Dreambox DM 600 PVR





Bedienungsanleitung

Digitaler Satellitenempfänger zum Empfang von freien und verschlüsselten DVB-Programmen.

Kommunikations-Schnittstelle Anschluss für interne Festplatte Smartcard Leser Linux OS

User Manual

Digital satellite receiver for free and encrypted Digital Video Broadcasting (DVB).

Communication-Port Internal hard disk support Smartcard Reader Linux OS







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The Dreambox DM 600 PVR carries the CE-Sign and fulfills all requirements from the EU. Software: Release 1.4.0 on 04-03-2007 Subject to change without prior notification.

1. Before initial operation of the receiver

1.1 Safety instructions

Please read the safety instructions completely and carefully, before using the Dreambox. The Manufacturer takes no responsibility for damages as a result of incorrect handling of the Dreambox.

- Allow enough space around the Dreambox for sufficient ventilation.
- Do not cover the top of the Dreambox and allow enough space to other devices. The louvers of the devices must be free at all times to allow sufficient heat transfer from inside the device.
- Never put vases or any other liquid filled containers on top of the device. Do not expose the device to dripping or splashing liquids.
- Do not place open flame sources, such as lit candles, on top of the device.
- The device may only be operated in moderate climate.
- Do not remove the cover. Risk of electric shock. If it is necessary to open the device please contact a trained professional.



- Do not put any metal things into the slots or ventilation openings.
- The installation of a hard disk is only allowed by skilled personal or your local dealer.



Attention!

Modifications and changes to the Dreambox lead to loss of warranty if not performed and documented by skilled personal.

We recommend the installation of a hard disk by your local dealer. Unskilled installation of a hard disk leads to loss of warranty.

Shut down

- In case your Dreambox is in use for a longer period of time disconnect the power plug from the power outlet.
- During thunder storm the unit should also be physically disconnected from the power outlet.

Additional safety instructions

- (Dis-)Connecting to a LNB:
 Turn the Dreambox off before you connect or disconnect a cable coming from or going to a LNB.
- Connecting to a TV:
 Before connecting or disconnecting your Dreambox to/from a TV please turn it off.
- In case you notice any damage to the power cord or power plug immediately disconnect the device from the power outlet.
- In case the device was exposed to humidity immediately disconnect the device from the power outlet.
- In case you notice any serious damage to the outer shell of the device immediately disconnect the device from the power outlet.
- Do not expose the Dreambox to direct sunlight, lightning or rain.
- Grounding:

The LNB cable must be grounded.

The grounding system must meet SABS 061 requirements.

- Cleaning:
 - Disconnect the mains power cord before cleaning the cover. Use a slightly damp cloth without cleaning agents.
- Connect the Dreambox only to suitable sockets. Do not allow overloads to occur.
- Please be careful that the batteries of your remote control are not exposed to heat, since they might explode.

Disposal instructions

The packaging of the Dreambox only consists of reusable materials. Please recycle if possible.

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.



For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Please note that empty batteries and electric waste is not to be put into the regular garbage.

1.2 Packaging contents

Please check the completeness of the box's contents.

Included in box:



Dreambox DM 600 PVR





2 Batteries (1,5V Mignon / AA / LR6)

Remote control



1 Power supply CWT 12V, 2A, 24W



1 Power cord



1 Rear panel for C/T-Tuner operation



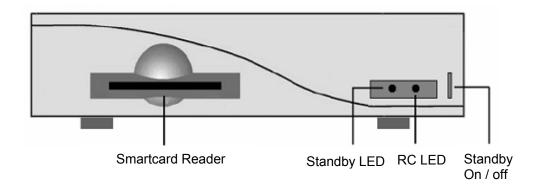
1 IDE-Cable (already installed inside the device)



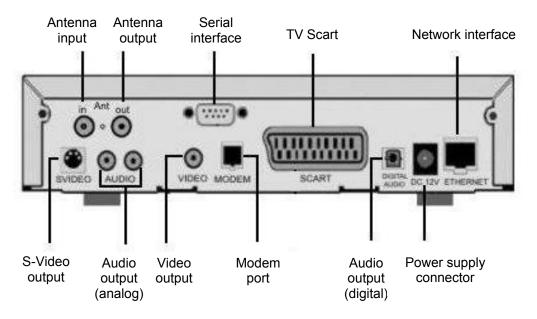
1 User manual (most recent version online: http://www.dream-multimedia-tv.de)

1.3 Views

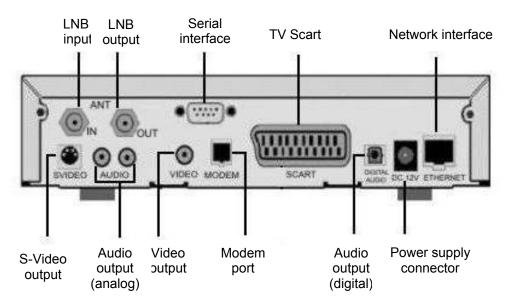
Front panel



Rear panel DM 600 PVR-C/T



Rear panel DM 600 PVR-S



1.3.1 Explanation Front Panel

Smartcard Reader

Insert your Dreamcrypt Smartcard with the golden chip facing down and forward into the Smartcard reader. Dreamcrypt is a registered trademark of Dream-Multimedia.

Standby LED

The Standby LED lights up red if the Dreambox is in standby mode. It lights up green if the Dreambox is powered on.

Remote Control (RC) Led

The remote control LED lights up every time the Dreambox receives a signal from the remote control.

Standby on/off

The Standby on/off button toggles between standby mode and powered on mode.

1.3.2 Explanation rear panel

Antenna input (DM 600 PVR-C/T)

Connect your antenna cable here.

Antenna output (DM 600 PVR-C/T)

You can optionally connect your TV or VCR here.

LNB input (DM 600 PVR-S)

Connect the coaxial cable from your LNB here.

LNB output (DM 600 PVR-S)

You can connect an analogue/digital receiver here. Remember to shutdown your Dreambox completely in order for the receiver to work.

Modem port

You can connect your Dreambox to your ISP via the Modem Socket using a phone line.

S-Video out

Connect the S-Video out of your Dreambox to the S-Video in of your desired device, e.g. a Beamer.

Video output (FBAS)

You can optionally connect your Dreambox to a TV using a RCA/Chinch cable. (Composite)

Audio output - analog (Cinch)

Connect your Dreambox with a RCA/Cinch cable to your HiFi-Amplifier (e.g. AUX In or Tape In ports).

Serial interface (RS232C, Sub-D, 9-pin)

The Serial Port is used to update the operating system. Please connect a serial null modem cable here.

TV Scart

Connect your TV or beamer to your Dreambox using a Scart cable.

Audio output - digital (Toslink)

You can connect your Dreambox with an optical (Toslink) cable to your HiFi-Amplifier or DSP. The AC3 signal is also available at this port in case the selected channel transmits Dolby Digital signals.

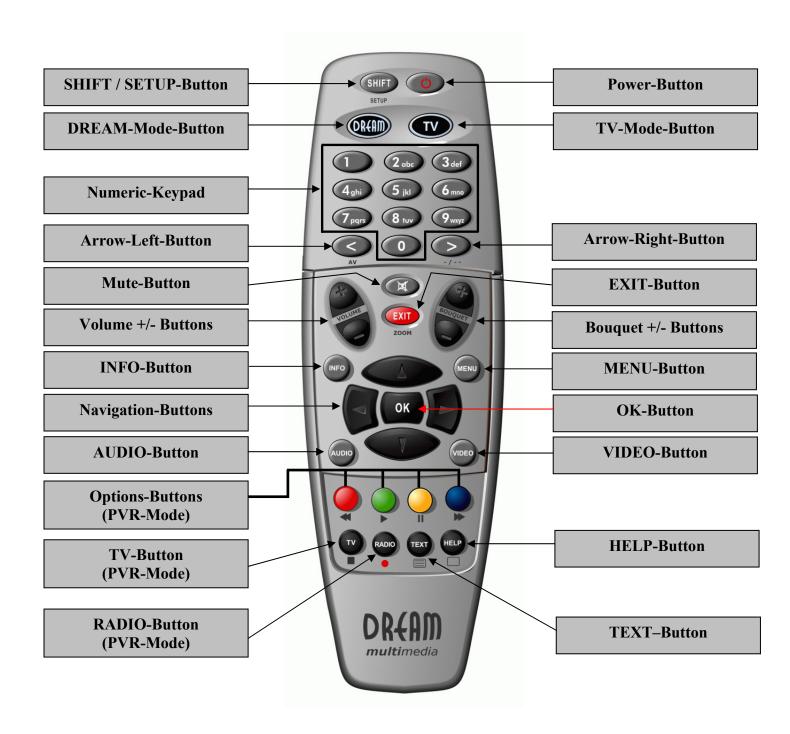
Power supply connector

Plug the power cable of the power supply that came with your Dreambox into power outlet. Connect your power supply to your Dreambox. You must not connect the power plug of the power supply to anything other than a socket that supplies 230V/50Hz.

Network interface (Ethernet 10/100Mbit, RJ45)

The Communication Port is an Ethernet port. It is used to communicate with your Dreambox via HTTP, FTP, NFS, Telnet and Samba. This port is also used to update the operating system of your Dreambox. Please use a regular patch cable to connect your Dreambox to your LAN.

1.4 Remote control



To get into a submenu

you have to press the

Important notes about operation

All functions of the Dreambox can be controlled via OSD-Menu (On-Screen-Display). This makes the handling of the Dreambox very easy for you. All options are indicated by four colored dots or beams (red, green, yellow, blue) in the OSD-Menu and can be started with the Option-Buttons on the Remote Control.

Depending on the chosen Menu, these options do change.

The **Options-Buttons** of your remote control have multiple functions. You will notice control symbols below the four colored **Options-Buttons**, the **TV-** and the **RADIO-Button**. In PVR-Mode these buttons are used to control the digital recording according to their symbols. Pressing the **VIDEO-Button** on your remote control will activate the PVR-Mode. The Infobar will also indicate this. It changes from showing the channel information to showing the control symbols for the PVR-Mode. (also see *Instant recording*)

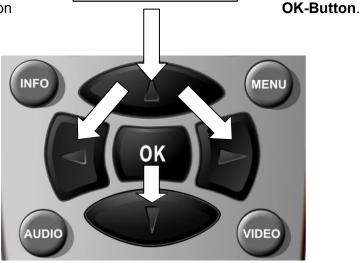


All Menus and Service lists are closed with the **EXIT-Button**.



Navigation-Buttons

In general the menus are controlled using the **Navigation-Buttons** on your remote control.



Remote Control Buttons

MENU-Button

If you are in TV- or RADIO-Mode, pressing this button will bring up the OSD main menu. The OSD main menu has the following options:

- (1) TV Mode
- (2) Radio Mode
- (3) File Mode
- (4) Information
- (5) Shutdown
- (6) Setup
- (7) Games
- (8) Timer



You can switch to the needed option by pressing the **Navigation-Buttons** left or right. Also see: *Important notes about operation*.

The numbers in front of each option can be used to directly access the needed function by pressing the according number on the **Numeric Keypad** of your Remote control.

If you are in the service list, pressing the **MENU-Button** brings up the service menu. The shown options may vary depending on the service list you selected.

SHIFT / SETUP-Button

The **SHIFT**/ **SETUP-Button** is used to preprogram the remote control to operate a TV. See chapter *TV-Mode setup*.

Power-Button

The **Power-Button** switches your Dreambox on and off. See chapter *Turning your Dreambox on and off*.

DREAM-Mode-Button

The **DREAM-Mode-Button** switches your remote control into Dreambox control mode. It will shortly light up once your press the button.

TV-Mode-Button

The **TV-Mode-Button** switches your remote control into TV control mode to control your preprogrammed TV. It will shortly light up once your press the button. See chapter **TV-Mode setup**.

Numeric-Keypad

Enter a service number to directly access the option by using the **Numeric Keypad**. The service numbers are on the left side of the service list.

The **Numeric Keypad** can also be used to enter the teletext page number when you are in TV-Control-Mode and if your TV is teletext capable. The TV station has to submit teletext information; otherwise this feature cannot be used.

Arrow-Left-Button

Arrow-Right-Button

The **Arrow-Left** and **Arrow-Right-Button** enable you to jump back and forth between the last 20 channels you have watched.

Mute-Button

Pressing the **MUTE-Button** mutes the Volume. A crossed speaker symbol will appear on the TV screen. Pressing it again or pressing one of the **Volume +/- Buttons** brings back the audio.

EXIT-Button

You can leave all menus and service lists by pressing the EXIT-Button.

INFO-Button

If no OSD menu is visible on the screen and you are in TV or RADIO-Mode, pressing the **INFO-Button** will reveal the EPG information of the chose channel if it is available.

OK-Button

By pressing the **OK-Button** you confirm a selection in the menu or service list navigation. If no OSD menu is present on your screen, the infobar is shown once you press the **OK-Button**.

Navigation-Buttons

In general the menus are controlled using the **Navigation-Buttons** on your remote control. To get into a submenu you have to press the **OK-Button**.

Volume +/- Buttons

The **Volume +/- Buttons** control the volume of the audio. Pressing **+** will make turn it up and pressing **-** will turn it down.

Bouquet +/- Buttons

Pressing the **Bouquet +/- Buttons** will jump back and forth between the bouquets.

AUDIO-Button

By pressing the **AUDIO-Button** you can choose the different audio tracks offered by the station.

VIDEO-Button

Pressing the **VIDEO-Button** activates the PVR-Mode. The Infobar will show the control symbols. You can instantly start recording by pressing the **Radio-Button** on your remote control. You can also toggle between single-, double- and trible-column-view in the service list.

Options-Buttons

All possible options are shown by the four colored dots/blocks (red, green, yellow, blue) and can be activated by the **Options-Buttons**. In PVR-Mode these buttons are used to control the digital recording.

Depending on the menu you currently are in the options will change and will be named differently.

TV-Button

Pressing the **TV-Button** activates the TV-Mode.

RADIO-Button

Pressing the RADIO-Button activates the RADIO-Mode.

TEXT-Button

The **TEXT-Button** activates the Teletext (TuxTxt). If you are in the stations list, pressing this button will directly take you to the FILE-Mode.

HELP-Button

Pressing the **HELP-Button** activates the Help menu.

2. Installation

2.1 Turning the device on

- Insert 2 AA (1,5V) batteries, taking care to observe the + and markings indicated inside, into the remote control.
- Before using the Dreambox, please read the safety instructions.
- Connect the LNB or antenna with a coaxial cable to LNB or Antenna In at your Dreambox.
- Connect the Dreambox with a Scart cable to your television screen.
- Plug in the power cable into a 230V/50Hz power socket.
- If you are using a switchable power socket please shutdown your Dreambox into deep standby before switching off the power socket.
- If you switch on your Dreambox for the first time, you will see the setup wizard. The setup wizard will guide you through the first time installation. You will be asked for your TV standard, the regional settings and your language. Please choose and follow the instructions on the screen.
- Please note that the video format meets the factory setting CVBS (FBAS).

3. Start wizard

Der Startassistent führt Sie durch die Grundeinstellungen Ihrer Dreambox.

