

smartSTREAM - BOX2IP

HDTV CA Cable Receiver

mirage

User Manual

Version: 12.05.2014 - English

Introduction

Dear customer,
 Thank you for buying our HDTV cable receiver.
 This user manual provides information on

- placement
- installation,
- adjustment
- operation,
- cleaning and disposal of the receiver.

Please carefully read the user manual before operating the receiver.
 We hope you enjoy your receiver.

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1 User Information

1.1 Use of this Manual

- Please carefully read this user manual before operating the device for the first time.
- Please note all warnings and notes included in this user manual.
- Consider this user manual to be an integral part of the product, and store it at a well accessible location.
- This user manual should also be enclosed when handing over the device to a third party.
- In case of loss or if you want to check new functions, the most current version of the user manual can be downloaded from the internet page which is mentioned on the extension page (menu item service).
- The software is still being further developed even after your purchase of the device. Thus, it may be possible that certain operation steps do not fully correspond to the user manual.

1.2 Signs, Symbols, Layout

Symbol/layout	Meaning
	WARNING Danger due to electric shock with possible severe bodily injury
	CAUTION Warning of possible physical damage
	NOTE Useful information and hints
	You are requested to perform an action.
1. 2.	Perform these steps in the stated order.
●	List
<i>italics</i>	The various possibilities of settings as well as image captions are stated in <i>italics</i> .
bold	The designations of keys are printed in bold letters.
<i>bold & italics</i>	Menu windows and menu items (that often include further hidden menu items or direct settings) are printed in <i>bold & italic</i> type

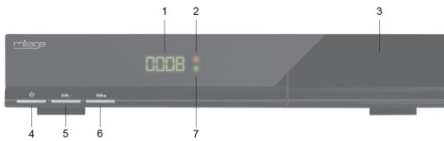
2 Product Description

2.1 Scope of Delivery

- HDTV cable receiver
- remote control
- 2 batteries (AAA) for remote control
- user manual

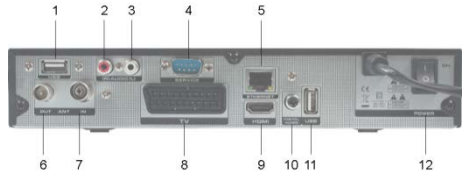
2.2 Receiver

2.2.1 Front Panel



No.	Description	
1	Display	4-digit display
2	LED red	Standby LED, lights if the receiver is in Standby mode.
3	CA-PORT	Conax smartcard reader
4	STANDBY	Switch between standby / normal operation
5	PR-	Channel down / down-navigation in menu
6	PR+	Channel up / up-navigation in menu
7	LED green	Signal-LED, lights after if a video signal is routed to the TV set.

2.2.2 Rear Panel



No.	Description	
1	USB	First connection for external USB data storage
2	AUDIO OUT (R)	Analog audio signal right
3	AUDIO OUT (L)	Analog audio signal left
4	SERVICE	RS232 socket
5	ETHERNET	Network socket RJ45
6	ANT OUT	Loop-through cable signal for connection of further receivers, a video cassette recorder or a TV device
7	ANT IN	Connection for TV cable (DVB-C. ¹)
8	TV	SCART connection for TV device (analog)
9	HDMI²	Digital audio and video out
10	DIGITAL AUDIO	Digital RCA audio out (SPDIF)
11	USB	Second connection for external USB data storage
12	ON / OFF	Power switch (On/Off)

¹ DVB-C = Standard for transmission of digital TV and radio broadcasting programs in the cable network. This includes both programs of public and private broadcasting. Depending on cable network provider, receiving of programs of private stations can be subject to payment of a fee.

² High Definition Multimedia Interface; interface for fully digital transmission of audio and video data.

2.3 Remote Control



No.	Key	Description
1	V-MODE	Switch aspect mode
2		Switch between operational and standby mode.
3	AUDIO	Selection of audio format
4	IPTV	Not Used
5	1 - 9	Direct channel selection
6	0	Select playback format of media player
7	FIND	Call of channel search function
8	PR+	Channel + or up-navigation in menu
	PR-	Channel - or down-navigation in menu

No.	Key	Description
		Volume + or menu navigation to the right
		Volume - or menu navigation to the left
	OK/LIST	Display channel list / confirm menu item
9	EPG	Call of EPG (Electronic Program Guide)
10	INFO	Display information on current channel
11		Not used
12		Play (media player)
13		Fast rewinding
14		Fast forwarding
15		Red function key
16		Green function key
17		Mute
18	BOX2IP	Call of Box2IP mode
19	TV/RADIO	Switch between TV and radio mode
20	PAGE+	10 entries up in menu / channel list
21	PAGE-	10 entries down in menu / channel list
22	←PR	Switch of previously selected channels
23	FAV	Call list of favorites
24	MENU	Call main menu
25	EXIT	Exit menu or menu item
26	TXT	Display / hide teletext
27		Stop playback
28		Pause playback
29		Slow forwarding – slow motion
30		Slow rewinding
31		Blue function key
32		Yellow function key

2.4 Save Energy

The receiver is equipped with particularly energy-saving electric and electronic components. Furthermore, a sophisticated energy management helps to save energy:

Thus, energy consumption during Save Energy Standby Mode is reduced to less than 0.5 Watt!

2.5 Guarantee

The warranty of the HDTV cable receiver of smart electronic GmbH corresponds to the legal regulations at the time of purchase.

3 Safety Instructions

3.1 Intended Use

The HDTV cable receiver is intended for private receiving of encrypted and unencrypted digital cable television (DVB-C). It is exclusively intended for such purpose and must be used exclusively for such purpose.

Any other use is deemed to be unintended use.

3.2 Risks in Case of Intended Use



CAUTION!

Humidity, wrong mains voltage and/or wrong mains frequency, lightning stroke or mechanical overload may cause malfunction of or damage to the device.

- Ensure that the receiver (in particular the mains plug) and the remote control are not exposed to any humidity. Example: Do not place filled flower vases or similar onto the receiver.
- Only connect the receiver to 175...250 V ~, 50/60 Hz.
- Disconnect mains plug in case of thunderstorms or malfunction.
- Do not place heavy items onto the receiver.
- Do not bend or squeeze the cable.

Risk of electric shock when contacting mains voltage.



WARNING!

Damage to housing, mains cable or improper repair may result in contact to mains voltage.

- Do not place heavy items onto the receiver.
- Do not bend or squeeze the cable.
- Repairs of plug, cable or receiver should only be performed by qualified specialists.

3.3 Location

- Place the receiver onto a solid and level surface.

- Protect the receiver from humidity, heat, dust and dirt.
- Do not place items filled with liquid, e.g. flower vases, onto the receiver.
- Protect the receiver from dripping and splash water.
- Do not place burning items, e.g. burning candles, onto the receiver.
- Ensure sufficient ventilation (ventilation slots must not be blocked): the receiver should have a distance of at least five centimeters to its surrounding elements on all sides.
- Ensure that the ventilation openings are not covered by objects such as newspapers, table cloths, curtains etc.
- Only operate the receiver in moderate climate (not in tropical climate).
- Place the receiver so that the mains plug can be disconnected at any time, correspondingly disconnecting the device from the mains.

If the device is transported from cold to hot environment, then condensing humidity may build up in the device.



- Do not connect the device, but leave it switched-off for some hours.

3.4 Handling of Batteries

- Batteries should always be out of children's reach.
- Leaking batteries cause damage to the environment and the remote control.
- Batteries should not be exposed to extreme heat, e.g. sunlight, fire etc.
- Dispose of the batteries in accordance with the applicable legal regulations (see chapter Disposal, page 36).

3.5 Notes on Product Liability

In the following cases, the intended protection of the device may be limited. Then, liability regarding function of the device correspondingly passes over to the operator:

- The device is not used in accordance with the user manual.
- The device is used out of the field of application as described above.
- The operator performs unauthorized changes of the device.

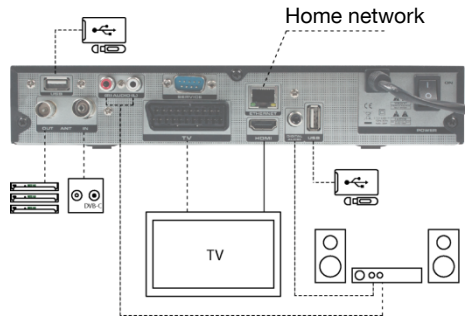
4 Installation of the Receiver



CAUTION!

- First connect the receiver to the cable connection and any other devices before connecting the mains plug to the power outlet.
- Please also note the user manuals of the other devices.

