



# Digital Satellite Receiver **DXH 90**

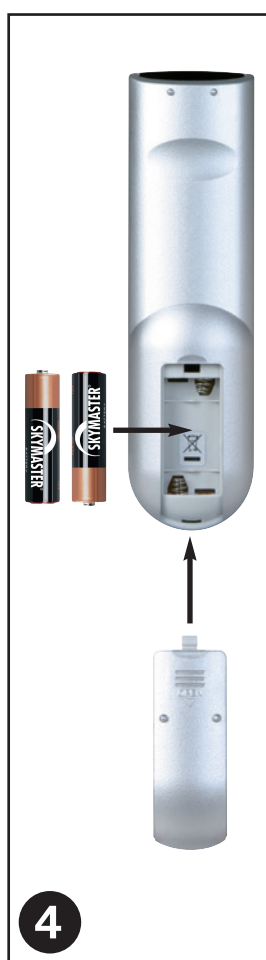
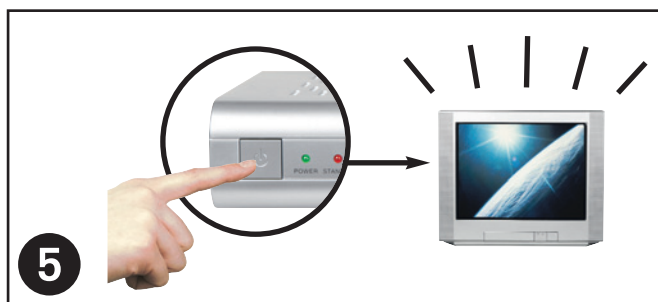
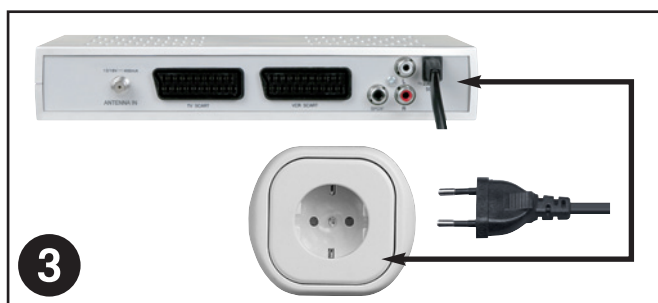
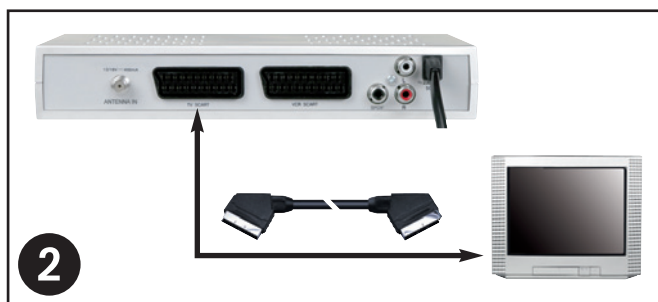
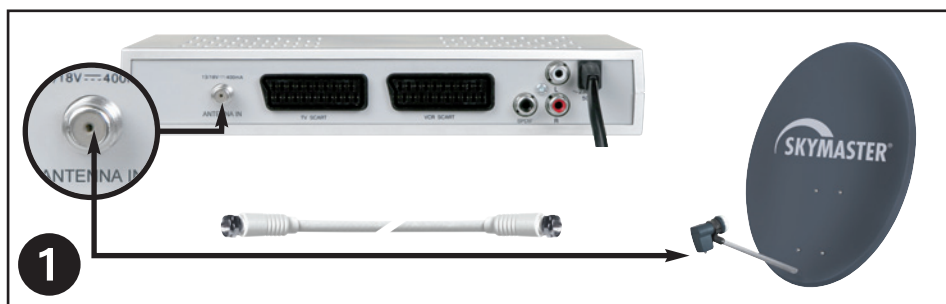


**OPERATING INSTRUCTIONS**



19660

## General Installation



# 1. Contents

Congratulations! You have purchased a quality product from our SKYMASTER® range. Our products are subject to continuous, strict quality checks which guarantee product satisfaction. Welcome to the new era of digital television!

The SKYMASTER® **DXH 90** digital receiver is designed to receive uncoded satellite channels. Please note that a satellite antenna which is suitable for digital reception is required to operate the SKYMASTER® **DXH 90**. This has to be equipped with a digital LNB for the reception of ASTRA or EUTELSAT.

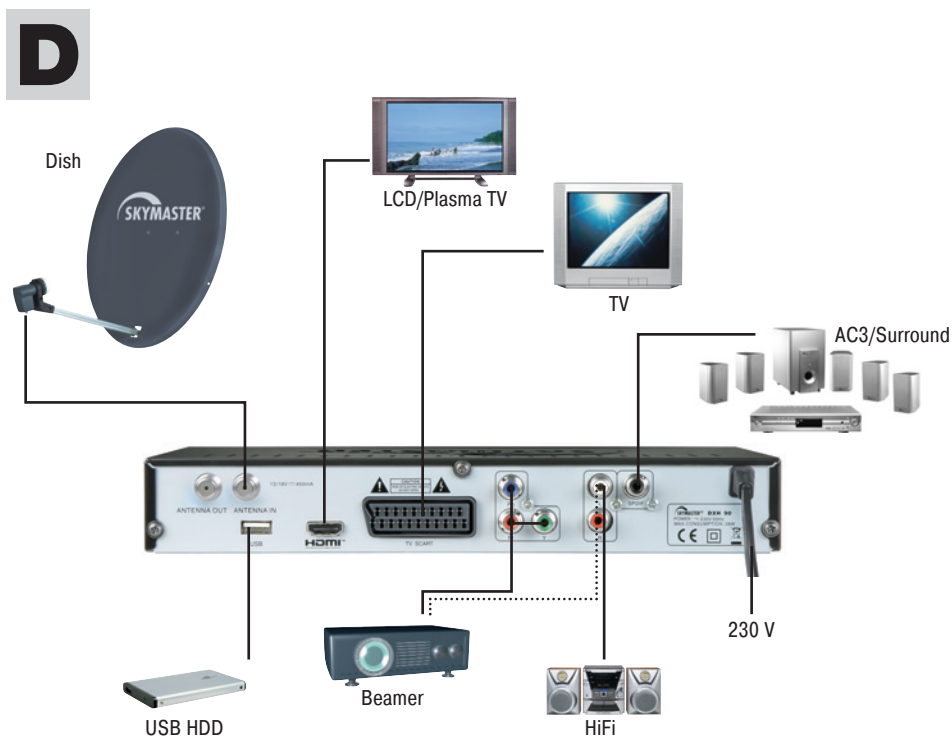
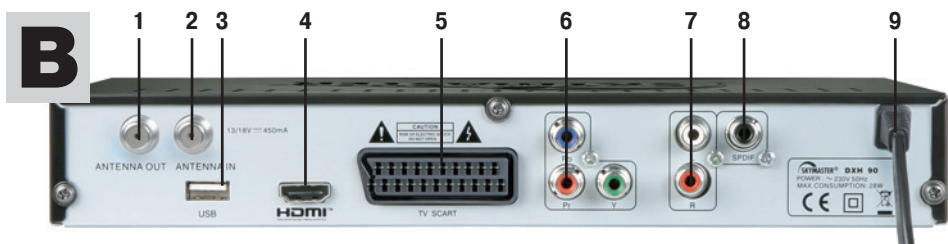
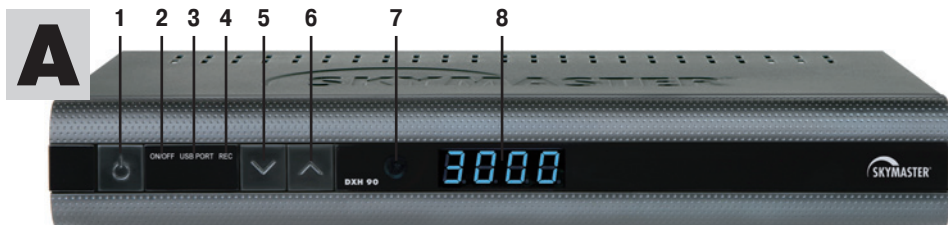
TV reception is not the only thing now going digital! The **DXH 90** has a high-quality digital HDMI output for connecting plasma or LCD TV sets. The digital picture signal provides maximum picture quality.

Visibly better colour clarity and intensity compared to a conventional Scart connection.

The Skymaster® **DXH 90** is tuning for every TV set with a HDMI connection.

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# DXH 90



## 2. Safety information

**Please read this safety information thoroughly before commissioning the device! Prolonged absence: In the event of prolonged absence or thunderstorms, remove the mains plug of the device from the wall socket. Also disconnect the antenna connections to avoid storm damage.**

**Cleaning:** Remove the mains plug before cleaning the device. Use a dry or damp cloth and make sure that no moisture penetrates the device!

**Objects in the device:** Make sure that no objects can enter the ventilation slots. There is risk of death through electric shock!

**Repair:** Repairs must be performed by qualified experts. In the event of improper intervention by a third party, the warranty will be voided and the safety of the device can no longer be guaranteed! Never open the housing of the device yourself. Even when disconnected from the mains, there is an acute risk of death through electric shock. Internal components can be damaged if touched.

**Place of installation:** Place the device on a straight and even surface. To protect the surface from being discoloured as a result of the natural heat generated by the device, place the device on a suitable underlay.

SM Electronic GmbH hereby declares that Article No. 19660 complies with the basic requirements and other relevant regulations of directives 2004/108/EC and 2006/95/EC.