3.1 TV-System



Please choose the used TV system first.

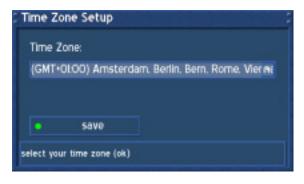
Press the **green Options-Button** on your remote to get to the next step.

3.2 Language



Select your desired and language with the **Navigation-Buttons up** and **down**. Press the **OK-Button** to activate.

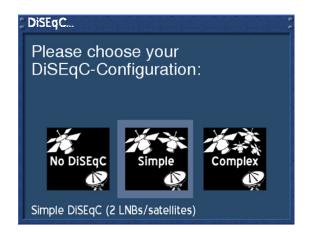
3.3 Timezone

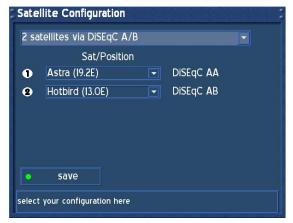


Select your desired and timezone with the **Navigation-Buttons left** and **right**. Press the **green Options-Button** to activate.

3.4 DiSEqC-Configuration

Please refer to Section 11.3.2 Sattelite configuration for detailed information about this option.





3.5 Service Scan

Please refer to Section 11.3.2 Service searching for detailed information about this option.



4. Basic operation

4.1 Turning your Dreambox on and off

Use the **Standby-Button** to turn your Dreambox on and off.

To put your Dreambox into Standby-Mode either press the **Standby-Button** on your remote control or on your Dreambox.



Holding down the **Standby-Button** on your remote control for three seconds will show the Shutdown / Standby menu.



This is the Shutdown / Standby menu. Navigate to the desired option and confirm by pressing the **OK-Button**.

Shutdown now:

Puts your Dreambox into Deep-Standby-Mode.

Reboot now:

Your Dreambox will be rebooted.

Goto standby:

Your Dreambox goes into standby mode.

Set sleeptimer:

You can find an explanation in the section Sleeptimer.

4.2 Service selection

Pressing the **Left/Right-Buttons** on your Dreambox remote control will take you to the previous or next service.

Pressing the 0 on the Numeric-Keypad will enable you to skip back and forth between the two most recently watched services. This feature is quite useful during commercial breaks since it enables you to watch another channel and quickly check if your movies is back on.

Using the Navigation-Buttons left/right you can switch to the 20 last viewed services.

4.3 Changing channel using the service list



Pressing the **Up/Down-Buttons** on your remote control activates the service list.

Use the **Navigation-Buttons up/down** to select the desired service and press the **OK-Button** to change to the selected service.

4.4 Controlling the volume



The **Volume +/- Buttons** control the volume of the audio. Pressing + will make turn it up and pressing - will turn it down.

Pressing the **MUTE-Button** mutes the volume. A crossed speaker symbol will appear on the screen.

4.5 Changing the audio track

The yellow dot in the Infobar appears if the selected station transmits multiple Audio tracks.

Pressing the **yellow Options-Button** in TV or Radio mode will reveal the audio menu of the service.

Attention: In PVR-Mode these buttons are used to control the digital recording.



Use the **Navigation-Buttons up** and **down** to move to desired audio track. Press the **OK-Button** to select.

The contents of this menu will vary from service to service.

Move to the option "Stereo". Use the **Navigation-Buttons left** or **right** to choose the different audio modes, Left-Mono, Stereo, Right-Mono. Press the **OK-Button** to select.

4.6 Sub Services

The green dot in the Infobar appears if the selected station transmits sub services.

Attention: In PVR-Mode these buttons are used to control the digital recording.



Pressing the **green Options-Button** in TV or Radio mode will reveal the sub services menu.

Use the **Navigation-Buttons up** and **down** to move to one of the sub services. Press the OK-Button to select.

If you chose the option "Enable quickzap" (green Options-Button), you will stay in the sub services and can jump between the sub services by pressing the Navigation-Buttons left and right.

You can quit the Quickzap-Mode by either reentering this menu and pressing the **green Options-Button** again or by accessing the service list and selecting a new service by pressing the **Navigation-Button up** or **down**. The option "Add to Bouquet" (yellow Options-Button) will add the selected service to a newly created or already existing Bouquet of your choice. See section *Managing Services*.

4.7 TV/Radio switching

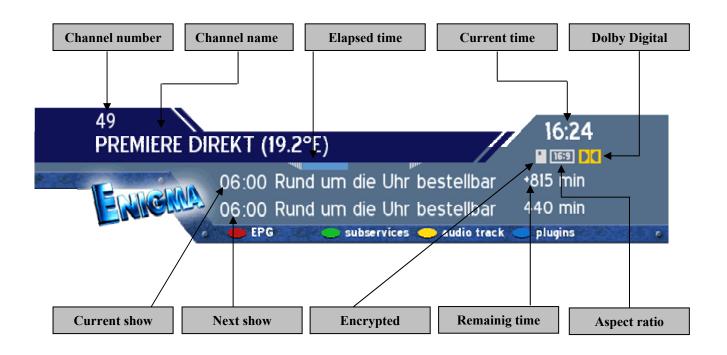
Pressing the **RADIO-Button** activates the RADIO-Mode. By pressing the **TV-** or **EXIT-Button** you can quit the RADIO-Mode.

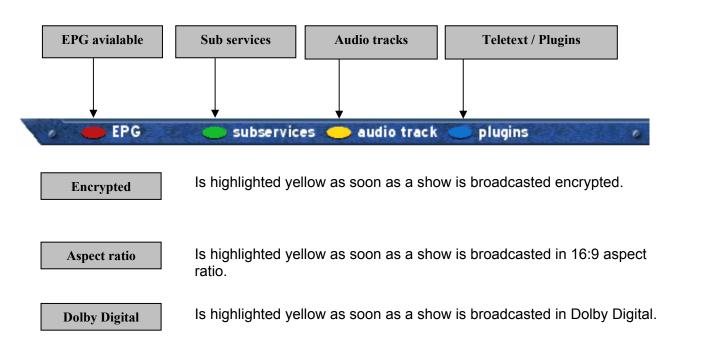
4.8 Teletext

Use the **Text-Button** to enter the teletext and the **Exit-Button** to leave.

4.9 Infobar

The Infobar appears and disappears by pressing the **OK-Button** once, if no OSD menu is shown on your screen. The Infobar shows all necessary Information about the selected service.





4.10 Main OSD menu

If no OSD menu is shown on your screen you can access the main OSD menu by pressing the **Menu-Button** on your remote control.

Through the main OSD menu you can access the submenus and functions of your Dreambox. Please use the **Navigation-Buttons left** and **right** or **up** and **down**, depending on you main OSD menu's view, to access the desired functions and submenus. Use the **OK-Button** to activate your selection.

As an alternative you can directly access the submenu or function by pressing the corresponding number in your remote control's **Numeric Keypad**.



Selecting this symbol activates the TV mode.



Selecting this symbol activates the Radio mode.



Selecting this symbol activates the file mode.



Selecting this symbol takes you to the Info menu. The Info menu supplies you with additional information about the station, signal strength and software version of you Dreambox.



Selecting this symbol takes you to the shutdown menu. Selecting the option ,Shutdown now' will turn you Dreambox off. Pressing the **Power-Button** on your remote control will turn your Dreambox on again.



Selecting this symbol takes you to the setup menu. You can change all your Dreambox's settings in the setup menu.



Selecting this symbol takes you to the games.



Selecting this symbol takes you to the Timer menu. All set timers can be viewed, changed and deleted here.



Through the menu options

- (5) Setup ->
- (3) System ->
- (6) OSD Settings ->

You can choose to view the main OSD menu as a regular menu.

See section OSD Settings.

4.11 Infobar - Plugins

The blue dot in the info bar is always visible. Pressing the **blue Options-Button** in TV or Radio mode will reveal the Plugins menu. **Attention:** In PVR-Mode these buttons are used to control the digital recording.

The option *Teletext* - *Software Decoder*" will open the service's teletext. See section *Teletext* (*TuxText*).

The options "Start/Stop NGrab recording" are still in development and therefore will not be explained in detail.

5. Electronic Program Guide - EPG

The red dot in the Infobar appears if the selected station transmits EPG information.

Attention: In PVR-Mode these buttons are used to control the digital recording.



If no OSD menu is visible on your screen and you are in TV mode press the **TV-Button** to access the service list.

Press the **Info-Button** to get to the selection of the EPG style.

Or you can press the **red Options-Button** to directly access the EPG of the station without having to go through the service list.



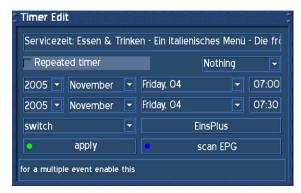
Select "Channel EPG" and press the **OK-Button** to activate it.



Use the **Navigation-Buttons** to navigate to the desired event and press the **OK-Button** to view additional information.

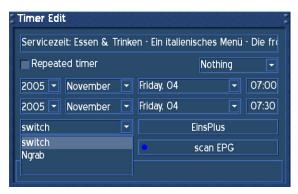
Pressing the EXIT-Button will quit the EPG.

The **Options-Buttons** are mapped differently in this view, press the **Help-Button** to see an explanation.



Pressing the **green Options-Button** will show the "Timer Edit" menu. Use the **Navigation-Buttons** to reach the desired option and use the **OK-Button** to open up the drop down menus.

Change the setting to fit your needs.



The drop down menu "Switch" offers the same options that you can directly access from the EPG using the **colored Options-Buttons**.

"Switch" will switch to the desired service. "NGrab" will record via LAN.

Press the **green Options-Button** to save your settings.



After saving you timer event you will be taken back to the EPG.

The set timers will be symbolized with a red clock symbol for NGrab Timers and a yellow clock symbol for Switch Timers.



Press the numbers 1-6 to adjust the number of hours shown on the screen. The red line marks the current time.

If you selected Multi-EPG when you were asked for the EPG style you will see this view.

Use the **Navigation-Buttons** to navigate to the desired event. The current selection is highlighted gray. Pressing the **Info-Button** once will show additional information. Pressing the **Info-Button** again will return you to the Multi-EPG screen.

Pressing the **OK-Button** in Multi-EPG mode will directly switch to the selected service.

The **Options-Buttons** are mapped differently in this view, press the **Help-Button** to see an explanation.

Pressing the **EXIT-Button** will quit the EPG.

6. Edit the channellist

What is a bouquet?

A bouquet can be thought of something like a folder. Every channel equals a page in this folder and the pages are sorted into categories.

This way you can create a bouquet called "Kids", for example, under which you "file" all childern's stations. Another example would be to create a bouquet called "Sports" where you put all sports channels. This way you can create several topic related bouquets.

Note: You can only delete channels in the favorites view!

You cannot delete the channels in the "All" view. The use of the "All" view is to keep an internal list of all available stations. If you start a new channel search the result would be saved to the "All" view for example. You favorites bouquet will stay untouched. This way you can easily add newly found channels from the ""All" list to your favorites bouquet. To see how it is done refer to section 6.2.

6.1 Adding a new Bouquet

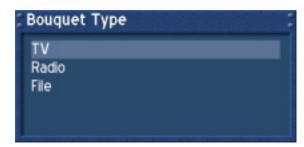
If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Organizing" and press the **OK-Button**.



Navigate to the option "Create new bouquet" and press the **OK-Button**.



You are asked for the type of Bouquet you want to add.

In our example we add a TV Bouquet.

Press the **OK-Button**.



Using the **Numeric Keypad** on your remote control and pressing the numbers several times will let you choose the desired letters and numbers.

Pressing the **yellow Options-Button** will toggle between capital and small letters.

Pressing the **blue Options-Button** toggles between numeric and regular mode.

Pressing the **green Options-Button** adds a space.

Pressing the **red Options-Button** will act as a backspace.

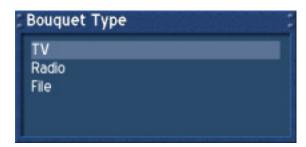
Pressing the **OK-Button** will take you back to the "Service organizing" screen.

6.2 Adding services to an existing Bouquet

Please read the section **Service organizing – Adding a new Bouquet** to learn how to get into this menu.



Navigate to the option "Add services to bouquet" and press the **OK-Button**.



You are asked for the type of Bouquet you want to add.

In our example we add a TV Bouquet.

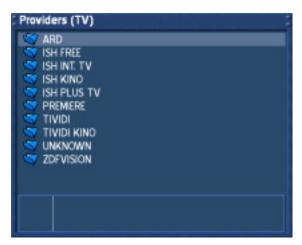
Press the **OK-Button**.



You are asked in which Bouquet to place the service.

We will use our freshly created "my new bouquet" in this example.

Press the **OK-Button**.



You can now choose whether to take a service from the provider list or service list or the new services list.

Note: All services that were not found in your services list when you did an automatic transponder scan will be saved in the new services list.

We will use the provider list in our example.

Press the **OK-Button**.



The provider list will show up. In our example we will choose the provider "ARD".

Press the **OK-Button**.



You now see the services that are provided by "ARD".

In our example we mark the service "Phoenix" by pressing the **OK-Button**.

You can choose more than one service by selecting them and pressing the **OK-Button**. They will be highlighted in red text if selected.

Pressing the **Exit-Button** will quit your selection.

You are taken back to the "Service organizing" menu.

6.3 Editing a Bouquet

Please read the section **Service organizing – Adding a new Bouquet** to learn how to get into this menu.



Navigate to the option "Edit bouquets" and press the **OK-Button**.



In our example we will edit a TV Bouquet.

Press the **OK-Button** to edit the TV Bouquets.



In our example we will edit our freshly created "my own bouquet" Bouquet.

Select it and press the **OK-Button**.



Pressing the **red Options-Button** will delete the service from the Bouquet.

Attention: This will happen without question if you really want to do it!

Pressing the **green Options-Button** will pick up the selected service and enable you to move its position in the Bouquet. Pressing the **green Options-Button** again will release the service.

Pressing the **yellow Options-Buttons** will let you rename the selected service. See section **Service organizing – Adding a new Bouquet** for details.

Pressing the **blue Options-Button** will add a marker than you can name whatever you want it to be named. See section **Service organizing – Adding a new Bouquet** for details. This allows you to divide your Bouquet list into several sections.

The above describes procedures also apply for Radio and File Bouquets.

6.4 Parental lock and Setup lock

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Parental lock" and press the **OK-Button**.



You can activate the parental and setup lock in this menu. It prevents anyone else from having unauthorized access to certain services, videos and MP3s. It also offers the possibility to only make certain services available to your kids.

These protection mechanisms are controlled by a four digit PIN that only is know to you.

Attention:

If you loose your PIN you will have to reset your Dreambox to the factory defaults in order to deactivate any locks.

6.4.1 Activating the parental lock

Please read the section **Parental lock and Setup lock** to learn how to get into this menu.



Check the checkbox in front of "Parental lock" by pressing the **OK-Button**.

The Option "Change PIN" will appear.

Navigate to the option "Change PIN" and press the **OK-Button**.

You also choose to hide all locked services form the service list by checking the checkbox in front of the "Hide locked services" option.



