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WARNING & SAFETY

This STB has been manufactured to satisfy international safety standards. We recommend you to address to the qualified service personnel for installation of the set-top box and satellite system. However if you have decided to install the system by yourself, please, learn the manual properly. Please read the following safety precautions carefully.

MAIN SUPPLY: 190 - 250V AC 50/60Hz. Make sure your main supply satisfies the standard.

OVERLOADING: Do not overload a wall outlet, extension cord or adapter as this may result in fire or electric shock.

LIQUIDS: Keep liquids away from the STB, do not expose the STB to rain or moisture.

FOREIGN INTERFERENCE:

Coins, insects and other small stuff may get into slots and damage the STB or may result in fire.

CLEANING: Disconnect the STB from the wall outlet before cleaning.
Use a light damp cloth (no solvents) to dust the STB.

VENTILATION: The slots on the top of the STB must be left uncovered to allow proper airflow to the unit.

Do not stand the STB on soft furniture or carpets.

Do not expose the STB to direct sunlight or place it near a heater.

Do not stack other electronic equipment on the top of the STB.

ATTACHMENTS: Do not use any attachments that are not recommended for use with the STB as these attachments may cause a hazard or may damage the STB.

CONNECTION TO THE SATELLITE DISH LNB:

Disconnect the STB from the mains supply before connecting or disconnecting the cable from the satellite dish. Failure to do so can damage the lnb .

CONNECTION TO THE TV:

Disconnect the STB from the mains before connecting or disconnecting the cable from the TV set or video-recorder. FAILURE TO DO SO CAN DAMAGE THE TV/VR/STB.

GROUNDING: the LNB must be grounded by the system for the satellite dish. The system must comply with SABS 061.

LOCATION : Place the STB indoors (on hard surface) in order to prevent exposure to lightning, rain or sunlight.

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

Warning :

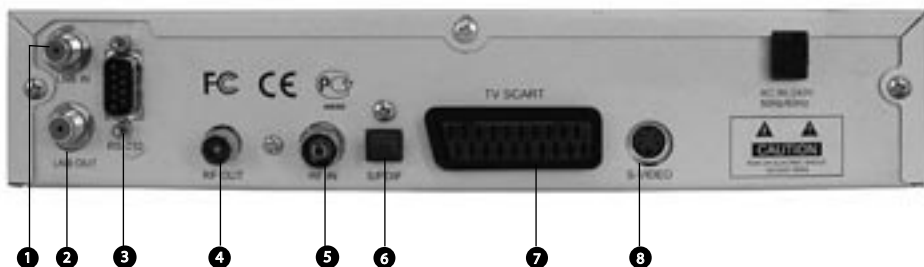
Please do not insert metal or any other alien substance into the slots for the Modules and Smart Cards.

Doing so can cause damage to the STB and reduce its life span.

FRONT PANEL AND REAR PANEL OF THE SET-TOP BOX



1. **BUTTONS CHANNEL.**
Press to adjust services down and up.
2. **Indicators:**
 - **STANDBY LED(RED).** Indicates that the STB is in standby mode.
 - **OPERATING LED(GREEN).** Indicates that the STB is operating.
 - **SIGNAL PRESENCE LED (YELLOW).** Indicates that the STB receives a satellite signal.
3. **BUTTON TV/RADIO.**
4. **BUTTON STANDBY.**
Switches on and switches off the STB. Moves STB from Standby to Operating mode and back.



1. **LNB IN**
Use to connect an antenna.
2. **LNB OUT**
Use when connecting to another STB.
3. **RS-232**
Use when connecting to your PC.
4. **RF OUT**
Use to connect a RF signal from your STB to RF(ANT) input jack on your TV.
5. **RF IN**
Use to connect a general Aerial Antenna and CABLE jacks to a RF input jack on the STB.
6. **S/PDIF**
Output for connection to a digital amplifier.
7. **TV SCART**
For the audio/video input on the TV.
8. **S-VIDEO**
Output for connection with TV.

STB CONNECTIONS

There are several ways of connecting the STB to your existing Audio/TV system. We recommend using one of the following set-ups for best results:

SATELLITE SERVICES ONLY



1. Connect one end of the 21-pin SCART cable to the TV SCART connector on the STB and the other end to the SCART socket on your TV. You can also connect TV to the STB by RCA cable using SCART/RCA adaptor (supplied with receiver).

2. If you do not have an SVHS and a SCART connector on your TV you can connect the STB to RF IN connector on your TV by the RF cable.

3. Connect the coaxial cable from the LNB to the LNB IN socket on the STB.

SATELLITE SERVICES WITH HI-FI SYSTEM



- 1 Connect Digital Audio socket to the input socket on your Hi-Fi system.

2. Connect S-VIDEO socket on the STB to the input socket on your TV.

3. Connect the coaxial cable from the LNB to the LNB IN socket on the STB.

TV WITH TERRESTRIAL & SATELLITE SERVICES



1. Connect one end of the RF lead to the RF OUT connector on the STB and the other end to the RF IN connector on your TV.

2. Connect one end of the RF lead to the RF IN connector on the STB and the other end to the connector on your TV antenna.

3. Connect the coaxial cable from the LNB to the LNB IN socket on the STB.

OTHER EQUIPMENT CONNECTION

DiSEqC — provides STB interaction with other equipment. To transmit commands it uses particular 22 kHz signal and interval combinations.