4.1 Connection Scheme



——— default connection
- - - - - optional connection

4.2 Connect TV Cable

- Connect the TV cable to the receiver connection **ANT IN**.

Further receivers can be connected at the connection **ANT OUT**. The signal is looped through from input **ANT IN**.

4.3 Connect TV Set

As stated in the connection scheme, the receiver offers various possibilities to connect TV set and receiver. The possibilities applicable to you depend on the connection possibilities of your TV set.



If your receiver is in sleep mode (deep standby) or the device was disconnected from power (via power switch or by pulling the plug), there is no or just a weakened signal at **ANT OUT**.

The TV set provides of an HDMI connection:



HDMI

- Connect TV set and receiver by using an HDMI cable.

The TV set does not provide of an HDMI connection:



TV

- Connect TV set and receiver by using a SCART cable.



- If your TV set offers both possibilities then always choose connection via HDMI cable.

This ensures best possible audio and video quality with digital signals.

4.4 Connect Home Cinema System

To improve audio playback, you can connect to the receiver - additionally to the TV set - also a multichannel home cinema system or a hi-fi system. There are various possibilities for

connection. Your type of connection depends on the connection possibilities of your home cinema system.

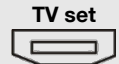
a.

Your home cinema system is able to loop through an HDMI signal, i.e. HDMI connection for receiver and HDMI connection for TV set.

- Connect the home cinema system and the receiver by using an HDMI cable as well as home cinema system and TV set by using an HDMI cable.



HDMI



HDMI

b.

Your home cinema system can process digital audio data – connection for digital data is present.

- Connect home cinema system and receiver by using an RCA cable.



DIGITAL AUDIO

c.

Your home cinema system cannot process digital audio data – no connections for digital data present

- Connect the home cinema system and the receiver by using a 2-pole RCA cable (stereo).

AUDIO - L



AUDIO - R





- If your home cinema system (hi-fi system) supports HDMI connection, then use such connection. This ensures best possible audio and video quality with digital signals.

4.5 Connect Data Storage

- Connect a data storage device (USB stick or hard drive with USB connection) at the USB connector to be able to access MPEG, MP3, JPG or other media data files. You can connect respectively one data storage to each of the two connectors.

4.6 Connecting to a Home Network

- In order to connect the receiver to the internet (www) or to a home network, connect the receiver's **ETHERNET** socket with a network cable to the appropriate interface of your home network.



- See section 8.1.1 on page 25 to learn how to configure a wired LAN.

4.7 Installing a Smartcard

- If you want to watch scrambled programs, put a Conax smartcard into the Conditional Access (CA) slot at the receiver's rear panel.



For more info about smartcard see section *CA Smartcard*.

4.8 Connect Power Supply

- When all devices are properly connected to the receiver you can connect the mains plug to the power outlet.

4.9 Insert Batteries of Remote Control

This describes the steps for inserting new batteries of the remote control or for replacing empty batteries:

1. Open the battery compartment on the bottom side of the remote control. Remove the cover of the battery compartment.
2. Place the two batteries 1.5 V (type: AAA). Ensure correct polarity!
3. Close the battery compartment



- Replace the batteries if certain remote control functions are not performed any more or are performed incorrectly.
- When replacing batteries, always ensure that all batteries are replaced.

5 Basic Operation

This chapter describes the required steps to be able to use the offer of radio and TV channels provided via wide-band cable³.

5.1 First Commissioning

5.1.1 Switch on Receiver

1. Switch on all connected devices.
2. Ensure that the correct AV input is selected at the TV set (i.e. that the signals from the receiver are displayed).
3. Ensure that the correct audio input is selected at the connected home cinema or hi-fi system.
4. Switch on the receiver by using the power switch (on the rear panel of housing) (I, ON).

5.1.2 Upgrade of the Receiver Software

The operation software of your receiver will be updated via the USB port.

³ The radio and TV programs available via wide-band cable depend on your respective cable network provider.

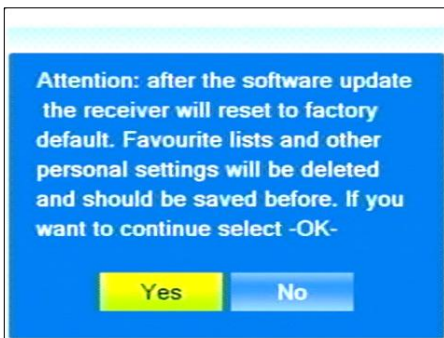
1. Search for the upgrade file on the internet page which is mentioned on the extension page (menu item service) and save it to a USB data storage.
2. Unpack the file with the ending .abs and copy it to the USB data storage.



Please note that the upgrade file (*.abs) is copied directly to the root directory of the USB data storage (no subdirectory)!

3. Connect the data storage to your receiver.
4. In the menu **Tools**, select the submenu **Upgrade by USB** and press the **OK** key.
5. At **Upgrade Mode**, select the upgrade mode *All code* by using the keys \triangleleft^+ and \triangleright^- .
6. At **Upgrade File**, select the file copied in step 2.
7. Select the **Start** button and confirm by pressing **OK**.

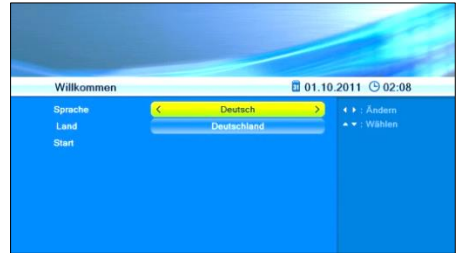
The message on the right will be displayed. The upgrade will be performed after selecting **Yes** by using the keys \triangleleft^+ / \triangleright^- and pressing **OK**. Then, the receiver will automatically perform new start.



5.1.3 Welcome

After first switching-on or after resetting the receivers, various windows will open:

- The default **Language (Sprache)** is *Deutsch*. The default **Country (Land)** is *Deutschland*.
- Ensure that the entries are correct; you may change the values, if required.



5.1.3.1 Deutschland - Germany

If you keep *Deutschland* your channel list is sorted and also updated during subsequent operation using **RASS**.

5.1.3.1.1 RASS

Your receiver is equipped with RASS (**R**eceiver **A**utomatic **S**orting **S**ystem).

Today, in the networks of the various cable operators, a large number of television and radio channels in digital form can be received. When you first install your receiver, RASS ensures that these big number of channels are stored in the channel list on your receiver in a defined order.

Normally, during a channel scan incorrect data are not deleted (for example, no longer fed channels), and new channels usually added just "behind", so that you have to reprogram your channel list.

With RASS the channel list will always be up to date, even if new channels are added or if there are other changes.

5.1.3.1.2 RASS Works as Follows:

1. A RASS list is installed on the receiver already in the factory. This list is processed during the initial installation after the search, i. e., the found channels are stored in a predefined order.

- 2. Occasionally it happens that cable operators feed a new channel, or remove any existing channels from their network. From this reason it is important that the channel list is kept up to date. Therefore, your receiver checks each time that you turn off your receiver (in standby mode), if there is a RASS update. If not, the receiver is completely switched off after a certain time, then he goes into the power saving mode (Deep Standby).
- 3. However, if the receiver determines that a new RASS-update is available, this will be loaded. Thereafter, the receiver will also turn off completely.
- 4. Next time you turn on the receiver, you will get a message: "RASS: It is recommended to perform an automatic tuning". Then you have the choice between *OK* and *Cancel*.
 - If you select *OK*, the receiver makes a complete cable-scan and the channels get re-sorted using the new RASS list.
 - If you select *Cancel*, the receiver is started normally, no scanning is done and the above message will even not appear during the next turning on. You can always achieve a re-sorting of the channels based on the current RASS list by starting manually a full scan.

5.1.3.2 Denmark, Sweden or Norway

If you select the countries Denmark, Sweden or Norway, **Max NorDig**, a special kind of LCN will be used during creation and updating your channel list. LCN is an acronym for "Logical Channel Numbering", which means that a channel list given by the cable TV provider can automatically be loaded into the receiver (and therefore be updated at any time).

5.1.3.3 All Other Countries

For all other countries there is no special sorting of the channel list. In case of a new channel assignment it's recommended to perform a new channel search (section 9.1.1, page 27).

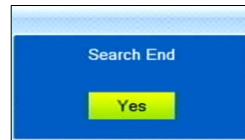
5.1.4 Auto Scan

- Using the keys **PR+** and **PR**, go to the button **Start** and press **OK** to start automatic channel search.

The second window of the installation process displays the automatic channel search. The TV cable is scanned for any available channels. Such search then creates the channel lists **TV Channel** and **Radio Channel**.