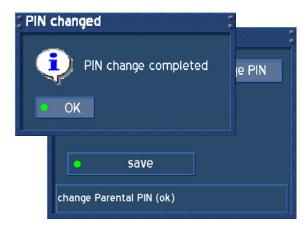
Enter a four digit PIN with the **Numeric Keypad** on your remote control.

Attention:

Entering "0000" as your PIN will deactivate any locks. Please choose a PIN that differs from "0000".

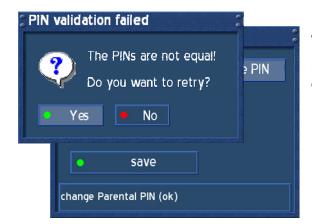


Re-enter you PIN to make sure you entered the right one.



If everything went right you will be prompted that your PIN has been changed.

Press the **OK-Button**.



If the PIN you entered twice are not the same you will be prompted this error message.

Pressing the **green Options-Button** will let you reenter your PIN and try again.

Pressing the red Options-Button will abort.



Press the **green Options-Button** to save your settings.

You will be taken back to the "Setup" menu.

Deactivating the parental lock

Please read the section Parental lock and Setup lock to learn how to get into this menu.



Uncheck the checkbox in front of "Parental lock" by pressing the **OK-Button**. You will be prompted for your current PIN.



Enter your PIN to deactivate the parental lock.



The check in front of "Parental lock" is now gone.

Press the **green Options-Button** to save your settings.

You will be taken back to the "Setup" menu.

6.4.2 Activating the setup lock

Please read the section Parental lock and Setup lock to learn how to get into this menu.



Check the checkbox in front of "Setup lock" by pressing the **OK-Button**.

The Option "Change PIN" will appear.

Navigate to the option "Change PIN" and press the **OK-Button**.



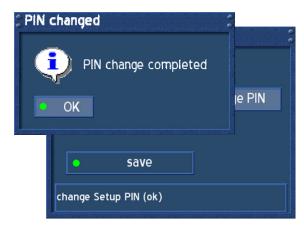
Enter a four digit PIN with the **Numeric Keypad** on your remote control.

Attention:

Entering "0000" as your PIN will deactivate any locks. Please choose a PIN that differs from "0000".

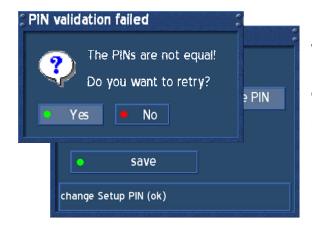


Re-enter you PIN to make sure you entered the right one.



If everything went right you will be prompted that your PIN has been changed.

Press the **OK-Button**.



If the PIN you entered twice are not the same you will be prompted this error message.

Pressing the **green Options-Button** will let you reenter your PIN and try again.

Pressing the red Options-Button will abort.



Press the **green Options-Button** to save your settings.

You will be taken back to the "Setup" menu.

Deactivating the setup lock

Please read the section Parental lock and Setup lock to learn how to get into this menu.



Uncheck the checkbox in front of "Setup lock" by pressing the **OK-Button**. You will be prompted for your current PIN.



Enter your PIN to deactivate the setup lock.



The check in front of "Setup lock" is now gone.

Press the **green Options-Button** to save your settings.

You will be taken back to the "Setup" menu.

6.5 Locking a service

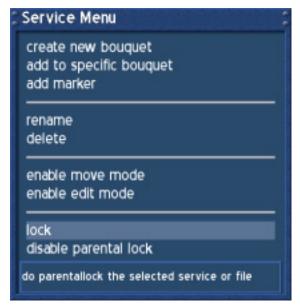
Please read the section **Parental lock and Setup lock** to learn how activate the parental lock.



Press the **OK-Button** to open the service list.

Navigate to the service you want to lock and press the **Menu-Button**.

You can lock any entry of your choice in the service list. (All services, Satellites, Providers and Bouquets)



Navigate to the option "Lock" and press the **OK-Button** to lock a service.

You can also deactivate the parental lock in this menu. Navigate to the option "Parental lock" and press the **OK-Button**.



You will prompted for your PIN.



Once you have locked a service you will see the locked symbol next to its name in the service list. You will be prompted for your PIN every time you want to access the service from now on.

Unlocking a service



Press the **OK-Button** to open the service list.

Navigate to the service you want to unlock and press the **Menu-Button**.

You can unlock any entry of your choice in the service list. (All services, Satellites, Providers and Bouquets)



Navigate to the option "Unlock" and press the **OK-Button** to unlock a service.



You will prompted for your PIN.



Once you have unlocked a service you will he locked symbol next to its name in the service list will disappear.

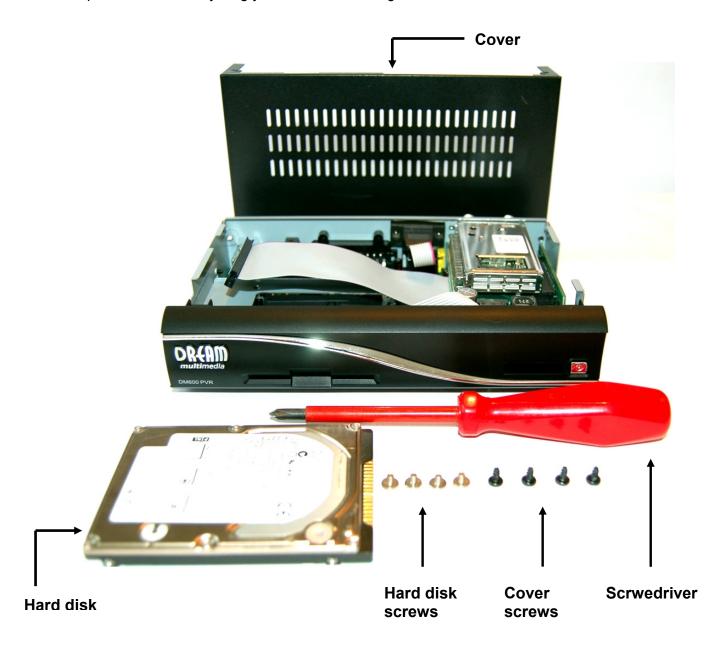
7. Hard disk operation

7.1 Mounting guidelines

This chapter describes how to mount a hard disk inside your Dreambox DM 7025.

Please always adhere to ESD (Electrostatic Discharge) regulations when handling electronic devices. Make sure that you are grounded. Do not open the device in your living room or in any other rooms with carpeting or any other flooring that can carry an electrostatic charge. Remove all connection from the device. Only open the device with the tools depicted in this manual. Try to avoid direct contact with the main circuit board. If all this doesn't mean anything to you or if you have too many question, please contact your dealer or technician. Also notice the warranty notes in chapter *1.1 Safety instructions*.

This picture shows everything you need for installing the hard disk.



Parts list

- 1 Dreambox (including the 6 Phillips screws for the cover and the hard disk cage). The IDE cable is already installed inside the Dreambox DM600 PVR.
- 1 Phillips screwdriver
- 1 Hard disk of your choice
- 4 Hard disk mounting screws (not included)

Action:



Remove these 2 screws on the rear panel.



Remove this screw at the right side of the device.

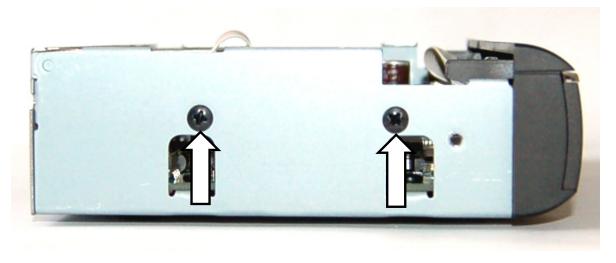


Remove this screw at the left side of the device.



Lift the cover on the sides on slide it backwards.





Remove the 2 screws from the hard disk cage. Remove the hard disk cage by lifting it upwards.

Now you need the Phillips screwdriver, the hard disk cage, the 4 hard disk mounting screws and your hard disk.



Attach the hard disk cage to the hard disk.

Pay attention to the correct mount of the hard disk in the hard disk cage. Set the jumper of the hard disk to cable select. This information usually is printed on the hard disk.



Put the hard disk cage back into the Dreambox and connect the IDE cable to the hard disk.

Screw the two screws back onto the hard disk cage.

Slide the cover from the rear back onto the device.

Screw the one screw on each side and the two screws on the rear back into place.

Reattach all connector to your Dreambox. Attach the power cord as last.

7.2 Management

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "System" and press the **OK-Button**.



Navigate to the option "Hard disk" and press the **OK-Button**.



Navigate to the option "Samsung SV8004H (master 78.188 GB)" and press the **OK-Button**.

If you have installed another hard disk this option will differ from the one depicted.

7.2.1 Hard disk formatting

Please read the section Hard disk Management to learn how to get into this menu.



The Hard disk Management dialog will open up.

Press the **red Options-Button** to format the Hard disk.

Press the **yellow Options-Button** to run a Hard disk check.

Press the Exit-Button to quit.



You will be asked if you really want to format the Hard disk. Press the **red Options-Button** to abort.

Press the **green Options-Button** to start formatting the Hard disk.

7.3 Recording

7.3.1 Instant recording

The Dreambox DM 600PVR offers you several methods to record a film. The standard solution is recording onto a built-in hard disk. Additionally you can record via Ethernet using a so called NFS mount or a NGrab server, if you have no hard disk installed in your Dreambox. Right now we assume that you have installed a hard disk in your Dreambox.



Press the VIDEO-Button to access the PVR mode. During replay you can see the control symbols in the Infobar.

Attention:

The Infobar will disappear after a short period to time. Press the OK-Button to reveal it again.





Keep in mind that you have to be in the PVR-Mode to Land In PVR-Mode the Options-Buttons are mapped these options. You can check this by pressing the **OK-**The Infobar will reveal and should show the depicted control symbols. If they are not shown you simply have **Green Options-Button** = Play to press the VIDEO-Button once again.

The Infobar does not have to be visible to use the PVR-Mode.

You can see the control symbols for the PVR-Mode on you remote control below the Options-Buttons.

as described below:

Red Options-Button = Rewind Yellow Options-Button = Pause Blue Options-Button = Forward TV-Button = Stop



Select a TV or Radio station from the service list. Activate the PVR Mode by pressing the Radio-Button (Record). The recording is indicated by a flashing symbol in the Infobar. During recording you can watch another recording or another channel. Pressing the Up/Down-Buttons on your remote control activates the service list. The recording will continue in the background.

7.3.2 Stop recording





Press the **TV-Button** again and you will be asked if you want to stop the recording.

Use the **Navigation-Buttons up** and **down** to select. Press the **OK-Button** to activate. Otherwise you can press the **green Options-Button** for "Yes".



or the red Options-Button for "No".





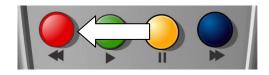


After you quit the recording you will be asked if you want to view the recorded film.

Use the **Navigation-Buttons up** and **down** to select. Press the **OK-Button** to activate. Otherwise you can press the **green Options-Button** for "Yes".



or the red Options-Button for "No".





If you have selected "Yes" you will be taken to the File-Mode (Recorded films). Here you can see a list of all your recordings.

Use the **Navigation-Buttons up** and **down** to select. Press the **OK-Button** to watch a recording.

During replay you can see the control symbols in the Infobar.

Press the **Navigation-Buttons up** and **down** or the **Video-Button** to get back to the list of recordings.

7.3.3 Recording by timer



If no OSD menu is visible on your screen, press the **TV-Button** to open the service list.

Press the INFO-Button.

Alternatively you can press the **red Options-Button** to directly access the station's EPG.

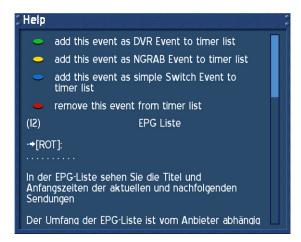


Select "Channel EPG" and press the **OK-Button**.



In this dialog the **Options-Buttons** are mapped differently!

Press the **Help-Button** to get additional information about possible timer options.



Attention:

For recording with NGrab it is neccessary, that the network and NGrab software are configured.

Press the **EXIT-Button** or the **OK-Button** to close the window.



Press the **green Options-Button** to add the selected show as hard disk recording to the timer list.



Press the **yellow Options-Button** to add the selected show as NGrab recording to the timer list.



Press the **blue Options-Button** to add the selected show as switch only timer to the timer list.



Press the **red Options-Button** to delete the selected timer.



Select a show that you would like to record.

Press the green Options-Button.



The "Timer edit" menu will open up.

Use the **Navigation-Buttons** to access the options and press the **OK-Button** to open up any drop-downmenus.



The DVR-Recording menu gives you the same options that were described above by pressing the **Options-Buttons**.

Switch – Switch only timer DVR-Recording – Record to hard disk NGrab – NGrab Ethernet recording

The "nothing" drop-down-menu gives you the ability to choose what should happen after the recording finished.

Standby – Your Dreambox will go into Standby mode after the recording finished.

Shutdown – Your Dreambox will go into Deep-Standby mode after the recording finished.

Press the **green Options-Button** to save the settings.



After you have set a timer you will be taken back to the EPG view.

The timer is indicated by the clock symbol in the EPG.

Press the Exit-Button to leave the EPG.

7.3.4 Setting Sub Service timers using the EPG

The process is exactly the same as in the chapter before. The difference however is that you choose a service that offers sub services and press the **red Options-Button** to access the EPG. Afterwards press the **green Options-Button** to add it as a DVR-Recording. The "Timer edit" menu will open up.



The Sub Service menu will open up. Select the Sub Service that you want to record and press the **OK-Button**.

After you have set a timer you will be taken back to the EPG view.

The timer is indicated by the clock symbol in the EPG.

Press the **Exit-Button** to leave the EPG.

7.3.5. Timeshift

Once you started an instant recording you can fast-forward and rewind while recording as long as you have already recorded at least 1 minute long.

Press the **yellow Options-Button** to pause the screen (video and audio will pause). The recording will continue in the background. Press the **yellow Options-Button** again to resume watching.

This way you won't have to miss anything ever again if you quickly have to catch a phone call.

The Timeshift-Mode can be exited by pressing the **TV-Button**.

7.4 Watch a recording

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "File Mode" and press the **OK-Button** to.

Alternatively you can press the **TV-Button** or use the **Up/Down-Buttons** while in TV-Mode to open up the service list. While the service list shows, press the **Text-Button** to get into the File-Mode as well.



Use the **Navigation-Buttons up** and **down** to select. Press the **OK-Button** to watch a recording.

During replay you can see the control symbols in the Infobar.

Press the **Navigation-Buttons up** and **down** or the **Video-Button** to get back to the list of recordings.

7.4.1 Delete a recording

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "File Mode" and press the **OK-Button** to.

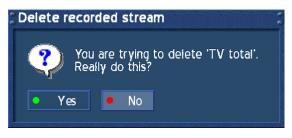
Alternatively you can press the **TV-Button** or use the **Up/Down-Buttons** while in TV-Mode to open up the service list. While the service list shows, press the **Text-Button** to get into the File-Mode as well.



