

Digital Terrestrial HD Receiver SRT 8525





### **User Manual**

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Man./ Digital Search Digital Subtitles Tere Subtitles Subtitles



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HD

0.70 Watt Stand-by



TV Info

### Slika 1





Slika 3







### **TABLE OF CONTENTS**

2
2
2
2
3
3
3
3
3
4
5
5
5
5
5
6
6
6
6
6
6
7
7
7
8
8
9
9
9
10
10
10
10
10
12
13
15
16
18
19
20
21
23

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 STRONG declares that this item complies with the basic requirements and other relevant

 97
 regulations of directives CE 2004/109/EC and 73/23/EC, RoHS 2002/95/EC

 98
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 90
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### **1.0 INTRODUCTION**

### 1.1 Safety Instructions

### DO NOT INSTALL YOUR RECEIVER

 In a closed or poorly ventilated cabinet; directly on top of or under any other equipment; on a surface which might obstruct the ventilation slots.

### DO NOT EXPOSE THE RECEIVER OR ITS ACCESSORIES

- To direct sunlight or any other equipment that generates heat; to rain or intense moisture; to intense vibration and to any shock which may cause permanent damage to your receiver or to any magnetic objects, such as loudspeakers, transformers, etc.
- Do not use a damaged power cord. It may cause a fire or an electric shock. Do not touch a power cord with wet hands. It may cause an electric shock.
- When the receiver is not used for a long period of time, you should unplug the power cord from the wall socket.
- Do not use alcohol or ammonia based liquids to clean the receiver. If you wish, you may clean your receiver with a soft lint-free cloth slightly made damp with a mild soap solution, only after disconnecting from the mains voltage supply. Make sure no foreign objects fall through the ventilation slots because this could cause fire or an electric shock.
- Do not place any objects on top of the receiver because this might prevent proper cooling of the components inside.

### **Safety Precautions**

- Never open the receiver cover. It is dangerous to touch the inside of the receiver due to high voltages. Opening the receiver will void the warranty of the product. Refer all maintenance or servicing to suitably qualified personnel.
- When you are connecting cables, be sure that the receiver is disconnected from the mains supply voltage. Wait a few seconds after switching off the receiver before you move the receiver or disconnect any equipment.
- It is a necessity that you only use an approved extension and compatible wiring that is suitable for the electrical power consumption of the installed equipment. Please ensure that the electrical power supply corresponds with the voltage on the electrical identification plate at the back of the receiver.

If the receiver does not operate normally, even after strictly following the instructions in this user manual, it is recommended to consult your local dealer or contact the appropriate service.

### 1.2 Storage

Your receiver and its accessories are stored and delivered in a packaging designed to protect against electric shocks and moisture. When unpacking it, make sure that all the parts are included and keep the packaging away from children. When transporting the receiver from one place to another or if you are returning it under warranty conditions, make sure to repack the receiver in its original packaging with its accessories. Failing to comply with such packaging procedures could damage the product and void your warranty.

### 1.3 Equipment Set-up

We recommend you consult a professional installer to set up your equipment. Otherwise, please follow the instructions below:

- Refer to the user manual of your TV and your antenna.
- Make sure that all the connections, cables and outdoor components are in a good condition and all the connections are well shielded and from good quality. We recommend using high quality HDMI cables at least corresponding to HDMI 1.3 standard.



This manual provides complete instructions for installing and using this receiver. The following symbols will serve as follow:

WARNING:	Indicates warning information.	
NOTE:	Indicates any other additional important or helpful information.	
MENU (Bold Characters)	Represents a button on the remote control or the receiver.	
Move to (Italic Characters)	Represents a menu item within a window.	

### **1.4 Accessories**

- Receiver 1 pc.
- User Manual 1 pc.
- Remote control 1 pc.
- Batteries (AAA) 2 pcs.

#### WARNING:

The batteries should not be recharged, disassembled, electrically shortcircuited, be mixed or used with other types of batteries.

If rechargeable accumulators instead of batteries are going to be used, we recommend using (e.g. NiMH) types with low self-discharge to ensure long time operation of remote control.

### 1.5 Usage of external USB devices

- It is recommended to use USB 2.0 storage devices. If your device is not compatible to USB 2.0 specifications, the multimedia and video playback with your receiver would not work properly.
- If you are going to use external USB HDD (Hard Disk Drive) please consider that it might be the case that the power specifications exceed the supported output of your receiver (5 V/500 mA). If so, please connect your USB HDD to a corresponding external power adapter.
- STRONG cannot guarantee compatibility to all types of USB storage devices.
- It is advised not to store important information on USB storage devices used with the receiver. Always make backups of data on your USB storage device before using it with this receiver. STRONG will not take responsibility for any loss of information or circumstances caused by loss of information.
- Please ensure that the USB device is already formatted to FAT/FAT32 or NTFS. If it is not, please format the USB device via your PC or notebook.

### **2.0 YOUR RECEIVER**

### 2.1 Front panel

#### Fig. 1

Fig. 2

- 1. **O button:** Switches the receiver between standby (off) and operating mode.
- 2. Stand-by indicator: Green light in operating mode and red light in standby mode.
- 3. Infrared sensor: Receives signals from the remote control.
- 4. Slot for smart card: The slot is behind the front flap and only intended for service use, it won't be used during operation.

### 2.2 Rear panel

1.	ANT IN	To connect to your aerial using a standard antenna cable.
2.	ANT OUT	To connect to your TV or additional receiver via a standard
		antenna cable.



3.	AUDIO (L/R)	To connect to your TV or VCR, alternatively you can connect to an amplifier or HIFI system using an RCA cable.
4.	VIDEO	To connect to your TV or VCR using an RCA cable.
5.	S/PDIF	To connect to a digital home theatre or audio amplifier with an audio cinch cable.
6.	USB	To connect your USB storage device (stick, HDD, etc.)
7.	HDMI	To connect to the HDMI input of your TV using a good quality HDMI cable.
8.	SCART	To connect to your TV set using a SCART cable.
9.	Power cord	To connect your receiver to the local power supply system, supporting a voltage range of ~ 100 – 240 V 50/60 Hz.

### 2.3 Remote control

### Fig. 3

1.	ሳ	To switch the receiver between standby and working mode
2.		To disable/enable the audio outputs of the receiver.
3.	0-9	In viewing mode: to switch to a channel by entering its number
		In menu mode: to enter numeric values
4.	AV	No function
5.	TV/R	Toggles between TV and RADIO mode
6.	MENU	To access the main menu and in menu to return to viewing mode
7.	EXIT	Exits from the menu, sub-menu or cancels actions
8.		In viewing mode: to change to the next/previous channel
		In menu and channel list mode: to move the cursor up/down.
9.	<₽	In viewing mode: to decrease/increase the volume
		In menu mode: for navigation and to change settings in specific
		menus
10.	ОК	In viewing mode: to open the channel list or confirm displayed
		messages
		In menu mode: to open the menus and to confirm settings or
		changes
11.	EPG	To enter the Electronic Programme Guide.
12.	i	Shows the current channel information (2x extended info)
13.	V+/V-	To increase/decrease the volume level
14.	FAV	Opens the favourite group selection
15.	AUDIO	To open the list of audio languages and settings
16.	ZOOM	To zoom into a specific area of the video, further pressing
		increases zoom factor and zoom modes
17.	P+/P-	In viewing mode: to switch through the channels
		In menu/channel list: to scroll page up/down
18.	RED/V.F	In viewing mode: to switch the resolution between 576i, 576p,
		720p, 1080i and 1080p (50 Hz)
		In menu and Teletext mode: depends on the menu context
19.	<b>GREEN/TEXT</b>	In viewing mode: to open Teletext (if broadcasted)
		In menu and Teletext mode: depends on the menu context
20.	YELLOW/SUB	In viewing mode: to select a subtitle language (if subtitles are
		broadcasted)
		In menu and Teletext mode: depends on the menu context
21.	BLUE/RCL	In viewing mode: to toggle between the two last watched channels
		In menu and Teletext mode: depends on the menu context
22.	11	In viewing mode: to pause TV picture
		In multimedia mode: to pause playback of a file