The STB supports DiSEqC 1.0 and DiSEqC 1.2

SATELLITE ANTENNA WITH DISEQC 1.0

You can connect a single satellite antenna directly to the set-top box. DiSEqC 1.0 allows multiple antennas to be connected to the STB simultaneously. If you have two or more fixed antennas or LNBs, you can use a DiSEqC 1.0 switch.

1. Connect the coaxial cable from the first LNB to the LNB 1 or LNB A input connector of the DiSEqC switch.
2. Connect the coaxial cable from the second LNB to the LNB 2 or LNB B input connector of the DiSEqC switch.
3. Do the same for other LNBs.
4. Connect one end of a coaxial cable to the RF OUT connector of the DiSEqC switch and the other end to the LNB IN socket on the STB.

SATELLITE ANTENNA WITH DISEQC 1.2


DiSEqC 1.2 - controls the motorized system.

1. Connect the coaxial cable from the LNB of your motorized system to the LNB IN socket on the STB and the other to the "REC" or "STB" connector on the DiSEqC 1.2 motor.
2. Connect the coaxial cable from the LNB to the LNB IN connector on the DiSEqC 1.2 motor.

Please, note: the motorized system can have different configurations. For more details, please, refer to its manual.

TURNING STB ON/OFF SEQUENCE

After connecting to the power network, the receiver remains in StandBy mode or switches into work mode.

To switch the receiver into work mode or to turn it off press button . Current user's settings are saved after turning the receiver off in this mode.

Current user's settings save is not guaranteed when turning off without switching to StandBy mode.

REMOTE CONTROL UNIT

1 0 ~ 9 NUMERIC BUTTONS

Press to select a service and enter any digital information.

2 INFORMATION*

Displays the information banner on the screen. Press this button while watching a service and the following information will be displayed on the screen: current time, the name and the number of the service, the quantity of soundtracks, the quality of the signal.

Press the button again to get the broadened information banner, containing the following information: satellite**, transponder, rate and etc. of the service, the description of the program. To close the information banner press the button once more.

3 SOUNDTRACK*

Press to display the soundtrack list for the current service. Press this button to get the soundtrack mode and the list of available audio services.

4 TELETEXT /SUBTITLE

Press to display teletext*.

Press to display/to close the subtitle language list for the current service.

5 UHF UHF

Press to set favorite service list Menu*.

6 TIME

Press to display the current time in the top left corner of the screen.

7 EXIT

Press to return to the previous menu and screen or to leave Main Menu. Pressing the button during Service searching stops the process.

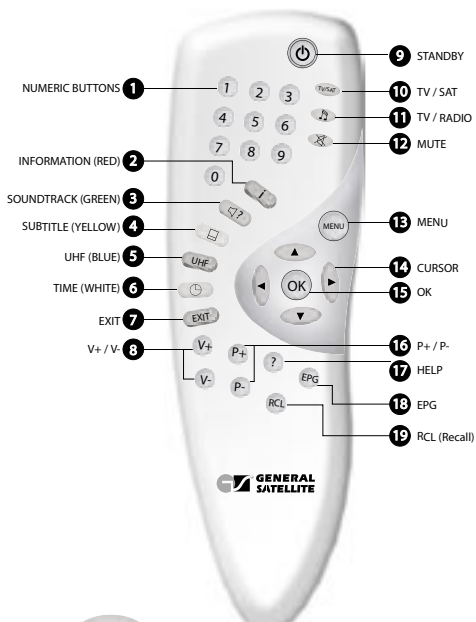
8 VOLUME UP/DOWN BUTTONS.

Press to increase (V+) or decrease (V-) the volume.

9 STANDBY

Press to switch between Operation and Standby modes.

Attention! In Standby mode some STB joints are under the voltage.



10 TV/SAT

TV/SAT (switch through SKART)
Press to switch between «Terrestrial/Satellite TV modes.

11 TV/RADIO

Press to switch between Satellite TV and Radio modes.

12 MUTE


Press to temporarily cut off the sound.

13 MENU *

Press to display the Main Menu on the screen or return to the current service.

14 CURSORS

Press to move the highlighted bar in the service list, to select options on the menus, to switch between services or increase and decrease the audio volume, to change the menu, to select the soundtrack mode etc.

* Press  to leave the mode.

** The information about satellite is displayed only in «Expert» rate.

REMOTE CONTROL UNIT

15  OK

Press to display the service list**. This button is used to select and verify the chosen item in the menus.

16  /  Programme up/down buttons.

Press to select the next (P+) or previous (P-) service. Press to move up or down pages in the service list.

17  HELP *

Press to display the help box on the screen any time during the work with STB. Additional and clarifying information.

18  EPG **

Electronic Programme Guide button displays the TV/Radio programme guide.


19  RCL (Recall)

Press to select the service that was previously viewed.

Service choice inversion in the menu «Organizing Services»


Please note: The design of the Remote Control Unit may be changed without advance notice.

* This button may not be equipped in some SW versions

** Press  to leave the mode

GUIDE TO FUNCTIONS


INFORMATION BANNER

The details of service and event are automatically displayed on the I-Plate in the bottom of the screen when pressing the  button or changing services.