Use the **Navigation-Buttons up** and **down** to select. Press the **Menu-Button** to access the "Service menu".



Use the **Navigation-Buttons up** and **down** to select "Delete" and press the **OK-Button**.

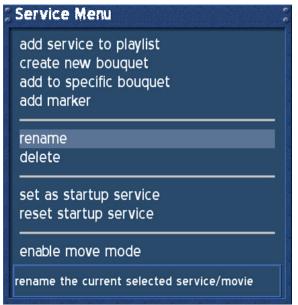


You will be asked if you want to delete the recording.

Choose "Yes" and you will be taken back to the selection of recordings.

7.4.2 Rename a recording

Please read the section **Delete a recording** to learn how to get into this menu.



Navigate to the option "Rename" and press the **OK-Button**.



By repeatedly pressing the buttons of the Numeric-Keypad you can select the letters.

The yellow Options-Button toggles between capital and small letters.

The Volume + Button adds a blank.

The Volume – Button deletes the selected letter.

Use the Left/Right-Buttons to get to the desired position.

Press the blue Options-Button to toggle between numeric and letter character set.

Press the OK-Button to save and quit.

7.5 Timer

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Timer" and press the **OK-Button** to select.



This is the timer list.

You can see a timer event that has been entered as an example.

A green checkmark in front of the timer event means that is has been successfully executed.

A red cross in front of the timer event means that is has been aborted or not executed at all.

Sleeptimer events are also shown in this list and can be edited or deleted here.

Press the blue Options-Button to clean up the timer list.

We suggest only adding timer event through the EPG. This timer list is mainly meant for management purposes.

8. Teletext

You are in the TV or Radio mode. Press the **Text-Button** to enter the teletext.

Keep in mind that not every station transmits teletext!

Teletext - regular navigation:

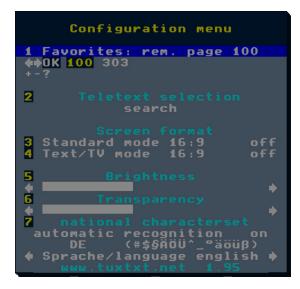
If you are viewing any teletext page you can enter the interactive mode by pressing the **OK-Button**. Use the **Navigation-Buttons** to select a text page number and press the **OK-Button** to call this page. You don't need to type in a text page number in this mode, but it is still possible.

Press the EXIT-Button to exit.

Press the **Mute-Button** a couple of times to toggle between transparent-mode, invisible-mode and full mode. The alpha-mode shows the picture from the running program through the text pages. The invisible-mode shows the complete picture from the running program without exiting the teletext. The full-mode brings back the text page.

Press the **Volume-up-Button** to toggle between double high from the upper half, double high from the lower half and full view text page.

Press the **Volume-down-Button** to activate or deactivate the PIG-Mode (Picture in Graphics). Same view from Text page and Program picture. (best results are show on 16:9 TV's during 4:3 transmission).



Teletext configuration menu:

If the teletext page 100 is shown you can press the **MENU-Button** to enter the teletext configuration menu.

You have the following options:

Teletext - Selection:

Select the "Search" option and press the **OK-Button** to start searching for teletext information on other services without having to leave the service that you currently are watching. After the search is finished you can use the **Navigation-Buttons left** and **right** to select the teletext of another service without having to switch services. Press the **OK-Button** to select the desired teletext. This option is only available if more than one service on the current satellite transponder actually transmits teletext information. If this is not the case you cannot make a selection.

Screen format:

Standard mode 16:9 = on/off

Enabling this shows the TuxText in 16:9 Aspect Ratio. Press the OK-Button to enable or disable this option. The default setting is disabled.

Text/TV mode 16:9 = on/off

Enabling this, switches the TV to 16:9 Aspect Ratio if the PIG-Mode is activated with the Volume-down-Button. Press the OK-Button to enable or disable this option. The default setting is disabled.

Note:

On some older 4:3 TV's these Modes may not work. If enabled, it could happen, that your TV switches away from the VCR or A/V socket.

If you are using a 4:3 TV, we suggest not to enable these modes.

Brightness:

Here you can adjust the brightness of your Teletext. Press the Navigation-Buttons left or right to adjust the brightness.

Transparency:

Here you can adjust the transparency value of your Teletext. Press the Navigation-Buttons left or right to adjust the alpha value.

National characterset:

automatic recognition = on/off

The national codepage detection is used to display the teletextpages with the right letterset for your location. Press the OK-Button to enable or disable this option. The default setting is enabled. If disabled, use the Navigation-Buttons left or right, to choose your codepage.

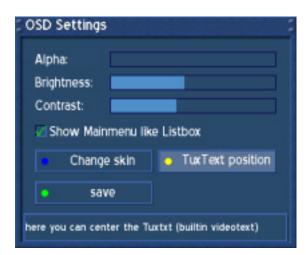
For further information see www.tuxtxt.net

8.1 Setting the teletext position

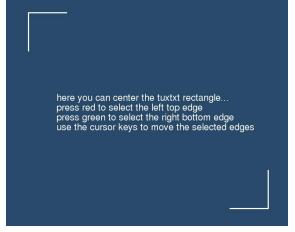
Please read the section **OSD settings** to learn how to get into this menu.

What is TuxText? TuxText is a Plugin (additional Software), which allows the Dreambox to decode the digital Teletext. TuxText is faster and easier to use than the regular teletext that is build in to your TV screen.

This menu is used to adjust the position of the TuxText. Maybe the clock does not appear or the text pages are not shown in the middle of the screen.



Press the yellow Options-Button to enter the TuxText position setup.



You see the blue screen as depicted on the left.

Press the **red Options-Button** to select the upper left corner.

Use the **Navigation-Buttons** to move the rectangle in the upper left corner.

Press the **green Options-Button** to select the lower right corner.

Use the **Navigation-Buttons** to move the rectangle in the lower right corner.

Attention:

If you don't see any rectangle, then they are out of range. Please adjust the rectangle towards the middle of the screen..

Once the positions are set press the **OK-Button** to save the settings.



Press the **green Options-Button** to save your settings.

You will be taken back to the "System" menu.

9. Sleeptimer

Press the Power-Button for at least 3 seconds, select "set sleeptimer" to access this menu.



This is he sleeptimer menu.

Define a maximum duration of 240 minutes. Define if the Dreambox should shutdown or should go into standby mode by setting a check into one of the checkboxes beside shutdown and standby using the **OK-Button**.

Either press the **green Options-Button** or the **OK-Button** to accept the setting.

10. Setup

10.1 Setting the time zone

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "System Settings" and press the **OK-Button**.



The "System Settings" menu will open up.

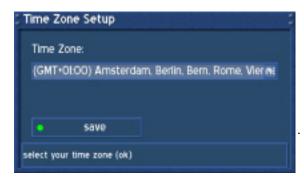
Navigate to the option "Time" and press the **OK-Button**.



The "Time Settings" menu will open up.

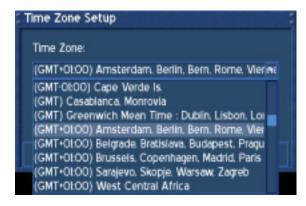
You can either set your time zone or manually adjust the time of you Dreambox in this menu.

Navigate to the option "Time Zone Setup" and press the **OK-Button**.



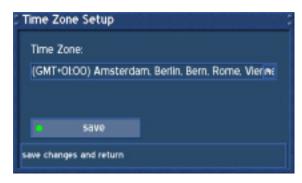
The "Time Zone Setup" menu will open up.

Press the **OK-Button** to get open the list of time zones.



Select your desired and time zone with the **Navigation-Buttons up** and **down**. Press the **OK-Button** to activate.

The time zone list will disappear and you current selection is shown as seen in the picture above.

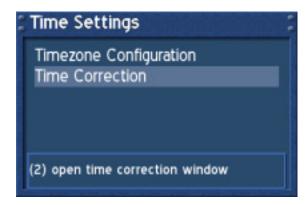


Navigate to the option "save" and press the **OK-Button** to save your settings. Optionally you can press the **green Options-Button** to save.

You are taken back to the "Time" menu.

10.1.1 Manual time correction

Please read the section **Setting the time zone** to learn how to get into this menu.



Navigate to the option "Time Correction" and press the **OK-Button**.



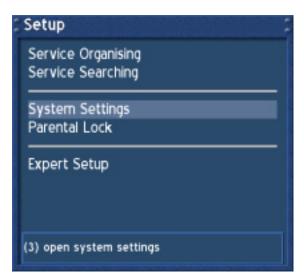
When entering this menu, please wait a second. The Dreambox tries to receive the current time. The Transponder Time and Date will be automatically updated. If this fails, enter the new time and date manually.

Navigate to the option "set" and press the **OK-Button** to save your settings. Optionally you can press the **green Options-Button** to save.

You are taken back to the "Time Settings" menu. Pressing the **Exit-Button** will leave this menu.

10.2 Audio/Video settings

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "System" and press the **OK-Button**.



Navigate to the option "A/V settings" and press the **OK-Button**.



Disable WSS on 4:3:

Check the checkbox to disable zooming on some 16:9 TV's during 4:3 transmissions.

AC3 default output:

If a program is transmitted with an AC3 audio track (e.g. Dolby Digital), the Dreambox switches automatically to this audio track. The AC3 signal will only be available at the optical socket. The Dreambox has no built-in Dolby Digital Decoder, AC3 signals are not available on the analog socket, therefor you need an external Dolby Digital Amplifier to adjust the volume.

Use the **Navigation-Buttons left** and **right** and the **OK-Button** to change the values.

Color format:

CVBS(FBAS), **RGB** (Red, Green, Blue separated), **SVideo** (Color- and Brightness signal separated) and **YPbPr** (Component signal e.g. for Projectors).

Aspect ratio:

- **4:3 Letterbox (Standard)**, (16:9 programs will be displayed on 4:3 TV's with black beams at top and bottom)
- **4:3 Panscan** (16:9 programs will be zoomed to full high on 4:3 TV's, parts of the picture on the left and right side will cut off)
- **16:9** (programs transmitted in 16:9 will be displayed automatically in 16:9, on 4:3 TV's the picture will be reduced in height)

TV System:

Choose the standard that your TV supports. PAL; PAL + PAL60; Multinorm and NTSC.

Test:

Press the **blue Options-Button** to activate the test screen mode. Press the number 1-8 on the **Numeric Keypad** to select a test screen. Press any other key to quit the test screen mode.

Press the **green Options-Button** to save your settings.

You will be taken back to the "System" menu.

10.3 Keyboard

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "System Settings" and press the **OK-Button**.



Navigate to the option "Keyboard Setup" and press the **OK-Button**.



Press the **OK-Button** to open the drop down menu and select your desired keyboard layout.

Press the **green Options-Button** to save your settings.

10.4 OSD settings

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "System Settings" and press the **OK-Button**.



Navigate to the option "OSD settings" and press the **OK-Button**.



Using the **Navigation-Buttons left** and **right** you can change the transparency, brightness and contrast settings of the OSD (On Screen Display).

Alpha:

The "Alpha" option controls how strong you will see the TV picture through the OSD menu.

Brightness:

Changes the brightness of the OSD menu.

Contrast:

Changes the contrast of the OSD menu.

Show main menu as list box:

Check the checkbox if you want to view the main OSD menu like all other menus, as a list box.

Change skin:

See section Skin Setup

TuxText Position:

See section Setting the Teletext position

Press the **green Options-Button** to save your settings.

You will be taken back to the "System" menu.

10.5 Language

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "System Settings" and press the **OK-Button**.



The "System Settings" menu will open up.

Navigate to the option "OSD Language" and press the **OK-Button**.



The "OSD Language" menu will open up.

Select your desired and language with the **Navigation-Buttons up** and **down**. Press the **OK-Button** to activate.

The Exit-Button will quit this menu.

10.6 Skin Setup

Please read the section **OSD settings** to learn how to get into this menu.



A skin changes the appearance of the OSD.

Choose the skin to your liking and press the **OK-Button** to select it.

The standard skin is Screwed Stone.

See section **Available skins** for a complete list of available skins.



To completely activate a skin Enigma has to be restarted.

Make your choice and press the **green Options-Button** to activate the skin.

Press the **red Options-Button** to discard any changes.

10.6.1 Available Skins



Bluenigma BIG



Silver Metal



Neutrino-style



Screwed Stone



Carbon



BlueQT



Simple and Stylish

The skin **Simple and Stylish 16:9** looks just like the **Simple and Stylish** skin. It is only optimized for a 16:9 TV screen.

10.7 Expert setup

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Expert Setup" and press the **OK-Button**.



1GB:

You can set the filesize for splitting recordings here.

Infobar timeout 6 sec.:

Set the desired time after which you want the Infobar to disappear.

Serviceselector help buttons:

Press the **OK-Button** to turn the colored help buttons off. The default setting is enabled.

Show Sat position:

Putting a check behind this option by pressing the **OK-Button** will show the sat position of the current station in the Infobar.

Enable Fast zapping:

Pressing the **OK-Button** will remove the check behind this option. Switching stations will be a few nano seconds slower.

Skip confirmations:

Press the **OK-Button** to put a check behind this option. No more confirmation windows will be shown. Be careful with this option. The System does not ask anymore, if you would like to see the recorded movie after stopping recording nor if you would like to really delete a movie. The default setting is disabled.





Hide error windows:

If enabled no more error messages, i.e.: service not found, will be shown.

Automatically show Infobar.

If enabled the Infobar will be shown every time a new show starts.

Show remaining Time:

If enabled the remaining time rather than the total time of the running show will be displayed in the Infobar.

Use http authentification:

If disabled you will no more need a username and password to access the web interface of your Dreambox.

Do not open serial interface:

If enabled no more debug messages will be send from Enigma to the serial interface.

Auto bouquet change:

If enabled your Dreambox will automatically jump to the next Bouquet once you have reached the last entry in a Bouquet.

Auto reconnect CAhandler:

If enabled your Dreambox will try to reestablish a broken CAhandler connection.

Disable teletext caching:

If enabled no more background caching of teletext pages will happen.

Enable Zapping History:

If enabled you are able to switch to a different service type in the file mode.

Automatisches Abspielen:

If enabled the most recently watched recording will be played omce you switch to file mode.

Press the **Exit-Button** to quit this menu.

10.8 Network

Please read the section **Expert setup** to learn how to get into this menu.



Navigate to the option "Communication setup" and press the **OK-Button**.



Attention:

If you are using a DHCP server in your LAN, configure the DHCP server so it does not assign the IP address used by the Dreambox. Otherwise an IP address collision is possible. Refer to the DHCP server's manual about how to configure a DHCP address pool.

Port:

Enter a port number of your choice to configure the HTTP port for the Dreambox's web interface. The default port is 80.

If the default port is set you can simply enter http://ip-of-your-box into the address bar of you browser to access the web interface. Otherwise you have to enter http://ip-of-your-box:portnumber

Use the **Navigation-Buttons** and the **Numeric Keypad** to enter or change the values.

IP:

Enter the IP address here.

DHCP:

If enabled your Dreambox will get its IP from a DHCP server. Disable this option to set a static IP address.