23. 🜗	For multimedia playback: to start playback of the previous file
24. 🅩	For multimedia playback: to start playback of the next file
25. •	No function
26. 🕨	For multimedia playback: to start playback
27. 📢	For multimedia playback: starts fast rewind, supported modes are: 2x, 4x, 8x, 16x and 32x
28. 🍽	For multimedia playback: starts fast forward, supported modes are: 2x, 4x, 8x, 16x and 32x
29.	For multimedia playback: to stop playback of a file

### 2.4 Installing the batteries

Open the cover on the remote control and insert 2x AAA batteries into the compartment. Correct position of the polar diagram shows the batteries inside the compartment. 1. Open the cover 2. Insert the batteries 3. Close the lid

WARNING: The batteries should not be recharged, disassembled, electrically shortcircuited, be mixed or used with other types of batteries. If rechargeable accumulators will be used instead of batteries, we recommend using (e.g. NiMH) types with low self-discharge to ensure long time operation of the remote control.

### 2.5 Using the remote control

To use the remote control, point it towards the front of your receiver. The remote control supports a range of up to 7 meters distance to the receiver at an angle of up to approx. +-30 degrees.

NOTE:Managing the receiver will be limited or not possible if there are obstacles<br/>between the remote control sensor (at the front panel of the receiver)<br/>and the remote control. Direct sunlight or very bright light can reduce or<br/>disturb the reception of the remote control signals.

### **3.0 CONNECTIONS**

WARNING:

Please make sure that connection devices are disconnected from their main power supplies before connecting these to the receiver.

### 3.1 Connecting to your aerial antenna

#### Fig. 6

Fig. 6

To receive digital broadcast signals, your receiver has to be connected to a terrestrial indoor or outdoor antenna. Use the antenna cable to connect the aerial with the ANT IN connector on the back of your receiver. Please ensure that a properly shielded antenna cable and suitable connectors are used. The TO TV connector allows you to loop the antenna signal to a second receiver or TV set.

### 3.2 Connecting to TV with HDMI cable

We recommend connecting your TV set with the receiver using a good quality HDMI 1.3 or higher cable (not included). This connection supports the highest possible quality.

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Fig. 5

#### PART 2 • English

### 3.3 Connecting to TV with SCART cable

The receiver is also equipped with a SCART connector; alternatively, the TV set can be connected to the receiver using a good quality SCART cable.

### 3.4 Connecting to TV with cinch cable

Your receiver is also equipped with Audio L, R and VIDEO connectors. As an alternative you can use these connections if your TV set doesn't have an HDMI connector.

### 3.5 Connecting to a digital audio amplifier

By connecting your receiver to a digital amplifier or home theatre system, you can enjoy the best possible sound quality and multi-channel audio (depending on broadcast). Connect your digital audio amplifier or home theatre system with a suitable cable to the S/PDIF connector on the back of the receiver.

### 3.6 Connecting to a digital A/V receiver and TV using HDMI

By connecting your receiver to an A/V receiver or enhanced digital home theatre system with HDMI, you will enjoy the best possible sound and picture quality as well as multi-channel audio (depending on broadcast). Connect the HDMI output of the receiver to the corresponding input of your A/V system and then connect the HDMI output of the A/V receiver or home theatre system to your TV set. Select the correct input on your A/V system to watch and listen to programmes. If your TV set already supports DD audio we recommend you to use the direct connection as described above in chapter **3.2**.

### 3.7 Connecting an external USB storage device

NOTE:

For details to consider when using a USB storage device please refer to chapter **1.5**.

### **4.0 STARTING UP FOR THE FIRST TIME**

Ensure that your connections are setup properly. In case of difficulties or questions, please ask your local dealer or service for assistance. It is recommended to follow the *Installation Guide* step by step. It will guide you through the basic installation and channel searching process. It will enable you to enjoy digital HD broadcasts just within a few minutes.

Start by selecting your language using ◀▶. After selecting your language, press ▼ to move the highlight to *Region*. Select your region with the ◀▶ buttons.

Use **I** to switch the HDMI resolution to your value of choice. If your TV set doesn't support a specific resolution you will see black picture, but to recover you can use **I** for switching to the next or previous resolution.

Use this option to select the aspect ratio of your TV set and the preferred conversion method. The options are: *Auto* (automatic detection of aspect ratio), *4:3 Panscan* (Displays 16:9 broadcasts full screen and cut upper and lower parts of 16:9 video on your 4:3 TV), *4:3 letterbox* (black bars on top and under the picture on a 4:3 TV) and *16:9 Wide Screen* or *16:9 PillarBox* (Displays 4:3 broadcast with back pillars at left and right sides on your 16:9 TV) which you can use for 16:9 TV sets.

Aspect Mode:

Display Mode:

#### 6



Fig. 6

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Fig. 6

#### Fig. 6



Antenna Power:

Set to *On* if you use an active antenna. When set to *On*, 5 V will be present on the ANT IN connector of the receiver. Select *Off* for passive antennas or when connected to a house distribution system.

When all settings have been made, move the highlight to *Next* and press **OK** to continue. The receiver will now advance to the *Antenna Adjustment* screen.

### 4.1 Antenna Adjustment

In this menu you can adjust the antenna in order to ensure best signal quality.

Allows you to select the frequency range according to your local broadcast conditions. The default adjusted *UHF* range is the mostly used one, so we recommend not to change this setting. If you know that the *VHF* range is used in your country you can select it with  $\triangleleft \triangleright$ .

Frequency channel:

Select a channel/frequency that broadcasts digital TV channels in the region where you live.

Now you can adjust your aerial antenna to a proper position in order to get the best signal quality and strength indication displayed.

Afterwards press ▼ to move the highlight to *Search* and press **OK** to start the channel scan process. The receiver will start searching for channels. Information about the scanned frequency, found TV and radio channels and channel scan progress is displayed on screen. When the channel scan has been completed, the receiver will tune on the first found TV channel.

NOTE:

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If the receiver hasn't found any channels by the end of the channel scan, it is possible that your antenna is not installed/ aligned correctly. To ensure good results and the proper antenna configuration, refer to qualified professionals.

### **5.0 QUICK GUIDE TO USING YOUR RECEIVER**

We at STRONG understand that you can't wait to enjoy your new high definition digital terrestrial receiver. The following quick guide will help you getting familiar with the basic operation of this device. We do, however, advice you to read the full manual to get the best performance from your receiver.