In the bottom information box the following information is displayed:

- Service name
- Service number
- Favourite group name
- Subtitle symbol, teletext symbol, digital sound (AC3) symbol, scrambling service symbol, radio symbol, lock symbol
- The number of the current soundtracks, the quantity of soundtracks
- The name of the program*
- Time of the beginning/end of the program





After the second press on the red  button the broadened information box, containing the following information, is displayed in the center of the screen***:

- Satellite Name
- Network Name
- Frequency, Polarization, FEC, Symbol Rate (SR)
- Video/Audio/PCR PID of the Service**
- Program Genre
- Age Limit
- Current Date
- Program Description
- Signal Strength and Quality Scale

TELETEXT

The STB has the integrated teletext decoder.

To activate it press the yellow button

, select "teletext" in the list and press . In this list select the language for teletext. You can operate the teletext using colour and digital buttons of the RCU.

The STB supports teletext in VBI-mode (Vertical Blanking Interval). Receiving teletext in this mode is possible if your TV has a teletext decoder. You can switch to teletext mode through your TV's RCU.

Please, note: this function is available if operator provides the teletext service








* See TV Guide

** See PID Editing

*** The information is displayed in «Expert» rate

SUBTITLES

Press the yellow button  to display subtitles on the screen, select 'Subtitles' and press . In the appeared list select a desirable language for subtitles and press . From the moment image will be accompanied by subtitles.

To cancel subtitles press the yellow button , select 'Subtitles' and press . In the appeared list select Exit.

In Subtitles mode Time is not displayed on the screen.

Please, note: this function is available if operator provides the subtitle service.





CHANGING SERVICES

You can change services in several ways:









Press the Numeric buttons (0 ~ 9) on the remote control unit.


Press the buttons  /  or  / .






To switch between TV and Radio services, press the TV/Radio () button.

To select the previously viewed service, press the Recall () button.

VOLUME CONTROL


To adjust the volume level, use  /  or  /  buttons.  /  buttons work either in the screen menu mode or service viewing mode. In the OSD menu mode you cannot use  /  buttons.

To temporarily mute the volume, press the Mute () button.



To cancel mute, press the Mute () button again or press the buttons  /  or  / .







SOUNDTRACK

If you want to change the audio language of the current service, press the Green () button.

The on-screen menu will be displayed on the top left side of the screen.

Use  /  buttons to select the soundtrack.

Use  /  buttons to select left, right, by default output audio mode.

Press  or  buttons again to cancel the menu.

You can change output audio mode from the menu: "Installation" - "System Settings" - "AV Output Setup" - "Audio Output" - select setup data is stored for each channel*, mono or stereo output audio mode.



Please, note: this function is available if operator provides the service.

*This function may not be equipped in some SW versions.

GUIDE TO FUNCTIONS

SERVICE LIST

To display the current service list on the screen use the **OK** button. You can look through the list in the common or broadened modes. To change the current mode press the **i** button. The top field contains the name of the current list, the bottom field contains the full name of the chosen service. Use the **◀ / ▶ ▲ / ▼ / P+ / P-** buttons to select a service.

Use **▲ / ▼** buttons to move the cursor to the next/previous service in the list. In the broadened mode you can use **◀ / ▶** buttons to move up or down columns in the list and use **P+ / P-** buttons to move up or down pages in the list. The scroll bar on the right of the screen demonstrates the location of the chosen service in the general list. Press **OK** button to view the chosen service.



FAVORITE LIST

Default quantity of Favourite lists is 4. Organize Favourites you can in the menu: "The Main Menu" – "Organizing Services".

To display the list of Favourites on the screen press the blue **UHF** button on the Remote Control in the view mode.

Use **▲ / ▼** buttons to move in the list. To open the list press **▶**. Press **OK** button to view the chosen service.

If you press **OK** while you are in the list the latest service in the list or the first service in the list will be switched on.



INFORMATION CALL /HELP*

To get information about the STB work press **?**. Information is available in the menu mode

CURRENT TIME

To call the Clock in the viewing mode press the white **⌚** button on the Remote Control. To cancel the Clock press **⌚** button again. Also you can get current time from the broadened information box.

* This function may not be equipped in some SW versions

SETUP WIZARD*

Setup Wizard helps to prepare receiver for operation by a few steps only. Each step is an item of setup menu (language setup, AV output setup, etc.). Order of actions on each specific step is described in corresponding division of this Manual.

Setup Wizard is launched upon the first start of receiver or after reset of receiver to factory settings.

STB installation, service search and editing, control of the service access and etc. are carried out through the taken up Menus. There are two types of menus: full-screen and OSD menus.

FULL-SCREEN MENU

To select items of the menu use ▲/▼ buttons. To verify your choice use **OK** button. To cancel/return to the previous level use **EXIT** button.