Netmask:

Enter the subnet mask (Usually 255.255.255.0).

Type:

LAN (Local Area Network); Connection to the home Network. The default setting is LAN.

WAN/PPPoE (Wide Area Network) / (Point-to-Point Protocol over Ethernet); Direct Connection to the Internet, (e.g. DSL Modem directly connected to the Dreambox). Please proceed to next passage for WAN settings

Nameserver:

Enter the DNS-Server's IP address here. DNS is used to translate a Domain name to an IP address. Normally, if the Type is set to LAN, there is no need for a DNS entry. If the Dreambox is connected to the Internet over a router, enter the router's IP address Here.

Gateway:

Enter the router's IP address here, if the Dreambox is connected to the Internet over a router.

Activate network:

Setting a check enables the network. The default setting is disabled.

Press the **green Options-Button** to save your settings.



Checking the checkbox in front of the option "Automount" will automatically mount the selected NFS share at the next boot of your Dreambox.

Press the **green Options-Button** to test the mount. You will get a system message if it was successful or not.

Press the **yellow Options-Button** to save you settings.

Press the **red Options-Button** to unmount the selected NFS share.

Navigate between the 8 possible shares by using the **Navigation-Buttons left** or **right**.

Pressing the blue Options-Button in the "Communication setup" menu will take you to the "Mount Manager" menu. You can setup up to eight different configurations to connect your Dreambox to shared folders on your PC. Right now only NFS sharing is supported.

IP:

IP address of the NFS server you want to access.

NFS:

Right now only the option NFS is available. Once more share types are supported you can select the type in this drop down menu.

Dir:

Enter the name of the NFS share on the NFS server that you want to access.

LocalDir:

The default setting is /mnt and does not need to be changed unless you want to add more than one share. Adding more than one share requires you to create several sub directories via telnet on your Dreambox. The suggestion is to create /varmnt1 to /var/mnt8

Options:

Either choose the option "rw" to have read and write access or choose the option "ro" to have read-only access to the NFS share.

Extra:

You can add additional mount parameters here. You have to know what you are doing otherwise leave this setting alone.

10.9 NGrab - Streaming Setup

Please read the section **Expert setup** to learn how to get into this menu.

In this menu you can set the IP address and port number of the NGrab server. The server can be running on any workstation or server in the LAN or WAN.



Navigate to the option "NGrab-Streaming" and press the **OK-Button**.



Srv IP:

Enter the IP address of the server or workstation running the NGrab software.

Srv Port:

Enter the port number of the server or workstation running the NGrab software.

Srv MAC:

The MAC address of the NGrab server will show once you have it running and press the **blue Options-Button**.

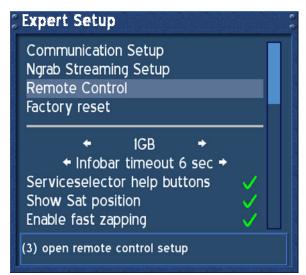
The MAC address is needed for the WOL (Wake On LAN) function of the server. The server needs to fully support APM (Advanced Power Management) and WOL to use this function.

Press the **green Options-Button** to save your settings.

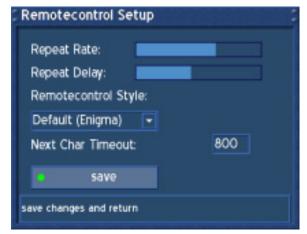
You will be taken to the "Expert setup" menu.

10.10 Remote control setup

Please read the section **Expert setup** to learn how to get into this menu.



Navigate to the option "Remote control" and press the **OK-Button**.



This Menu is used to customize the remote control for your needs.

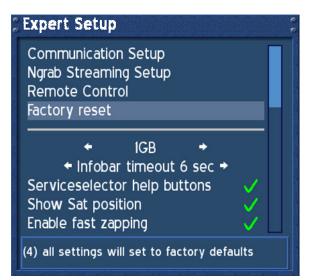
Use the **Navigation-Buttons left** or **right** to adjust the Repeat Rate and the Repeat Delay.

Press the **green Options-Button** to save your settings.

You will be taken back to the "Expert" menu.

10.11 Reset to factory defaults

Please read the section **Expert setup** to learn how to get into this menu.



Navigate to the option "Remote control" and press the **OK-Button**.



Follow the instructions on the screen and pick your choice.

11. Service searching

11.1 DVB-T Tuner configuration

11.1.1 Signal strength (Adjusting your antenna)

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Signalfind" and press the **OK-Button**.



Press the **OK-Button** to select a transponder.

Choose the region where you live in from the drop down menu "Region" and press the OK-Button.

Move your antenna around a bit and keep an eye on the SNR and SGC values. The higher they are the better the reception is.

Pressing the Exit-Button will leave this menu.

11.1.2 Disable 5V

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Disable 5V".

Press the **OK-Button** to set a check behind this option if you use a passive antenna.

If you connected an active antenna and want to use it without its power supply, press the **OK-Button** to remove the check behind this option.

11.1.3 Automatic transponder scan

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



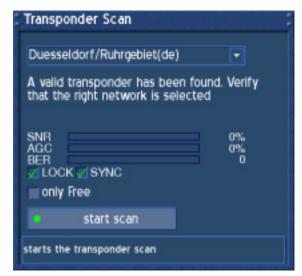
Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Automatic Transponder Scan" and press the **OK-Button**.



Select the region you live in the drop down menu and press the **OK-Button**.



scanning...
services scanned : 12
transponder scanned: 3
Progress:
Ol minutes and 16 seconds left
674000 KHz
ZDF
ZDFmobil
Scan is in progress.. please wait

You now should see that a valid transponder has been found and the checkboxes in front of "LOCK" and "SYNC" should be checked.

SNR:

Signal to Noise Ratio

AGC:

Automatic Gain Control

BER:

Bit Error Rate (should be equals 0 if possible)

only Free:

If you check the checkbox in front of the "only Free" option, your Dreambox will search on for FTA (non-encrypted) services.

Press the **green Options-Button** to start searching.

After you started searching you will see the progress bar and the estimated remaining time.

Please wait until your Dreambox finished searching for services.

You can always abort the searching by pressing the **Exit-Button** several times.



Once your Dreambox is done searching you will see this menu on the right. A brief summary of the search is shown.

Press the **OK-Button** to close this menu.

11.1.4 Manual Transponder scan

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Manual Transponder Scan" and press the **OK-Button**.



Enter the desired frequency with the **Numeric Keypad** on your remote control.

Use the **Navigation-Buttons** to reach the individual options.

Press the **green Options-Button** to start the scan.

11.2 DVB-C Tuner configuration

11.2.1 Automatic transponder scan

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



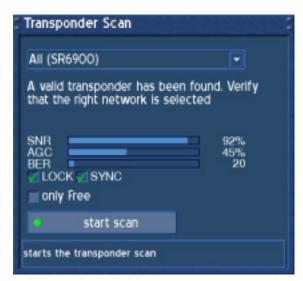
Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Automatic Transponder Scan" and press the **OK-Button**.



Select your cable provider in the drop down menu and press the **OK-Button**.



You now should see that a valid transponder has been found and the checkboxes in front of "LOCK" and "SYNC" should be checked.

SNR:

Signal to Noise Ratio

AGC:

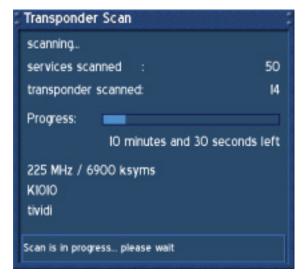
Automatic Gain Control

BER:

Bit Error Rate (should be equals 0 if possible)

Only free:

If you check the checkbox in front of the "Only free" option, your Dreambox will search on for FTA (non-encrypted) services.



Press the green Options-Button to start searching.

After you started searching you will see the progress bar and the estimated remaining time.

Please wait until your Dreambox finished searching for services.

You can always abort the searching by pressing the **Exit-Button** several times.



Once your Dreambox is done searching you will see this menu on the right. A brief summary of the search is shown.

Press the **OK-Button** to close this menu.

11.2.2 Manual transponder scan

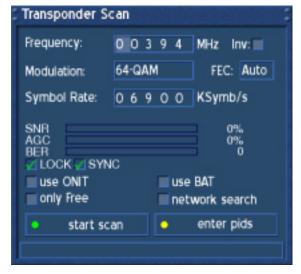
If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Manual Transponder Scan" and press the **OK-Button**.



Enter the desired frequency with the **Numeric Keypad** on your remote control.

Use the **Navigation-Buttons** to reach the individual options.

Press the **green Options-Button** to start the scan.

11.3 DVB-S Tuner configuration

11.3.1 Satfinder (Adjusting your dish)

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Satfind" and press the **OK-Button**.



Select the satellite and transponder in the drop down menu and press the **OK-Button**.

Adjust the dish towards the desired satellite until you have a high value on the signal strength AGC and on the signal quality SNR indicator. The BER should always indicate a value of zero if the satellite is locked and synced.

11.3.2 Satellite configuration

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Satellite Configuration" and press the **OK-Button**.

11.3.3 one single satellite - direct connection

Use this type of configuration if you want to receive a single satellite with a Single Universal LNB. The coax cable is directly connected from you Dreambox to the LNB. Please read the section **Satellite configuration** to learn how to get into this menu.

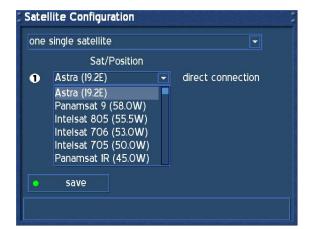


The "Satellite Configuration" menu will open up.

Choose the upper drop down menu and press the **OK-Button**.

A list of all possible configurations will show up.

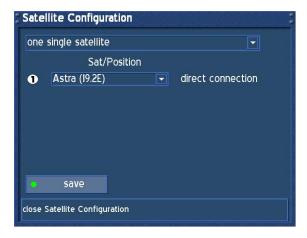
Select the "one single satellite" option and press the **OK-Button**.



Choose the drop down menu "Sat/Position" and press the **OK-Button**.

A list of all available satellites will show up.

Choose your desired satellite and press the **OK-Button**.

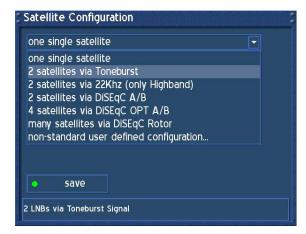


Choose "save" and press the **OK-Button**.

The configuration for "single satellite" is now done.

11.3.42 satellites via Toneburst

Use this type of configuration if you want to receive two satellites from one LNB each. It does not matter if you use one or two dishes to achieve this. Connect the two coax cables form the two LNBs to a so-called Toneburst switch and connect the coax cable from the Toneburst switch to your Dreambox. Please read the section **Satellite configuration** to learn how to get into this menu.



Choose the upper drop down menu and press the **OK-Button**.

A list of all possible configurations will show up.

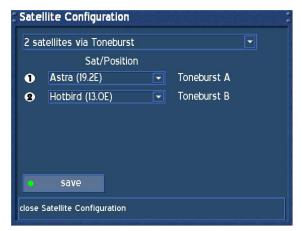
Select the "2 satellites via Toneburst" option and press the **OK-Button**.



Select your desired satellites as described in the **one single satellite – direct connection** section.

Make sure you know which satellite is connected to which input on the Toneburst switch.

If you do not find any services in the transponder scan later, exchange the two satellites in this list and try again.



Choose "save" and press the **OK-Button**.

The configuration for "2 satellites via Toneburst" is now done.

11.3.52 satellites via 22KHz (Highband only)

Use this type of configuration if you want to receive two satellites from one LNB each. It does not matter if you use one or two dishes to achieve this. Connect the two coax cables form the two LNBs to a so-called 22kHz switch and connect the coax cable from the Toneburst switch to your Dreambox. Please read the section **Satellite configuration** to learn how to get into this menu.



Choose the upper drop down menu and press the **OK-Button**.

A list of all possible configurations will show up.

Select the "2 satellites via 22kHz (Highband only)" option and press the **OK-Button**.



Select your desired satellites as described in the **one single satellite – direct connection** section.

Make sure you know which satellite is connected to which input on the 22kHz switch.

If you do not find any services in the transponder scan later, exchange the two satellites in this list and try again.



Choose "save" and press the OK-Button.

The configuration for "2 satellites via 22kHz (Highband only)" is now done.

11.3.62 satellites via DiSEqC A/B

Use this type of configuration if you want to receive two satellites from one Twin Universal or Quad Universal LNB. It does not matter if you use one or two dishes to achieve this. In this case the LNBs are connected to a so-called Multiswitch from which the signal is via coax cabled to the satellite receivers in your household. Please read the section **Satellite configuration** to learn how to get into this menu.



Choose the upper drop down menu and press the **OK-Button**.

A list of all possible configurations will show up.

Select the "2 satellites via DiSEqC A/B" option and press the **OK-Button**.



Select your desired satellites as described in the **one single satellite – direct connection** section.

Make sure you know which satellite is connected to which input.

If you do not find any services in the transponder scan later, exchange the two satellites in this list and try again.

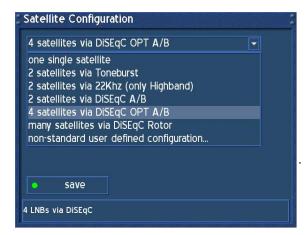


Choose "save" and press the **OK-Button**.

The configuration for "2 satellites via DiSEqC A/B" is now done.

11.3.74 satellites via DiSEqC OPT A/B

Use this type of configuration if you want to receive four satellites from one Twin Universal or Quad Universal LNB. It does not matter if you use one or two dishes to achieve this. In this case the LNBs are connected to a so-called Multiswitch from which the signal is via coax cabled to the satellite receivers in your household. Please read the section **Satellite configuration** to learn how to get into this menu.



Choose the upper drop down menu and press the **OK-Button**.

A list of all possible configurations will show up.

Select the "4 satellites via DiSEqC OPT A/B" option and press the **OK-Button**.



Select your desired satellites as described in the one single satellite – direct connection section.

Make sure you know which satellite is connected to which input.

If you do not find any services in the transponder scan later, exchange the two satellites in this list and try again.

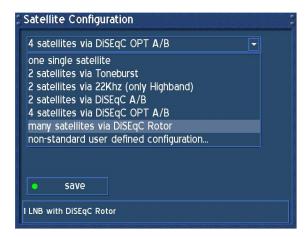


Choose "save" and press the OK-Button.

The configuration for "4 satellites via DiSEqC OPT A/B" is now done.

11.3.8 Many satellites via DiSEqC Rotor

Use this type of configuration if you want to receive many satellites with a DiSEqC 1.2 Rotor or Stab from a Single Universal LNB. The coax cable is directly connected from you Dreambox to the LNB. Please read the section **Satellite configuration** to learn how to get into this menu.



Choose the upper drop down menu and press the **OK-Button**.

A list of all possible configurations will show up.

Select the "Many satellites via DiSEqC Rotor" option and press the **OK-Button**.