To switch your receiver ON or in standby, use the  $\oplus$  button on the remote control or on the front panel of your receiver.

If you will not use the receiver for a longer time, unplug it from the mains by unplugging the power plug from the outlet.

### NOTE:

5 min after switching the receiver to standby it will enter the deep sleep mode. Within this time the receiver is able to start up quickly. Starting up from deep sleep takes approx. 40 sec.

### 5.1 Changing channels

There are different ways to change channels:

- Via direct access using the **0~9** buttons.
- Via the channel list through the **OK** button.
- Via the ▲▼ or P+ and P- buttons.

### 5.1.1 Direct access

To access to a channel directly, simply enter its number with the **0~9** buttons on the remote control. Channel numbers can be up to four digits long. Entering a number with less than four digits is possible. Just wait a few seconds and your receiver will switch to the channel number, or just press **OK** after inserting.



### 5.1.2 Channel list

Press **OK** in viewing mode to display the channel list. Use  $\blacktriangle \lor$  in the list to highlight your channel of choice and press **OK** to switch to this channel. To scroll to the next or previous 9 channels you can also use the **P+/P**- buttons. With the  $\blacktriangleleft \triangleright$  buttons you can toggle between the TV and radio channel list. To change directly from TV to radio mode, press the **TV/R** button.

By pressing the **FAV** button in viewing mode you can open the FAV group selection, if a favourite list has been created. If more than one FAV list have been created then you can use the **I** buttons to toggle between the different FAV groups: Movies, News, Sports and Music.

### 5.1.3 Using ▲▼ or P+/P-

- ▲ switches to the next channel.
- ▼ switches to the previous channel.
- P+ switches to the next channel.

P- switches to the previous channel.

### 5.2 Adjusting volume and audio

To adjust the volume you can use the V+/V- or ◀► buttons. To mute the audio output, press Ø, to enable the audio output again, press Ø again.

Some channels support a choice of different audio formats and/or languages. To select another audio language, press **AUDIO** in viewing mode. A list with available audio languages will be displayed. Use  $\blacktriangle \forall$  to select language and confirm with **OK**. The audio channel as stereo, mono left and mono right can be selected with the  $\blacktriangleleft \triangleright$  buttons.

### 5.3 Info Banner

Every time you switch to a channel, the info banner will be displayed. While watching TV you can press the i button to display it again to access information about the current channel and event. Press i twice for detailed programme and technical information.

#### 5.3.1 Standard information banner

The following information will be provided:

- Channel number and name
- Current date and time
- Start and end time of the current event
- Start and end time of the next event
- Icons, showing the presence of additional services provided and some properties of this channel:
- **SD** The channel is broadcasted in standard definition resolution.
- **HD** The channel is broadcasted in high definition resolution.
  - Green colour indicates the presence of Teletext.
  - Green colour indicates the presence of DVB subtitles.
- € Green colour indicates that this an encrypted channel.
- Green colour indicates that the channel is locked via channel lock.
- **4:3** Indicates that the current aspect ratio is broadcasted in 4:3 format.
- **16:9** Indicates that the current aspect ratio is broadcasted in 16:9 format.
- Green colour indicates the presence of Dolby Digital audio stream.
- **D-HH** Green colour indicates the presence of subtitles for the hearing impaired.

P



The information banner is automatically removed from the screen after a certain time, specified by the setting for *Banner timeout* within the *Time Setting* menu. For details refer to chapter **6.3.3**.

NOTE:

Event information will be displayed when available. Availability depends on the broadcast.

### 5.3.2 Extended information banner

To display extended information press i once again, or twice from viewing mode. The following information will be provided:

- On top of the frame you will see the name of the channel.
- Below you will find the frequency, bandwidth and signal indicators of the channel.
- In the 2nd half of the screen you will find the event description. Use ◀► to switch between the current *Now* and *Next* event. If the complete information exceeds the displayed area use ▲▼ in order to read further.

To remove the info banner, press i or **EXIT**.

NOTE:

Event information will be displayed when available. Availability depends on the broadcast.

### 5.4 Electronic TV Programme Guide (EPG)

This function gives you the opportunity to view programme schedules of digital terrestrial channels for up to 7 days. To open the EPG, press **EPG** in viewing mode.

Use  $\blacktriangle \lor$  to select a channel and  $\blacktriangleleft \lor$  to select an event. Press *i* to display detailed information of the selected event. You can use  $\blacktriangle \lor$  to scroll the text and **EXIT** to close this information.

For fast navigating press **BLUE** to show events taking place the next day at the same time. From this moment on you can also use the **YELLOW** button to go back to the previous day. Alternatively you can also move from one day to the other one by using the **A** buttons across the events. It is not possible to view information about past programmes.

To choose an event for watching, press **OK** to open the timer settings. The detailed timer setup is described in chapter **6.4.1**.

After the timer has been set up, press EXIT to return to the EPG. To close the EPG, press EXIT again.

NOTE:

Event information will be displayed when available. Availability depends on the broadcast.

### 5.5 Selecting subtitle language

Press **SUB** in viewing mode to display a list of available subtitle languages. Use  $\blacktriangle \lor$  to select a language and confirm with **OK**. Please consider that this function supports DVB and TXT subtitles and this selection is only displaying them temporarily. Subtitles may not be supported by every channel/broadcaster. Additionally please adjust your preferred subtitle language as described in chapter **6.3.1** Language Setting.

### 5.6 Displaying Teletext

To open the Teletext, press the **GREEN** (**TEXT**) button in viewing mode. Use the **0-9** buttons to enter the page number. The coloured buttons allow you to jump directly to the pages as indicated in the bottom line. You can also use the ▲▼ buttons to select the next/previous page. With the ◀▶ buttons you can select subpages. Press **EXIT** to close the Teletext.

English



### 5.7 Using external USB storage devices

We strongly recommend you to carefully read and follow the specified points mentioned in chapter **1.5** Usage of external USB devices!

Further please consider these points when you use your receiver with an external USB storage device:

- Before you disconnect the USB device from the receiver, we recommend using the *Remove the USB device* function which is available in several menus of your receiver. If you have removed the USB device unintentionally, then please reconnect it to be detected again.
- Well functioning multimedia playback is highly depending on the data rate supported by the connected USB device. Especially for playback of video files and loading high resolution pictures, a reading speed of min. 10 - 15 MB/sec is required. As high data rates are not supported by all types of USB devices it is necessary to ensure that the used USB device can fulfil this requirement. Mostly such data can be found on the website or specification sheet of the USB device manufacturer.

### 5.8 Instant Recording

Your new receiver allows you to make an instant recording of programmes you are watching. Simply press ● to start the recording. To enter the duration for the recording, press ● again. Use **0~9** to input the recording time. For a recording duration of 45 min, just enter 45 and press **OK** or for 1h 30 min, just enter 130 and press **OK**. During the recording a progress banner appears on the upper left corner of your TV screen.

To open the recording info press *i*. To stop the recording, press **STOP**.

WARNING:

Within Irdeto encrypted services some events may be protected or limited and following to that recording might not be possible. This might also be the case for recording through the analogue output on Scart to a VCR or DVD recorder. If maturity rating is activated for a specific recording you will have to enter the appropriate PIN Code **MATURITY RATING PIN: 0000** to record this event.