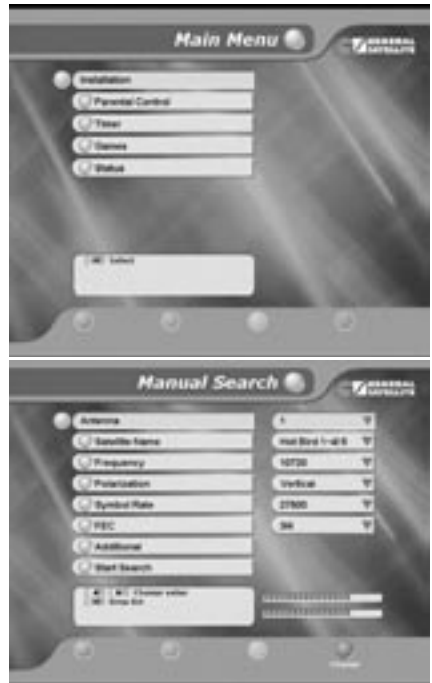
Items of the menu may be:

- Buttons for moving to the next level of the menu.
- Entry field. To enter information use 0 ~ 9 buttons, to verify press **OK** button or ◀ / ▶▲/▼ buttons, to cancel press **EXIT** button.
- Drop-down lists. To open the list press **OK** button, to move in the list use ▲/▼ buttons, to verify your choice press **OK** button, to cancel press **EXIT** button. You can also select the element in the list using ◀ / ▶ buttons.

Please, note: drop-down list may function as entry field.

- Context help field. It contains information about options (choice from the list, value input etc.) for every item of the Menu.
- Functional buttons bar. It contains 4 color buttons, which are similar to ones on the Remote Control. If the button is active it is brightly highlighted and has a name (change, rename etc.), if the button is not active, it is dark and has not a name.

Most functions of the STB demand PIN code**.



*This function may not be equipped in some SW versions.

** See Parental PIN Code

MAIN MENU GUIDE/INSTALLATION

ON-SCREEN DISPLAY MENU

OSD Menus are special menus for service, soundtrack selecting etc. This menus are described in the respective issues.

Main Menu includes:

- Installation - provides access to service search, information about services, system settings and etc.
- PIN Code - provides parental code set, age limit.
- Timer - you can adjust time parameters or set timer for events.

- Games - provides access to games "Tetris" and "Life".

-STB status - provides information about the model of the STB, hardware, software and database versions.



KEYBOARD

You can use keyboard to enter any information, i.e. services, groups, satellites, networks names.

To enter a letter/symbol move the cursor using ◀ / ▶ ▲ / ▼ buttons till necessary letter/symbol and press **OK**. To save the input name press the green **Save** button, to remove one symbol press the red **Backspace** button, to change the Codetable press the blue **Codetable** button (the chosen language will appear in the right top corner of the screen), to leave without saving press the grey **EXIT** button. Default language for keyboard is the language of the user interface.



ANTENNA SETUP

Antenna Setting Menu allows to correspond the following parameters to the antenna number:

- LNB type
- DiSEqC input
- 22 KHz Tone
- LNB power
- Motorized system

Using the red **Backspace** button on the Remote Control you can completely delete data of the antenna with its services.

To add a new antenna choose in the list of antennas "New" and press the yellow **Enter** button, and after that enter new antenna parameters.

It is possible to connect 4 antennas to the STB, using DiSEqC 1.0, and 8 antennas, using "22 KHz" switch.



LNB TYPE

Select LNB type (single, dual, universal1, universal 2).

Single LNB low frequency can be 5150, 9750, 10600, 10750, 11475MHz. If the required LNB Frequency is not available, then enter the frequency manually using the Numeric buttons (0-9).
 Dual LNB low and high frequency can be 5150, 9750, 10600, 10750, 11475MHz. If the required LNB Frequency is not available, then enter the frequency manually using the Numeric buttons (0-9).

When you select Universal 1 it switches between 9750 and 10600MHz automatically. The "22KHz Tone" setting is unnecessary. (Disabled)

22KHZ TONE

Used for two or more antennas or LNBS.

DiSEqC INPUT

If you use several antennas or LNBS, connected to the STB with DiSEqC switch, in this item you have to select parameters for DiSEqC A-D (1-4) or TonBurst A B.

For correct operating with multiswitch system, supporting DiSEqC 2.0, or analogue operating (0/22 KHz, 13/18 volt, tone impuls) it is imperative:

- Either give DiSEqC-switch combination - DiSEqC A, DiSEqC B etc.;
- Or give analogue operating combination - TonBurst A, TonBurst B.

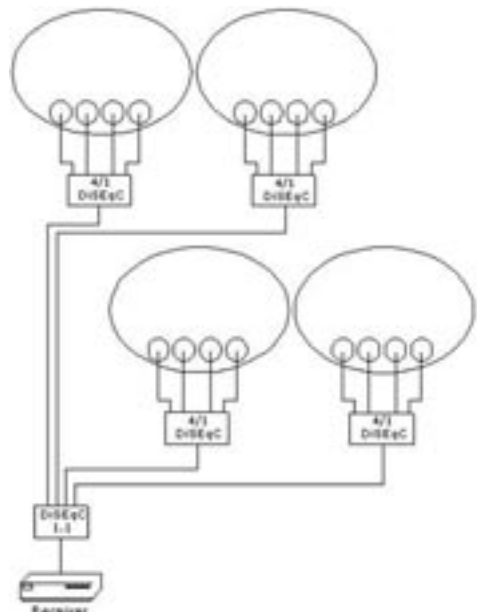
To change operating from DiSEqC for analogue do what recommended for particular switch.

Please, note: DiSEqC 2.0 is controlled similar to DiSEqC 1.0.

DiSEqC 1.1 input*

During use of selector switches DiSEqC 1.1 and DiSEqC 1.0 one can connect up to 16 antennas to receiver.