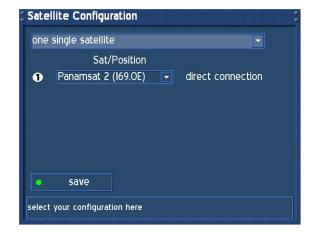
Edit the list of the satellites you can and want to receive. The order does not matter in this case. The number of satellites you can receive varies depending on your Rotor or Stab.

Press the **green Options-Button** to save your settings. You will be taken back to the service searching menu.

Hint:

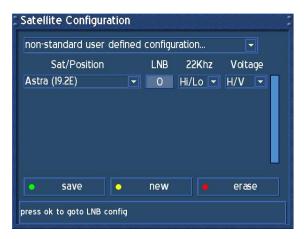


If you do not want to change the satellite position list before hand, just select the option "Single satellite – direct connection" and choose "Yes" in case you are prompted the message on the left.



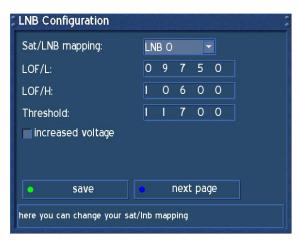
You will now see the configuration menu depicted on the right.

Choose "Non standard – user defined configuration" in the upper drop down menu. Press the **OK-Button**.



For now you will only see one satellite in the list. Please select LNB 0 and press the **OK-Button**.

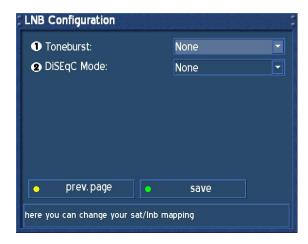
Astra 19.2° Ost is preset for your convenience.



The sub menu "LNB configuration" will show up.

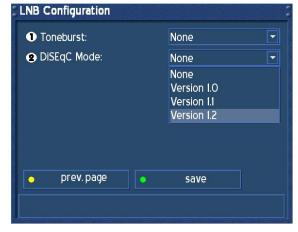
Please change nothing here for now. Except in cause your coax cable to the LNB has a too high damping value you can check the checkbox in front of "Higher voltage". Usually this is not necessary..

Now please press the **blue Options-Button** to get to the next sub menu.



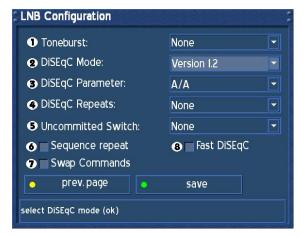
As you can see, the "DiSEqC - Mode" is not set yet.

Please leave the "Toneburst" mode as it is.



Press the number "2" on your **Numeric Keypad** and select the "DiSEqC – Mode" Version 1.2.

To save the settings press the **OK-Button**.



The menu will change and reveal additional options now.

There is no need to change anything here.

Press the **green Options-Button** to save the settings.

You are taken back to the "Satellite configuration" menu.



You can now use the **yellow Options-Button** to add more satellites.

Once you are done press the **green Options-Button** to save your settings.

You are now taken back to the "Transponder scan" menu.

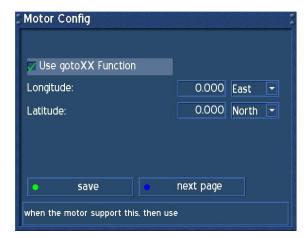
W

11.3.9 Motor Setup

Use this type of configuration if you want to receive many satellites with a Rotor or Stab from a Single Universal LNB. The coax cable is directly connected from you Dreambox to the LNB. Please read the section **Satellite configuration** to learn how to get into this menu.

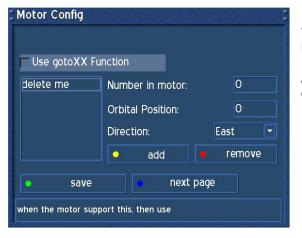


Choose the drop down menu "*Motor Setup*" and press the **OK-Button**.



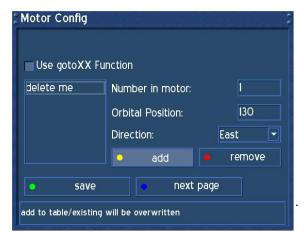
Refer to the Rotors Manual for correct values degrees/second.

Visit the Website http://www.heavens-above.com to figure out your geographical location. Enter the values for Longitude and Latitude and press the green Option-Button to save you settings.



Remove the check from the checkbox in front of "Use gotoXX function" to use a DiSEqC 1.2 Rotor like the SG2100 Rotor without USALS support.

As you can see on the left, a new menu with new options will appear.

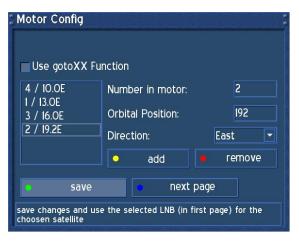


Take the list of preset satellite positions of your rotor, which can usually be found in the rotor's manual and add each satellite that you want to receive in the list in the left.

i.e.: Number 1 in the rotor is Hotbird 13° Ost

You will have to enter a 1 in the "Number in rotor" field and a 130 in the "Orbital position" field.

For a better understanding please take a look at the **Example table for the DiSEqC 1.2 Rotor (SG2100)**. It is borrowed fomr the original manual.



Press the **yellow Options-Button** to add the satellite to your list.

An example table of 4 satellites is depicted on the

Attention: You can later on only scan for services on satellites that you have entered in this list.

Press the **green Options-Button** to save your settings.

The menu "Transponder scan" will show up. See sections *Automatic transponder scan* or *Automatic multisat transponder scan* for details.

Example table for the DiSEqC 1.2 Rotor (SG2100)

Nummer in Rotor	Satellitenname	Position	Wert für Orbital Position	Nummer in Rotor	Satellitenname	Position	Wert für Orbital Position
4	Linkhins	430.0	130 O	4.4	Llingan	200 147	300 W
1	Hotbird	13° O		14	Hispasat	30° W	
2	Astra	19.2° O	192 0	15	Telstar 11	37.5° W	375 W
3	Eutelsat W2	16° O	160 O	16	Kopernikus	23.5° O	235 🔾
4	Eutelsat W1	10° O	100 0	17	Arabsat	26° O	260 O
					2A3A		
5	Eutelsat W3	7° O	70 ()	18	Astra 2	28.2° O	282 O
6	Sirius 2/3	5° O	50 O	19	Eurobird	28.5° O	285 O
7	Thor 2/3	0.8° W	8 W	20	Arabsat 2B	30.5° O	305 O
8	Intelsat 707	1° W	10 W	21	Türksat 1B	31.3° O	313 ()
9	Telekom 2C	5° W	50 W	22	Türksat 1C	42° O	420 O
10	Telekom 2D	8° W	80 W	23	Intelsat 601	34.5° W	345 W
11	Intelsat 705	18° W	180 W	24	Pas 3R	43° W	430 W
12	NSS 803	21.5° W	215 W	25	Amos	4° W	40 W
13	Intelsat 605	27.5° W	275 W	26	Nilsat	7° W	70 W

O = East, W = West (this table is not up to date, it is only for explanation)

11.3.10 Automatic transponder scan

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



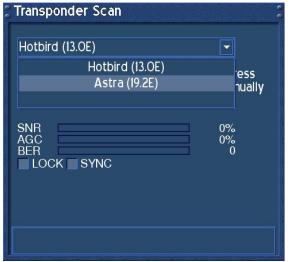
Navigate to the option "Service Searching" and press the **OK-Button**.



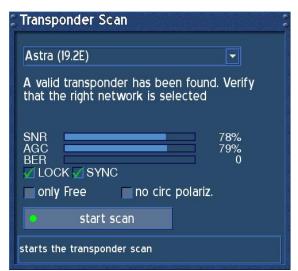
Navigate to the option "Automatic Transponder Scan" and press the **OK-Button**.

This option is primarily used for only scanning a single satellite in your list.

Please select the option "Automatic Multisat Scan" if you want to scan for services on all set satellites at once. See section **Automatic Multisat Scan** for details.



Select one of the two satellites in the drop down menu and press the **OK-Button**.



You now should see that a valid transponder has been found and the checkboxes in front of "LOCK" and "SYNC" should be checked.

SNR:

Signal to Noise Ratio

AGC:

Automatic Gain Control

BER

Bit Error Rate (should be equals 0 if possible)

only Free:

If you check the checkbox in front of the "only Free" option, your Dreambox will search on for FTA (non-encrypted) services.



No circular polarization:

If you scan anything other than a C-Band satellite please check the checkbox.

Press the **green Options-Button** to start searching.

After you started searching you will see the progress bar and the estimated remaining time.

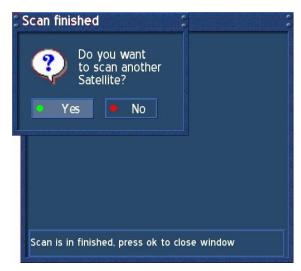
Please wait until your Dreambox finished searching for services.

You can always abort the searching by pressing the **Exit-Button** several times.



Once your Dreambox is done searching you will see this menu on the right. A brief summary of the search is shown.

Press the **OK-Button** to close this menu.



You will now be prompted if you want to scan another satellite. Press the **green Options-Button** if that is the case and you have setup another satellite in the satellite list.

Press the **red Options-Button** to end the scan.

You are taken back to the "Service searching" menu.

11.3.11 Automatic multisat scan

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Automatic Multisat Scan" and press the **OK-Button**.

This option will scan all satellites in your satellite list without asking you if you want to scan any other satellites.



The transponder scan menu for a multisat scan will pop up.

Pressing the **OK-Button** will change the scan option of the selected satellite.

The options "nothing" means that the satellite is not scanned for any transponders.



Pressing the **OK-Button** will toggle between the available scan options.

Setting the multisat scan option to "all" will scan for all available services no matter if they are free or encrypted.



Pressing the **OK-Button** will toggle between the available scan options.

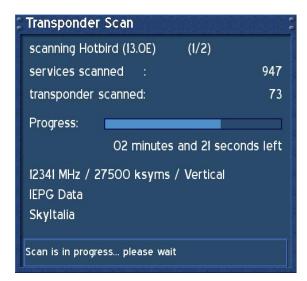
Setting the multisat scan option to "only free" will scan for all available services that are not encrypted.



Pressing the **OK-Button** will toggle between the available scan options.

Usually the "all" option is the best choice.

Press the **green Options-Button** to start the scan.



The menu for the first scanned satellite is depicted on the left.



The menu for the second scanned satellite is depicted on the left.



Once your Dreambox is done searching you will see this menu on the right. A brief summary of the search is shown.

Press the **OK-Button** to close this menu.



The System will now ask you, if you want to scan any other transponders.

Press the **red Options-Button** to quit the transponder scan.

You are taken back to the "Service searching" menu.

11.3.12 Manual transponder scan

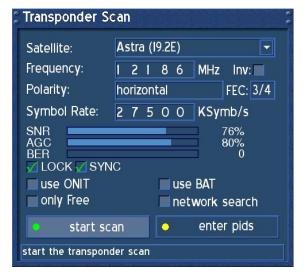
If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Manual Transponder Scan" and press the **OK-Button**.



First choose the satellite you want to scan on with the **OK-Button**.

Enter the transponder frequency with the **Numeric Keypad** on your remote control.

Use the **Navigation-Buttons left** and **right** to switch between horizontal and vertical polarization and to change the FEC.

Enter the symbol rate with the **Numeric Keypad** on your remote control.

Press the green Options-Button to start the scan.

11.3.13 Edit a transponder

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Setup" and press the **OK-Button** to select.



Navigate to the option "Service Searching" and press the **OK-Button**.



Navigate to the option "Transponder Edit" and press the **OK-Button**.



This menu will let you edit the satellite and transponder lists that are used for the service scan. New transponders and satellites are usually announced in the Internet or in magazines.

Press the red Options-Button to delete a satellite.

Press the green Options-Button to add a satellite.

Press the **OK-Button** to edit a satellite entry.



Follow the instructions in this menu. Press the **Navigation-Buttons** to reach the desired option and use the **OK-Button** to change them.

Network search:

The NIT holds the Information about the Satellites and the TV/Radio- Programs.
(NIT = Network Information Table)

Extended network search:

Set a check to scan the NIT from other Transponders.

Use BAT:

Bouquet Tables of the Provider will be used, if available.

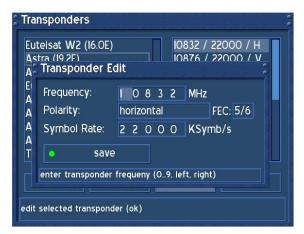
(BAT = Bouquet Association Table)

Press the green Options-Button to save your settings.

You are taken back to the "Transponder" menu.



Navigate to the option "add" and press the **OK-Button**.



Through this menu you can a transponder to a satellite.

Using the Numeric Keypad of your remote control enter the transponder frequency and symbol rate.

Press the **green Options-Button** to save your settings.



After you have made your changes to the transponder and satellite list, press the **Exit-Button** to leave the menu. You will be prompted if you want to save your changes.

Press the **green Options-Button** to save your changes.

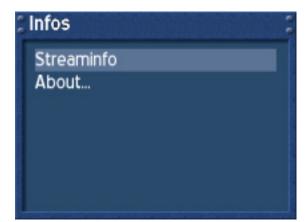
Press the **red Options-Button** to discard your changes.

You are taken back to the "Transponder scan" menu. Start the transponder scan to find services on newly added satellites or transponders.

12. Systeminformation

12.1 Service

If no OSD menu is visible on your screen, press the **Menu-Button** to open the main OSD menu. Navigate to the option "Information" and press the **OK-Button** to select.



Navigate to the option "Stream information" and press the **OK-Button**.

Use the **Navigation-Buttons left** and **right** to switch between the three windows.

Pressing the Exit-Button will close this window.





This window shows detailed technical data about the current service.

This window shows information about the used and/or supported encryption types.



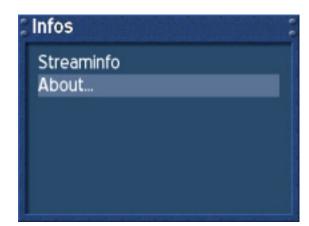




This window shows the additional technical data of the current service. The left picture shows the DM 600 PVR-S, the middle one the DM 600 PVR-T and the right one the DM 600 PVR-C

12.2 About (Hard- and Software)

Please read the section **Information – Streaminformation** to learn how to get into this menu.



Navigate to the option "About..." and press the **OK-Button**.



This window summarizes all relevant information about the system.

Press the **green Options-Button** to close the window.

The Information "Tuner:" depends on the type of your Dreambox DM 600 PVR:

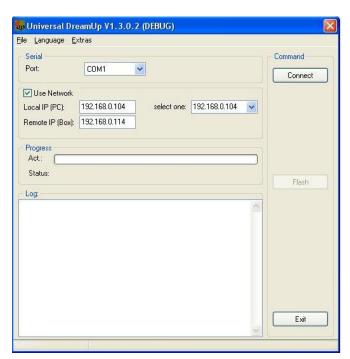
DM 600 PVR-S: Satellite DM 600 PVR-C: Cable DM 600 PVR-T: Terrestrial

13. Software update

How do you update the software of your Dreambox DM600 PVR?

