on the receiver
4. Keep the “+” button pressed, and switch the receiver on again, using the main switch at the rear of the unit

The receiver will now scan the connected USB stick. You can now release the “+” button again. The software update is automatically performed by the receiver. The receiver restarts automatically when the software update is complete.

You can now remove the USB stick from the receiver.

Brief technical glossary

AC 3

Dolby digital signal

ASTRA

SES (Société Européenne des Satellites) satellite system. Analogue and digital transponders in the frequency range 10.7-12.75 GHz.

AV channel slot

A preferred channel slot on the TV set for external connections such as Scart and HDMI.

CAM – Conditional Access Module

Decryption decoder, which uses a Smartcard to decrypt the encrypted radio and TV signals.

Channel package

The channel package for a digital transponder normally includes several TV and radio channels. Each channel package has a fixed assignment for the transponder transmission frequency, for polarisation (horizontal or vertical), for the symbol rate and for the Viterbi rate or error rate.

CI – Common Interface

Internationally standardised interface for CI modules.

CI+ - Common Interface

Further development of CI for CI+ modules.

Data rate

Data bits transmitted per second. Is expressed in kbit/s or Mbit/s. The higher the data rate the better the quality of the transmitted signal.

Data reduction

Compression of video and audio signals. Redundant information is discarded.

DHCP

Dynamic Host Configuration Protocol. This feature permits automatic integration into a network.

Automatic assignment of the IP address, subnet mask, standard gateway and DNS server. As a result these parameters do not need to be entered in a network in conjunction with a router.

DiSEqC™

DiSEqC™ (Digital Satellite Equipment Control) is a communication system between a satellite receiver (master) and the peripheral satellite components (slaves), such as LNBs, multi-switches, rotating antenna systems.

It is a single master/multi-slave system, i.e. there is only ever one master in the satellite system. All activities start from the master.

DiSEqC™ components

If DiSEqC™ switching matrices are cascaded, the master receiver must transmit the DiSEqC™ signal several times, so that all DiSEqC™ multi-switches in the cascade receive their commands. These days, DiSEqC™ components (slaves) must be downward compatible, i.e. respond to the analogue switching criteria from receivers that are only equipped with "H/V" and "22 kHz" control signals.

A DiSEqC™ switching matrix will work with analogue switching criteria until the DiSEqC™ command from the master is received. All analogue switching criteria are then ignored.

DNS server

Domain Name System server. Is used to determine IP addresses (other PCs or receivers) within a network with DHCP function enabled.

Dolby Digital 5.1

Dolby Digital is a sound transmission process that allows digital surround sound to be output on a home cinema system.

DVB – Digital Video Broadcasting

DVB-S refers to the transmission method (S = satellite, C = cable, T = terrestrial)

DVB-S2

An enhanced DVB-S signal for HDTV with better quality.

EUTELSAT

European satellite operator, based in Paris. Many orbit positions and European customers. Transponders in the frequency range 10.7-12.75 GHz.

FAT and FAT32

File systems for storage media.

Brief technical glossary

FBAS

Colour-picture-blanking-synchronous signal for the transmission of colour video signals

FEC

FEC is the abbreviation for Forward Error Correction. A technique for reducing the error rate of data transmission. Additional bits are inserted into the data stream, so that error-correction algorithms can be used on reception. The FEC error rate corresponds to the Viterbi rate.

FTP – File Transfer Protocol

File transfer method. FTP is a network protocol for the transmission of files via IP (Internet Protocol) networks.

GNU

GNU is not Unix. This is an open operating system for software developers.

HbbTV – Hybrid broadcast broadband TV

Combination of TV and Internet services. The receiver must be connected to the Internet.

HD – Ready

This is a label created by the EICTA (European Information, Communications and Consumer Electronics Industry Technology Association) for equipment that is capable of reproducing HDTV.

HDCP – High-bandwidth Digital Content Protection

Encryption system which protects the HDMI and DVI interfaces for secure transmission of video and audio data.

HDMI – High Definition Multimedia Interface

A digital interface for digital video and audio data transmission between TV and receiver (preferred for HDTV).

HDTV – High Definition Television

High resolution television with a resolution up to five times higher or finer than PAL or NTSC.

High band

Satellite frequency range between 11.7 GHz and 12.75 GHz.

H.264

Another name for MPEG-4.

IP address

Internet Protocol address. Every unit that can be used in a network has a dedicated IP address so as to obtain an unambiguous assignment (address) for e.g. the exchange of data.

JPEG - Joint Photographic Experts Group

Image compression technique

LAN – Local Area Network

Local network

Linux

Operating system

LNB – Low Noise Block Converter

Converts the satellite downlink frequencies into the Sat IF.

Low band

Satellite frequency range between 10.7 GHz and 11.7 GHz.