Connect selector switches in accordance with diagram. Select at items DiSEqC input and DiSEqC 1.1 input corresponding inputs.



LNB POWER

On/off LNB power.

MOTORIZED SYSTEM

If you use Motorized System for antenna operating with USALS, set USALS in this item. If you use Motorized System for antenna operating with DiSEqC 1.2, set « DiSEqC 1.2» in this item.

*This function may not be equipped in some SW versions.

INSTALLATION

POSITIONER SETUP

For Positioner setup to satellite you should:

– Select a satellite, from which you're going to search the services.

– Select a transponder. STB will search the satellite, using data of the chosen transponder. Please, note: You must be sure that the chosen transponder has sufficient signal power in your region and high symbol rate.

After that press the blue **UHF** button (signal search) and select the direction for the antenna, using **◀ / ▶** buttons (West or East).

The antenna will automatically start moving to the selected direction, until it finds the signal of the chosen transponder. As soon as the signal is found, it is necessary to adjust it manually to get the best quality of the signal. For it

move the cursor **◀ ▶** buttons and pressing and holding the button **◀ / ▶**

try to get maximum value in signal strength/quality scales.

– Press the green **◀ ?** button to save the position.



If satellite position was saved in the STB before, then press the yellow **□** button and enter the number of the position. Press **⊗** to verify your choice. After you select Service Search the box Automatic Search will open.

ADDITIONAL POSITIONER SETUP

To enable eastern/western limit for antenna set the antenna in the outermost eastern/western position. After that in the menu "Additional positioner setup" select the limit (eastern/western) and press the green **◀ ?** button. To disable the limit press the red **▶ ?** button.

To move antenna in the initial position select "Move to Zero" and press the green **◀ ?** button.

Command "re-count/evaluate" is individual for every positioner (the green **◀ ?** button). *

Please, note: It is possible to combine the DiSEqC switch and motorized antenna, operated by the DiSEqC 1.2 in the set-top box.

* This function may not be equipped in some SW versions

SETUP OF USALS POSITIONER

USALS is a program for control of motorized system for turning onto selected satellite.

USALS menu contains the following items:

- Satellite - selection of satellite upon which transition is to be made.
- Transponder – selection of transponder.
- Orbital position – orbital position of selected satellite.
- My latitude – geographic latitude of antenna position
- My longitude – geographic longitude of antenna position
- Goto- turning of antenna onto selected satellite



To stop movement of motorized system press red button **i** (command "stop").

Press yellow button **□** to move antenna into zero position (command "move into position 0"). Center of motorized system rotation range is a center position.

To turn antenna onto satellite:

- Select satellite onto which motorized system is to be adjusted.
- Select transponder. signal power / quality of this transponder will be displayed in the lower part of the screen.
- Set latitude and longitude of motorized system position. For this purpose:
 - Press button **OK**.
 - Enter value with the help of keyboard.
 - Set direction East or West.
 - Press green button **←/?** to store entered value or grey button **EXIT** to cancel changes.
- Press button "Move", antenna will begin to position onto satellite. Message about start of antenna movement will appear on the screen.
- Upon completion of antenna movement scales of signal power / quality should show some value. Position of antenna can be corrected for obtaining of maximum level of signal power / quality. For this purpose move cursor onto triangular buttons and make adjustment by buttons **◀/▶**. If after a prolonged time nothing happens try to replace transponder of current satellite.

* This function may not be equipped in some SW versions



INSTALLATION

SATELLITE SETUP



The menu "Satellite setup" allows you to select the desired satellite from the list, add a new satellite, delete a satellite or rename a satellite, change its parameters and information about its orbital position. You can also change parameters of transponders or add new transponders.



SATELLITE NAME

Satellite names are listed in alphabetical order. If the name of the desired satellite is absent in the list, please select the "New" option (last string in the list) and press the yellow  button on the Remote Control. In the list of satellites a New Satellite will appear. To change its name press the blue  UHF button. Using a keyboard input the name. You can change any satellite name this way.

ORBITAL POSITION

To enter the desired orbital position press  button. Type the desired position of the satellite using the digital  buttons in "xxx . x" format (4 symbols). After typing the 4th symbol, a list consisting of 2 variants of direction ("W" or "E") will appear. Verify your choice. Orbital Position must be within 0 - 180 degrees.

TRANSPONDER

This option contains a list of transponders of the selected satellite. Every transponder has such parameters as: Frequency, polarization, Symbol Rate, FEC.

Attention: To have opportunity for editing the list of transponders or their parameters it is necessary to switch on the Expert mode in menu "Installation" - "System settings" - "Other settings" - "Installation Mode" - Expert.

FREQUENCY

Enter the frequency of the transponder. Frequency must be within 3400-12750 MHz.

POLARISATION

Select polarization type: vertical, horizontal, left, right.

SYMBOL RATE

Select symbol rate. Enter optional using  buttons.

FEC

Select parameter for errors correction from: 1\2, 2\3, 3\4, 5\6, 7\8.

* See Keyboard

LANGUAGE SETUP

This menu allows to select the desired language for the screen menu and soundtrack language.




MENU LANGUAGE

Select a language for the menu or banner OSD in this mode. You can select desired language for the STB menu.

AUDIO LANGUAGE

You can select the default language for audio when changing services, if the chosen language is provided.