- 1. After end of search, please confirm the corresponding message by pressing **OK**.
- 2. Leave the menu by pressing the **EXIT** key until the screen shows the TV picture.



The menu item **Auto search** can always be accessed via the menu **Installation**.

5.2 Select Operation Mode



TV is the operation mode after first switching-on of the receiver (or after restoration of factory settings).

You can select between the operation modes **TV (TV channels)** and **RADIO (radio channels)** as follows:

- Press the key **TV/RADIO** on the remote control.

- Press again the key **TV/RADIO** to return to the previous operation mode.

5.3 Call/Leave Menu

- To call the menu, press the key **MENU** (of the remote control or at the receiver).

The menu is called.



The following is displayed in the headline of the various menu windows:



- 1 Name of menu window
 - 2 Current date
 - 3 Current time
- Press the **EXIT** key to leave the menu or to go back one step.



It could be possible that you have to press **EXIT** several times to go back to TV mode.

5.4 Menu Navigation

The menu items with the settings for TV and radio can be respectively accessed in the two operation modes TV and Radio.

For menu navigation, you can use both the keys at the receiver as well as the remote control:

- Press **PR+** to select the menu item above.
- Press **PR-** to select the menu item below.
- Press \triangleleft^+ to change resp. increase the selected value.
- Press \triangleright^- to change resp. decrease the selected value.



Instead of changing a value by using the keys \triangleleft^+ and \triangleright^- , with many menu items you can also press the **OK** key, select a new value from the list, and confirm such value by again pressing the **OK** key.

Active menu items are color-marked.

Although most settings for TV operation are made, you can also make some further settings via the menu.

5.5 Parental Lock

In the submenu **Parental Lock** you can lock access to certain menus by using a PIN (e.g. for protection of your settings) or block selection of certain channels by using a PIN.

Access the submenu *Parental Lock* as follows:

1. Press the **MENU** key.
2. Select the menu **System setup**.
3. Select **Parental lock** and confirm by pressing **OK**.

After entry of password, you may

- set if access to the submenus is protected by password, by selecting the **Menu lock** and selecting **Off** or **On** by using the keys \triangleleft^+ or \triangleright^- ;
- set if certain channels are to be locked by a PIN, by selecting **Channel lock** and selecting **Off** or **On** by using the keys \triangleleft^+ or \triangleright^- ;
- change the password:
 - Select the field **New Password**.
 - Enter a new password.
 - Go to the field **Confirm Password**.
 - Again enter the new password.



Predefined, both the menu and the program lock are *on*. The default password is *0000*.

4. Press **OK** to save your changes and to leave the submenu.
5. Leave the menu by pressing **EXIT** until the screen shows the TV picture.



Instead of completely leaving the menu, you can also further stay in the menu - or in the submenu - to perform further settings.

5.6 Set Time

Reasonable operation of the receiver requires setting of system time. By default, the receiver is set to **GMT⁴ usage**, i.e. date and time are taken from the received signal. Time zone is set to GMT + 1 hour (+ 1:00) by default. Required changes can be made in the submenu **Local Time Setting**.

1. Select the menu **System setup** (see above).
2. Select the submenu **Local Time Setting** and confirm by pressing **OK**.
3. Select the item **GMT usage** and switch on or off **GMT usage** by using the keys or .

On = automatic time setting via cable signal is activated.

Off = automatic time setting via cable signal is deactivated.



It is recommended to keep the pre-setting (**GMT usage On**).

4. Select the item **GMT offset** and select your time zone by using the keys or ; for example, the time zone of Germany, Austria and Switzerland is **GMT +1:00**.

5. Select the item **Summer time** and switch **Summer time Off** or **On** by using the keys or .



➤ Please verify the pre settings and correct them, if required. Please also consider corresponding change of those settings.

6. If automatic time setting (**GMT usage**) is switched off, then date and time should be manually entered: For this, select the item **Date**, select the position to be changed by using the keys or , and enter the current date by using the numeric keys. Then, select the item **Time**, select the position to be changed by using the keys or , and enter the current time by using the numeric keys.
7. Leave the menu by pressing **EXIT** until the screen shows the TV picture.

5.7 Watching TV

You have several possibilities to select a channel:

- Direct channel selection;
- Channel selection via selection window; and
- Channel selection via search function; as explained in the three following sections.

5.7.1 Direct Channel Selection

- Select the desired channel by using the keys **PR+** and **PR-**.

With each change of channel, an information window with information on the current channel will be displayed:

⁴ GMT = Greenwich Mean Time





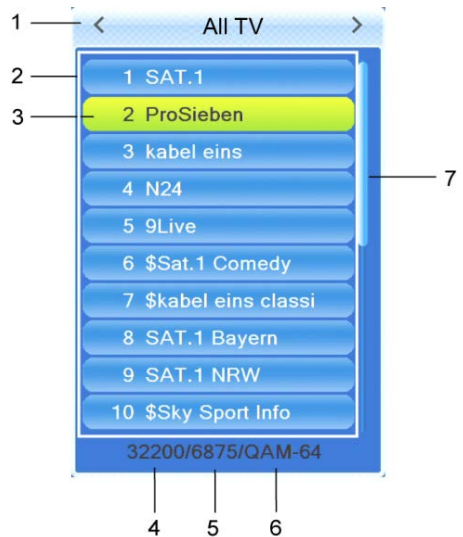
No.	Description
1	Channel number of current channel in current channel list
2	Channel name of current channel
3	Date
4	Time
5	Name of next program
6	Name of current program

- Press the **INFO** key to call this window at any time.
- Set display time at **OSD timeout**.
- Press **EXIT** two times to close the information window.



5.7.2 Channel Selection via Selection Window

1. Press the **OK** key to display a selection window with all available channels (2).
2. Select the channel list with the desired channel by using the keys  or  (1)
or
Press the **FAV** key to select from your favorite lists.



3. Select the channel to be displayed (3) by using the keys **PR+** and **PR-** for single steps or **PAGE+** and **PAGE-** for steps of ten, and confirm your selection by pressing **OK**.

The channel will be correspondingly switched.

4. Press **OK** or **EXIT** to close the selection window.

Channel selection window:

No.	Description
1	Display of current channel list
2	Channels included in the current channel list
3	Marked channel
4	Frequency of current channel (example: 33800 is 338.00 MHz)
5	Symbol rate of current channel (in megasymbols/second)
6	Modulation of current channel (QAM-16, QAM-32, QAM-64, QAM-128, QAM-256)
7	Scroll bar – shows position of current channel in channel list

5.7.3 Channel Selection via Search Function

The channel lists can be quite comprehensive; correspondingly, the receiver offers various possibilities to filter the list, search for channels in the list, or sort the list:

- Press the **FIND** key to open the window **Search**.
- Select one of the offered options by using the keys **PR+** and **PR-**, and confirm by pressing **OK**.

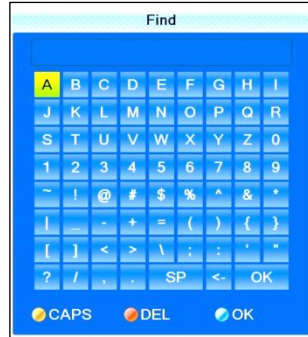


5.7.3.1 HDTV Filter

- Select **HDTV** to only show HDTV channels in the channel selection window.
- Use the steps as described in section 5.7.2 on page 15 to select a channel.

5.7.3.2 Find Channels (by Alphabet)

1. Select **Find(A-Z)**, to open the window **Find**.
2. Select a character by using the keys and as well as **PR+** and **PR-** and respectively confirm by pressing **OK** to accept such character in the field for the name or part of the name of the desired channel.



Additionally to letters and numbers, there are also special buttons:

Button	Meaning
CAPS (yellow function key)	Changes between upper-case and lower case (only effective with letters).
DEL (red function key) or <-	Deletes the last entered character.
OK (blue function key)	Closes the windows.
SP	Enters a space character.
?	The question mark as first character has a wildcard function. Example: "?R" searches for all channel names that include an "R".

As soon as the first selected character has been confirmed by pressing **OK**, a second window will open, showing all channels starting with this character (in most cases, the first character is a letter).

1:



2:



- Press **EXIT** to close window 1, provided that selection is sufficiently arranged for your purposes. Now, you can select the desired channel in window 2 by using the keys **PR+** and **PR-**, and confirm by pressing **OK**.
- Return to entry of characters (see above) to further limit channel selection.