### 5.9 Playback of recording

If recordings were already made you have the possibility to access the HDD Manager directly from viewing mode by pressing the  $\blacktriangleright$  button. With  $\blacktriangle \bigtriangledown$  select the record of your choice and with **OK** start the playback in preview mode. To watch a record in full screen mode press **OK** again. Alternatively you can press  $\blacktriangleright$  to start playback in preview mode. Further options are displayed in the *Records* menu. For a detailed description of the menu please refer to chapter **6.5 Records**.

### 6.0 MAIN MENU

The main menu gives you access to specific settings and multimedia functions. To access the main menu, press **MENU** in viewing mode. The main menu consists of the following sub menus: *Program Organizer, Channel Search, System Setup, Tools* and *Multimedia*.

Press **EXIT** in the main menu to get back to the previous menu.

### 6.1 Programme Organizer

Press **MENU** and use **♦** to select the *Program Organizer* and press **OK**. Following submenus are displayed: *Channel Manager, Channel Sort* and *Delete all*. Use **↓** To select a submenu and press **OK** or **▶** to access.

#### 6.1.1 Channel Manager

The channel manager allows you to move, skip, lock, delete and add channels to the favourite list. To access this menu you will need to enter your PIN code (**DEFAULT PIN: 0000**).



Now your TV channel list will be shown. To switch between the TV and radio list use <b>4</b> . To
navigate within the list, use the $\blacktrianglear{ u}$ buttons.

Move	To move a channel to a new position, use the $\blacktriangle \lor$ buttons to select the channel, then press the <b>RED</b> button. Now next to the channel's name the symbol $\square$ is shown. This indicates that this channel can be moved to another position. To do so, use the $\blacktriangle \lor$ buttons to move it and press <b>OK</b> to confirm. Proceed as described for any other channels you wish to move. You can also correct the
Skip	channel selection for moving by pressing the <b>RED</b> button again. To skip a channel during switching through the channel list, use the ▲ ▼ buttons to select the channel, then press the <b>GREEN</b> button. Now next to the channel's name the symbol → is shown. After that, channels marked with → will be ignored when switching through the channels in viewing mode. Proceed as described for any other channels you wish to skip. You can also
Lock	correct the channel selection by pressing the <b>GREEN</b> button again. Channels marked for skipping will stay accessible within the channel list. To lock a channel of the channel list, use the ▲▼ buttons to
	select the channel, then press the <b>YELLOW</b> button. Now next to the channel's name the symbol <b>b</b> is shown. After that, channels marked with <b>b</b> will request the PIN code ( <b>DEFAULT PIN: 0000</b> ) when switching to it. Proceed as described for any other channels you wish to lock. You can also correct the channel lock by pressing the <b>YELLOW</b> button again.
Delete	To delete a channel, use the ▲▼ buttons to select the channel then press the <b>BLUE</b> button. Now you will be asked if you want to delete this channel. Press <b>OK</b> to confirm or <b>EXIT</b> to cancel. The channel(s) you delete from the channel list will be permanently removed, also if this channel is part of the favourite list.
Add channels to favourite lists	To add a channel to a favourite group, use the $\blacktriangle$ buttons to select the channel then press the <b>FAV</b> button. Now the favourite group selection will be shown. Select the group to which the channel should be added with $\bigstar$ and press <b>OK</b> . The selected channel will be marked with the symbol $\clubsuit$ . Additionally you can also select another favourite group where to add this channel. To do so, press <b>OK</b> at the this group. When you have added the channel to the group(s), press <b>EXIT</b> to go back to the channel list. There you can proceed in the same way to add other channels to favourite groups. You can also remove a channel from a favourite group by pressing the <b>FAV</b> button again and selecting the group it is part of. Then press <b>OK</b> to remove the symbol and the channel will be removed from this (these) favourite group(s).
6.1.2 Channel Sort	

This menu allows you to sort the channels by following methods:

The channels will be sorted according to the LCN (Logical Channel Numbering) system, which may be broadcasted in your area. If the operator does not support LCN your channel numbers will start with channel number 800, otherwise the LCN channels will be sorted in regional order starting with 1. None LCN channels can be found again starting with number 800. Further,

By LCN:



6.1.3 Delete All	
By Operator:	The channels will be sorted by the operator ID.
	in which they are broadcasted.
By Frequency:	The channels will be sorted in ascending order of the frequency
By Service Name:	The channels will be sorted in alphabetical order.
	broadcasted in your area, only.
	···· · · · · · · · · · · · · · · ·

Use this menu carefully! It will delete all of the stored channels and settings! To execute this function it will be requested to enter the PIN code (**DEFAULT PIN: 0000**). After you have performed this action you will be guided to the *Installation Guide* again!

WARNING:

The Delete all function will permanently delete all of the stored channels and settings from your receiver!

the LCN method will allow you to save the strongest channels.

### 6.2 Channel search

In the menu *Channel Search* you can adjust your search settings and perform an automatic or manual channel search. Press **MENU** and use  $\blacktriangleleft$  to select *Channel Search*, then press **OK**. Following submenus will be displayed: *Search Setup*, *Auto Search* and *Manual Search*. Use  $\blacktriangle$  to select a submenu and press **OK** or  $\triangleright$  to access.

#### 6.2.1 Search Setup

 In the menu Search setup you can set the antenna power and the country in which you live.

 Country:
 Use the ◀► buttons to change the country.

 Antenna Power:
 If you use an antenna that can be amplified (i.e. an active indoor/outdoor antenna) and it requires a voltage of 5 V and doesn't consume

more than 60 mÅ, then you can set the antenna power to *On*. If you use an antenna without an amplifier or your antenna is already amplified by an external power supply or if you use an antenna from a house distribution system, please keep the antenna power *Off.* 

#### 6.2.2 Auto Search

After selecting this menu item and pressing **OK** you will be asked to enter the PIN code (**DEFAULT PIN: 0000**) in order to update the current channel list. If you don't want to perform a full channel scan you can press **EXIT** to cancel. After entering the PIN code (**DEFAULT PIN: 0000**) the receiver will perform an automatic channel search through all frequencies and after finishing this process it will update the channel list. During the search process the receiver will display the progress bar, the currently scanned frequency and the channel names. The receiver will add all new found channels to the channel list.

#### 6.2.3 Manual search

In this menu you can search	for channels on a specific frequency or channel. This menu requires
knowledge of some parame	ters in order to search on the correct channel/frequency in your area.
Scan mode:	Use <b>I</b> to choose between <i>By Channel</i> and <i>By Frequency</i> .
If you set the scan mode By a	Channel, then the following is available:
Band:	Use <b>I</b> to choose UHF (Ultra High Frequency) or VHF (Very High
	Frequency).
Frequency channel:	Select a frequency channel on which you would like to search for
	the channels.
If you set the scan mode By I	Frequency, then the following is available:
Frequency:	Use <b>0-9</b> to enter the frequency on which you would like to search
	for channels.



Band:

For the VHF frequency band commonly used 7 MHz, for UHF frequency 8 MHz is used.

Signal level and quality indicators will help you ensure that you have signal on the selected frequency channel or frequency entered, as well as to adjust the antenna, if necessary. After you have entered the settings correctly you will need to select *Search* (directly above the signal bars) and press **OK**. The receiver will start to search for channels and if available with your entered parameters, they will be added to the channel list. If you don't get a satisfying result after the search process, please contact the local service or check reliable websites/magazines if the entered values are correct.