SUBTITLE LANGUAGE

You can select the language for subtitles in the Subtitle Menu. To call subtitles in the viewing mode press the yellow  button, select "Subtitles" and press . In the appeared list select the desired language for subtitles and press . Now the image is accompanied by subtitles.



INSTALLATION

A/V OUTPUT SETUP

"A/V Output Setting" Menu allows to adjust:

- Video output
- Audio output
- Screen mode
- Display format
- UHF channel
- TV Standard
- SPDIF – digital audio output



VIDEO OUTPUT

Set the desired video output mode from the TV SCART (RGB or CVBS).

AUDIO OUTPUT

Set the desired audio output mode from the TV SCART, SPDIF.

SCREEN MODE

Select the desired format of the screen (4:3 or 16:9)

DISPLAY FOTMAT*

Select the format in which the video will be displayed on screen. When your TV set is 4:3 and video source is 16:9, the STB will display in Letter-box or Centre mode as selected. When your TV set is 16:9 and video source is 4:3, the STB will display in the Pillar-box or Full mode as selected.

UHF CHANNEL

Select a UHF channel (21-69).

TV STANDARD

Set TV standard, supported in your TV (PAL B/G, PAL D/K, PAL I, SECAM).

SPDIF

Digital audio output (SPDIF) on/off.

* This function may not be equipped in some SW versions

OTHER SETTINGS

“Other Settings” menu includes:

- Transparency
- Info box display time
- Power on mode
- Installation mode



OSD TRANSPARENCY

Set desirable type of image transparency of information banner, service list box, time box. You can choose from 0 to 70 % with 10% step-size.


OSD COLOR SCHEME

Allows to select one of four kinds for the colour menu design.

INFO BOX DISPLAY TIME

Set the time of the information box display on the screen. The time ranges from 0 to 30 seconds.

POWER ON MODE




Power on mode – after STB is on it stays in standby mode. To start the STB move it in power on mode using  button.

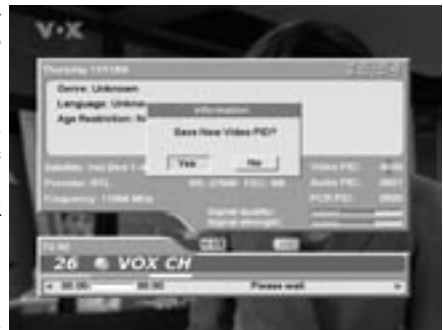
INSTALLATION MODE



Beginner – this mode locks the ability to edit the List of Satellites and Transponders and PID.
Expert - this mode unlocks the ability to edit the List of Satellites and Transponders and PID

PID EDITING

Service PID is automatically renewed from the satellite. To enter abnormal PID value or cut off auto renewal from a satellite you should:

- Select “Expert” in the Installation Mode.
- Start viewing mode of the service, where you need to change PID (select soundtrack if there are several audio PIDs).
- Call broaden information banner with double click on  button.
- Press blue button . Edit PIDs.
- To save the changes press blue button . From this moment PIDs are displayed in red and not automatically renewed from the satellite.



To return default setting (auto renewal from a satellite) enter EDIT PID mode, press the green button  and verify your choice by pressing  button.

SERVICE SEARCHING

There are 2 search modes: Auto and Manual.

AUTOMATIC SEARCH

Before beginning an auto search it is necessary to setup the following parameters:

- Select the target antenna or create a new one. Press the blue **UHF** button to change the existing antenna or to create a new one.
- Select the satellite. The STB will search services using the list of transponders for the selected satellite. Press the blue **UHF** button to edit the list of transponders.
- You can select "Yes" or "No" mode in Skip Scrambled menu.
- Select the Search type (Quick; Network; Full).



Quick search - search among the transponders of the STB base.

Network search - search among the transponders of the STB base and in the stream.

Full search - search among the transponders of the STB base and among the frequencies in the stream. The value of the polarization and FEC are being selected from all possible range/variants. Symbol Rate value is being selected from the special range saved in the STB memory. Range of symbol rates may be manually corrected. To add a new symbol rate select "New", press the yellow **□** button and enter your value. To edit a value simply enter a new one. Use the red **i** button to delete a value of symbol rate.

- Select Start Search and press OK.

While searching, the following are displayed on the screen: the scale of progress, two lists in black colour (of found services) and in gray colour (of existing services) and both TV and Radio. If the service that is found is already on the general list it will not be added again.

As the search stops the Save plate with the number of services found will appear. If you press the **EXIT** button during the search process, searching of services will stop and you can save the services that have been located.

MANUAL SEARCH

Before beginning a manual search it is necessary to setup the following parameters:

- Select the number of the antenna or create a new one.
- Enter the frequency of the transponder.
- Select transponder polarization type (vertical, horizontal, left, right, auto).
- Enter symbol rate.
- Select parameter for error correction from: 1\2, 2\3, 3\4, 5\6, 7\8, auto.

If the transponder exists and the data are correct, the box on the bottom of the screen shows the quality and the level of the signal.

- Select "Start Search" menu.



While searching, the following are displayed on the screen: the scale of progress, two lists in black colour (of found services) and in gray colour (of existing services) and both TV and Radio. If the service that is found is already on the general list it will not be added again.

As the search stops the Save plate with the number of services found will appear.

If you press the **EXIT** button during the search process, searching of services will stop and you can save the services that have been located.