**Adequate ventilation:** The ventilation slots on the device must never be covered. Ensure that the device has a clearance of at least 10 cm at the sides and top, and that the heat can be dissipated upwards unimpeded.

**External influences:** Never expose the device to moisture (e.g. condensation or splash water) or direct sunlight. Do not place the device in the vicinity of heat sources, such as e.g. heaters or devices that heat up.









**Mains voltage:** Use the equipment with the voltage specified on the case only! Do not plug the equipment into the mains until all connection and installation work has been completed.

**Earthing:** Antenna systems must always be earthed, paying heed to the pertinent local and VDE regulations.

ASTRA, EUTELSAT, TÜRKSAT, DISEqC and Skymaster are registered trademarks.

## 3. Receiver Operating Elements

**A**

1.  Mains switch  
Switches the device on/off.
2. **ON/OFF**  Lights up green if the device has been switched on via the ON/Off switch.
3. **USB**  Lights up green if the device is connected.
4. **HDMI**  Lights up red when recording.
5.  Calls the previous channel / leafs through the menu.
6.  Calls the next channel / leafs through the menu.
7. **IR**  Infrared sensor, receives the signal of the remote control.
8.  4 digit blue display

**B**

1. **ANT OUT** Connection to analogue SAT receiver
2. **ANT IN** Input for an LNB of the satellite system
3. **USB** USB-Port, max. 500mA
4. **HDMI** HDMI port
5. **TV SCART** SCART jack, connection to a TV set
6. **YPbPr** Component output for connecting a Beamer/TV
7. **L/R** Stereo audio output, for connection to a stereo system or TV/VCR (Cinch)
8. **SPDIF** Separate, digital audio output (coaxial)
9. Mains cable 230V/50Hz

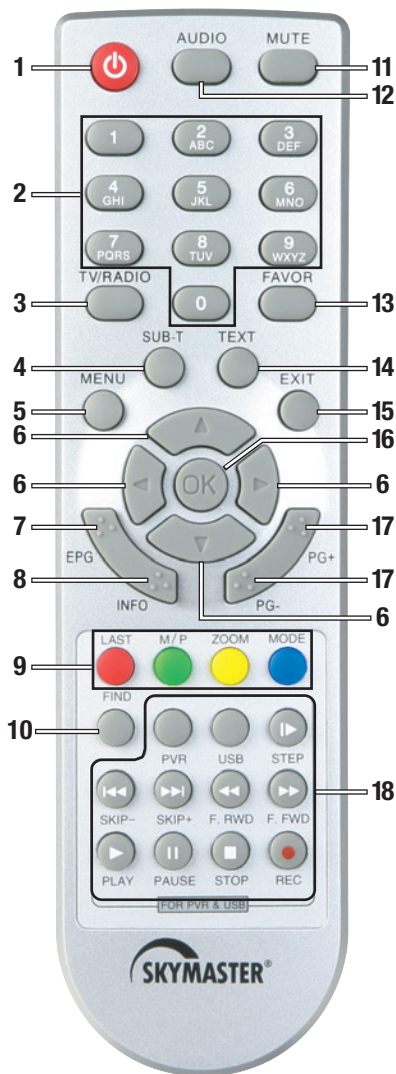
## Information on the use of USB devices

If a USB device without its own power supply is connected, according to the USB specification the total power consumption must not exceed 500 mA. Otherwise the USB devices may malfunction or the receiver may be damaged. USB memories which require more than 500 mA, for example hard drives with USB Y-cables or hard drives with a power supply should only be operated with their own power supply in order to prevent damage to the receiver or the USB memory.

Please note that external influences also affect the USB memory of the receiver. For example, voltage spikes or voltage reductions may occur due to bad weather or the USB memory may destroy the data structure when writing to the memory, as a result of large numbers of defective sectors due to age. In such cases there may be a complete loss of data. Skymaster therefore recommends that a back up copy of the memory content is made, so that your data is not lost in case of data losses in the USB memory.

## 4. Remote control

**C**



Please always observe correct polarity when inserting batteries!  
Correct polarity is displayed in the battery compartment.  
Batteries: 2 x AAA, UM-4, Micro or R03.  
Used batteries are considered hazardous waste – always dispose of them correctly! Range approx. 6 m.

- 1 : To switch the device on or off (standby).
- 2 **Number buttons 0 - 9**: Use these buttons to switch to a certain channel or to enter numeric values and passwords or to change channel names and favourites lists
- 3 **TV/Radio mode**: Toggles between TV and radio mode
- 4 **SUB-T**: Displays subtitles for the current programme
- 5 **MENU**: Access to the menu of the selected device.
- 6 **▲/▼/◀/▶**: For navigating within the OSD (up/down/left/right)
- 7 **EPG**: Electronic Program Guide.
- 8 **INFO**: Displays programme information.
- 9 **Fast Text Function** (coloured buttons).  
**LAST**: Toggles between the current and the previously set channel  
**M/P**: Opens the multi-picture preview. An overview of 9 images can be displayed in a preview.  
**ZOOM**: to enlarge image. Use the cursor keys to navigate within the picture.  
**MODE**: Display and/or select the available on-screen settings (screen, video etc.) for devices such as satellite receivers etc.
- 10 **FIND**: To search for channels from the programme list using the buttons 0-9/A-Z.
- 11 **MUTE**: Mutes the sound. Press again to reactivate the sound.
- 12 **AUDIO**: Displays all the available audio channels.
- 13 **FAVOR**: Favourite channels.
- 14 **TEXT**: Opens teletext pages.
- 15 **EXIT**: Closes the current OSD and displays the higher-level menu or the TV picture.
- 16 **OK**: To confirm executed changes.
- 18 **For use as PVR and with USB**:  
**PVR**: Opens the list of all recordings on the connected data carrier.  
**USB**: Opens an overview of all image and music files on the connected data carrier.  
**STEP**: Jogs by single pictures when replaying recordings.  
**◀◀ SKIP-**: Jumps back by adjustable time intervals, or to the next bookmark.  
**▶▶ I SKIP+**: Jumps forwards by adjustable time intervals, or to the next bookmark.  
**◀◀ F.RWD**: Fast rewind during replay. The speed can be adjusted by pressing several times.  
**▶▶ F.FWD**: Fast forward during replay. The speed can be adjusted by pressing several times.  
**▶ PLAY**: Replay of multimedia files and recordings.  
**⏸ PAUSE**: Pauses the TV picture, multimedia files or the replay of recordings. For further details, please refer to "Timeshift".  
**■ STOP**: Stops replay or recording.  
**● REC**: Immediately records a TV or radio programme.

## USB

An external hard drive can be connected via the USB port. If correctly installed, this enables the recording and playback of TV and radio programmes. Please note the installation information for the USB hard drive and the information for the use of USB devices on page 55.

Please note that due to the large number of different computer hard drives and the wide variety of IDE/SATA-USB adapters, there may be compatibility problems, which are not caused by the receiver. If there are functional problems, we recommend that the hard drive is first exchanged as well as the use of the Skymaster IDE/SATA-USB adapter (Article-No. 8632).

The receiver supports the use of hard drives up to 500GB in FAT32 format.

The following hard drives have been successfully tested:

Hitachi 160 GB, Samsung 160 GB, Seagate 250 GB, 2,5" Seagate Momentus 40 GB.

The USB port of the receiver is also active in standby mode, in order to enable recording with the timer from the standby mode, i.e. the hard drive is still supplied with power. If the receiver is not to be used for a longer period, both it and the hard drive should be completely disconnected from the mains.

### Initial installation:

Switch the receiver to standby mode with the Power key on the front of the device. Connect the hard drive to the USB port at the rear of the receiver and switch the receiver on again. After the receiver has started, the contents of the hard drive should be displayed on the screen after a short time.

If this is not the case, first check whether the receiver has recognised the hard drive via the menu item - > Recording management -> Hard drive information. If this does not contain any information, the hard drive must first be formatted with a format which can be read by the receiver.

To do this, press the menu key and switch to "Recording management" using the navigation keys. Select the item "Format hard drive". If this is confirmed with the OK key, the hard drive will be formatted.

**CAUTION!** The formatting process deletes all existing data on the hard drive!!! Once the hard drive has been formatted, exit from the menu via the EXIT key and select "Hard drive information". This displays the amount of space which is available on the hard drive.

In order to prevent loss of data from the hard drive, it should never be disconnected from the receiver while running. First switch the receiver to standby mode in order to disconnect the hard drive from the receiver.

**SKYMASTER accepts no liability for loss of data or damage as a result of the use of the USB port.**

The total available recording time on a hard drive depends on the size of the hard drive as well as the programmes to be recorded.

# HDMI

## HDMI Connection

Connect the receiver and the TV set via a HDMI connection cable. This connection provides you with perfect and lossless picture and sound quality for your TV set.

The receiver automatically switches to the HDMI output as soon as a TV is connected to the receiver by means of an HDMI cable.

The screen resolution at the HDMI output can be optimised using the MODE button. Please note that the picture may disappear when the resolution is changed. In order to maintain an overview in this case, the resolution is briefly displayed in the display of the unit (e.g. 480i, 720P, 1080). For optimum display on a modern flat screen device we recommend the setting 1080i\_50 or 720p\_50.

To achieve the connection, we recommend the use of a conventional Scart and a HDMI connection cable, since the HDMI input is not preset as standard on every TV set. It is also possible to access and adapt the set-up menus via the conventional Scart cable should the screen remain blank.