MP3

File format for compressed audio files.

MPEG-2

MPEG is the abbreviation for “Moving Picture Experts Group”, a working group that formulates internationally applicable standards for the digital compression of video and audio. MPEG-2 has become established as the standard for compression of digital TV signals. MPEG-2 works up to a data rate of 100 Mbit/s.

MPEG-4

A further development of MPEG-2 with even higher data compression, intended for HDTV transmissions.

NAS

Network Attached Storage. A memory integrated in a network.

Network

A connection between multiple PCs allowing them to communicate and exchange data.

NIT

The channel identification number is also referred to as the Network ID or NIT.

Brief technical glossary

NTFS

File system for storage media

OSD – On-Screen Display

Displays by the receiver on the TV screen (e.g. Mainmenu).

PAL

Analogue TV standard

Pay TV

Television channels available on subscription (e.g. Sky). Encrypted channels which can be decrypted only by using the appropriate Smartcard. As a rule these services are subscription-only.

PID

The PID (Packet Identification) number is an identification number for video signals and audio signals in the digital data stream of DVB-MPEG-2 signals. The receiver uses the PID number to create a unique assignment for the video and audio data transmission. The PCR PID is the identification number for the synchronisation signal. The PID PCR is normally identical to the video PID. For programmes broadcast in multiple languages, the audio PID can be entered manually to assign a different language to the TV programme. After the PID is entered, the digital receiver automatically selects the audio data identified by the PID number from the data stream and assigns it to the video signal.

PIN

Personal Identification Number. For this unit the PIN is a four-digit numeric code which must be entered to unlock the unit to allow access to certain functions and channels.

Polarisation

The individual transponders on satellites transmit on two different (polarisation) planes (horizontal and vertical). The capacity of the transponder is increased as a result.

QPSK – Quadrature Phase Shift Keying

Digital modulation process that is used for satellite transmission (8PSK is also used in connection with HDTV).

Receivers

Receiver

RGB

Video signal made up of three individual colour signals (red, green, blue)

SAT IF signal

Receiver input signal, satellite intermediate frequency

Scart cable

21-pin connecting cable (e.g. receiver/TV set)

SCR single cable system - Satellite Channel Router

The one cable system is used to distribute digital Sat IF signals (including HDTV) and terrestrial signals over a single cable to up to eight receivers. There is no limit on the variety of channels, i.e. the complete range of channels from one or two satellites is transmitted. Switching and the transponder selection are undertaken in the feed system or in the matrix and are controlled by the receiver using a special DiSEqC™ command to EN 50494. Each receiver is allocated a fixed subscriber frequency via which it receives its channels. A twin receiver requires two such subscriber frequencies. The transponder selection and conversion to the subscriber frequencies is undertaken using special tuner modules, so-called SCR (Satellite Channel Router), that are installed in the feed system or in the matrix.

The Kathrein one cable system satisfies the single-cable standard in accordance with EN 50494, i.e. all the components of a single-cable system that satisfy this standard can be installed in a satellite system.

Smartcard

Card from Pay-TV provider to decode its channels.

Standard gateway

Is used as an interface between two networks or computers that are linked via a router. As a result it is possible to transmit data.

Standby

Standby mode

Streaming

Transmission of data (recordings) in real time.

Brief technical glossary

Subnet mask

Defines an IP address range in a subnet (small independent network).

Symbol rate

The symbol rate describes the quantity of data that is transmitted per second. The symbol rate is measured in MSymbols/s and is equal to the number of symbols received per second.

Timeshift function

Time-shifted playback

Transponder

A transponder is a frequency converter which receives TV and radio signals broadcast from the earth, converts them and the rebroadcasts them to the earth at a different frequency. A satellite has several transponders.

Analogue transponders transmit only one TV channel and possibly multiple radio channels on the transmission frequency.

Digital transponders simultaneously transmit several TV and several radio programmes on one transmission frequency. If a channel provider is broadcasting several TV channels via a digital transponder, we refer to the provider's channel package. The terms "digital transponder" and "channel package" have the same meaning.

UPnP

Stands for "Universal Plug and Play". For further information, go to "www.upnp.org".

VCR/PVR connection

Connection for an external recorder (such as a video or DVD recorder)

Viterbi rate

The Viterbi rate (code rate, error rate) characterises the error protection used by the channel provider. The DVB standard provides the following values: 1/2 - 2/3 - 3/4 - 5/6 - 7/8

Wake on LAN

One device such as a NAS is started or "woken up" by another, e.g. UFS 946/CI+, via the network connection.

Web interface

This is a web interface which allows two or more systems (e.g. receiver to PC) to interact. It makes it possible to transfer data, for example.