5.7.3.3 Sort Channel List (by Alphabet)

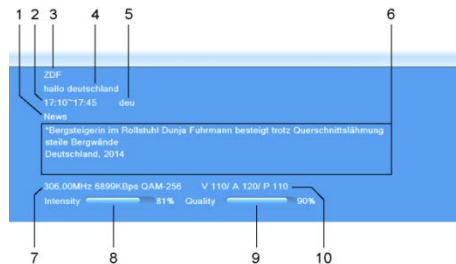
- Select *Sort (A-Z)* or *Sort (Z-A)* to sort the displayed channels in ascending or descending alphabetical order in the channel selection window.

With all of the functions as described in 5.7.3, the made selection or sorting is deleted as soon as a channel is selected by pressing **OK**, i.e. if you are then pressing the **OK** key to show the channel selection window, the channel selection list is displayed in its previous original state.



5.7.4 Channel Information

- Press the **INFO** key twice. The window on the right will be displayed:



No.	Description
1	Genre of the current channel (info from the DVB-C stream)
2	Start time and end time of current program
3	Name of the channel
4	Name of current program
5	Language of current program
6	Detailed information on current program
7	DVB-C-Transponder (frequency, e. g. 12900 means 129 MHz / symbol rate / modulation)
8	Signal intensity
9	Signal quality
10	DVB-C PIDs for video, audio, PCR ⁵

⁵ PID = Packet Identifier, each table or each elementary stream in a transport stream is identified by a 13-bit PID. PCR = Program Clock Reference; required to enable the decoder to perform correct presentation regarding time and speed.

5.7.5 Recall

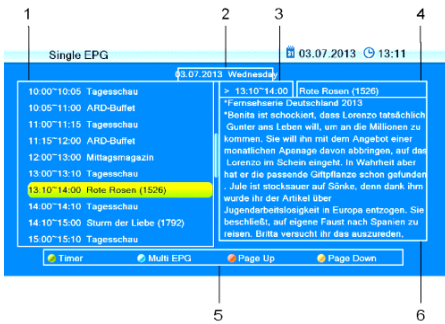
- Press the **←PR** key to go to the last viewed channel.

5.7.6 EPG

The Electronic Program Guide is a comfortable tool, replacing a printed TV guide.

5.7.6.1 Single EPG

- Press the EPG key of the remote control. The window **Single EPG** (information on one channel) will open.



No.	Description
1	All programs during a day, with start and end time; the selected program is color-marked.
2	Date of day to which display applies.
3	Duration of current program (start time ~ end time).
4	Name of current program.
5	Illustration of the colored function keys and their functions.
6	Detailed information on the current program.

- Press the keys **PR+** and **PR-** to display a later or earlier program (1).
- Press the keys \triangleleft^+ and \triangleright^- to page forward/back respectively one day (2).
- Press the **yellow function key** to scroll down in the information section (6).
- Press the **red function key** to scroll up in the function area (6).

- Press the **green function key** to include channel, date, switch-on time and duration of the marked program into a timer. The **Timer mode** is set to *Once* by default; **Timer service** is set to *Channel*.
- Press the **blue function key** to go to the window **EPG**.
- Press the **EXIT** key to close the window **Single EPG** and return to TV operation.



5.7.6.2 EPG


After pressing the **blue function key** in the window **Single EPG** you will access the window **EPG** with the following display:





No.	Description
1	Thumbnail of selected channel.
2	Channel number of selected channel.
3	Name of selected channel.
4	Name of selected program.
5	Start time and end time of selected program.
6	Current and next program with a timeframe of approx. 1.5 hours for the marked channel.
7	Illustration of the colored function keys and their functions.
8	All channels included in the current channel list.
9	Day to which the displayed data apply.










- Press **OK** to open a window with detailed information on the selected program. Press the **OK** key, the **red function key** or the **EXIT** key to close such window.

- Press the keys **PR+** and **PR-** to flip through all available channels.
- Press the keys  and  to page back and forward respectively one program within a channel.



The current program is marked with .

- Press the **red function key** to access the window **Time**:
- Here, select the function on the bottom by using the keys  and :





- Press **OK** when  is selected to go to the current program. The current program is marked with .
- Press **OK** when   is selected to go one program forward or back.
- Press **OK** when   is selected to go two hours forward or back.
- Press **OK** when   is selected to go one day forward or back.
- Press **OK** when  is selected or press **EXIT** to close the window **Time** and to return to the EPG window.
- Press the **green function key** to include channel, date, switch-on time and duration of the marked program into a timer. The **Timer mode** is set to *Once* by default; **Timer service** is set to *Channel*.
- Press the **blue function key** to leave the **EPG** window and return to the window **Single EPG**.
- Press the **EXIT** key to leave the **EPG** window and return to the TV program.

5.7.7 Audio Settings

1. Press the key **AUDIO**.
 2. Select the audio mode by using the keys  and .
- Depending on the selected channel and the current program, the following modes are available: *Left - Right - Stereo - Mono*.
3. Press the keys **PR+** or **PR-** to select another language or Dolby AC3 (Dolby Digital) as far as provided by the TV station.
 4. After selecting the desired audio mode, leave the menu by pressing the **EXIT** key.

5.7.8 Teletext


Teletext is an information system displayed on your TV set. Teletext is only possible if the selected channel supports such function. The information is organized in the main pages and sub pages.


- Press the key **TXT** to activate teletext. If subtitles are offered for the program in the selected channel, a selection window appears.
- Press the keys  and  to select **Teletext**.
- Press **OK** to switch on teletext. The first teletext page no. 100.



If subtitles are offered for the program in the selected channel, immediately after pressing **TXT** the first teletext page no. 100 is displayed.

To navigate inside teletext proceed as follows:



key	function
Keys 0 ... 9 of the remote control	Direct input of a page number
PR+	Next main page
PR-	Previous main page
 (if there are sub pages)	Next sub page

key	function
 (if there are sub pages)	Previous sub page or <i>AUTO</i> : automatic switch from one sub page to another



- Press the **EXIT** or **TXT** key to deactivate teletext.

5.7.9 Subtitles

If subtitles are offered for the program in the selected channel, these can be activated as follows:

1. Press the keys **TXT** to open the selection window **Subtitles/Teletext**.
2. Press the keys  and  to select *Subtitle* and confirm with **OK**. Another window **Subtitle language** appears.
3. With the keys **PR+** or **PR-** select a line *Subtitle language* and confirm your selection with **OK** to activate subtitles. Only if several subtitle languages are being sent there will appear several lines *Subtitle language*. If for example only German subtitles are sent, *deu(D)* is preset as subtitle language.

To switch off the subtitles proceed as follows:



1. Press the key **TXT** to open the selection window **Subtitles/Teletext**.
2. Press the keys  and  to select *Subtitle* and confirm with **OK**. Another window **Subtitle language** appears.
3. With the keys **PR+** or **PR-** select the line *SUB OFF* and confirm your selection with **OK** to deactivate the subtitles.

5.7.10 Aspect Mode

5.7.10.1 Setting the Aspect Mode with the V-MODE key

- Press the **V-MODE** key several times to set the aspect ratio. Possible values: *Auto*, *4:3PS*, *4:3LB*, *16:9LB* (see below table).

5.7.10.2 Setting the Aspect Mode via the Menu

- In the menu **System setup**, select the submenu **TV system** and then the menu item **Aspect mode** to set the aspect ratio by using the keys  and .

Value	Meaning
<i>Auto</i>	Default setting: the receiver selects optimum value
<i>4:3PS</i>	For playback with a 4:3 screen, PS = Pan & Scan: <ul style="list-style-type: none"> • 4:3 program: picture is optimally displayed. • 16:9 program: picture height is adjusted to screen; picture information on the right and left are missing.
<i>4:3LB</i>	For playback with a 4:3 screen, LB = Letterbox <ul style="list-style-type: none"> • 4:3 program: picture is optimally displayed. • 16:9 program: picture width is adjusted to screen; lacking height is filled up by black bars.
<i>16:9</i>	For playback with a 16:9 TV set

5.7.11 Video Resolution

5.7.11.1 Switching the Video Resolution in the Menu

- In the menu **System setup**, select the submenu **TV System** and confirm by pressing **OK**.
1. Select the Video Resolution.
 2. Press **OK** to display a list with the selectable values.
 3. Select the value appropriate to your TV set by using the keys **PR+** and **PR-**.
Example: If your TV set is capable of displaying a resolution of 720p⁶ then you

⁶ p = progressive scan: progressive scan images are transmitted, e.g. 720p means that 50 progressive scan images with a resolution of 1280 pixel/line and 720 lines/image are transmitted per second. i = interlaced video: odd and even lines are transmitted alternately.

should also set 720p at the receiver (720p is the factory setting).