## Setting up the picture and sound connection:

All the necessary possibilities can be found in the section "System Settings".

## The following video signals are supported:

**HDMI:** The HDMI output provides you with perfect picture and sound quality. Note: The device has a standardised HDMI output. Nevertheless, picture and sound interferences may occur at TV sets with first generation HDMI inputs.

In this case, select one of the following connection options.

**RGB:** Extremely high-quality picture and sound transmission via a conventional (21-pole) Scart cable.

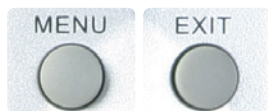
**YUV:** Very high quality image output via the 3 cinch sockets "YPbPr" for connecting a TV or a beamer.

## Dolby Digital Sound (AC3)

Please note that if the channel broadcasts Dolby Digital Sound, this is only available via the digital sound output or the HDMI output if this is connected to an external AV receiver.



## 5. The OSD menu: The most important functions



### OSD = On Screen Display

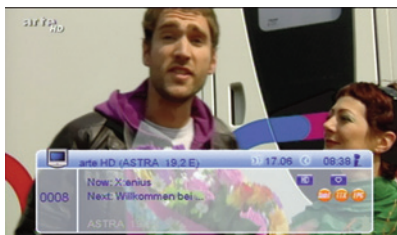
**Open and close the OSD:** Carry out all your receiver settings via the OSD. Press the MENU button to open the OSD. To close the OSD, press the MENU or EXIT button until all the menus have been closed.

**Navigate in the OSD:** Use the control buttons or specific buttons to navigate through the OSD. These buttons and their functions are displayed in the OSD. The number buttons on the remote control are usually used for this task.

**General OSD information:** The receiver has been preset and usually no or only a few changes are necessary. The OSD is clearly structured and the buttons required for changing a certain setting are shown on the screen. These are the best prerequisites for putting the operating instructions to one side and referring to them again at a later date, e.g. after extending the antenna installation.

If you are a novice to digital satellite reception, please take time and carefully read through the entire operating instructions once. The instructions contain several possibilities to extend your antenna installation.

## 5.1 The OSD menu: Info screen, audio channels and volume



### Channel information:

After switching the device on and changing channels, an info window appears. This window provides you with information about the respective channel:

Date/Time

Channel name

Title of the programme (current and next programme)

Teletext available/not available

EPG

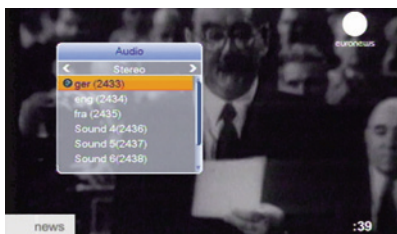
Subtitles

Storage location (e.g. CH 0189)

Satellite name and position

Type of programme list (e.g. all satellites, favourites)

The amount of information displayed depends on the channel provider. If no additional information about the channel is transmitted, a respective message is displayed (e.g. "no channel information"). The info window can be opened at any time\* by pressing the INFO button. The duration of the display (1 - 10 seconds) can be changed under (see System settings/OSD setting).  
Note: If you cannot access certain channels, the favourites list is most probably active. To select the desired list, press the OK button and the ◀ or ▶ button until the desired overview appears.



### Select audio channels:

Some channels are broadcast with multiple audio channels. These audio channels can be multi-language channels or various radio stations.

Press the AUDIO button to select an audio channel or a language. Select the desired selection from the list and close the selection via EXIT.

In addition to this, it is possible to set whether the left or right audio channel is played. The default setting is stereo. In order to reproduce Dolby Digital-/AC3 sound, the TV must be equipped with a suitable decoder, or the SAT receiver must be connected to an AC3 enabled hifi amplifier. For further information, please refer to page 58.



### Volume settings/mute:

Use the VOL◀ and VOL▶ control buttons to control the volume. Press the MUTE button to turn off the sound. Reactivate the sound by pressing this button again or by pressing the volume buttons.

## 5.2 The OSD menu: Direct channel selection, etc.

The ever increasing number of channels has created a satellite channel jungle: Many channels are only of interest in certain regions (e.g. foreign language channels), are coded and can only be received via special receivers and after pre-payment or are just not interesting. In order to achieve a clear overview in the channel lists, there are various channel groups and sort criteria. Access to the channels can occur in various ways:

### Direct channel selection via the numeric buttons 0 - 9:

If you know the position of the desired channel in the channel list, you can enter it directly via the number buttons (e.g. 108 for "Example TV"). The desired channel is then displayed by the receiver after a few moments. TIP: Press the LAST button to toggle between the current and the last channel.



### Display the channel list:

An overview of all the stored channels is opened by pressing the OK button. Use the CH ▲▼ control buttons to navigate through this list. Use the PG+/PG- buttons to "leaf through" the list faster. Once you have found the desired channel, press the OK or EXIT button to hide the list.

An extremely comfortable way to quickly access specific channels is provided by the channel groups: Once you have opened the TV channel or radio station list, use the ◀ and ▶ button to select the various groups: The group "All Satellites" displays all the stored channels of all the available satellites. Open the "Edit Channel" menu to accept channels in the favourites list. The procedure is explained in the course of these instructions.

To quickly find certain programmes, after calling up the programme list, you can open the search field with the FIND key.

Via the numeric keys of the remote control, enter the letters of the channel which you are looking for. The left hand window is then restricted to the programmes which agree with the sequence of letters. As soon as you see your channel, press the blue key in order to switch to the left hand window and select the channel.



### Display subtitles:

Sometimes subtitles are available for the current programme, e.g. for audibly challenged people or in various languages. Press the SUB-T button to open the subtitle selection. Note: DVB subtitles are extremely rare and are different to conventional teletext subtitles.

## 5.3 The OSD menu: Teletext and EPG



### Teletext:

Most channels broadcast additional information and services. Teletext pages are “electronic magazines” which provide the latest news, sports results, weather forecasts, commercial offers and much more. The quantity and content is regulated by the channel provider. Page 100 always displays a table of contents. From here you can select an overview of further subpages (e.g. page 200, sports overview). Always enter the three-digit page number or use the control buttons. Use the EXIT button to exit teletext.



### EPG – Electronic Program Guide:

The Electronic Program Guide (EPG) is – like teletext – not broadcast by each channel provider. The content can also vary significantly. Therefore, statements such as “if provided by the channel provider” are not expressly stated in the following.

The EPG displays a daily or weekly overview of current or future programmes with the corresponding air times. Use the OK button to open information about the programme in a new window.

If you find an interesting programme, you can accept it in the timer via the [green] button! The satellite receiver is then switched on at the selected time and the programme can be recorded using a VCR. The timer functions are described below.

Press the [red] button to switch to the “Schedule”.

Navigation in the EPG overview occurs as follows:



Back to the normal view



Jumps back to the current time



One channel previous/next



Two hours previous/next



One day previous/next

## 5.3 The OSD menu: Menu



### Menu

In order to keep the controls as simple as possible, we have divided the menu into the sections Simple and Expert. The Simple section provides the basic functions of the receiver. The Expert section provides all the functions of the receiver. This is described in detail in Section 8.

If you press the MENU button and select the Expert Mode, the main menu appears on the screen. It is possible to open submenus or change settings at your receiver via this menu. You can change the layout of the OSD, add or delete channels, adapt the receiver to your

satellite system, update new software via satellite and much more. But it is also possible to inadvertently change everything and be left with just a black screen. Therefore, read the following pages carefully before carrying out any changes.

### Navigation and opening of submenus:

After opening the main menu the most recently selected menu is highlighted. Use the ◀▶ control buttons to toggle between the main and submenu items. Press OK to open the submenus. Use the ▲▼ control buttons to highlight the desired submenu and open it via OK.

### Close the menus:

Menus are either closed automatically after confirming your changes via OK or by closing each opened submenu individually via the EXIT or MENU button.

## 6. Everyday use

For everyday use you only need a few functions – as you do with your TV set: switching channels, adjusting the volume and a few special ones such as Teletext. You will hardly ever need to use your TV set's remote again because you can regulate all its present and additional functions with the SKYMASTER remote control.

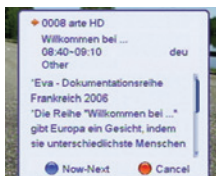
Switch channels:	0 - 9	Enter channel number directly (e.g. 0108)
	▲/▼	Channel up, forwards/backwards
Channel lists/browsing:	OK	Browse channels
	▲/▼	Channel up while browsing
	PG- /PG +	Navigate page by page, forwards/backwards
	FAVOR	Favourites – a list of your favourite programs
Volume:	◀▶	Volume control
	MUTE	Mute
Useful special functions:	TEXT	Teletext or Videotext
	EPG	"Electronic program guide"
	SUB-T	Subtitles
	TV/RADIO	Switching between TV and radio

## 6. Everyday use

### Info key



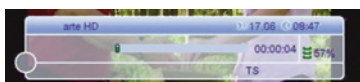
Via the Info key, you can obtain information about the current programme. If the key is pressed once, information about the current of following programme is displayed.



Pressing the key twice displays more detailed information about the current programme.



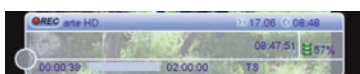
Pressing the key three times displays information about the currently selected frequency.



If a USB data carrier is connected and the Timeshift function is enabled, the Timeshift status is displayed if the Info key is pressed once. The bar which is displayed shows the current playback point after switching to this programme. With the navigation keys you can then access any point on the blue bar and start at this point by pressing OK.