Y/C

S-video signal

8PSK (8 Phase Shift Keying)

Digital modulation process used for HDTV satellite transmission

Troubleshooting

In the event of a malfunction, first check all the cable connections and operating states:

1. Receiver and TV set power plugs are connected to wall socket
2. Antenna cables are connected to the receiver input
3. Receiver and TV set correctly connected by a HDMI or Scart cable
4. Audio connections are made to the Hi-Fi or Dolby Digital system as appropriate
5. Receiver and TV set (Hi-Fi/Dolby Digital system) are switched on (check power indicators)
6. Receiver is responding to remote control

A selection of troubleshooting tips is offered below.

Problem	Cause	Remedy
A "No signal!" warning appears on some or all channels		Consult an antenna specialist to have it checked and repaired as necessary. Check the settings made in the "Settings", "Antenna & Satellite", "Tuner Configuration" menu, and change them if necessary.
Receiver no longer responds to the remote control	The batteries may be flat or inserted incorrectly in the battery compartment	Check the batteries (see also "Inserting batteries into the remote control" in the Operating Instructions – Part 1)
	Receiver or remote control command set may have been unintentionally changed	Set infra-red code 1 as described in these operating instructions under "Mainmenu settings", "Basic Settings", "Remote Control Code"
Wrong time is displayed	"Summertime" setting wrong. An incorrect time was imported from the reception signal	Under "Settings", "Basic Settings", "Time Setting" in the menu, check the set time deviation to UTC and change as necessary. Use the power switch to switch the receiver off from the current channel, e.g. Das Erste or ZDF, wait 10 seconds and then switch it back on
The following channels cut out or "No or bad signal!" appears: Sport 1, Tele 5, HSE 24 and Sonnenklar TV	DECT telephones operate on the same frequency as these channels. Interference may occur due to inadequate output level or poor shielding of cable	Consult your antenna specialist

Troubleshooting

Network problem	No connection to the network possible	<p>Check that the (cross-over) network cable is correctly connected (clicked home) (receiver, router, etc.)</p> <p>Refer to your PC or network specialist</p>
HbbTV service is not available	The selected channel is not provided by HbbTV.	Select a channel/transmitter that is provided by HbbTV (e.g. ARD or ZDF)
	Internet connection is not available	<p>Check that the (cross-over) network cable is correctly connected (clicked home) (receiver, router, etc.)</p> <p>Refer to your PC or network specialist</p>

Service

If, despite studying these operating instructions, you still have questions about getting started with the unit or using it correctly, or if unexpected problems occur, please contact your specialist dealer.

Tip!

The serial number sticker for the UFS 946/CI+ is located on the underside of the unit.

The information printed on it includes the following:

- The exact designation (e.g. UFS 946/CI+),
- the part number and
- the serial number of the unit.

You do not need this information in order to operate the unit. If however, contrary to expectations, you need to make a claim under warranty and you do not have the packaging for the receiver to hand, you can find the above information about the unit on this sticker.

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1. Copyright Recognition Statements

1.1 Third Party Copyright Notices/Acknowledgements

2. Third Party Software License Terms

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2.2 Software-Components and associated Licenses

2.2.1 Application

2.2.2 ST-Linux

2.2.3 Binaries/Executables

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2.3.2 LGPL licensed Software

2.3.3 STLinux licenses

2.3.4 GPL with exceptions

2.3.5 Portable SDK for UPnP Devices

2.3.6 Expat XML Parser

2.3.7 Fontconfig

2.3.8 Open SSL

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2.2 Software-Components and associated Licenses

2.2.1 Application

• Pango	LGPL	http://www.pango.org/
• GTK+	LGPL	http://www.gtk.org/
• DirectFB	LGPL	http://directfb.org/
• E2fsprogs (Ext FS Utilities)	LGPL	http://e2fsprogs.sourceforge.net/
• Cairo (2D graphics library)	LGPL	http://cairographics.org/
• Libexif (C EXIF library)	LGPL	http://libexif.sourceforge.net/
• FFmpeg	LGPL	http://www.ffmpeg.org/
• GNU C Library (libc)	LGPL	http://www.gnu.org/software/libc/
• libgcc	LGPL	http://gcc.gnu.org/gcc-3.0/libgcc.html
• libstdc++	GPL with exception	http://gcc.gnu.org/onlinedocs/libstdc++/
• UPnp	BSD license	http://pupnp.sourceforge.net/
• OpenSSL	OpenSSL license	http://www.openssl.org/
• Expat XML Parser	MIT License	http://expat.sourceforge.net/
• Fontconfig	MIT License	http://www.freedesktop.org/wiki/Software/fontconfig

2.2.2 ST-Linux

- The standard STLinux Distribution comprises a number of packages each with an associated license, mainly GPL and LGPL. GPL and LGPL are printed in this document.