If necessary, set additional searching parameters: skip scrambled, network search, audio, video, PCR PID in the "Additional" menu.

ADDITIONAL

NETWORK SEARCH

During the network search the STB searches among the transponders saved in its memory and adds information of transponders found in the stream.

Attention: This function is carried out if the transponder can get information about the frequency of the other transponder from the digital stream. Search will be continued on the other transponder besides the transponder specified by the user.

SKIP SCRAMBLED

Automatic Skip all scrambled services during the search. You can select Yes if you prefer the STB to save FTA services.

VIDEO PID/AUDIO PID/PCR PID

You can enter PID(Video/Audio/PCR) values manually. This mode is necessary when you search for a signal that has abnormal service Information tables.

SERVICE ORGANIZING

Menu “Service Organizing” contains points of program classification according to definite characteristics:

- All – contains 2 lists All TV and All Radio.
- Provider – contains list of providers whose channels are in the base.
- Satellite – contains list of satellites whose channels are in the base.
- Transponder – contains list of transponders with channels.
- Antenna – contains list of antennas with channels.

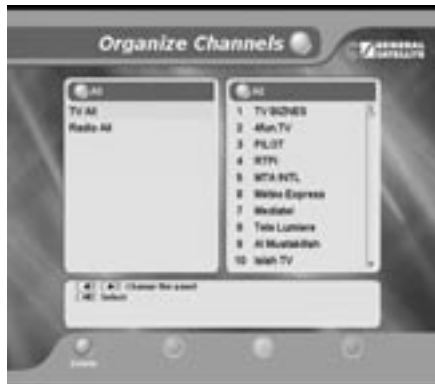
To choose group element move the cursor to a group name using ▲/▼ buttons, then you should press ◀ or ▶ buttons to pass on to the group elements list. Using ▲/▼ buttons you can choose required group element. To open group element or group you should press **OK** button on the required element.

After opening any element of program classification appears a window that contains group name (for example: Hotbird 1-4/6), list of channels of this group, small screen with display on the chosen channel, field with parameters of the chosen channel is situated under display (satellite, provider, frequency, polarization, SR, FEC, age limit, genre, language, encoding).

A special sign **🎵** pops up after the Radio channel name. Encoded channels are marked by **💰** icon.

In this mode user possesses possibility to remove, transfer, block and rename channels. There exists possibility of group operations of channel block and removal. To highlight several channels use **OK** button; the channel highlighted is ticked by **✓**. To invert channel choice for group operations press **RCL** button. By pressing **MENU** button at any channel receiver will be transferred to review mode of this channel.

To transfer along the list you can use the following buttons: ▲ transfer to previous channel, ▼ transfer to next channel. You can also move page up / page down using **P+** / **P-** buttons.



SERVICE EDITING

Removal

Choose a channel or a channel group you want to remove. Press red button **i**.

Confirm removal by transferring cursor to "Yes", then press **OK** button.

To cancel removal transfer cursor to "No", then press button **OK**.

Moving *

To transfer a chosen channel press green button **◀?**. An icon **◆** will appear before the channel number.

Choose a new channel position using **▲/▼** buttons.

Press green button again **◀?**.

To return a channel to its reference position press **EXIT** button.

Lock

Choose a channel or a channel group that you want to lock and press yellow button **□**.

A special symbol of lock **🔒** in the form of conventionalized lock will appear near channel number.

To view the channels blocked you should enter PIN code**.

Renaming

To rename the chosen channel press blue button **UHF**. With the help of keyboard*** enter new channel name.

ORGANIZE FAVORITES

Menu "Organize favorites" allows forming favorite lists, add new channels to lists according to definite parameters (to filter), choose, remove, rename, transfer and sort the channels alphabetically.

Default favorite lists are installed: Music, News, Sport, Films.

To create a new list press yellow button **□** *. To remove a list press red button **i**.

To add programs to a list choose the required one and press **OK** button. From the appearing list of all programs transfer required channels to the favorite list using **OK** button. To transfer all channels press blue button **UHF**.

To simplify program sampling you can use program alphabetical sorting (yellow button **□**) or filter (red button **i**).

Using the filter you can highlight programs according to definite parameters: satellite, frequency, network, type (TV, Radio), encoding type (FTA, Scrambled, Viaccess, Videoguard, etc).

To highlight channels according to definite parameters press red button **◀?**, to reset filtration parameters press green button **i**.



* This option is available only in groups All TV, All Radio

** See Parental PIN Code

*** See section Keyboard

DATA TRAFER

You can update STB Software and database through the serial input-output port RS-232 on the rear panel of the receiver. You can do this only using PC.

Whenever a problem is found with this software or extra functions or enhanced applications are added, the software in the equipment must be upgraded. In order to maintain proper performance of the product, it is essential to have the most up-to-date software. The latest news and release of software versions may be found at the following website –

<http://www.general-satellite.com>

It is recommended that you periodically check for the availability of software upgrades.



During data transfer a yellow LED is burning on the front panel of receiver. In case of error an error code will be displayed (see table of error codes) and receiver will automatically rerun with an old version.

Dynamics of program data change process or deciphering of error code will be displayed in the program BurnerGS window.

In case of successful change the program receiver will automatically rerun with a new version.

Warning: Do not turn off the STB while downloading. Connect the PC to the STB by RS-232-cable when the power is off.