Pressing the key twice displays a list of existing recordings, which can simply be selected for playback.



### Immediate recording

If a USB data carrier is connected, a recording can be started at any time by pressing the Record key.



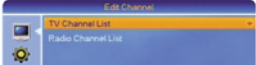




Press the Record key again (if the display is no longer visible, press the Record key twice) in order to set the duration of the recording by means of the navigation keys. The default setting is 2 hours.

You can find detailed descriptions of these and other functions on the following pages.

**The preset password: 0000**

## 7. The OSD menu SIMPLE MODE – overview

Mode Select  
Simple Mode  
Expert Mode

<b>1. Edit Channel</b> 	TV Channel List	Favourites		16
	Radio Channel List	Favourites		16
<b>2. System Setup</b> 	Local Time Setting	Summer Time		16
	Timer Setting	Timer 1-30	Timer repeat	16/17
			Timer service	17
			Switch-on channel	17
			Switch-on date	17
			Switch-on time	17
			Duration	17
	Other	Sleep Timer		17
<b>3. Tools</b> 	Information			18
	USB	Setup		18
		Play-list		18
		Repeat		18
		(Find) Sort		18
		(0) All MP3		18
		(1) All Image		18
		(FAV) Play-list		18
	Remove USB device safely			18
<b>4. Game</b> 	Tetris			18
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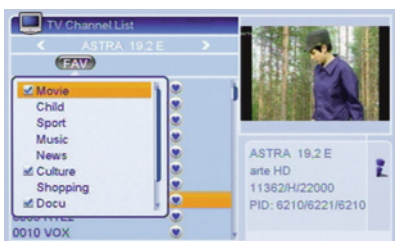
## 7. The OSD menu SIMPLE MODE

Mode Select  
Simple Mode  
Expert Mode



### The OSD Menu Edit Channel

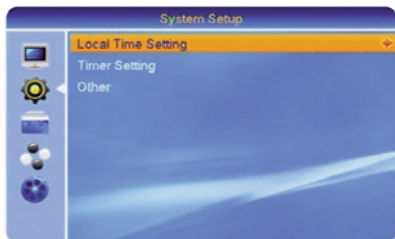
For editing the available TV channels and radio stations. Radio Channel administration is the same as described for TV channels



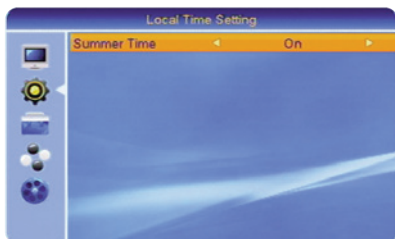
### Favourites

It is possible to place your favourite channels in a separate list. Use the [FAVOR] button to quickly access your favourite channels.

Select the desired channel and press the [OK] button. Press the [OK] button to insert the channel into one or several FAV lists. Channel deleting is carried out in the same way.



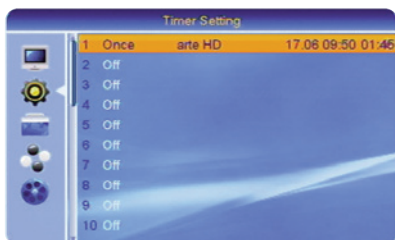
### The OSD Menu System Setup



### Local Time Setting

The time settings have to be checked and, if necessary, adjusted to ensure that the receiver displays the correct time and the timer starts at the desired time.

In Simple Mode, only the function for switching to Summer Time is available.



### Timer Setting

#### Timer 1-30

You can pre-program up to 30 different time events. For example, programmes which you do not wish to miss or to remind you of birthdays or anniversaries.



## 7. The OSD menu SIMPLE MODE

Mode Select

Simple Mode

Expert Mode



### Timer repeat

Under timer repeat it is possible to set how often the timer is to be activated: Once, daily, weekly or monthly. If you select the "Off" setting, the timer remains deactivated.

### Timer service

Select "Programme" if you wish to view a particular programme or record it with the video recorder. Select "Record" if the programme is to be recorded on the connected USB data carrier.

### Switch-on channel

For a normal reminder message select "General". If you have selected "Channel" under "Timer Service", it is possible to select the channel which should appear after switching on.

### Switch-on date

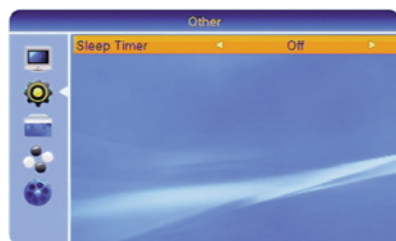
Enter the desired date (e.g. 2nd of June 2009) as follows: 02.06.2009.

### Switch-on-time

Enter the 4-figure start time of the event.

### Duration

Enter the 4-figure duration of the event.

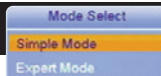


### Sleep Timer

Off • 10 min • 30 min • 60 min • 90 min • 120 min

After the set time has elapsed, the unit switches to standby.

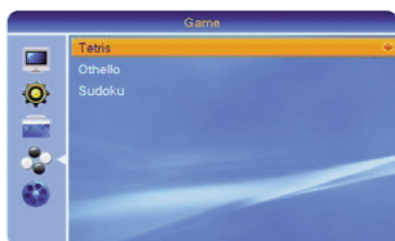
## 7. The OSD menu SIMPLE MODE



### The OSD Menu Tools

#### Information

This overview provides extensive information about the software status of your satellite receiver. This data is extremely useful if you need to contact our telephone hotline.



### The OSD Menu Game

Three classic games are available for your entertainment.

- Tetris
- Othello
- Sudoku





### The OSD Menu Media

Information about the Recording Manager menu can be found on page 44.

## 7. The OSD menu EXPERT MODE – overview

Mode Select  
Simple Mode  
Expert Mode

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# 7. The OSD menu EXPERT MODE – overview

Mode Select  
Simple Mode  
Expert Mode




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## 7. The OSD menu EXPERT MODE – overview

Mode Select  
Simple Mode  
Expert Mode

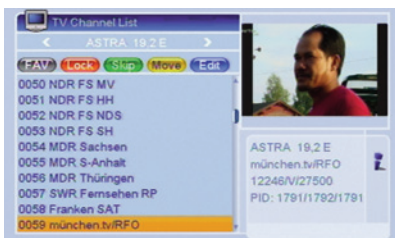
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## 8. The OSD menu – Channels



### 1. Edit Channel List

For editing the available TV channels and radio stations.



#### 1.1 TV Channel List – (Radio Channel)

TV channels can be accepted, moved, locked, sorted and edited in FAV lists. Use the [◀▶] buttons to select the satellites. Use the [PG-/PG+] buttons to navigate page-by-page through the channel list.

After exiting via the [Exit] button, a safety query appears asking whether you wish to save the changes.

Press the coloured buttons to execute the following functions:



##### 1.1.1 Favourites **FAV**

It is possible to place your favourite channels in a separate list. Use the [FAVOR] button to quickly access your favourite channels.

Select the desired channel and press the [FAVOR] button. Press the [OK] button to insert the channel into one or several FAV lists. Channel deleting is carried out in the same way.



##### 1.1.2 Parental lock **Lock**

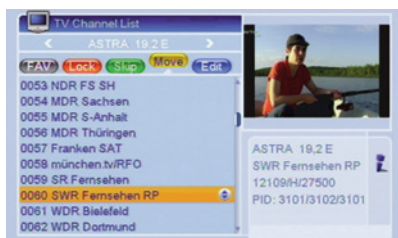
It is possible to lock unauthorized access to certain channels, e.g. with contents which are inappropriate for young viewers. They can then only be accessed by entering a password. Press the [red] button and highlight the channels you wish to lock via the [OK] button. Note: In order to activate the parental lock, you have to switch on the parental lock in the "Child Protection" menu.

## 8. The OSD menu – Channels



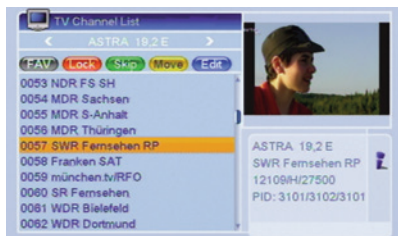
### 1.1.3 Skip **Skip**

It is possible to skip channels whilst zapping via the [CH▼] button. Press the [green] button and highlight the respective channel via the [OK] button. Note: It is also possible to select the channel by directly entering the channel position.



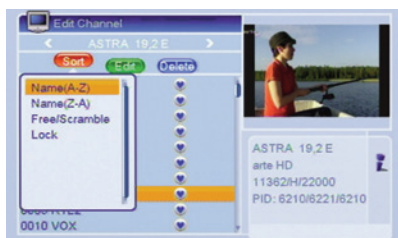
### 1.1.4 Move **Move**

Press the [yellow] button, select the desired channel and press the [OK] button. Use the [CH▲/CH▼] buttons to move the channel to the new position and press the [OK] button.



### 1.1.5 Change **Edit**

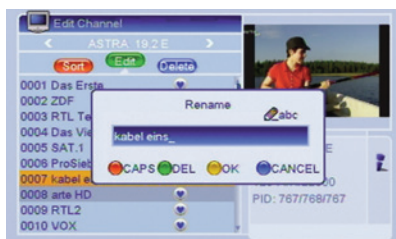
Press the [blue] button to edit the existing TV channels and radio stations, the same as delete, rename and sort.