Prerequistes:

- PC with Windows operating system
- DreamUp Software (most recent version online: http://www.dream-multimedia-tv.de)
- 1 serial null modem cable
- 1 network cable



Disconnect the power to your Dreambox first.

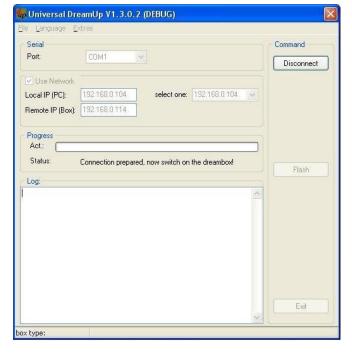
Run the DreamUp software on your computer.

Select COM1 or COM2 according to the port to which you have connected the null modem cable.

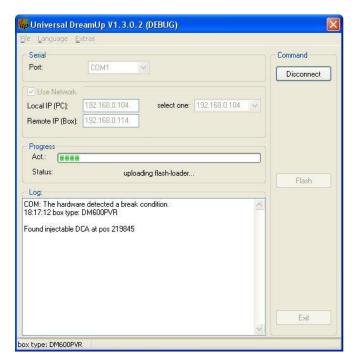
Check the box in front of "Use Network" if your Dreambox is connected to your PC via a network cable.

You can update the software without a network cable, but ths will take at least 30 minutes.

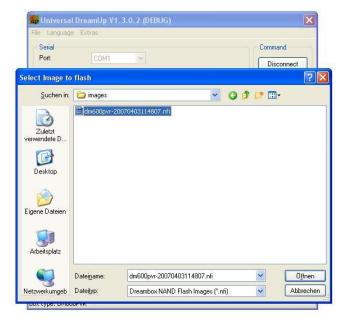
Put your computer's IP into the "Local IP (PC)" field and your Dreambox's IP into the "Remote-IP (Box)" field.



Press the "Connect" button and reattach the power cable to your Dreambox.

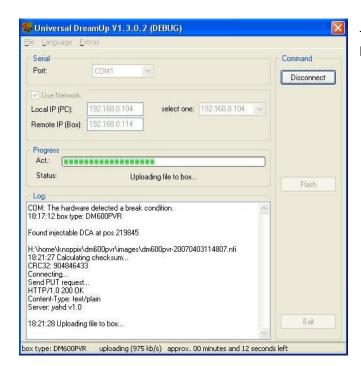


The flash loader is now transferred to your Dreambox.

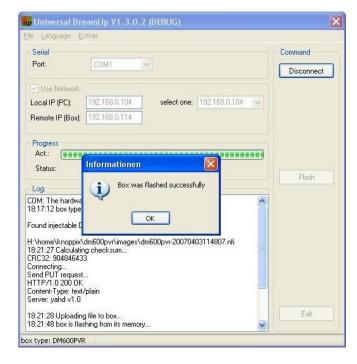


After the flash loaded is transferred press the "Flash" button.

Select the Image and press the "Open" button.



The new software is now transferred to your Dreambox.



If the process was successful you will get a "Box was flashed successfully" dialog.

Click on "OK" and afterwards on the "Exit" button.

Disconnect and reconnect the power of your Dreambox.

14. Troubleshooting

Problem	Possible cause	Solution
No audio, no video	Faulty wiring	Check wiring and connections
	Faulty LNB	Exchange LNB
	Wrong Tuner setting	Review settings (see 12.1 DVB-S configuration)
	Dish aligned incorrectly	Realign dish
Beamlike blackouts in the video	Heavy rain or snow	Remove snow from dish
	Dish aligned incorrectly	Realign dish
	Dish is too small	Install larger dish
	An obstacle between dish and satellite (e.g. house or tree)	Reposition dish so it has a clear "view" towards the satellite
No reception on a channel that was working before	Dish aligned incorrectly or faulty	Check dish
	Channel is transmitted in a new slot	Start service scan (see chapter 12)
	The transmission of the channel was terminated	
You cannot record anything anymore	Hard disk is full	Delete no longer needed recordings
Remote control is not working	Batteries are inserted incorrectly	Remove batteries and check polarity
	Batteries are empty	Insert new batteries
	Wrong remote control mode (Dream-Mode, TV-Mode)	Press Dream-Mode or TV- Mode button
	Software is not reacting	Reboot Dreambox
Dreambox does not react	Dreambox is locked up	Reboot Dreambox

15. TV-Mode setup

A four digit device code is selected from the **device list** and entered into the remote control. The most recent **device list** can be found on our website.



15.1 Programming the remote control

- Press the **TV-Mode-Button** once.
- Press the **SHIFT/Setup-Button** for 3 seconds, the **TV-Mode-Button** will flash twice.
- Use the Numeric-Keypad to enter the four digit device code into the remote control.
 The TV-Mode-Button will flash once for every digit you enter. Once you have entered all four digit the TV-Mode-Button will flash twice.
- The remote control exits the programming mode automatically.
- If no code is entered within 10 seconds the remote control will exit the programming mode automatically.

15.2 Device list

A.D. Countains	0007 0000	Disale Ctor	0077
A.R. Systems	0067 0382	Black Star	0277
Accent	0067	Blacktron	0312
Admiral	0117 0123 0448 0243 0294	Blackway	0312
Adyson	0247 0246	Blaupunkt	0221 0225 0230 0243 0357 0358
Agashi	0246		0348
Agazi	0294	Blue Sky	0248 0312 0485 0067 0517 0698
AGB	0546	Blue Star	0312
Agef	0117	Bondstec	0277
Aiko	0246 0039 0067 0401 0065 0463	Boots	0247
	0102 0391 0221 0294 0247	BPL	0312 0067
Aim	0067	Brandt	0531 0139 0429 0235 0267 0363
Akai	0391 0238 0401 0067 0463 0221		0226 0228 0317 0365
	0065 0039 0102 0248 0193	Brinkmann	0448 0067 0549
	0546 0586 0578 0510 0247	Brionvega	0067 0117
	0661 0246 0294	Britannia	0246 0247
Akiba	0248 0312 0485 0067	Brother	0294
Akura	0248 0389 0312 0039 0442 0294	Bruns	0117
	0067	BSR	0193 0324
Alba	0248 0265 0039 0448 0400 0385	BTC	0248
	0401 0067 0246 0277 0193	Bush	0248 0265 0193 0379 0039 0066
	0517 0066 0698 0609		0312 0067 0385 0401 0404
Alcyon	0106		0549 0294 0391 0517 0238
Allorgan	0236 0324 0247		0324 0247 0698
Allstar	0067	Capsonic	0294
Amplivision	0247 0430 0350 0400	Carad	0640 0067
Amstrad	0039 0546 0294 0248 0401 0463	Carena	0485 0067
	0442 0067	Carrefour	0066 0100
Anglo	0039 0294	Cascade	0039 0067
Anitech	0039 0106 0294 0067	Cathay	0067
Ansonic	0400 0132 0039 0067 0404 0193	CCE	0067
Alisonio	0353 0441 0289 0277 0042	Centurion	0067
	0458	Century	0117 0243 0277 0268
Apollo	0503	CGE	0104 0114 0336 0106 0277 0193
Arc en Ciel	0429 0531 0139 0226 0363 0228	332	0448 0400
Arcam	0246 0429 0247	Cimline	0039 0265 0248
Aristona	0067 0586 0042	City	0039
Arthur Martin	0193 0430	Clarivox	0448 0100
ASA	0135 0376 0100 0134 0117	Clatronic	0248 0294 0400 0401 0247 0106
		Claufollic	0277 0067 0039 0132 0350
Asberg	0067 0106		
Asora	0039	Clayton	0609
Asuka	0248 0294 0246 0312 0247	Clayton	0415
Atlantic	0067 0246 0236 0289 0350	CMS Hightec	0247
Atori	0039	Concorde	0039
Audiacaria	0193 0430	Condor	0246 0277 0312 0350 0067 0400
Audiosonic	0067 0139 0247 0400 0367 0294	Camtaa	0039 0132 0441 0448
A	0248 0458	Contec	0246 0039 0187 0041 0066
Audioton	0247 0400 0294	Continental Edison	0531 0139 0267 0226 0228 0429
Ausind	0106	0	0363 0235 0317 0517
Autovox	0117 0236 0267 0106 0379 0247	Cosmel	0039 0367
	0277 0366	Crezar	0243
Awa	0041 0066 0039 0187 0404 0442	Crosley	0117 0277 0104 0114 0106 0193
A	0067	0	0243
Ayomi	0268	Crown	0039 0400 0106 0067 0389 0609
Baird	0139 0373 0102 0247 0238	00 51	0448 0238 0517
Barco	0410 0193	CS Electronics	0277 0246 0248
Basic Line	0248 0039 0404 0067 0597 0193	CTC	0277
	0312	Cybertron	0248
Bastide	0247	Daewoo	0039 0067 0246 0404 0248 0247
Baur	0333 0225 0542 0067 0221 0391	Dainichi	0248 0246
	0379 0535 0040	Dansai	0067 0294 0065 0246
Bazin	0247	Dansette	0442
Beko	0400 0067	Dantax	0400
Beon	0067 0448	Datsura	0238
Best	0367 0400	Dawa	0067
Bestar	0067 0400 0404	Daytron	0039 0404 0067
Binatone	0247	Decca	0102 0546 0067 0247
		General Technic	0039
Deitron	0067	Genexxa	0248 0067 0442
Denko	0294	Germanvox	0243
Desmet	0350 0067	Goldhand	0246
Diamant	0067	Goldline	0367
Digiline	0067	GoldStar	0067 0400 0039 0247 0277 0246
Dixi	0039 0067 0277 0247		0193 0391

Domland	0424	Goodmans	0066 0102 0067 0039 0294 0546
Drean	0067		0404 0517 0401 0586 0373
DTS	0039		0265 0065 0510 0590 0247
Dual	0379 0247 0373 0289 0366 0549		0365
2.44.	0067 0382 0424 0429 0333	Gorenje	0400
Dumont	0117 0134 0132 0243 0247 0100	GPM	0248
Dumont	0102	Gradiente	0067 0083
Dusy		Graetz	0391
Dux	0067 0042		
Dynatron	0067	Granada	0067 0430 0256 0389 0042 0102
Elbe	0465 0268 0289 0400 0193 0067		0138 0238 0247 0106 0066
	0248 0221 0441 0640	_	0546 0503 0365 0590
Elcit	0117 0277 0546 0132 0193	Grandin	0312 0248 0430 0067 0039 0350
Elekta	0294 0312		0193 0485 0609 0640
Elin	0246 0067 0135 0134 0578 0391	Gronic	0247 0132
	0379 0193 0039	Grundig	0225 0221 0517 0100 0106 0235
Elite	0248 0067		0267 0067 0586
Elman	0132	Halifax	0294 0246 0247
Elta	0039 0294	Hampton	0246 0247
Emerson	0243 0117 0277 0067 0401 0100	Hanimex	0324
Emerson	0312 0350	Hanseatic	0067 0312 0379 0193 0391 0424
Emperer	0312 0330	Hanseauc	0243 0350 0458 0400 0039
Emperor			
Erres	0067 0042	Hantanas	0324 0247 0549
Etron_	0067 0039 0193	Hantarex	0039 0243 0067 0132
Euro-Feel	0294	Hantor	0067
Europa	0067	Harwood	0039 0442 0067
Europhon	0067 0546 0132 0243 0247 0277	HCM	0294 0039 0312 0442 0247 0248
	0193		0448 0067
Expert	0236 0430 0289 0193	Hema	0247 0039
Exquisit	0067 0277	Hemmermann	379
Fenner	0404 0039	Hifivox	0531 0139 0226 0429
Ferguson	0317 0365 0268 0139 0590 0655	Hikona	0248
Fidelity	0246 0401 0193 0294 0067	HiLine	0294 0067
Filsai	0247	Hinari	0238 0066 0067 0248 0039 0193
	*= ··	ninari	
Finlandia	0238 0376 0389 0578 0391		385 0473 0517 0265 0324
Finlux	0135 0134 0067 0376 0247 0102	Hisawa	0312 0248 0430 0485
	0193 0106 0546 0100 0117	Hit	117
	0132 0441 0661 0522	Hitachi	0255 0066 0379 0503 0193 0373
Firstline	0324 0351 0246 0067 0404 0415		0226 0228 0247 0336 0224
	0277 0039 0193 0132 0247		0546 0102 0067 0135 0586
	0441 0379 0561 0268 0102		0180 0578
	0265 0698 0238	Hitsu	039 0485 0248
Fisher	0134 0247 0066 0238 0400 0585	Hornyphone	0067 0042
1 151101	0117 0187 0391 0193 0333	Hoshai	0248 0485
		Huanyu	0404 0246
			U+U+ U2+U
Elint	0379 0102	_	0247 0246
Flint	0067 0485 0102 0248	Hygashi	0247 0246
FNR	0067 0485 0102 0248 0132	Hygashi Hyper	0039 0246 0247 0277
FNR Formenti	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106	Hygashi Hyper Hypersonic	0039 0246 0247 0277 0391
FNR Formenti Fortress	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117	Hygashi Hyper	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430
FNR Formenti Fortress Fraba	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067	Hygashi Hyper Hypersonic Hypson	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268
FNR Formenti Fortress	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117	Hygashi Hyper Hypersonic Hypson Iberia	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430
FNR Formenti Fortress Fraba	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067	Hygashi Hyper Hypersonic Hypson	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268
FNR Formenti Fortress Fraba Friac	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132	Hygashi Hyper Hypersonic Hypson Iberia	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067
FNR Formenti Fortress Fraba Friac Frontech	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039	Hygashi Hyper Hypersonic Hypson Iberia	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246
FNR Formenti Fortress Fraba Friac Frontech Fujitsu	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193	Hygashi Hyper Hypersonic Hypson Iberia ICE	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324	Hygashi Hyper Hypersonic Hypson Iberia ICE	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General IInterfunk	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General IInterfunk	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General IInterfunk	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067 0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy Matsui	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General Ilnterfunk Internal Intervision	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067 0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy Matsui	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365 0067 0586 0042
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General Ilnterfunk Internal Intervision	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067 0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132 193 0294 0277 039 0067 0248 0277 0106	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy Matsui Mediator Medion	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365 0067 0586 0042 0067 0698 0549
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General IInterfunk Internal Intervision	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067 0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132 193 0294 0277 039 0067 0248 0277 0106 248 0067 0312	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy Matsui Mediator Medion Megas	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365 0067 0586 0042 0067 0698 0549 0640
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General IInterfunk Internal Intervision	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067 0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132 193 0294 0277 039 0067 0248 0277 0106 248 0067 0312 247	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy Matsui Mediator Medion Megas Melvox	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365 0067 0586 0042 0067 0698 0549 0640 0430
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General IInterfunk Internal Intervision Irradio Isukai ITC ITS	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067 0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132 193 0294 0277 039 0067 0248 0277 0106 248 0067 0312 247 067 0401 0248 0312 0294 0246	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy Matsui Mediator Medion Megas Melvox Memorex	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365 0067 0586 0042 0067 0698 0549 0640 0430 0039
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General IInterfunk Internal Intervision	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067 0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132 193 0294 0277 039 0067 0248 0277 0106 248 0067 0312 247 067 0401 0248 0312 0294 0246 193 0510 0379 0391 0503 0578	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy Matsui Mediator Medion Megas Melvox Memorex Memphis	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365 0067 0586 0042 0067 0698 0549 0640 0430 0039 0367 0102 0039 0415
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General IInterfunk Internal Intervision Irradio Isukai ITC ITS ITT	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067 0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132 193 0294 0277 039 0067 0248 0277 0106 248 0067 0312 247 067 0401 0248 0312 0294 0246 193 0510 0379 0391 0503 0578 597 0376 0238	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy Matsui Mediator Medion Megas Melvox Memorex Memphis Mercury	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365 0067 0586 0042 0067 0698 0549 0640 0430 0039 0367 0102 0039 0415 0067 0039
FNR Formenti Fortress Fraba Friac Frontech Fujitsu Fujitsu General Funai Galaxi Galaxis GBC GE Geant Casino GEC Geloso General IInterfunk Internal Intervision Irradio Isukai ITC ITS	0067 0485 0102 0248 0132 0117 0243 0246 0350 0193 0106 0123 0117 0400 0067 0039 0067 0132 0277 0294 0379 0247 0039 0236 0102 0132 0247 0193 0039 0294 0324 0132 0067 0400 0448 0067 0132 0243 0193 0039 0404 0248 0590 0139 0317 0365 0373 0193 0430 0102 0193 0391 0235 0546 0067 0247 0379 0243 0277 0039 0193 0404 0139 0317 0501 0067 0042 0117 0542 0357 0193 391 0400 0531 0139 0067 0312 0247 0485 0067 0401 0549 400 0424 0517 0248 0132 193 0294 0277 039 0067 0248 0277 0106 248 0067 0312 247 067 0401 0248 0312 0294 0246 193 0510 0379 0391 0503 0578	Hygashi Hyper Hypersonic Hypson Iberia ICE Ices Imperial Indesit Indiana Ingelen Inno Hit Innovation Interactive Interbuy Matsui Mediator Medion Megas Melvox Memorex Memphis	0039 0246 0247 0277 0391 0067 0294 0247 0312 0485 0430 268 067 294 0247 0067 0401 0248 0246 039 248 0246 0067 0277 0400 0448 0193 0561 104 0114 0106 0379 0226 267 0243 0067 0517 0640 0039 0102 0067 0248 0247 0106 546 0277 0549 0441 0039 0294 0277 0265 0039 0385 0041 0102 0066 067 0586 0517 0247 0324 401 0463 0473 0609 0485 379 0546 0065 0193 0238 225 0221 0365 0067 0586 0042 0067 0698 0549 0640 0430 0039 0367 0102 0039 0415