### 6.3 System Setup

Press **MENU** and use **◄**► to select *System Setup*, then press **OK**. Following submenus will be displayed: *Language Setting*, *Output Setting*, *Time Setting*, *Auto Standby*, *Parental Guidance* and *Reset Factory default*.

Use  $\blacktriangle \mathbf{V}$  to select the desired submenu and press **OK** or **\triangleright** to access.

### 6.3.1 Language Setting

In this menu you can set your language of chioce for menu, audio and subtitles. OSD Language: Use **I** to select menu language. Audio Language: Digital TV allows transmitting more than one audio track/ language. If a channel has multiple audio tracks/languages, the receiver will select the suitable audio track/language automatically according to your selection. This setting allows you to define the subtitle language. Use Subtitle Language: to select a subtitle language and the receiver will display the subtitles in this language automatically (if available). If you do not want to display subtitles, then adjust the setting to Off. Subtitles will be displayed when available. Availability depends on the NOTE: local broadcast.

Please also consider that events may contain "built in" subtitles which can't be disabled.

### 6.3.2 Output Setting

In this menu you can set the output parameters of the receiver according to the connected TV set and for the connected audio amplifier if applicable.

TV Mode:	Use <b>I</b> to select the mode. Commonly the <i>PAL</i> standard is
	used, but it might be that you need to use the setting <i>NTSC</i> . We
	recommend referring to the user manual of your TV set to check
	the correct setting.
Video Output:	Use <b>I</b> to select between RGB and CVBS modes.
Screen Mode:	Use <b>I</b> to adjust this setting in accordance with the aspect
	ratio of your TV set (4:3 or 16:9) and the preferred conversion.
	The options are: Auto (automatic detection of aspect ratio), 4:3
	Panscan (displays 16:9 broadcasts full screen and cut upper and
	lower parts of 16:9 video on your 4:3 TV), 4:3 letterbox (displays
	16:9 widescreen broadcasts with black bars on top and under the
	picture on a 4:3 TV). For a modern 16:9 TV set following options
	can be set: 16:9 Wide Screen, 16:9 PillarBox (4:3 broadcasts will be
	shown with black vertical bars on the left and right side of the
	image) and 16:9 Pan&Scan. We recommend trying these settings
	in order to find the option that suits you best. Do not forget
	. , 3



	about the possibility to control the TV format via the menu of your TV set.
HDMI Output:	Allows you to change the resolution of the HDMI output. If the connected TV does not support the set resolution you will see a black screen. In this case, wait for 10-15 seconds without pressing any buttons on the remote control of the receiver, and the previous value will be recovered automatically.
Loop out in stand-by:	This allows to by-pass the antenna signal to the ANT OUT connector, where you may have an additional TV set/receiver connected, in order to receive analogue/digital broadcasts there too.
Digital audio:	Use $\triangleleft$ to adjust this setting in accordance to the used audio equipment. To loop the digital audio through HDMI or S/PDIF to a connected amplifier, home theatre or other equipment able to decode AAC and AC3, set <i>RAW HDMI ON</i> .
If noither your TV set ner any othe	a connected audie equipment support deceding AAC and AC2

If neither your TV set nor any other connected audio equipment support decoding AAC and AC3, adjust *RAW HDMI OFF*.

#### 6.3.3 Time Setting

This menu allows you to specify the method which the receiver will use to synchronise the date and time and you can set the duration for displaying the information banner.

Time Offset:	Use <b>I</b> to choose <i>Auto</i> to synchronise time and time zone	
	automatically, or <i>Manual</i> to specify the time zone manually.	
Region:	Use <b>I</b> to choose your specific country.	
Time Zone:	This setting is only available when the <i>Time Offset</i> is set to	
	Manual. You can use <b>I</b> to adjust the time zone, if the automatic	
	settings in your region are not supported by the broadcast.	
Summer Time:	Use <b>I</b> to select <i>On</i> or <i>Off</i> according to your local season.	
Banner Time OUT:	Use <b>I</b> to choose between the available settings: 3s, 4s, 5s, 6s, 7s,	
	8s, 9s and 10s.	

#### 6.3.4 Auto Standby

Auto standby is a new feature that helps you reduce power consumption. When Activation is set to On, the receiver will switch to standby if it hasn't received any commands for three hours. Set Auto Standby to Off to deactivate this function. When the setting is On you can adjust the Duration Before Standby: Available settings are: 1 Hour - 12 Hours with steps of one hour.

#### 6.3.5 Parental Control

After selecting this menu item and pressing **OK** you will be asked to enter the PIN code (**DEFAULT PIN: 0000**). This menu allows you to use the EPG based parental rating system if supported by the local broadcast.

Age:

Use **I** to change the settings. Following rates are available: *OFF* (to disable the function), 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17 and 18. Whenever switching through channels which submit EPG based parental rate and the rate of the current broadcast is below the adjusted rate, you will have to enter your PIN code.

Example: Your youngest child is 7 years old and you have set a rate of 07. Now when you switch to a channel which is not foreseen for an age below 10 years you will have to enter the PIN code (DEFAULT PIN: 0000).

#### 6.3.6 Reset Factory Default

This option allows you to reset the receiver to the factory settings, which clears all stored channels and settings.



#### WARNING:

By resetting your receiver to the factory default, all your settings and stored channels will be permanently deleted. Please use this option with care!

After selecting this menu and pressing **OK** you will be asked to enter the PIN code (**DEFAULT PIN: 0000**). After having entered the PIN code you will be guided to the *Installation Guide* again! If necessary, you can change the PIN code. To change the PIN code, please enter the Tools menu, see chapter **6.4.3** of this manual.

### 6.4 Tools

Press **MENU** and use **◄**► to select *Tools*, then press **OK**. Following submenus will be displayed: *Timers, Information, Change Password, USB Upgrade, OAD Upgrade* and *Remove USB device.* Use **▲**▼ to select a submenu and press **OK** or **►** to access.

### 6.4.1 Timer

The timer function allows you to turn the receiver on and off according to the defined settings. Timers can be set from the EPG in the most convenient way but you can also set timers manually via this menu.

In the menu *Schedule*, a summary of the configured timers will be displayed: number, channel name, date, start and end time, repeat and timer status.

NOTE:	The list will be empty if there are no configured timers.		
You can add, change or c	lelete a timer.		
Add:	To add a timer, press the <b>RED</b> button. Use $\triangleleft \triangleright \land \lor$ and <b>0-9</b> in the menu to configure the settings for the event. After the settings have been made, set the necessary parameters and press <b>OK</b> to apply the timer into the list		
Channel Type:	Use <b>∢</b> ► to choose between TV and radio programmes (the radio option is not available if there are no radio channels broadcasted/ in the channel list).		
Channel No.:	Use <b>I</b> to select the channel number to which you want to switch.		
Channel Name:	Shows the name of the chosen channel.		
Start Date:	Use <b>0-9</b> to enter the date on which the timer should switch the receiver on. Please consider the date format "dd/mm/yyyy."		
Start Time:	Use <b>0-9</b> to enter the start time.		
End Time:	Use <b>0-9</b> to enter the end time.		
Repeat:	Use <b>I</b> to select in which cycle the timer should be repeated. Once - the timer will switch ON once, after this the timer will be removed from timer list. Daily - the timer will switch ON every day at the set time. Weekly - the timer will switch ON once a week at the set time.		