#### 1.1.5.1 Sort **Sort**

Press the [red] button to sort the selected channel list. The channels can be sorted according to various criteria: "Name (A-Z)" and "Name (Z-A)" (alphabetical), "Free/Pay TV" (free-to-air channels before coded channels) and "lock" (locked channels at the end of the list). Note: When you exit the menu and confirm continuous sorting, the previous channel sequence is no longer available!

## 8. The OSD menu – Channels



### 1.1.5.2 Rename

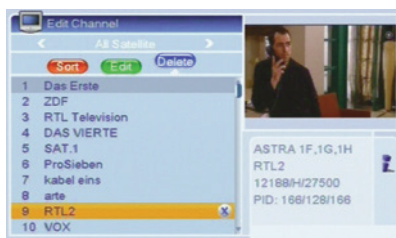
Press the [green] button if you wish to rename the selected channel.

CAPS (red button): Toggles between upper and lowercase letters

DEL (green button): Deletes characters

OK (yellow button): Saves names

CANCEL (blue button): Exits the menu without saving



### 1.1.5.3 Delete

Press the [blue] button and highlight the channels you wish to delete and confirm via the [OK] button. After exiting the menu, a safety query appears asking whether you wish to delete all the selected channels. Note: It is possible to cancel the selection by pressing the [OK] button again.



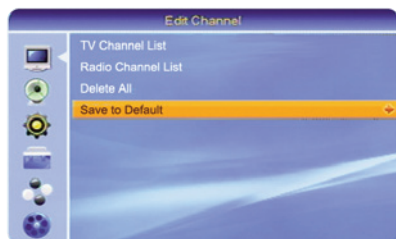
### 1.2 Radio Channel List

Radio station administration. The same as described for TV channels above.



### 1.3 Delete all

The “Delete all” function is useful if you wish to reinstall the receiver and subsequently start an automatic search.



### 1.4 Save to USB

Your DXH 90 is supplied with a default list of programme sequences and satellite lists, which you can change as required. After restoring the default settings or a software upgrade, the sequence is always reset to the original condition as supplied and all changes which you have made are lost. In order to permanently set your personal programme sequence, select the function “Save to USB”. After restoring the default settings or a software upgrade, the sequence is now retained. You can also save several versions of your programme lists on a USB data carrier and then reload them (see Item 4.5).



## 8. The OSD menu – Installation



### 2. Installation

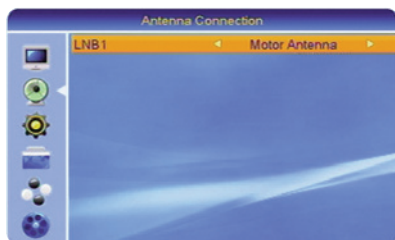
The installation menu contains all the required settings for adapting the satellite system and saving the channels.



#### 2.1 Antenna connection

##### 2.1.1 Rotating system (DiSEqC-LNB required) or permanent alignment

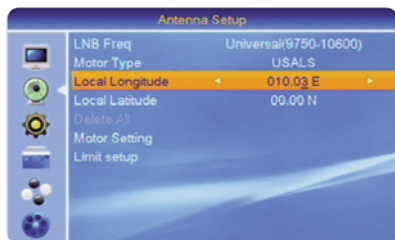
If the device is to be used to control systems which are capable of receiving more than one satellite, it is necessary to use a DiSEqC-LNB instead of a universal LNB.



If you own a motor-controlled rotating system, select the option rotating system in the antenna connection menu.



Subsequently open the antenna setting menu and select the LNB and rotor type. If you are not sure whether you own a DiSEqC 1.2 or DiSEqC 1.3 (USALS) rotor, please refer to the operating instructions of your antenna rotor.



If you own an USALS rotor, you can enter the coordinates of the antenna location under the local longitude and latitude (e.g. Hamburg 10.03 E and 053.57 N). Press the OK button prior to entering the coordinates.

**Delete all:** For deleting all the stored satellite positions. After deleting all the stored position, you have to reset the positions for the DiSEqC 1.2.

## 8. The OSD menu – Installation



### Rotor settings (DiSEqC 1.2):

**Satellite:** Select the desired satellite for setting the rotating system. Note: If any satellites are missing here, add them to the satellite list menu.

**Transponder:** It is possible to select a pre-programmed transponder to search for the satellite.

**Position & saving:** Allocate a position number to each satellite. Important: After successful alignment of the satellite, you have to confirm the number via the OK button!

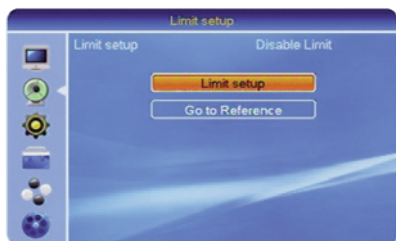
Note: You can skip the following points if you are using an USALS rotor. The satellite positions have already been stored automatically.

**Go To X:** In order to facilitate the search for further satellites, you can directly access already stored positions from the list. The "reference" value represents the central position and should face due south.

**West/East:** Use the ◀▶ control buttons to move the antenna westwards or eastwards. Always observe the signal indicators. Note: If a signal level is not achieved during the search, select another transponder.

**Recalculation:** This is where the internal counter for the individual satellite positions is recalculated starting from the central position of the rotor (south). Deviations can occur over time due to frequent rotation, mechanical tolerances and external influences (wind).

It is possible to restrict the swivel range of the antenna in order to prevent obstacles causing damage to it. Under the limit setting select a direction (westerly or easterly limit) and press the OK button. The following selection is used for controlling the antenna to the outermost rotating range. Use the ◀▶ control buttons for rotation. Use the OK button to confirm both limits one after the other.



## 8. The OSD menu – Installation



### 2.2 Satellite list

All the preset satellites are displayed in the satellite list.

#### 2.2.1 Satellite

Press the [OK] button to select the desired satellite. You also have the possibility to rename the satellite ([red] button), to add a new satellite ([green] button) or to delete a satellite position ([blue] button).



Rename: Select the satellite position from the list and press the [red] button. Use the number and control buttons to select the letters and characters.

Further important buttons on the screen keypad:

Space:	[0]
Delete:	[green]
Save name and close keypad:	[yellow]
Cancel:	[blue]
Upper/Lowercase:	[red]



### 2.3 Antenna setting

In order to carry out a successful search, you have to adapt the receiver to the existing antenna.

#### 2.3.1 Satellite

Select the satellite whose settings you wish to change.

#### 2.3.2 LNB Frequency

Digital is almost without exception the correct choice for all conventional LNBs. Only select further settings if they are expressly specified in the assembly instructions!

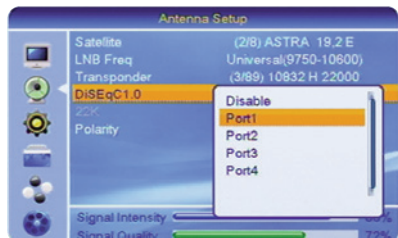
#### 2.3.3 Transponder

Select a transponder of the selected satellite. Check the correct settings via the signal strength and signal quality indicators.

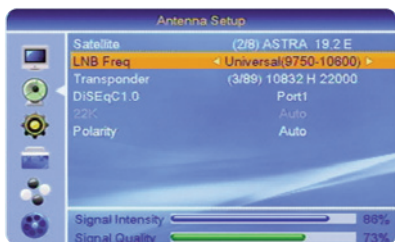
#### 2.3.4 DiSEqC

DiSEqC enables the reception of several satellite positions. If you have, e.g., aligned two LNBs to two different satellites (ASTRA and HOTBIRD), use DiSEqC LNBs and a DiSEqC switch. For the ASTRA position select the setting 1/2 and for the HOTBIRD position the setting 2/2.

You can control a 2, 4, 8 or 16-way switch and a DiSEqC-suitable multi-switch. Note: On some DiSEqC switches the connections are marked with letters (A, B, C, D ...) instead of numbers. However, the sequence is the same.



## 8. The OSD menu – Installation



### 2.3.5 22 kHz

The 22kHz signal is used to switch a universal LNB (off = low band, 22kHz = high band). If you have selected "digital" as the LNB type, switching occurs automatically. If you do not own a conventional LNB, the setting has to be carried out manually.

### 2.3.6 Polarisation

Satellite signals are transmitted on two levels (horizontal and vertical). Always select the AUTO setting which enables the reception of both levels. In exceptional situations it may be necessary to receive only the horizontal OR the vertical level, e.g. in household systems or to receive exotic satellites.

### 2.3.7 Signal indicators

#### Signal strength

The signal strength indicator shows the entire level of the input signal.

#### Signal quality

The signal quality is extremely important for trouble-free reception. Always align the antenna in such a way that the signal strength and signal quality achieve the maximum level!

## 8. The OSD menu – Installation



### 2.4 Individual satellite search

#### 2.4.1 Satellite

Select a preset satellite from the list. If the desired satellite is not listed, you have to add the satellite as described under point 2.2.

#### 2.4.2 Only FTA

Decide whether you wish to store only FTA or also coded channels. We recommend you to select the setting "OK (yes)" in order to filter the coded channels.

#### 2.4.3 Search

Decide whether you wish to search for TV channels and/or radio stations.

#### 2.4.4 Network search

The ASTRA (19.2° East) and HOTBIRD (13° East) satellites offer a so-called network search. These satellites transmit a table (NIT = Network Information Table) via all the available channels. Therefore, the satellite receiver can read all the channels.

#### 2.4.5 Search mode

**Autom. search** Automatic search of all the available transponders of a satellite position.

**Preset search** Starts the search with the factory default transponders.

#### 2.4.6 Search

Starts the search after pressing the [OK] button.