A detailed list of the licenses can be found at <http://www.stlinux.com/licensing>

2.2.3 Binaries/Executables

• iptables, iptables-multi	GPLv2	http://www.netfilter.org/
• iwpriv, iwconfig, iwlist	GPLv2	http://www.hpl.hp.com/personal/Jean_Tourrilhes/Linux/Tools.html
• busybox	GPLv2	http://www.busybox.net/
• mount.cifs	GPLv2	
• lircd	GPLv2	http://www.lirc.org/
• mkdosfs	GPLv2	

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2.3 License Texts

2.3.1 GPLv2

Related Software or Software parts:

• mount.cifs	
• lircd	http://www.lirc.org/
• mkdosfs	
• iwpriv, iwconfig, iwlist	http://www.hpl.hp.com/personal/Jean_Tourrilhes/Linux/Tools.html
• iptables-multi	http://www.netfilter.org/
• busybox	http://www.busybox.net/

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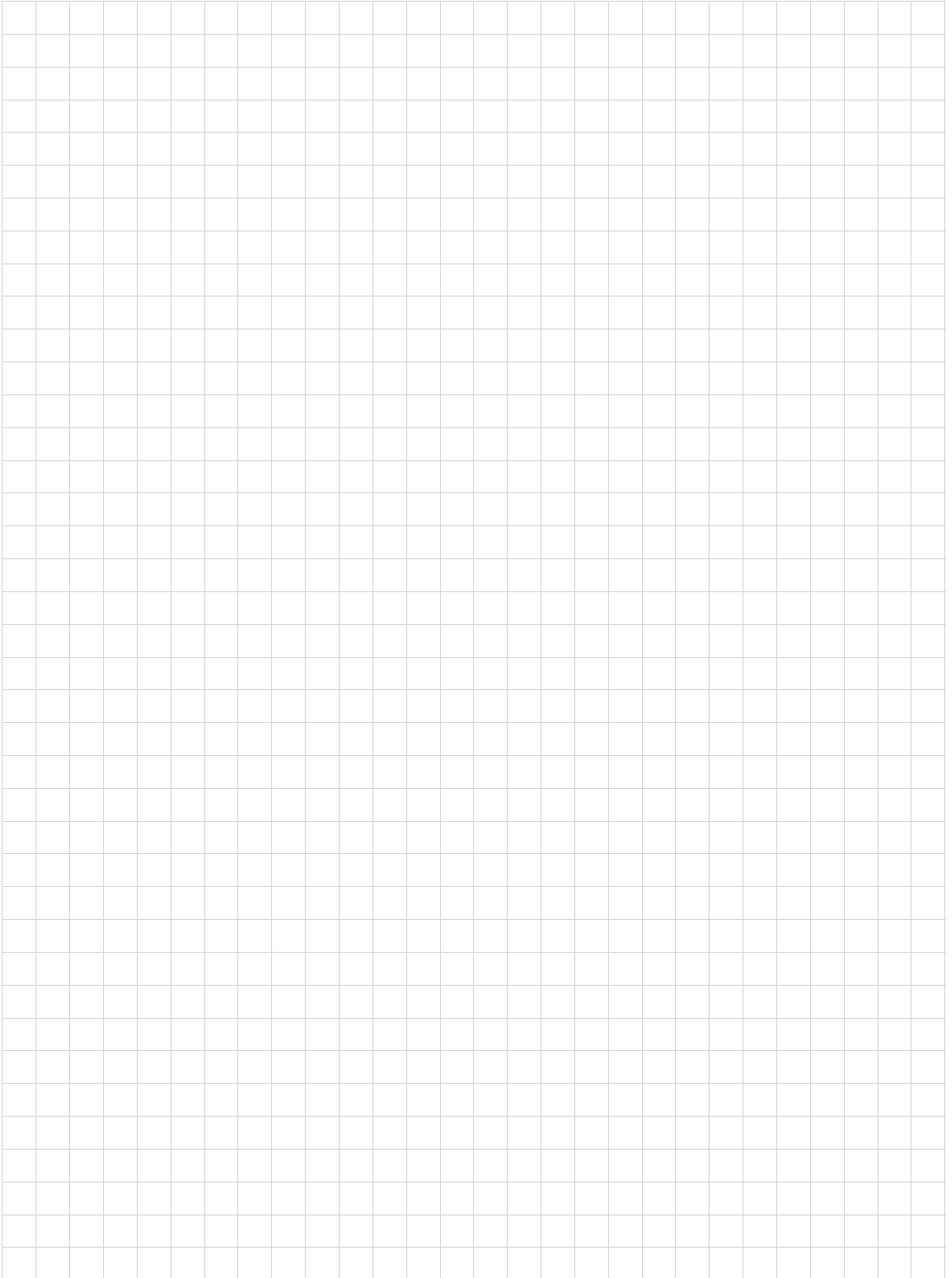
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