In viewing mode, the receiver will notify you 10 seconds before a timer starts. You can confirm the timer by pressing **OK** or cancel with **EXIT**. If there is no input given, the timer will be executed. After the timer event has been finished, the receiver switches to the last watched channel. If the receiver was in standby, it automatically turns to standby again after the timer passed. If you already have timers in the list you can use these functions as well: *Edit:*If you wish to change some settings for a present timer, use  $\blacktriangle \blacktriangledown$  to select the timer and press **GREEN** to open it. Afterwards you can use the settings like described in above

 to select the timer and press GREEN to open it. Afterwards you can define the settings like described in above.

 Delete:
 For deleting a timer you don't need, use the ▲▼ buttons to select the timer and press BLUE to delete it. A message will be



shown where you can press **OK** to confirm deletion or **EXIT** if you wish to keep the timer.

After your settings have been made, you can leave the menu with **EXIT**.

#### 6.4.2 Information

In the *Information* menu you can get information about the hardware and software version installed in your receiver. Furthermore, you will find information about our website: www.strong.tv. Please open this menu when you call our hotline or contact the support. The person who answers your call/email might ask for the information given on this screen.

#### 6.4.3 Change Password

In order to access certain functions of the receiver you need to enter a PIN code. This is done to prevent changes of the receiver settings through persons who do not know the PIN code (e.g. children). To change the PIN code to a personal one it is required to enter your old (current) PIN (**DEFAULT PIN:** 0000) by using 0-9 to enter it, and then to enter the new PIN code and confirm it again in below.

#### 6.4.4 Updating the software by USB

This feature allows you to upgrade receiver software via the USB port. If new software is available for your receiver, it can be downloaded from our website www.strong.tv.

Place the software file (unzipped) into the root directory of your USB storage device (HDD, memory stick etc.) and insert this device into the USB port of the receiver. Please consider that only USB devices formatted in FAT or FAT32 file system will be detected and can be used for the update process. Now select *Upgrade by USB* via the ▲▼ buttons and press **OK** to proceed. If the USB device is detected successfully, you will be asked to enter your PIN code (**DEFAULT PIN: 0000**). The receiver will start the update process now and the progress information will be shown. Please wait until the update is finished! After the update has been completed, the receiver will reboot automatically.

#### WARNING:

After the update the receiver restarts automatically! During this process NEVER disconnect the receiver from the main, the USB device or switch the power OFF! This can damage your receiver and warranty will void!

#### 6.4.5 Software update via terrestrial signals

Your receiver can update software via digital terrestrial broadcast as well. You can find out via your local support or dealer whether there is a new software version broadcasted in your area. When you know that there is an update available, enter the menu *OAD Upgrade* in the *Tools* menu and press **OK** to continue. The further steps will be shown on screen. Please read the instructions carefully to update your receiver successfully!

During the update, a progress banner will be displayed for your reference.

## WARNING:

During the update process NEVER disconnect the receiver from the main, switch the power OFF or disconnect the antenna cable! This can damage your receiver and warranty will void! After the update has been finished the receiver restarts automatically!

#### 6.4.6 Remove the USB device

This menu item only appears if a USB device is connected. Select the menu item and press **OK** to remove the USB device from your receiver safely. Now you can disconnect the USB device after the message USB device is removed disappears.

### 6.5 Records

Press **MENU** and use  $\triangleleft \triangleright$  to select *Records*, then press **OK**. Following submenus will be displayed: *Records List, Record Setup, Format* and *Remove USB device*. Use  $\triangleleft \lor$  to select a submenu and press **OK** or  $\triangleright$  to access.



Before you use the recording functions of your receiver, please ensure that your USB device is connected properly and that it is formatted in the required file system. This will enable you to watch and manage recordings.

#### 6.5.1 Records List

After selecting this menu a list of the recordings will appear on screen. The recordings are stored in the folder "SRT\_RECORDS" which is created on your USB device right after its connection to the receiver for the first time.

In this menu you can select a recording to playback, rename record and delete. To navigate to the upper folder of the USB disk use the **RED** button.

To select a recording use the  $\blacktriangle \lor$  buttons and **OK** to watch in preview mode or  $\blacktriangleright$  to start palyback in full screen mode.

Rename:	Use the $\blacktriangle$ buttons to select a recording you wish to rename and press the <b>GREEN</b> button. On screen will appear an alphabet to choose from. Use the $\blacktriangle$ and $\triangleleft$ buttons to select a letter and <b>OK</b> to choose it. Switching between upper- and lower-case letters can be done with the <i>Caps Off/On</i> button on screen. To delete wrong characters you can select the - button. When you are finiched entering the name celect the <b>OK</b> button on screen
	and press <b>OK</b> or <b>EXIT</b>
Lock:	Use the ▲▼ buttons to select a recording you wish to lock and press the <b>YELLOW</b> button. You will need to enter the PIN code. The lock symbol will appear near the file. To unlock the record select it again, press the <b>YELLOW</b> button and enter the PIN code.
Delete:	To delete a recording, use the <b>PQ</b> buttons to select the recording, then press the <b>BLUE</b> button. Now you will be asked if you want to delete this recording. Press <b>OK</b> to confirm or <b>EXIT</b> to cancel. The recording(s) you delete from the recordings list will be permanently removed from the USB disk.
WARNING:	Within Irdeto encrypted services some events may be protected and fast forward/rewind will be limited or might not be possible. If maturity rating

### 6.5.2 Record Setup

In this menu you can setup recording parameters.
Disk:
If your USB device consists of more than one partitions then you
can select a partition you want to use for recording.
Record Time Period:
This value defines the default duration for the instant recording.
You can also edit this value, when you press • two times in
viewing mode.
This menu also contains information about disk format, total space and free space.

is activated for a specific recording, you need to enter your PIN Code **MATURITY Rating PIN: 0000** before playback can be started.

#### 6.5.3 Format

In this menu you can format your USB device. Use the **I** buttons to select a partition. Press **OK** to start the format process or use **EXIT** to cancel.

### WARNING: Format operation will delete all data from your USB device. Please, make sure to backup important data from your USB device before formatting it.



#### 6.5.4 Remove USB device

This menu item only appears if a USB device is connected.Select the menu item and press **OK** to safely remove the USB device from your receiver.Now you can disconnect the USB device after the message *USB device is removed* disappears.

### 6.6 Multimedia

Press **MENU** and use **I** to select *Multimedia*, then press **OK**. Following submenus will be displayed: *Picture*, *Music*, *Movie*, *Photo Config* and *Movie Config*.

Use  $\blacktriangle \forall$  to select a submenu and press **OK** or  $\triangleright$  to access.

Before you use the various multimedia functions of your receiver, please ensure that your USB device is connected properly and that it is formatted in the required file system. This will enable you to view pictures and play music and video files.

### 6.6.1 Picture

Your receiver supports photo files in the following formats: JPEG, BMP and PNG. To navigate in the list of files and folders, use the ▲▼ buttons. To open a folder, press **OK**, when a picture is selected it is shown in full screen mode. To get back to the list of files, press **EXIT**. If you currently are in a subfolder, use the **RED** button to access the parent folder. The receiver shows the selected files on the right side next to the list.