### 2.5 Multi-satellite search

#### 2.5.1 Satellite

Overview of the satellites which are actually searched for during the multi-satellite search. Information on the settings is stated above (2.4.2-2.4.6).

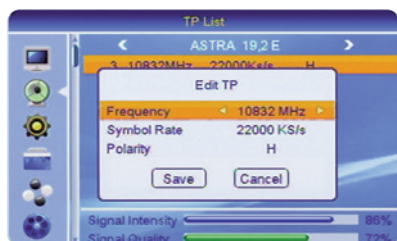


## 8. The OSD menu – Installation



### 2.6 TP list

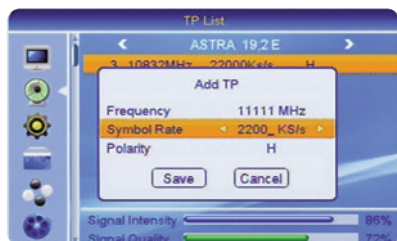
For searching for an individual transponder. This search method is advisable if you only wish to store a certain channel or a certain channel package. The respective reception parameters (frequencies, etc.) are stated on the Internet or in TV and specialist magazines.



### 2.6.1 Satellite selection

Select a preset satellite via the [◀▶] buttons.

To change a transponder press the [red] button, to add a new transponder press the [green] button and to delete the current transponder press the [yellow] button. If you wish to search for the transponder of the currently selected satellite, press the [blue] button.



### 2.6.2 Symbol rate

The symbol rates of the most common satellite transponders have a value of 27500 or 22000. Change the values either via direct input or in single steps via the [◀▶] buttons.

### 2.6.3 Polarisation

Satellite signals are transmitted on two levels (horizontal and vertical). Select the corresponding level H or V.

Note: The common number, e.g. 12480H, equals: Frequency 12480 MHz and the H stands for horizontal.

## 8. The OSD Menu – System Setup



### 3. System Setup

In the system menu you can adapt the satellite receiver to the connected TV set, and set the languages for the menu and the audio playback, the time, parental lock and much more.



#### 3.1 Language

In the “language” submenu you can select your preferred language for the screen menu and audio playback.

##### 3.1.1 Menu language

Select the desired OSD language. Use the [◀▶] buttons.

##### 3.1.2 First Audio language

Select the language which should be used for multilingual channels if this option is available.

##### 3.1.3 Second Audio language

Select the language which should be used for multilingual channels if the first audio language is not available. If neither of the selected languages is available, it is provided by the channel.

##### 3.1.4 Subtitle language

DVB subtitles can be transmitted as multilingual subtitles. Select the desired language.

##### 3.1.5 Teletext

Select the desired language for multilingual teletext offers.



## 8. The OSD Menu – System Setup

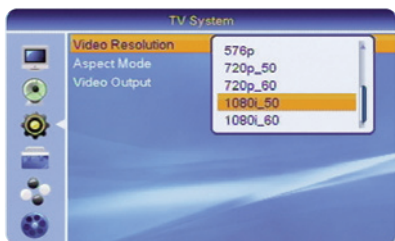


### 3.2 TV System

For adapting the satellite receiver to the TV set.

#### 3.2.1 Video Resolution

Here the screen resolution at the HDMI output can be optimised. Please note that the picture may disappear when the resolution is changed. For optimum display on a modern flat screen device we recommend the setting 1080i\_50 or 720p\_50. In addition, there are the settings "By Source" (depends on the channel) and "By Native TV" (automatic adaptation to the TV).



#### 3.2.2 Screen format

If your TV set has a 16:9 screen, select the setting 16:9. For 4:3 screens select the settings 4:3PS (Pan & Scan) or 4:3LB (Letterbox). With Pan & Scan the black bars at the top and bottom of the screen are cropped when watching 16:9 broadband programmes. The picture is thus enlarged. However, the sides of the widescreen are also hidden. With the letterbox print the entire picture, including the black bars in 16:9 cinema format programmes, is visible.

#### 3.2.3 Video output

For setting which type of video signals are output at the Scart jacks of the receiver. Due to the separate transmission of red, green and blue, RGB achieves the best possible true colour quality and picture definition.

The best possible image quality is obtained with the setting YUV+HDMI. The sockets YPbPr are especially suitable for connecting a beamer.





## 8. The OSD Menu – System Setup



### 3.3 Display Setting

#### 3.3.1 Brightness

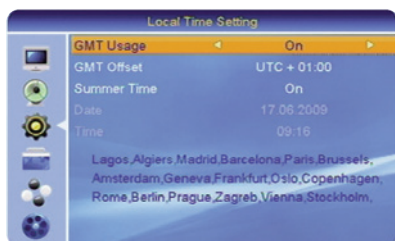
The brightness of the TV picture at the HDMI output can be set with the ◀▶ navigation buttons.

#### 3.3.2 Contrast

The ratio of dark/light (contrast) of the TV picture at the HDMI output can be set with the ◀▶ navigation buttons.

#### 3.3.3 Saturation

The colour intensity of the TV picture at the HDMI output can be set with the ◀▶ navigation buttons.



### 3.4 Local Time Setting

The time settings have to be checked and, if necessary, adjusted to ensure that the receiver displays the correct time and the timer starts at the desired time.

#### 3.4.1 GMT utilization

GMT (Greenwich Mean Time) is the reference time for the various time zones. When the GMT setting is switched off, you can enter the time manually.

#### 3.4.2 GMT time shift

The time in German-speaking countries is – depending on summer or wintertime – 1 or 2 hours ahead of GMT.

#### 3.4.3 Summer time

Switch the summertime setting on or off every six months.

#### 3.4.4 Date

For entering the current date manually (only if GMT is off).

#### 3.4.5 Time

For entering the current time manually (only if GMT is off).



## 8. The OSD Menu – System Setup



### 3.5 Timer Setting

#### 3.5.1 Timer 1-30

You can pre-program up to 30 different time events. For example, programmes which you do not wish to miss or to remind you of birthdays or anniversaries.

##### 3.5.1.1 Timer repeat

Under timer repeat it is possible to set how often the timer is to be activated: Once, daily, weekly or monthly. If you select the "Off" setting, the timer remains deactivated.

##### 3.5.1.2 Timer service

Select "Programme" if you wish to view a particular programme or record it with the video recorder. Select "Record" if the programme is to be recorded on the connected USB data carrier.

##### 3.5.1.3 Switch-on channel

For a normal reminder message select "General". If you have selected "Channel" under "Timer Service", it is possible to select the channel which should appear after switching on.

##### 3.5.1.4 Switch-on date

Enter the desired date (e.g. 2<sup>nd</sup> of June 2009) as follows: 02.06 2009.

##### 3.5.1.5 Switch-on-time

Enter the 4-figure start time of the event.

##### 3.5.1.6 Duration

Enter the 4-figure duration of the event.

If the timer is enabled, the device does not switch back to the energy-saving standby mode if the device is switched off. This is shown by the display of the time, if the display has not been switched off.

## 8. The OSD Menu – System Setup



### 3.6 Parental lock

It is possible to lock access to the menu or channels, e.g. with contents which are inappropriate for young viewers. They can then only be accessed via entering a 4-digit password.

#### 3.6.1 Menu lock

If you wish to protect certain areas of the OSD menu, set the menu lock to "On".

#### 3.6.2 Channel lock

Channels which you have locked in the Channel menu can be selected after entering a password if you have set the channel lock.

#### 3.6.3 New password

If you wish to change the preset password 0000, enter the new password here.

#### 3.6.4 Confirm password

Confirm the new password. Memorise your new password, or note and store it in a safe place!



### 3.7 OSD Setting

In this menu it is possible to edit the layout of the OSD menu.

#### 3.7.1 Subtitle display

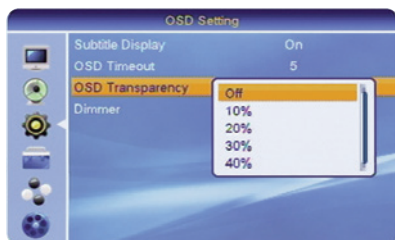
Select "On" if you wish to see the subtitles of a programme.

#### 3.7.2 OSD duration

The display duration of information, error messages can be set to between 1 and 10 seconds.

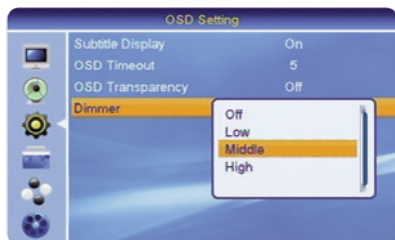
#### 3.7.3 OSD transparency

Select the transparency of the OSD menu – 10% (background slightly visible) and 40% (background very transparent).

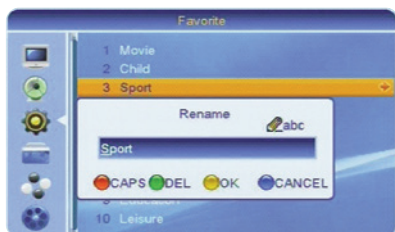


#### 3.7.4 Dimmer

To set the display on the unit:  
Off – Low – Medium – High



## 8. The OSD Menu – System Setup



### 3.8 Favourites

In this menu you can rename the eight favourite lists. Select an entry and press the [OK] button. Press the number buttons 0-9 several times to select various characters. The [red] button enables you to toggle between upper and lowercase letters. Use the [green] button to delete characters.