5.7.11.2 Switching the Video Resolution with the green function key



- Press the **green function key** to display the current video resolution.
- Press (while the video resolution is displayed) the **green function key** once more to switch the video resolution to another value. You can select between *576i*, *576p*, *720p*, *1080i* and *1080p*.



If the receiver and your TV set are connected via a SCART cable, then max. resolution is 576i (PAL format).

5.7.12 Sleep Timer

The receiver comprises of a Sleep-Timer that enables an automatic change of the device from the operating mode to the standby mode:

1. Select the submenu **Local time setting** in the menu **TV system** and press **OK**.
2. Using the buttons **PR+** and **PR-** select the menu item **sleep timer**.
3. Press the buttons  and  to activate the **sleep timer** and define a time between 10 and 120 minutes after which the receiver automatically switches over to the standby mode.
4. Press two times **EXIT** to return to the TV program.

5.7.13 CA Smartcard

The receiver has a Conditional Access slot.

This interface allows for decrypting various encrypted channels using a smartcard.

To use a smartcard:

1. Switch off the receiver using the power switch on the rear panel.
2. Carefully insert the smartcard into the slot at the rear panel.
3. Switch on the receiver.



Please also note the instructions of the card manufacturer!

4. After inserting the smartcard, you can select the respective channel. It may take some seconds until the channel is released.



There is a sub menu **Conax CA** in the menu **Tools**. Depending on the used smartcard you can call several functions, e. g. indication of the validity, maturity configuration....

6 Media Player

The **Media Player** can be used to MPEG, MP3 and JPG files available on the data storage.

1. Open the Media Player by selecting the item **Media player** in the menu **Media** and confirming by pressing **OK** or being in TV mode, press the **yellow function key**.











2. Press the key **0** until the upper line states the desired file on the very left. The folder structure now only displays the files corresponding to the desired file type.



Only after selecting e. g. music, this will display available music files.

3. Press **PR-** to select the connected data storage, and confirm by pressing **OK**. The present directories (and files as far as





they correspond to the selected file type) will be displayed.

4. Select the file to be played (press **OK** to open a directory).
5. Press **OK** to start playback (or press the key .
6. Use the keys , , , , ,  and  to control playback.

The buttons on the bottom edge of the Media Player window provide further functions. Such functions depend on the selected file type (music, images).



6.1 Music

6.1.1 Playback

1. Use the keys **PR+** and **PR-** to select the track to be played.
2. Press **OK** to start playback.
3. Use the keys , ,  and  to control playback.

6.1.2 Playlist

6.1.2.1 Creating a Playlist


- Select a track by using the keys  / **PR+** and  / **PR-** and press the **green function key** to add this to the playlist (favorite list).
The respective track is marked with a heart symbol.



You can repeat this procedure for all tracks to be added to the playlist.

- Press the **yellow function key** to add all tracks from the current directory to the playlist.
If pressing the **yellow function key** again, the playlist will be completely deleted.
- Press the **red function key** (SHIFT) to display the favorite list (playlist).
A new window **Show play list** will be displayed. Now you can move or remove files in/from the list.



6.1.2.2 Moving files within the Playlist

1. Select a track to be moved by using the keys **PR+** and **PR-**.
2. Press the **red function key** (SHIFT) to mark the selected track for moving

3. Select the new position of the selected track by using the keys **PR+** and **PR-**.
4. Leave the Move function by pressing the **red function key** (SHIFT) again.
Now you can close the window **Show play list** by pressing **EXIT**, or move another track by starting again with step 1, or you may use the

6.1.2.3 Delete files from the Playlist

1. Select a track to be deleted by using the keys **PR+** and **PR-**.
2. Press the **green function key** to remove the selected track from the playlist.
3. Press **EXIT** to end deletion, or go back to step 1 to remove further tracks from the playlist.

6.1.2.4 Delete all files from the Playlist:

1. Press the **yellow function key** to remove all tracks from the playlist.
You will be asked if you really want to delete all entries.
2. Select **Yes** or **No** by using the keys  and , and confirm by pressing **OK**.
When stating **No**, you will be directed back to the play list. When stating **Yes**, the play list will be completely deleted and you will be directed to the start window of the Media Player.

6.1.3 Edit Audio Files

- Press the **blue function key** to go to the Edit mode. Here you can
 - rename tracks by pressing the **red function key**;
 - copy tracks by pressing the **green function key**;

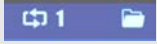


- and delete tracks by pressing the **yellow function key**;
 - as well as create new folders by pressing the **blue function key**.
- Press the **EXIT** key twice to leave the Edit mode. You will be directed back to the initial window of the Media Player.

6.1.4 Sort Audio Files

- Press key **1** to sort the displayed tracks by name, play time, file size or favorites. Favorites are the tracks that are included in the current play list.

6.1.5 Playback Mode

- Press key **2** to change the playback mode:

Symbol in Media Player-window	Meaning
	Single track is played and repeated.
	All tracks in the current directory are played and repeated in the displayed order.
	All tracks in the current directory are played in random order and are then repeated.







- Press the **EXIT** key to close the Media Player and to return to the menu **Media**.

6.2 Images

The basic steps with image files only slightly differ from the steps with music files (automatic playback of a number of images). The differences are included in the functions available by pressing the keys **2** and **3**.

6.2.1 Configure a Slide Show

- Press the key **2** to configure a slide show
1. Select **Slide Show Time** by using the keys **PR+** and **PR-**.

2. Using the keys  and , select the time period between displaying of two subsequent images (1 to 9 seconds).
When selecting **Off**, the first selected image will be continuously displayed on the screen.
3. Select **Slide Show Repeat** by using the keys **PR+** and **PR-** to determine by using the keys  and  if the slide show should start again from the beginning after displaying the last image.
4. Select the line **Save – Cancel** by using the keys **PR+** and **PR-**, and then use the keys  and  to determine if the settings should be saved or discarded, and confirm by pressing **OK**. You will be directed back to the image list.

6.2.2 Showing all Images in the Current Directory











- Press key **3** to display all images in the current directory.



You can also have images being displayed whilst music is being played, e.g. by changing the file type during playback of music (using key **0**) and then starting a slide show.

6.3 Video

6.3.1 Playback Video

1. Select the file to be played using the keys **PR+** and **PR-**. In left half of the screen you see a thumbnail and you can watch the video in preview mode. Use the keys , , and  to control playback.
2. Press **OK** to start playback in full screen mode.
3. Use the keys , , , , ,  and  to control playback.

6.3.2 Edit Video Files

- Press the **blue function key** to go to the Edit mode. Here you can
 - rename tracks by pressing the **red function key**;
 - copy tracks by pressing the **green function key**;
 - and delete tracks by pressing the **yellow function key**;
 - as well as create new folders by pressing the **blue function key**.
- Press the **EXIT** key twice to leave the Edit mode. You will be directed back to the initial window of the Media Player.

6.3.3 Sorting Videos

- Press key **1** to sort the displayed videos by name, play time or file size.

7 IP Functions

In the menu **Media** there are several menu items, you can call, if the receiver is connected to the internet.

7.1 YouTube

- Select the menu item **YouTube** and press **OK** to access directly selected clips of the internet video portal YouTube.

7.2 Web Radio

- Select the menu item **Web Radio** and press **OK** to access selected web radio channels.

7.3 Web News

- Select the menu item **Web News** and press **OK** to access selected web news services.

7.4 Weather Forecast

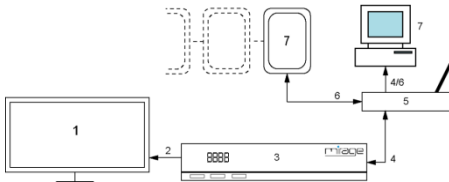
- Select the menu item **Weather Forecast** and press **OK**, to access web weather forecast services.

8 smartSTREAM - BOX2IP

Your receiver is equipped with smartSTREAM, which means it can deliver picture and sound of free-to-air channels not only to the TV, but to stream to a maximum of 4 devices in your home network.

That means, you can transfer the received television program from the receiver to a maximum of four devices in the LAN / WLAN, i. e. PCs or mobile devices such as smartphones or tablets.

After the installation of an app on the respective device, you can enjoy the TV program at any place in the house or garden, which is reachable via LAN or WLAN.



No.	Description	No.	Description
1	TV set	5	Wireless LAN router
2	HDMI cable connection	6	Wireless LAN connection
3	Mirage receiver	7	Up to four network devices (PC, smartphone or tablet PC)
4	Wired LAN connection		

Due to the high volume of data with HDTV programs, depending on network usage, disturbances may occur during streaming. Therefore, the streaming of HDTV programs is disabled by default. How you can activate HDTV streaming again, is described in section 8.2.3.