When you press the **GREEN** button, the receiver will show the files in a small preview. If you want to start the slide show, press ▶ and if you want to quit it again, press ■. Settings for the slide show can be made in the menu *Photo config*, see chapter **6.5.4**.

### 6.6.2 Music

Your receiver supports playback of music files in the following formats: MP3 and WMA. To navigate in the list of files and folders, use the ▲▼ buttons. To start playback of a music file, press **OK**.

During playback, it is possible to perform following actions:

H:	To pause playback.		
₩₩	For fast forward or fast rewind during playback		
<b>∢I/I</b> >:	To jump to playback of the previous or next file		
:	To stop playback		

Additionally you can use  $\blacktriangleleft$  and O to adjust the volume.

With the **GREEN** button you can change the repetition mode between; 1 Once - the selected file will be repeated randomly, *Folder* – the files contained in this folder will be repeated once and *Folder Random* – the files contained in this folder will be repeated randomly. With another press on the button you will return to standard mode (no repetition).

#### 6.6.3 Movie

Your receiver supports playback of movie files in the following formats: MPG, MPEG, TS, VOB, MP4, AVI, MKV.

To navigate in the list of files and folders, use the  $\blacktriangle \lor$  buttons. To start playback of a movie press **OK**, to watch it in full screen mode press **>**.

During playback, it is possible to perform the following actions:

H:	To pause playback.
₩₩	For fast forward or fast rewind during playback
<b>∢l/</b> D:	To jump to playback of the previous or next file
:	To stop playback
GREEN:	To change the repetition mode between; 1 Once - the selected file will be repeated randomly, <i>Folder</i> – the files contained in this folder will be repeated once and <i>Folder Random</i> – the files contained in this folder will be repeated randomly. With another press on the button
	you will return to standard mode (no repetition).



AUDIO:	Allows you to switch between the supported audio languages. If a file contains more than one audio track, then each press of this button will switch to the next audio track.
SUB:	Displays a list of subtitles, if available in the same folder for this movie.
<i>i</i> :	Displays technical details of the currently played file.
YELLOW:	Allows you to play a separate segment of the movie. Press this button once at the time to start the repeat of a segment (the
	screen will replay <i>A</i> ), press the button a second time at the end of the segment (you will see <i>Repeat AB</i> ) and the receiver will play
	this sequence in a loop. To stop the loop playback, press the button again.
BLUE:	Opens the GOTO function where you can enter a time at which you want to start playback.
Additionally you can use <b>I</b> and	🗭 to adjust the volume.

#### 6.6.4 Photo Config

This menu allows you to customise the settings for the slide show. Use **I** to change the *Slide time*. You can change the *Slide mode* as well, it will change the effect between slides.

#### 6.6.5 Movie Config

This menu allows you to customise the settings for the subtitle display. Use ◀► to change and ▲▼ to select the preferred colour, background and font colour.

### 6.6.6 Remove USB device

This menu item only appears when a USB device is connected. Select the menu item and press **OK** to remove the USB device from your receiver safely. Now you can disconnect the USB device after the message *USB device is removed* disappears.

### 6.7 Irdeto CA Status

The menu *Irdeto CA Status* allows you to access information about the embedded CA system. Primarily it is intended for professionals and includes terms and abbreviations mostly in English. Under some circumstances, you may need to access information from this menu, in order to provide it to your service provider/support. This will only be necessary if you are facing problems while watching scrambled channels of your basic or additional subscription.

#### 6.7.1 Service Status

In this menu you can find information about the service descrambling status.

### 6.7.2 Loader Status

In this menu you can find information about the used software version, Irdeto loader, the CSSN (chipset serial number) and serial number of your receiver.

### 6.7.3 Product Status

The *Product Status* shows the current subscription status information of the product(s) you have subscribed to by your operator. You will see the activation date and duration of the subscribed product(s).

#### 6.7.4 Client Status

This menu displays all details of the built-in conditional access system and its capabilities.

#### 6.7.5 Mail Box

In this menu you can read mails sent by the operator.



#### 6.7.6 Announcement Box

In this menu you can read announcements sent by the operator.

### 6.7.7 Region Status

This menu displays the specific regional data according to the country this product is developed for.

### 7.0 TROUBLESHOOTING

There may be many reasons that affect the correct operation of your receiver. If the receiver does not work as you expect, please follow the steps outlined below. If after performing these operations, the receiver does not work well, contact your dealer or service centre in your area. Do not open the receiver cover. This action will damage the warranty seals and warranty repairs will be denied.

Problem	Possible reason	Remedy	
The mode indicator does	The power plug is not connected	Check the connection of the receiver to the main power.	
not light up	The receiver is connected to the main power through an extender and the power is OFF.	Turn the power extender ON.	
No signal	The antenna is disconnected.	Connect the antenna cable.	
found	The antenna is damaged/ misaligned.	Check the antenna and its position.	
	The cable between the antenna and the receiver is damaged. Possible bad connections in the cable system.	Make sure that the cable is in good condition. Check proper connections.	
	Out of digital signal area.	Check with your dealer.	
	The active antenna requires turning the antenna power/ external power ON.	Make sure to enable antenna power from the receiver menu (see chapter <b>6.2.1</b> ) or use an external power supply.	
No picture or sound on TV	HDMI/SCART/AV is not selected on your TV or the amplifier or is set to a higher resolution than the TV supports TV is not switched on	Switch to correct TV input Select lower resolution via receiver Switch on TV	
	Connections are not done properly. Quality of connected cables insufficient.	Please ensure that the connections are done correctly and are fitting well to the connected input/output Check that the quality of all cables is good. Reconnect all cables between the receiver and TV set.	
Video with "mosaic", audio	Low signal level due to bad weather conditions.	For good signal reception you may need to realign/replace antenna.	
is noisy or A/V disappears from time to time	The antenna is damaged or covered by ice (winter time). Damaged cable from antenna to receiver.	Check the antenna and cables.	
	The indoor antenna has been moved from a good position and does not provide the necessary signal level anymore.	Setup the antenna at a better position. Check the signal level and quality (see chapter <b>5.3.2</b> )	



Problem	Possible reason	Remedy
Message "No rights" or "Pay TV channel"	The channel is scrambled.	Either you have tuned to a channel which is not part of your subscription or you have not been patient enough to wait until the channel of your basic subscription has opened. If the problem persists, please contact the support of your service provider. Support contact information can be found in the enclosed brochure.
Not possible to control the receiver with the remote control	Batteries are exhausted/wrongly inserted. Receiver powered or switched off. Remote not aimed correctly. IR sensor obstructed/disturbed.	Replace the batteries/check the correct polarity. Plug in/turn on the receiver. Point your remote towards the front panel. Check for obstructions, other possible influence.
	The IR sensor is covered up by some object (obstacle between RCU and receiver).	Remove obstacles between RCU and receiver.
	The receiver is switched off.	Turn the receiver ON.
Forgot your PIN code		Consult your local dealer
The receiver switches off automatically.	Auto standby function enabled.	Disable/adjust auto standby. See chapter <b>6.3.4</b> for details.