### 3.9 Other

#### 3.9.1 LNB voltage

The LNB voltage of the satellite receiver provides the LNB with an operating voltage and ensures switching at the various reception levels. Note: Always leave the LNB voltage switched on, unless you are expressly instructed to switch it off. This may be the case in rare large communal installations.

#### 3.9.2 Channel type

Decide whether all FTA channels, only coded or all the stored channels are to be displayed.

#### 3.9.3 Signal

The signal can help you to align the antenna. The higher the pitch, the stronger the satellite signal is. The signal can be heard after opening the Antenna Setting menu.

#### 3.9.4 Sleep Timer

OFF • 10 min • 30 min • 60 min • 90 min • 120 min

After the set time has elapsed, the unit switches to standby.

## 8. The OSD Menu – Tools



### 4. Tools

Miscellaneous contains lots of useful and helpful information, entertaining games and numerous possibilities to upgrade your satellite receiver.



#### 4.1 Information

This overview provides extensive information about the software status of your satellite receiver. This data is extremely useful if you need to contact our telephone hotline.



#### 4.2 Factory Setting

The Presetting function is used to reset the device to the delivery status. Caution: All the values and channels which have been changed and stored since initial setup will be reset or deleted!



#### 4.3 Software upgrade via satellite

The latest software can be loaded at regular intervals via the ASTRA satellite (19.2° East). Check whether new software is available by using the [▲▼] buttons to go to "Start" and pressing the [OK] button. The search and download procedure can take several minutes!

## 8. The OSD Menu – Tools



### 4.4 USB Update

With this item, the receiver software can be updated. This method is faster than updating by satellite or is recommended if no software is available for your device via satellite. Download the appropriate software from [www.skymaster.de](http://www.skymaster.de) and save this on the USB storage medium (Please note the information when downloading)

#### 4.4.1 Updating

Select the item "Allcode" in order to update the receiver software.

#### 4.4.2 Update file

Select the relevant file and start the update with START. Follow the instructions on the screen and under no circumstances switch off the device or disconnect it from the mains. This could result in a complete failure of the device.

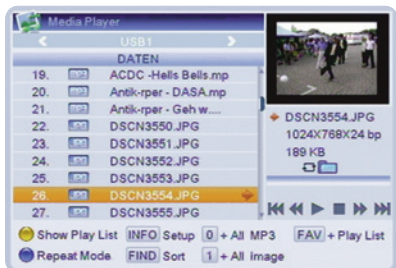


### 4.5 Save to USB

You can save three different types of file on a USB data carrier:

1. **AllCode:** The complete receiver software, e.g. in order to archive older versions before an upgrade on a PC. The file cannot be edited. It can only be reloaded. After saving, you should add a date to the specified file name, e.g. "M3602AllCode.abs" is changed to "M3602AllCode\_2009\_07\_19.abs".
2. **Radioback:** No function
3. **defaultdb (programme and satellite list):** You can save the complete programme and satellite list on a USB data carrier, copy it to a PC and edit the sequence and many other properties. The edited programme list can be conveniently loaded via the option "Upgrade via USB". You can download the editor for the programme list from our Internet site [www.sm-electronic.de](http://www.sm-electronic.de) · Service · Download-Center

## 8. The OSD Menu – Tools



### 4.6 USB

After a readable storage media has been connected, a window opens, which displays the current files on the hard drive in a folder structure similar to on a PC.

This menu can be called up by pressing the USB key on the remote control. Please note that only MP3 and JPG files can be played back.

The symbols used in this overview have the following meanings:

Indicates that you are in the main directory of the data carrier.



Indicates that you are in a sub-directory. If this item is enabled (press the OK key), the receiver switches to the next higher directory.



Indicates that this is an MP3 audio file.



Indicates that this is a JPG image file.



Indicates that there is a further sub-directory at this point.



The current folder is played continuously in a random sequence.



The current folder is played continuously in sequence.



The current song is continuously repeated.



Elapsed and remaining time of the current title.

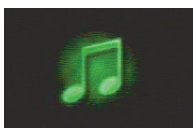
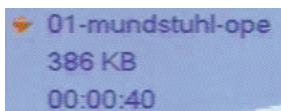


Control elements for audio files are the same as the keys on the remote control.



Name of song, size and duration for audio titles.

File name, size and image information for image files.



Preview window for image files, this image is displayed with audio titles.



## 8. The OSD Menu – Tools



### Playback of images

Select an image from the overview using the navigation keys and press OK.



The automatic slideshow starts from the selected image. This symbol indicates that at present image 22 of 90 is displayed.

During image playback, the following options are available: The key ▲▼ selects whether the list is played forwards or backwards.

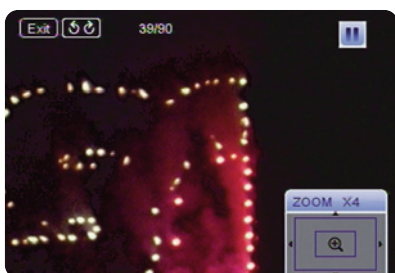
The ◀▶ keys stop playback and rotate the image clockwise or counter-clockwise.

The ► key continues playback in sequence.



If the Zoom key is pressed during playback, the image is stopped. The degree of magnification can be set with the Zoom key and the selected portion of the image can be set with the navigation keys.

Quit the Zoom mode with the EXIT key and continue the playback with the ► key.

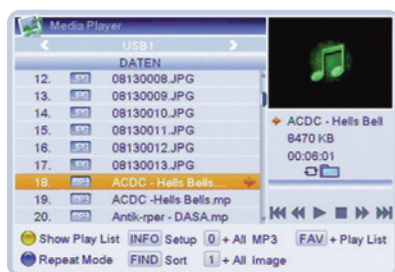


### M/P Multi-image preview

By pressing the green M/P button, up to 9 images can be displayed in a preview. If there are further images in the same directory of the USB data carrier, press the PG+/Pg- buttons on the remote control unit. If you wish to view a particular image, use the navigation buttons and then press the OK button.



## 8. The OSD Menu – Tools



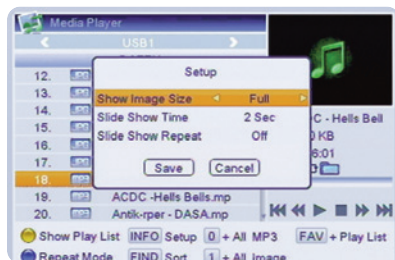
### Playback of audio files

Select an audio file from the overview using the navigation keys and press OK.

The playback is carried out according to the selected Repeat mode.

The default setting is to play back “all files of the current directory in sequence”.

To change this, select the required mode with the blue key (See item 4.5 Symbols)



### 4.6.1 Setup for play lists (Play Listen)

Before setting up a play list, set the basic behaviour of the list in Setup, using the INFO key.

#### 4.6.1.1 Image size

Set whether the image is to be displayed in original size or in full format (the image is adjusted to the screen format (enlarged or reduced)).

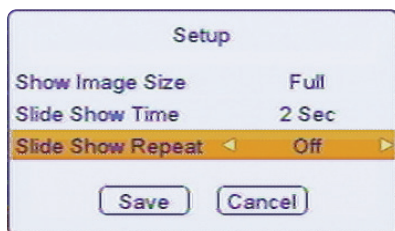
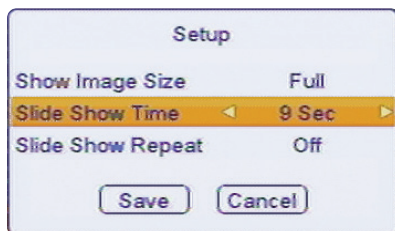
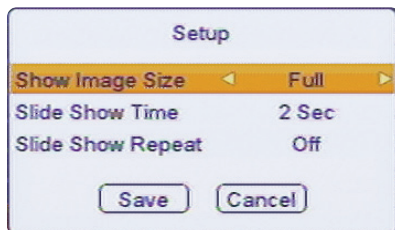
#### 4.6.1.2 Slide show time

Select how long an image is to be displayed before changing.

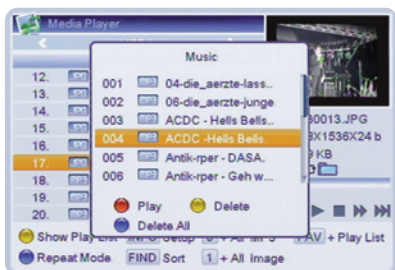
Values between 0 and 9 are possible.

#### 4.6.1.3 Slide show repeat

Select whether a slide show is to be repeated or not. After all settings have been made, save these by pressing OK.



## 8. The OSD Menu – Miscellaneous



### 4.6.2 Playlists (Play-Listen)

If you only wish to play certain images or songs, it is possible to set up a playlist for images and audio files.

#### 4.6.2.1 Add all images

To add all images from the directory to the playlist, simply press "1" on the remote control.

#### 4.6.2.2 Add all titles

To add all audio titles from the directory to the play list, simply press "0" on the remote control.

#### 4.6.2.3 Individual (Add Item)

If you only wish to add certain titles or images, select the appropriate file and press the FAV key on the remote control. The file is then added to the list.

#### Play playlist

Press the yellow key (Play List) and select whether you wish to play the audio list (music) or the image list (pictures).

Start the playback with the red key. Individual files can be removed from the list using the yellow key or all files can be removed with the blue key.

Note:

Of course, the files will only be removed from the list, **not** from the data carrier.

#### Hint:

Once you have set up a music and a picture list, first start the music list and then the picture list in order to obtain a slide show with background music.

### 4.6.3 Repeat

Here you can specify in what form the selected files are repeated.