8.1 Preparation of the Devices

8.1.1 Receiver

1. Connect the receiver (socket **ETHERNET**) and your router with an Ethernet cable (wired LAN connection).
2. Go in the menu **Tools** to the menu item **Network Setting** and press **OK**. The window **Network Setting** opens.
3. Select **DHCP?**
On to set automatically via **DHCP** (automatic LAN configuration) or
Off to set that the network must be configured manually (manual LAN configuration).



It is strictly recommended to assign a fixed IP address to the receiver!

Automatic LAN configuration

- Go in the window **Network Setting** to the button **Apply** and press **OK** to connect the receiver to the network.

Manual LAN configuration

1. Insert in the window **Network Setting** the network parameters:
IP-Address, **Subnet Mask**, **Gateway**, **DNS preferred** and **DNS alternate** by selecting each parameter, inserting the right value with the numeric keys and pressing **OK**.
2. Go to the button **Apply** and press **OK** to connect the receiver to the network.

8.1.2 Mobile Device - PC

To be able to use the smartSTREAM function on your PC / Laptop or mobile device, you need to install an app which can obtain RTSP⁸ streams.

⁷ DHCP = Dynamic Host Configuration Protocol, a server (DHCP server included in the router) allocates a network configuration to the clients (e. g. receiver).

⁸ The Real Time Streaming Protocol (RTSP) is a networking protocol for the control of the transfer of audio/video data (streams).



Apps according to the SAT>IP protocol are not compatible!

Hereinafter you'll find an installation example for the application (app) VLC player (PC / laptop) which can obtain RTSP streams and also directly the channel list in m3u format. The VLC player is also available for mobile devices (Android, iOS).

1. Connect your PC or your mobile device via LAN or WLAN with the router in your home network. For this, pay attention to the respective notes in the manual of the network end-device.
2. Put the receiver in smartSTREAM mode (BOX2IP mode), see section 8.2.2. Install on your PC or your mobile device the VLC player, pay attention to the installation hints.
3. Run the VLC player and select the option MEDIA → OPEN NETWORK STREAM.
4. Enter following URLs to load the stream list (.m3u playlist):
 http://RECEIVER-IP:PORT/SAT2IP/ServiceList-1-Video.m3u, to load the TV channel list, e. g.
 http://192.168.1.3:49152/SAT2IP/ServiceList-1-Video.m3u
 http://RECEIVER-IP:PORT/SAT2IP/ServiceList-1-Radio.m3u, to load the radio channel list, e. g.
 http://192.168.1.3:49152/SAT2IP/ServiceList-1-Radio.m3u



You can check the IP address of the receiver via the receiver menu → SYSTEM SETUP → NETWORK.

The port no. to insert is 49152.

5. The VLC player opens the selected channel list and shows it.
6. Save the playlist via the VLC player, to enable you to open it at the next start of the VLC player.



Since the receiver's IP address is saved also, we strictly recommend assigning a fixed IP address to the receiver!

Otherwise you cannot open the saved stream addresses of the playlist anymore, if the receiver gets a new IP address via DHCP.

Tips for operation or assistance during troubleshooting for the used application, you can get from the regarding manual or the supplier's support web page.

8.2 Operation

There are two possibilities to use the smartSTREAM function.

As soon as the app is started, the current TV program will be transferred to the mobile device.

8.2.1 Live-TV on your TV Set

Simultaneously with the start of the app the receiver channel list will be reduced. It now contains only those channels broadcasted via the same transponder as the current TV channel.

- In between this channel list you can switch channels with the remote control of your receiver.

8.2.2 smartSTREAM Mode (BOX2IP Mode)

- Press the key **BOX2IP** or go in the menu **Media** to the menu item **BOX2IP** and press **OK**, to set the receiver into smartSTREAM mode. On the TV screen you see now the "BOX2IP" OSD screen instead of the TV image.

On your mobile device you have now a complete channel list, containing all channels which are broadcasted via the satellites you set in section 8.1.1.

- Switch the channel directly on your mobile device.

During smartSTREAM mode (BOX2IP mode) you can switch off your TV set.

Valid for both operation modes 8.2.1 and 8.2.2 is:



On the network devices which are connected to the receiver (maximum 4) you only can watch channels which are broadcasted via the same transponder!

8.2.3 HDTV Streaming

Streaming of HDTV programs is disabled by default (see note on page 25). **Proceed as follows to activate HDTV streaming:**

1. Navigate to the sub menu **Other** in the menu **System setup** and press **OK**.
2. Select the menu item **HDTV Streaming** and select **HDTV Streaming On** by using the keys and .

9 Extended Settings and Functions

9.1 Channel Search

If you want to start channel scan during on-going operation (e.g. if your cable network provider changed channel allocation) then you have two possibilities:

9.1.1 Automatic Channel Scan

1. Press the key **MENU**.
2. Select the menu **Installation** by using the keys **PR+** and **PR-**.
3. Select **Auto search** and confirm by pressing **OK**.
4. Further procedure is the same as described in section 5.1.4 (Auto Scan) on page 12.

9.1.2 Manual Channel Scan

Instead of using Auto Scan, you can also manually set the DVB-C channels:

1. Press the key **MENU**.
2. Select the menu **Installation** by using the keys **PR+** and **PR-**.
3. Select **Quick search** and confirm by pressing **OK**. The window on the right will open.



Signal strength and signal quality are displayed on the bottom of the window. Now you can perform manual channel scan.

- Select the Scan Mode, either **By Channel** or **By Frequency**.

Scan Mode By Channel

1. Select the desired channel (frequency) at **Channel No.** by using the keys and .
2. Enter at **Symbol Rate** the value predetermined by your cable network provider, using the numeric keys of the remote control and the keys and .
3. Select at **Scan QAM** the value predetermined by your cable network provider, using the keys and .
4. Select at **Network Search** if all channels of a modulation type should be searched (e.g. all channels with QAM-64), using the keys and .
5. Select **Search** to transfer the channels found with this frequency to the channel lists.

Scan Mode By Frequency

1. Enter at **Frequency** the desired frequency, using the numeric keys of the remote control and the keys \triangle^+ and \triangle^- .
2. Enter at **Symbol Rate** the value predetermined by your cable network provider, using the numeric keys of the remote control and the keys \triangle^+ and \triangle^- .
3. Select at **Scan QAM** the value predetermined by your cable network provider, using the keys \triangle^+ and \triangle^- .
4. Select at **Network Search** if all channels of a modulation type should be searched (e.g. all channels with QAM-64), using the keys \triangle^+ and \triangle^- .
5. Select **Search** to transfer the channels found with this frequency to the channel lists.

9.2 RASS

- To change RASS settings go in the menu **System setup** to the submenu **RASS**.
- The field **Last changed date** displays the last modification date of the RASS-file in the receiver.
- Select the **RASS** to switch on or off RASS.
- Select **RASS Update** to update the channel list manually via USB.

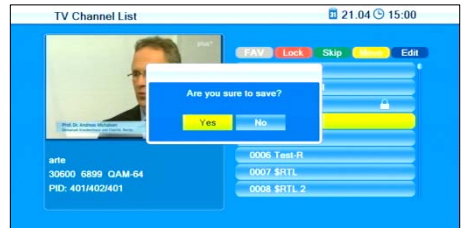
9.3 TV Channel List / Radio Channel List

You can individually customize the lists. There are various available possibilities for editing. For reasons of simplification, only editing of TV lists will be explained in the following. Editing of radio channel lists will be performed corresponding to editing of TV channel lists.

1. In the menu **Edit Channel**, go to the submenu **TV Channel List**.
2. Press **OK** to open the window **TV Channel List**.



With the editing processes described in the following you will be respectively asked - when leaving the Edit Channel menu (or when changing the channel list or when selecting another function) - if you want to




overwrite the factory-set channel program list, i.e. you may accept the performed changes (*OK* - then the channel list will be correspondingly changed) or discard them (*No* - then the original channel list will not be changed).

9.3.1 Add Channel to Favorites

1. Mark the corresponding channel by using the keys **PR+** and **PR-**.
2. Press the key **FAV** and confirm by pressing **OK**.
A selection window with the eight available favorite lists will open.
3. Select the favorite list to which the channel is to be allocated by using the keys **PR+** and **PR-**, and confirm by pressing **OK**. The respective favorite list is correspondingly marked (♥).
4. The channels allocated to a group of favorites will be marked in the channel lists.
0007 arte HD ♥
5. Press the key **FAV** once again or the key **EXIT** to leave the function **Favorite**.