Samsung

0067 0586 0617 0039 0247 0400

0294 0246 0102 0238

0235 0243 0531 0139 0226 0228

0363 0429 0267

Pathe Marconi

Pausa	0039	Sandra	0246 0247
Pausa Perdio		Sanela	0248 0247
	0102 0350 0193 0067		
Perfekt	0067	Sansui	0067 0401
Pershin	0430	Sanyo	0238 0187 0066 0041 0400 0102
Philco	0117 0114 0104 0448 0106 0243		0246 0247 0134 0243 0039
	0277 0193 0400 0067		0193 0067 0585
Philharmonic	0247	Save	0067
Philips	0586 0067 0042 0353 0221 0117	SBR	0067 0586 0042
	0373	Schaub Lorenz	0379 0578
Phoenix	0067 0117 0350 0400 0415 0246	Schneider	0067 0586 0042 0333 0379 0549
THOCHIX	0193 0102	Ochheider	0424 0382 0366 0289 0353
Dhamala			
Phonola	0067 0586 0042 0117 0246		0373 0247 0277 0401 0248
Pioneer	0067 0458 0400 0373 0391 0139		0391 0193 0698
Pionier	0400	SEG	0247 0294 0039 0277 0066 0132
Plantron	0067 0294 0039		0193 0067 0246 0698 0517
Playsonic	0247	SEI	0117 0132 0040 0193 0546 0379
Poppy	0039		0243 0324 0236 0067
Portland	0404	Seleco	0236 0289 0193 0441
Prandoni-Prince	0277 0546 0391 0243 0106	Sencora	0039
Precision	0247	Sentra	0065 0248 0039
	-		
Prima	0039 0294	Serino	0485 0640
Prinz	0102 0379 0224	Sharp	1223 0123 0187 0066 0324 0683
Profex	0039 0193		0083
Proline	0351 0102 0067 0042 0655	Shorai	0324
Prosonic	0067 0244 0246 0400 0404 0609	Siam	0067
	0401	Siarem	0193 0117 0132 0243
Protech	0067 0247 0039 0277 0379 0132	Siemens	0221 0230 0225 0243 0357 0358
11010011	0294 0448 0367 0698	Giomena	0187 0067
Brovision	0067	Sierra	0067 0586 0042
Provision			
Pye	0067 0586 0042 0117	Siesta	0400
Pymi	0039	Silva	0246 0067
Quadra Vision	0430	Silver	0066 0391
Quasar	0277	Singer	0117 0132 0277 0430 0465 0039
Quelle	0067 0040 0041 0531 0139 0542	Sinudyne	0117 0265 0132 0243 0324 0193
	0379 0221 0391 0066 0247		0391 0546 0379 0040 0236
	0277 0104 0114 0357 0336		0067
	0100 0134 0135 0187 0225	Sogera	0350
		Solavox	****
•	0230 0243 0294 0698		0391 0102 0193 0578
Questa	0066	Sonitron	0238 0400 0247
R-Line	0067	Sonneclair	0067
Radialva	0139 0248 0193 0067	Sonoko	0067 0039 0294 0312 0247
Radiola	0067 0586 0042 0353	Sonolor	0238 0597 0193 0430 0535 0040
Radiomarelli	0117 0546 0277 0067		0578
RadioShack	0067	Sontec	0067 0400 0324
Radiotone	0039 0067 0458 0400 0609 0448	Sony	1535 1040 1681 0535 0040 0041
	0294 0442	,	0030 0066 0132 0681 0104
Rank	0100	Sound & Vision	0132 0248 0404
	0590 0655 0365		0067 0350 0448
RCA		Soundwave	
Recor	0067	Ssangyong	0039
Rediffusion	0391 0578 0066	Standard	0248 0039 0247 0350 0067 0404
Redstar	0067		
Starlite	0039 0193 0067 0294	Unic Line	0067 0503
Stenway	0312 0248	United	0067
Stern	0236 0289 0193	Universum	0376 0135 0225 0503 0391 0277
Strato	0067 0294 0039		0522 0510 0400 0230 0448
Sunkai	0324 0385 0351 0485 0248 0265		0041 0542 0324 0066 0187
Julikai	0067 0517		0100 0193 0294 0134 0067
Compton			
Sunstar	0401 0067 0039		0441 0104 0336 0243 0357
Sunwood	0067 0039		0358 0040 0535 0106 0379
Superla	0546 0246		0247 0531 0139 0367 0661
Supertech	0039 0067 0246 0586		0698
Supra	0404 0039	Univox	0367 0117 0067 0193 0268
Susumu	0365	Vestel	0067 0193 0247
Sutron	0039	Vexa	0039 0067
Swissline	0277	Videologique	0246 0248 0247
Sydney	0246 0247	VideoSystem	0067
•		Videotechnic	
Sytong	0246		0246 0350 0247
Tandberg	0397 0441 0139 0367 0226 0391	Videoton	0193
Tandy	0248 0102 0247 0277 0123	Vidikron	0132
Tashiko	0066 0247 0246 0389 0193	Viper	0367
Tatung	0102 0546 0247 0067 0041	Visiola	0246
Teac	0067 0542 0485 0294 0039 0442	Vision	0067 0350
	0379	Vistar	0236 0391
TEC	0247 0039 0277 0501 0365 0367	Vortec	0067
	0289	Voxson	0117 0106 0067 0448

0067 0698 **Tech Line** Technema 0350 Technisat 0685 Tedelex 0247

0139 0531 0317 0226 0429 0235 Teleavia

0363 0520

Telecor 0067 0193 0248 0247 0289 0424 Telefunken 0139 0531 0528 0501 0429 0317 0104 0114 0131 0365 0292

0336 0373 0226 0067 0655

Telefusion 0067

0067 0193 0289 0248 0294 Telegazi

Telemeister 0350 0067 Telesonic 0067 Telestar 0067

Teletech 0039 0277 0367 0067 0698 0247 0236 0193 0379 0289 0066 **Teleton**

Televideon 0350 0193 0246

Televiso 0430 Temco 0324 0039 **Tempest**

Tensai 0134 0248 0067 0247 0324 0350

0039 0135 0404 0401 0277

Tenson 0350 0039 Tevion 0549 0067 **Texet** 0247 0404 0039

0317 0429 0139 0531 0363 0501 **Thomson**

0365 0226 0228 0235 0267 0373 0067 0520 0590 0655 0268 0104 0114 0067 0134 0365

Thorn 0542 0389 0404 0065

Tokai 0102 0067 0367 0193 0247 0404

0039 0246 0065

Tokyo 0312 0248 Tomashi

0065 0538 0273 0066 0100 0132 Toshiba

0247

0379 0132 0247 Towada 0247 0067 **Trans Continens** Trident 0546 0247 **Tristar** 0248

0546 0376 0586 0067 0273 Triumph 0106 0067 0236 0350 0333 0404 Uher

0448 0400 0289

0117 0132 0404 0277 0246 0193 **Ultravox**

0243 0067

Waltham 0247 0448 0317 0415 0067 Watson 0067 0350 0193 0248 0243 0609

0549 0424 0039 0698 Watt Radio 0243 0132 0379 0193 0246 Wega 0243 0066 0117 0067

Wegavox 0039 Weltblick 0067 0350

White Westinghouse 0350 0246 0067 0367

Winco 0442 0312 Windstar Xrypton 0067

Yamishi 0312 0485 0248 0067 0247

Yokan 0067

0247 0067 0248 0294 0039 0400 Yoko

0246 0248 Yorx 0236 0247 Zanussi

16. Technical data

- 250 MHz IBM PowerPC Processor (350 MIPS)
- · Linux Operating System, Open Source
- DreamCrypt CA integrated
- 1 x Smartcard-Reader
- MPEG2 Hardware decoding (DVB compliant)
- V.24 / RS232 connector
- 100Mbit voll duplex Ethernet Interface
- 2 Status-LED
- 64 MB RAM (userspace), 32 MB Flash
- Unlimited service list for TV/Radio
- · Switching services in less than a second
- Fully automated service seraching / transponder scan
- Bouquet list support
- EPG-Support (electronic program guide)
- Multi language OSD with skin support
- S/P-DIF optical connector AC-3
- 1 x Scart-Connector (completely software controlled)
- Analog Modem
- Plug & Play Tuner
- integrated IDE connector
- HDD support for all regular sizes (2,5 Inch)
- external 12V power converter CWT 12V, 2A, 24W
- A/V Output (Audio/Video Cinch and S-Video)

Video decoder:

Video Compression MPEG-2 and MPEG-1 compatible Video Standard PAL G/ 25 Hz Video Formats 4:3 / 16:9 Footage 16:9, automatic assimilation for 16:9 TV-Device (over Scart) Letterbox percolating for 4:3 TV-Device

Audio decoder:

Audio compression MPEG-1 & MPEG-2 Layer I and II Audio Mode Dual (main/sub), Stereo Frequency: 32 kHz, 44.1 kHz, 48 kHz, 16 kHz, 22.05 kHz, 24 kHz

Output analog:

Output Level L/R 0,5 Vss on 600 Ohm THD > 60 dB (1 kHz)
Crosstalk < -65 dB

Output digital:

Output Level 0,5 Vss on 75 Ohm Sampled Data Filtering 32 kHz, 44.1 kHz, 48 kHz S/P-DIF Output optical (AC3)

Output Video:

Output Level FBAS 1 Vss +/- 0.3 dB on 75 Ohm

TV-Scart:

Output: FBAS,RGB,S-Video over OSD selectable

Serial Interface RS 232:

Typ RS232 bidirectional
Bitrate 115,2 kBit/s max.
Plug Connector SUB-D-9
Function Update of Firmware and Preprogramming

Ethernet:

100 Mbit compatible, bi-directional interface Function Update of Firmware and Preprogramming

Input voltage:

12V power converter 110-230V / 50-60Hz AC +/- 15%

Physical specification:

Ambient Temperature +15°C...+35°C Humidity < 80% Size (B x T x H): 196 mm x 130 mm x 40 mm Weight: 500g

DM 600 PVR-C/T specific data:

DVB-C/T Tuner:

Frequency Range 51 858 MHz Input Impedance 75 Ohm Symbolrate 1 6.9 Mbaud/s

DM 600 PVR-S specific data:

DVB-S-Tuner:

Frequency Range 950 - 2150 MHz
Signal Level - 65 dBm - 25 dBm
Signal-to-Noise Level 12 dB max.
DBS-Tuner Input Connector F-Type female
Input Impedance 75 Ohm
AFC +/- 3 MHz
Demodulation Shaped QPSK
Symbolrate 2 - 45 Mbaud/s, SCPC / MCPC
Inner FEC: Rates:1/2, 2/3, 3/4, 5/6, 7/8 (DVB specification)
Demultiplexing according to ISO 13818-1

LNB power supply:

LNB Strom 500mA max.; kurzschlussfest LNB Spannung vertikal < 14V ohne Last, > 11,5V bei 400mA LNB Spannung horizontal < 20V ohne Last, > 17,3V bei 400mA LNB Abschaltung im Standby-Mode

Count of active satellite positions:

DiSEqC V1.0/1.1/1.2/1.3 (USALS)

17. Contact & support information

Headquarter & Distribution:

Dream-Multimedia GmbH Pierbusch 24-26 44536 Lünen Germany

Dealer's Hotline:

(Dealers only)

Tel.: +49 (0)180 - 3 85 85 90 112 (0,09€/min.) Fax: +49 (0)180 - 3 85 85 90 777 (0,09€/min.)

You can reach the dealer's hotline from :

Mo - Fr. 09:00 am - 03:00 pm

Technical Hotline:

Tel.: +49 (0)180 - 3 85 85 90 110 (0,09€/min.) Fax: +49 (0)180 - 3 85 85 90 111 (0,09€/min.)

You can reach the technical hotline from:

Mo - Fr. 09:00 am - 03:00 pm

Sales:

Tel.: +49 (0)180 - 3 85 85 90 770 (0,09€/min.)

You can reach the sales hotline from:

Mo - Fr. 09:00 am - 03:00 pm

Dealers & Pricing:

E-Mail: info@dream-multimedia-tv.de

Technical Support:

E-Mail: support@dream-multimedia-tv.de

Website:

Weblink: http://www.dream-multimedia-tv.de

Support Forum:

Weblink: http://www.dream-multimedia-tv.de/board

Software Support (actual images):

Weblink DM 600 PVR: http://www.dm600pvr.de

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http://www.dream-multimedia-tv.de/deutsch/downloads.php

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