### **8.0 TECHNICAL SPECIFICATION**

#### Tuner

Input connector: Input frequency range:

Input signal level: Antenna power:

### **Demodulation DVB-T/T2**

Demodulation: Demodulation modes: Bandwidth: FFT mode: Guard interval:

Forward Error Corrections:

#### Video decoder

Profile: Input bit rate: Aspect ratio: Frame rate: Video resolution: IEC60169-2, female, 75 Ohm nominal VHF: 177.5 ~ 226.5 MHz UHF: 474 ~ 858 MHz -82 ~ -25 dBm 5 V DC (+/- 0.5 V), max. 60 mA, short cut protected

Compliant to DVB-T (EN 300 744), DVB-T2 (EN 302 755) QPSK, 16/64/256 QAM 7 or 8 MHz 1K, 2K, 4K; 8K, 16K, 32K and extended normal DVB-T: 1/32, 1/16, 1/8, 1/4; DVB-T2: 1/128, 1/32, 1/16, 19/256, 1/8, 19/128, 1/4 DVB-T: 1/2, 2/3, 3/4, 5/6 7/8; DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5 5/6

MPEG-2 MP @ ML, MP @ HL, MPEG-4 H.264/AVC Up to 30 Mbit/s 4:3 and 16:9, Letterbox, Pan & Scan, Auto 25 Hz for PAL 576p, 720p, 1080i, 1080p



### Audio decoder

Audio support: Audio mode: Frequency response:

Sampling rate: Conditional Access System System: Card reader:

#### System and memory

Processor: Flash memory: System memory: Multimedia: Video playback: Audio playback: Picture view: \*STRONG cart guarantee the playback of all files in the mentioned formats. The posplease refer to the **Appendix**.

### Connectors

Antenna Input Antenna output TV SCART 3 RCA (Composite Video, Audio Left and Right) S/PDIF (coaxial) USB 2.0, Type A connector HDMI Type A, version 1.3 with HDCP

### General data:

Input power: Power consumption: Power consumption in standby: Operating temperature range: Storage temperature: Operating humidity range: Dimensions (W x D x H) in mm: Weight: AC 100 – 240 V  $\sim$  50/60 Hz 10 W max. (with USB device connected) 0.70 W (without USB device connected) 0  $\sim$  +40 °C -10  $\sim$  +50 °C 10  $\sim$  85% RH, non-condensing 210 x 145 x 49 0.59 kg

MPEG-1 Layer 1 & 2, AAC Mono L/R, Stereo 20 Hz ~ 20 kHz, unevenness in the frequency range 60 Hz ~ 18 kHz +/- 0.5 dB 32, 44.1, 48 kHz

Irdeto CCA 1 slot, conforming to ISO 7816

MSD5043 8 MByte 128 MByte

Supports various formats (MPG, MPEG, TS, VOB, MP4, AVI, MKV)\* Supported formats MP3, WMA Supported formats JPG, PNG, BMP billy to plavlack depends on the used codes, data rates and resolution. For a detailed list of supported codes,



### 9.0 APPENDIX

### Video specifications

File Extension	Container	Video Codec	Audio Codec	SPEC	Bit Rate	Profile	Comment
mpg, mpeg, dat	MPG, MPEG	MPEG-1, 2	MP2, MP3, LPCM	1920x1080 @ 30p	20 Mbit/s	Main Profile	MP4: GMC is not supported
ts, trp, tp, m2ts, m2t1	MPEG-2 TS H.264 TS	MPEG-2,H.264, AVS	MP2, MP3, AAC, HEAAC	1920x1080 @ 30p	20 Mbit/s	H.264: Main Profile and High Profile @Level 4.0 MPEG-2: Main Profile	-//-
vob	MPEG-2 PS	MPEG-1, 2	MP2, MP3, LPCM	1920x1080 @ 30p	20 Mbit/s	Main Profile	-//-
mp4, mov	MP4, QTFF	MPEG-4 Divx 4.12, Divx 5.x, Divx 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1/2 H.264	AAC, HEAAC, MP3	1920x1080 @ 30p	20 Mbit/s	H.264: Main Profile and High Profile @Level 4.0 MPEG-4: Simple Profile and Advanced Simple Profile @Level 5	-//-
mkv	Matroska	H.264, MPEG- 1,2,4, Divx, Xvid,	MP2, MP3, AAC, HEAAC, LPCM	1920x1080 @ 30p	MPEG- 1/2/4: 20 Mbit/s H264: 25 Mbit/s	H264: Main Profile and High Profile @ Level 4.1 MPEG4: Simple Profile and Advanced Simple Profile @Level 5	-//-
divx, avi	AVI(1.0, 2.0), DMF0,1,2	MPEG-2, MPEG-4 DivX 4, DivX 5, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1/2 H.264	MP2, MP3, LPCM, ADPCM, AAC, HEAAC	1920x1080 @ 30p	20 Mbit/s	MPEG-2: Main Profile MPEG-4: Simple Profile and Advanced Simple Profile @Level 5	-//-
Motion JPEG (avi, mp4, mkv)	AVI, MP4, QTFF, Matroska	JPEG	LPCM, ADPCM	640x480 @ 30p	10 Mbit/s		-//-
flv	flv	Sorenson H.263, H264	МРЗ, ААС	1920x1080 @ 30p	20 Mbit/s	Sorenson H.263 H264: Main Profile and High Profile @ Level 4.0	-//-
3gp	3GP	MPEG-4, Sorenson H.263		1920x1080 @ 30p	20 Mbit/s		-//-
ts	ts	AVS		1920x1080 @ 30p	20 Mbit/s	AVS Jizhun profile @ Level 6.0	-//-



### Audio specifications

Audio Codec	File Extension	BitRate/SamplingRate
MPEG-1 Layer2	MP3	32 Kbps ~ 448 Kbps(Bit rate) 32 KHz ~ 48 kHz(Sampling rate)
MPEG-1 Layer3	MP3	32 Kbps ~ 320 Kbps(Bit rate) 32 KHz ~ 48 KHz(Sampling rate)
OGG Vobis	OGG	32 Kbps ~ 192 Kbps(Bit rate) 8 KHz ~ 48 KHz(Sampling rate)
AAC, HEAAC	M4A/AAC	24 Kbps ~ 384 Kbps(Bit rate) 8 KHz ~ 48 KHz(Sampling rate)
WMA	WMA/ASF	Bitrate: 128 bps ~ 320 Kbps Sampling Rate: 8 KHz ~ 48 Khz
WMA Pro	WMA/ASF	Bitrate: 768 kbps Sampling rate: ~ 96 KHz
LPCM	N/A (work with video files only)	Bitrate: 64 Kbps ~ 1.5 Mbps Sampling Rate: 8 KHz ~ 48 Khz
IMA-ADPCM/MS- ADPCM	N/A (work with video files only)	Bitrate: 384 Kbps Sampling Rate: 8 KHz ~ 48 Khz
LBR	N/A (work with video files only)	Bitrate: 6 Kbps ~ 96K bps Sampling Rate: 8 KHz ~ 48 Khz

### **Photo specifications**

Photo Codec	File Extension	Max Resolution
		Base line: 15360x8640
JPG	JPG, JPEG, JPE	Progressive: 1024x768
BMP	BMP	9600x6400
PNG	PNG	9600x6400