9.3.2 Provide Channels with Password Protection (Lock Against Unauthorized Access)

1. Mark the corresponding channel by using the keys **PR+** and **PR-**.
2. Press the **red function key** (SHIFT).
3. Confirm by pressing **OK**. You will be requested to enter a password.
4. Enter a password. Locked channels are marked in the channel lists .
5. Again press the **red function key** (SHIFT) to leave the function **Lock**.



From now on, first the password has to be entered to be able to watch such a locked channel.


9.3.3 Skip Channels when Switching from Channel to Channel (Zapping)

1. Mark the corresponding channel by using the keys **PR+** and **PR-**.
2. Press the green function key.
3. Confirm by pressing **OK**. Channels to be skipped are marked in the channel lists. 
4. Again press the **green function key** to leave the function **Lock**.



From now on, the channel is skipped when switching from one channel to the next (zapping).

9.3.4 Move Channels to Another Channel Position:

1. Press the **yellow function key** to activate the function **Move**.
2. Mark the channel to be moved by using the keys **PR+** and **PR-**, and confirm by pressing **OK**. The channel to be moved is marked in the channel list. . If you want to move more than one channel, then mark further channels by using the keys **PR+**

and **PR-**, and respectively confirm by pressing **OK**. The channels to be moved should not be necessarily in an uninterrupted sequence.

Example:

Before moving – three channels are marked:



After moving:



3. Select the channel number to which the channel/channels are to be moved to by using the keys **PR+** and **PR-**, and again press the **yellow function key**.
4. Press the **EXIT** key to leave the function **Move**.


9.3.5 Rename Channels

1. In the submenu **Edit Channel – TV Channel List**, press the blue function key (L/R).
2. Press the **green function key** to activate the renaming process.
3. Mark the channel to be renamed by using the keys **PR+** and **PR-**, and confirm by pressing **OK**.
4. The window **Rename** will be displayed.



- Select the character to be changed by using the keys + and .
 - Enter the new character respectively by using the numeric keys of the remote control.
 - Press the **red function key (CAPS)** to switch between upper case and lower case.
 - Press the **green function key (DEL)** to delete the respectively selected character.
 - Press the **yellow function key (OK)** to accept the changes made so far and to close the window **Rename**.
 - Press the **blue function key (CANCEL)** to discard the changes made so far and to close the window **Rename**.
5. Press the **green function key** to leave the Rename mode.

9.3.6 Delete Individual Channels from Channel List

1. In the submenu Edit Channel – TV Channel List, press the blue function key (Edit).
2. Again press the **blue function key (Delete)** to access the Delete mode.
3. Mark the channel to be deleted by using the keys **PR+** and **PR-**, and confirm by pressing **OK**. The respective channel is correspondingly marked

 Repeat step 3 as long as all channels to be deleted are marked.
4. Again press the **blue function key (Delete)** or the **EXIT** key to leave the Delete mode.
5. If you agree to overwrite the factory-set channel list when leaving the menu (see above), the marked channels will be deleted.

9.3.7 Delete All Channels

To delete all channels

1. Select **Delete All** in the menu **Edit Channel**.
2. Press **OK**. You will be asked if you want to delete all channels.
3. Select the answer *Yes* or *No* by using the keys + and , and confirm by pressing **OK**.



After deletion of all channels, all channel lists will be empty and should be newly created!

9.4 Rename Favorite Lists

In the submenu **Favorite** of the menu **Edit Channel** you can rename favorite lists.

1. Select the favorite list to be edited by using the keys **PR+** and **PR-**, and confirm by pressing **OK**.
2. An on-screen keyboard will be displayed.
3. Select letters/numbers by using the keys **PR+** and **PR-** as well as the keys + and , and confirm by pressing **OK**.













Switch between upper case and lower case by pressing the **yellow function key**.

Delete individual letters/numbers by pressing the **red function key (SHIFT)**.

- Repeat this until the desired favorite name is entered.
- Press the blue **L/R** key to return to the submenu **Favorite** and press **EXIT** to leave the submenu.

9.5 Display Setting

Select in the menu **Tools** the submenu **DisplaySetting** and press **OK** to edit various display settings:

- Select **Brightness** to change the brightness value from 0 to 100 (default value is 50) by using the keys  and .
- Select **Contrast** to change the contrast value from 0 to 100 (default value is 50) by using the keys  and .
- Select **Saturation** to change the saturation value from 0 to 100 (default value is 50) by using the keys  and .
- Select **Hue** to change the hue value from 0 to 100 (default value is 50) by using the keys  and .
- Select **Sharpness** to change the sharpness value from 0 to 10 (default value is 5) by using the keys  and .

9.6 Language Setting

- Select the sub-menu **Language** in the menu **System Setup** and press **OK**. The window **Language** opens.
- Select **Language** to set the OSD language.
- Select **First Audio** to set the preferred language for the TV sound.
- Select **Second Audio** to set an alternative language for the TV sound, in case the first language is not available.
- Select **Subtitle Language** to set the preferred language for subtitles (per default OSD language and subtitle language are the same).
- Select **Teletext** to set the preferred language for teletext (per default OSD language and teletext language are the same).



9.7 Format of the Video Signal at the SCART Output

1. In the window **TV system** move highlight on **Scart Out** item and press **OK**.
2. Press the keys **PR+ / PR-** to select from the list the format of the video signal at the SCART output and press **OK**. Possible values are *YUV* and *RGB*. Default is *YUV*.



Due to the internal signal processing it's not anymore possible to select higher resolutions than 576i even at the HDMI if RGB is selected

9.8 Digital Audio Out



- Select in the menu **System setup** the submenu **TV System** and press **OK**.
- Select **Digital Audio Out** to set the format of the digital audio signal by using the keys  and :
PCM – Pulse Code Modulation (default),
DD – Dolby Digital (multi-channel audio).



For programs broadcasted in DD format, select DD if you have a connected DD-compatible multi-channel amplifier or a DD-compatible home cinema system, or if your TV set is capable of processing DD signals.

9.9 SmartLink (CEC)



If you have a CEC⁹-compatible TV set, and receiver an TV set are connected via HDMI you can switch on and off (standby mode) both sets with the receiver's remote control:

1. Select in the menu **System** the submenu **TV System** and press **OK**.
2. Select **SmartLink** and use the keys  and  to switch the SmartLink function on and off.



9.10 Timer

In the sub-menu **Timer** of the receiver you can program, edit and delete up to eight different events (channel switch).



⁹ CEC = Consumer Electronics Control = HDMI feature for entertainment units, provides via HDMI various control functions, e. g. "system standby". The TV set is the control center and the TV remote control becomes the remote control of the whole system.

1. In the sub-menu **Timer Setting**, mark a timer by using the keys **PR+** and **PR-**.
2. Press the **OK** key to open the timer.
3. Mark the line **Timer Mode** by using the keys **PR+** and **PR-**.
4. You can select from the following possibilities by using the keys  and .

Value	Meaning
<i>Off</i>	The timer is deactivated.
<i>Once</i>	Single event (only once).
<i>Daily</i>	Event occurs every day at the same time (e.g. the news program every day)
<i>Weekly</i>	Event always at the same weekday
<i>Monthly</i>	Event occurs every month at the same day (e.g. every 20 th)
<i>Monday to Friday</i>	Event Monday to Friday at the same time.

5. In line **Timer Service** the option *Channel* is selected. There is not any possibility to change this.
6. Mark the line **Wakeup Channel** by using the keys **PR+** and **PR-**, and select the channel to be displayed by using the keys  and .
7. Mark the line **Wakeup Date** by using the keys **PR+** and **PR-**, and enter the date by using the numeric keys.
8. Mark the line **On Time** by using the keys **PR+** and **PR-**, and enter the on time by using the numeric keys.
9. Mark the line **Duration** by using the keys **PR+** and **PR-**, and enter duration of the program by using the numeric keys.



You can go from letter to letter (position to position) in the date and time fields by pressing the keys  and .

10. Mark the button **Save** by using the keys **PR+** and **PR-**, and confirm by pressing **OK**

(or select **Cancel** and confirm by pressing **OK** if you want to cancel programming – then you will return to the sub-menu **Timer Setting**).





You can directly add programs marked in EPG to the timers. This significantly facilitates programming as you do not have to make settings for channel, date and time.



9.11 OSD Setting

- Select in the menu **System setup** the submenu **OSD¹⁰ Setting** and press **OK**.



9.11.1 Undertext Display

- Using the keys  / , set whether subtitles are displayed **always** (in the language you set in the section „Language Setting“, page 30). Default value is *Off*.