The following options are available:

The current folder is played continuously in a random sequence.

The current folder is played continuously in sequence.

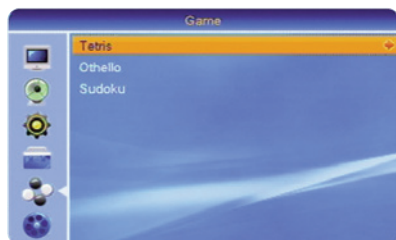
The current song is continuously repeated.

### 4.7 Safely remove data carrier

In order to prevent loss of data from your USB data carrier, you should not simply disconnect it from the receiver, but rather always deactivate it with this item. This is the only way to prevent loss of data.



## 8. The OSD Menu – Game

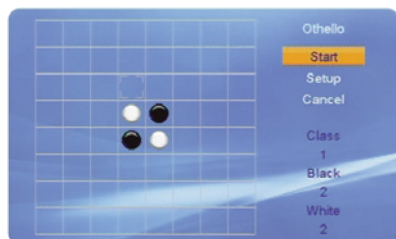


### 5. Game

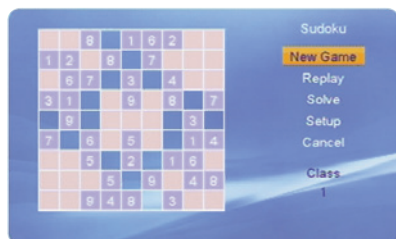
Three classic games are available for your entertainment.



#### 5.1 Tetris



#### 5.2 Othello



#### 5.3 Sudoko

## 8. The OSD menu – Media



### 6. Record Manager

#### 6.1 Recording management

The Recording management can also be called up by pressing the PVR key on the remote control. In this menu, you can edit recordings which have already been made.



##### 6.1.1 Lock

In order to prevent recordings from being accidentally deleted, or for reasons of parental protection, these can be locked.

Select the relevant recording with the navigation keys and press the green key. Once the password has been entered, the file is protected. The recording can only be played or deleted if the password is entered.



##### 6.1.2 Deleting

If you wish to delete a recording, select the relevant recording and press the blue key. The recording is highlighted and if you exit from the menu, the recording will be deleted once the safety query has been confirmed.



##### 6.1.3 Renaming

If you wish to rename a recording, select the recording file and press the red key. Enter the new name with the letters on the numeric keys of the remote control and confirm the entry with the yellow key.

## 8. The OSD menu – Media



### 6.2 HDD information

Here you can obtain information about the connected USB data carrier.



### 6.3 HDD Format

If the hard drive is not recognised by the receiver, it must first be converted to a format which the receiver can read.

Select "Format hard drive" and confirm this with the OK key.

#### **CAUTION!**

If you confirm the safety query, all data on the data carrier will be deleted. If necessary, back up existing files on a PC beforehand.

After formatting, the status of the hard drive is displayed under "Hard drive information".

### 6.4 DVR Configuration

All the relevant settings for the hard drive can be set with this menu.

#### 6.4.1 Timeshift

Here you can set whether the receiver should always record the currently selected channel on order e.g. to rewind the current program at any time.

In this case, set Timeshift to "On".

Please note that with this setting, after a short time the display switches from the current channel number to the display "TSFT" for Timeshift.

Also, switching channels takes place more slowly than when the Timeshift function is switched off.

#### 6.4.2 Timeshift recording

If Timeshift recording is activated, you can press the Record button on the remote control at any time and the current programme will be saved as a recording from the time that you switched to the channel. Please note that this function also depends on the amount of memory which has been reserved (Timeshift file size). If the recording has not been saved from the time that you switched to this channel, please increase the Timeshift file size.



## 8. The OSD menu – Media



### 6.4.3 USB Speed Detect

The suitability of a USB data carrier is checked on connection or on recording. If the USB data carrier has proved itself in normal use, this option may be switched off in order to suppress unnecessary messages and increase performance.

### 6.4.4 Record Type

Select the setting TS (Transport Stream), if you wish to retain the original format. Select the setting PS, if the format is to be displayed on a PC. However, on conversion, some channel information is lost.

### 6.4.5 Subtitles on

With some channels, the programme is also transmitted with subtitles. If you also wish to record these, switch this item "On"

With the SUB-T key on the remote control, you can then switch in the subtitles during playback.

### 6.4.6 Recording partition

If the connected USB data carrier is divided into several partitions, the required partition can be selected with the ◀▶ buttons.

### 6.5 Jump

This allows the setting of the skip distance of recordings on pressing the SKIP button on the remote control unit.  
30sec. • 1min • 5 min • 10min • 30min

## 9. Troubleshooting

### No antenna signal

(No signal display on the unit or via the signal displays in the OSD):

1. Check the antenna cable first: the mesh wire shield and aluminium insulation must be in contact with the f-plug and should not touch the cable conductor.
2. Check the LNB settings. For ASTRA satellites LNB1 should be on. If you use an digital LNB, the lower and upper frequencies have to be 9750 MHz and 10600 MHz respectively. To trace an error you should connect the LNB directly to the receiver and first remove the switch and splitter.

### Malfunctions

1. The unit displays incorrect broadcasting times in the EPG or the incorrect time: after the receiver is switched on the data has to be read and evaluated. Depending on the transponder this process may take some time. Sometimes it is necessary to call up the EPG again or to switch channels.
2. No response from the unit: Pull out the power plug and wait a few seconds before starting the unit again.

### Only a few channels

1. The antenna is aligned to the wrong satellite position. When aligning the antenna you may be receiving one of numerous satellites, which is transmitting on a similar frequency and interfering with the receiver's signal displays. When switching channels foreign stations will often appear as well as a notification of "No Signal". It is often enough to turn the antenna a few degrees to the east or west to receive the channels you want.
2. Check to see if you have activated the right list of channels. Press BROWSE to call up the list. Press the ◀ or ▶ buttons to select the channel list you require (e.g. "All Satellites").

### No sound, poor sound quality

1. If there is no sound, or only interference can be heard, your TV or AV receiver is unable to decode the Dolby Digital/AC3 sound from the HDMI connection. Remedy: Press the AUDIO button and select stereo sound. If the channel does not provide stereo sound, connect the digital sound output SPDIF to your Surround/AC3/Dolby Digital system.

## 10. Features

- 3000 channel positions
- Future-proof software update via satellite (OTA)
- EPG (Electronic Program Guide) – up to 14 days
- Teletext (with 500 page memory)
- 30 timer pre-programming
- SLEEP timer
- Multi-lingual OSD menu
- Channel name and channel contents display in OSD
- Blue, 4-digit programme display
- Signal strength indicator for setting the antenna
- Scart jack for TV
- Cinch sockets for audio
- Separate, digital audio output (coaxial)
- DiSEqC® 1.0 – for the reception of several satellite positions
- Environmentally friendly energy saving technology for small stand-by power
- USB 2.0 standard connection
- HDMI port

## 11. Technical data

### Tuner

Input connector	1x F type
Frequency range	950 MHz bis 2150 MHz
Input impedance	75 Ohm
Signal level	-25 bis -65 dBm
LNB power & polarization	Vertical: +14 V $\pm$ 0,5 V Horizontal: +18 V $\pm$ 0,5 V
22kHz sound	Frequency: 22 kHz $\pm$ 2 kHz
Demodulation	QPSK, compatible with SCPC and MCPC
Input symbol rate	2 - 45 Mbit/s
FEC decoder	Convolutional code rate 1/2, 2/3, 3/4, 5/6 and 7/8

### RF Remote

Operating Voltage:	DC 3V, 2x AAA heavy duty / alkaline battery
--------------------	---

### Mains power supply unit

Input voltage	AC 230 V, 50 Hz
Power consumption:	
Stand-by consumption	< 1 W if no timer set < 6 W if timer set
Operating consumption	max 28 W
Dimensions	266 x 170 x 40 mm

### MPEG Transport Stream A/V Decoding

Transport stream	MPEG-2 ISO/IEC 13818 transport stream specification MPEG-4 ISO/IEC 14496
Profile & level	MPEG-2/4 MP @ ML
Input T/S data rate	80Mbit/S Max.
Aspect ratio	AUTO, 4:3 Pan & Scan, 4:3 Letter Box, 16: 9
Teletext	DVB-TXTETSI/EN300472
TV SCART:	RGB, FBAS



## 12. Service

### Do you have any problem to put the receiver into operation?

Don't worry, – do not refuse the receiver,

#### call us!

High value technical units are often very complex. Technical problems have normally a simple reason, which can be cleared quick and uncomplicated by phone.

Our experts on our hotline service know your model very well and will give you helpful information and support on connection and handling.



### Take our service – please call us!

You will reach our experts from Monday to Sunday between 8:00 and 22:00 o'clock.

Germany:  **0900 1512 532** (€ 0,25/Min. from german landline)

Austria:  **0900 400 222** (€ 0,68/Min. from austrian landline)

### Returns

In case your model is really defect, please return the unit with error description and voucher to our hands. Before you return the unit, please call our hotline and request a special reparation number (RMA). Without this number the reparation will not start or could be delayed.

### SM ELECTRONIC GmbH

Retourenzentrum • Großer Kamp 9 • D-22885 Barsbüttel • [www.skymaster.de](http://www.skymaster.de) • [info@sm-electronic.de](mailto:info@sm-electronic.de)

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Waste electrical and electronic equipment is classed as recyclable waste and does not belong in domestic refuse!

We therefore request you to actively support the conservation of resources and environmental protection and to dispose of this device at responsible take back points – if possible.