9.11.2 Hide OSD

- Using the keys  and , set the number of seconds after which the OSD should be hidden. You may set values from *1 to 10 seconds*. Default value is *5s* (factory setting).

9.11.3 OSD Transparency

- Select transparency of the on-screen menu by using the keys  and . You may set values from *0% (OFF)* (no transparency) to *40%* (almost transparent). Default value is *OFF*.

¹⁰ OSD = On Screen Display

9.12 Automatic Standby Function



Based on current EC regulations, this receiver is equipped with an energy saving system. After three hours, the receiver will automatically switch to energy save mode (energy consumption of less than 0.5 W) unless a function is triggered via remote control during such period (e.g. volume change or switching of channels). You can deactivate the automatic standby function via the menu.

1. Select in the menu **System setup** the submenu **Other** and press **OK**.
2. Select **Auto Standby** to switch on or switch off the automatic standby function, using the keys and (factory setting is **Auto Standby On**).

9.13 Simultaneous Playback of Picture and Sound

Asynchrony between the image and the sound signals might for example occur in your home cinema system due to the use of long cables. Your receiver offers the possibility to balance this by slightly shifting the audio against the video signal.

1. Select in the menu **System setup** the submenu **Other** and press **OK**.
2. Select **AV Sync Value** to set a value of shift between *-500ms* and *+500ms* using the keys and (factory default is **AV Sync Value 0 ms**).

9.14 ANT IN / OUT Loop Through (Loop Standby)

Basically, after turning off the receiver it switches to power saving mode ("Deep Standby", red LED lights up). At the **ANT OUT** terminal there is no or only a highly attenuated signal. If you want to use **ANT OUT** anyway,

you can set that in the submenu **Other** of the **System setup** menu:

- Select **Loop Standby** to switch on and off the possibility of looping through the satellite signal, using the buttons and (factory default is **Loop Standby off**).



CAUTION!

If you select **Loop Standby On**, the receiver goes into standby mode after switching off, but not into the power saving mode. The display shows the current time.

9.15 Software Version

The submenu **Information** of the menu **Tools** displays the current version number of the receiver's software.

9.16 Factory Settings

If you erroneously saved wrong settings or if you want to pass on the receiver without your settings, then you can reset the receiver to the factory settings (reset):

To reset the receiver:

1. In the menu **Tools**, select the submenu **Factory Settings**.
2. Press the **OK** key.
You will be asked if you want to reset the receiver and delete individual settings.
3. Select **Yes** or **No** by using the keys and , and then press **OK**.
After resetting your receiver, the language selection menu will be displayed.

10 *Cleaning*



WARNING!

There is the risk of electric shock when cleaning the receiver!

- Always disconnect mains plug from power outlet before cleaning.
- Never clean the receiver using a damp cloth.
- Always ensure that no liquid enters the receiver.



CAUTION!

There is the risk of damaging the receiver when cleaning the receiver!

- Do not use solvent-containing cleaning agents like petroleum ether or thinner.
- Clean the housing of the receiver using a dry cloth.

11 *Transport and Decommissioning*

Proceed as follows if you want to transport the receiver or if you do not want to use the receiver any more:

1. Disconnect the receiver and all connected devices from power supply.
2. Disconnect any cables connected to the receiver.
3. Remove the batteries from the remote control.
4. Put receiver, cables and remote control into the original packaging.
5. Store the receiver and the accessory parts at a dry and dust-free location.
6. Protect the receiver from freeze.

12 Troubleshooting

This section includes a list of general errors that could occur with operation of the receiver. Each error states a possible cause and solutions.

<p>Symptom:</p> <ul style="list-style-type: none"> The display does not light. <p>Possible cause(s):</p> <ul style="list-style-type: none"> The power cord is not connected. The power switch is not switched on. <p>Solution:</p> <ul style="list-style-type: none"> Connect the power cord to the power outlet. Switch on the power switch.
<p>Symptom:</p> <ul style="list-style-type: none"> No audio or video; the receiver states "OFF" and the red LED lights up. <p>Possible cause(s):</p> <ul style="list-style-type: none"> The receiver is in standby mode. <p>Solution:</p> <ul style="list-style-type: none"> Press the POWER key to switch on the receiver.
<p>Symptom:</p> <ul style="list-style-type: none"> No audio or video. <p>Possible cause(s):</p> <ul style="list-style-type: none"> No signal or only weak signal. <p>Solution:</p> <ul style="list-style-type: none"> Check the cable connections to the receiver and from the receiver to the connected devices; fasten cables, if required.
<p>Symptom:</p> <ul style="list-style-type: none"> The TV set does not show a picture. <p>Possible cause(s):</p> <ul style="list-style-type: none"> The system is not correctly connected. <p>Solution:</p> <ul style="list-style-type: none"> Verify connection of cable and fasten cable, if required.

<p>Symptom:</p> <ul style="list-style-type: none"> Picture only in black and white and/or incorrect synchronization. <p>Possible cause(s):</p> <ul style="list-style-type: none"> The video format of your receiver is not correctly set. <p>Solution:</p> <ul style="list-style-type: none"> Adapt broadcast television system of the receiver to the broadcast television system of the TV set.
<p>Symptom:</p> <ul style="list-style-type: none"> The remote control does not operate. <p>Possible cause(s):</p> <ul style="list-style-type: none"> The batteries are empty. The remote control shows into wrong direction. <p>Solution(s):</p> <ul style="list-style-type: none"> Replace empty batteries with new batteries. Direct the remote control towards the front panel of the receiver.
<p>Symptom:</p> <ul style="list-style-type: none"> Display flashes <p>Possible cause(s):</p> <ul style="list-style-type: none"> Short circuit at ANT IN. <p>Solution(s):</p> <ul style="list-style-type: none"> Pull off antenna plug from ANT IN and check the same. Verify that your cable installation is properly installed.

New operating software for the receiver will be published, if required. This can be easily downloaded from the internet page which is mentioned on the extension page (menu item service).

If the malfunction still cannot be remedied, then please contact your specialist dealer.

Service Hotline

In case of **technical problems, connection problems** or general **questions on settings** call the

Service Hotline: +49 (0) 7724 9478-555

Fax: +49 (0) 7724 9478-333

E-mail: service@smart-electronic.de

13 Disposal



CAUTION!

- Do not dispose of the receiver and the batteries in normal household refuse!



- Please ask your municipal administration on possibilities for environmentally friendly and proper disposal of the receiver.
- Please take the batteries to a collecting point.



The WEEE¹¹ symbol on the product and its packaging states that this product is an electrics or electronic device. Do not dispose of such device in the household refuse, but take it to your local municipal collecting point (collection station).

¹¹ WEEE = Waste Electrical and Electronic Equipment. The WEEE directive is the EC directive 2002/96/EC on reduction of the increasing amount of waste from electrical and electronic equipment not used any more. Its objective is prevention, reduction and environmentally friendly disposal of the increasing amounts of electronic waste.

14 Technical Data

14.1 General Information	
<ul style="list-style-type: none"> HDTV 1080p Standby Save Energy mode 4000 channels 	<ul style="list-style-type: none"> 8 favorite lists EPG JPEG and MP3 playback
Input frequency range	51 MHz ~ 858 MHz
Input impedance	75Ω
Band width	7 / 8 MHz
QAM	16 / 32 / 64 / 128 / 256
14.2 Remote Control	
Range	up to 7 m
Batteries	2 x type AAA
14.3 Mains Adapter	
Power consumption in standby	less than 0.5 W
Mains voltage	175 - 250 V ~, 50/60 Hz
14.4 Connections	
Data storage interfaces	USB 2.0
Cable in	Coax
Tuner LOOP THROUGH	Coax
Service	RS232 socket
Audio out	1 x RCA digital audio (SPDIF)
	1 x RCA stereo
Video out	1 x HDMI
	1 x SCART connector (EURO AV)

14.5 Temperature

Operating temperature	+5° C to +40° C
Storage temperature	-40° C to +65° C

14.6 Dimensions and Weight

Width	220 mm
Height	45 mm
Depth	145 mm
Weight	Approx. 0.,5 kg

15 Declaration of Conformity

The company smart electronic GmbH, Industriestraße 29, 78112 St. Georgen, Germany hereby declares that this product meets the following directives and standards:

- **Directive on electromagnetic compatibility 2004/108/EC**
 - EN 55013:2001+A1:2003+A2:2006
 - EN 55020:2007+A11:2011
 - EN 61000-3-2:2006+A1:2009+A2:2009
 - EN 61000-3-3:2008
- **Low voltage directive 2006/95/EC**
 - EN 60065:2002+A1:2006+A11:2008+A2:2010+A12:2011

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