PC TO STB SOFTWARE\DATABASE UPDATE

(Through serial input-output port RS-232 using GS Burner program)


1. Switch off the receiver.
2. Connect the PC to the STB by RS-232-cable.
3. Install and run the GS Burner utility on your PC (You can download it on our website <http://www.general-satellite.com>).
4. Find and Open upg-file in the GS Burner utility (software version/database file corresponding to your area you can download on our website <http://www.general-satellite.com>).
5. Press "Start" button in GS Burner program.
6. Turn on the receiver.

DATA TRANSFER

Table 1


STB		GS Burner	Decoding & solution
Winking of the green led (times)	Winking of the red led (times)		
1	1	Timeout occurs!	Data transfer timed out. Check connection and try again.
2	1	Unknown upgrade!	Unknown file format.
3	1	Upgrade corrupted!	Downloaded file is corrupted.
1	2	The size of this file is too big	The length of the file doesn't satisfy the type of the file.
2	2	There is insufficient memory for the allocation!	Lack of memory. Switch off the power and try again.
3	2	Write to the FLASH incorrect!	Flash could be corrupted. Try again. If subsequent attempts fail please contact the service center.
1	3	Transfer Error!	Transfer Error. Check the connection and try again.
2	3	FLASH init Error!	Flash is corrupted. Please contact the service center.
3	3	Incompatible versions!	1) The versions of software and hardware are incompatible or the versions of the database and software are incompatible.

CONDITIONAL ACCESS

In this Menu you can get information about CAMs, Cards (?), conditions of access, subscribe status etc. Every module has its own menu and installations, so we recommend that you learn its specific operations. You can "reload" a module using the red  button.

Please note: this function is available only on STBs with conditional access.

DEFAULT SETTINGS

To reset the menu of the STB to the default settings please follow these instructions. First, be aware that if you select the default settings all information about installed services, antennas, favourite lists will be lost. To download the default settings press the red  button on the Remote Control. After the settings have been reset your STB go into STAND BY mode.

The TV guide provides date and time information about programs for each service. You can plan your viewing using this information.

Note: this function is available if a company provides the service.

Access the TV Guide by pressing **EPG** button in the viewing mode.

Use the blue **UHF** button to select a favorite list of programmes, for which you need the TV Guide.

The green **?** button switches the STB into a mode where the guide will be displayed for each day of the week. In this mode you can select a day using **◀/▶** buttons, and necessary programme using **▲/▼** buttons to move the cursor.

To look through the brief list of the programmes press the red **i** button.

Using the yellow **□** button you can set the timer so that it will switch on the STB during a particular program.

In the timer setup box you can find the following options: the number of the service, beginning/end time of the program, reiteration (once, once a day, once a month).

Information about the current programme can be also received from the brief information banner. The name of the current programme and its duration is displayed on the bottom line of the screen. In the brief mode you can press **◀/▶** to view the next programme on the information banner.

The current programme description can be found in the broadened information banner.



PARENTAL CONTROL (PIN)

Access to services and programmes is controlled by a PIN code (i.e., a 4-digit secret code that is defined by the user). You can set a parental guidance rating for each service and most STB functions in this mode.

To enter "Parental code" and "Installation" menus you must enter the PIN.

Please note: The default PIN code is **0000**.

If any problem occurs when entering a PIN code, you cannot switch to the next mode.



To change the PIN do the following:

- Enter the "PIN Change" menu. Default setting highlights the "Old PIN".
- Enter your old PIN. If it is correct the marker will move to "New PIN".
- Enter your new PIN. After the fourth symbol the marker will move to "Verify PIN".
- To verify the new PIN code, re-enter your new PIN code in the highlighted area.

If your entry matches all settings are complete.

If your entry does not match, all settings will be reset, the old PIN code will remain valid and the cursor will move into the first position on the menu.

Also in this menu you can setup age limits for programme viewing.

Please note: this function is available if the company provides it.

Attention: Do not forget your PIN code. If you forget it you must contact a service-center.

TIMER SETUP

To set the current time, enter UTC shift according to your time zone. These time settings are displayed in the information banners, TV Guide, time of switching on/off the STB timers.

UTC SHIFT

Setup of the UTC time shift.

UPDATE FROM SATELLITE

Switching on/off the mode of time updating from satellite


YEAR, MONTH, DAY, LOCAL TIME



Current time setup



TIMER SETUP

In this menu you can set the time that the timer will switch the STB on and off.

Using the yellow  button you can set the timer to turn on the STB or to switch the STB to a certain program. You can find the following options in the timer setup box: the number of the service, beginning/end time of the programme, and interval of operation (once, once a day, once a month).

The list of all tasks is displayed on the right side of the screen. To remove the task, press the red  button. To edit the parameters of the task press the blue  button.

The time for two or more tasks must not overlap. The timer switches off the STB if the user doesn't press any buttons after switching on the STB (on the timer).

Maximum quantity of timers is 32.

For more information see TV guide.

GAMES / STATUS

On the STB you can play two* games: Tetris and Life.

TETRIS

When choosing TETRIS in the Game menu you'll be asked about the level you prefer. Enter the level (0-9) you'd like to start with and press **OK** .

Operating:

- ◀ / ▶ move a figure horizontally
- ▲ drop a figure
- ▼ speed up the falling of a figure
- OK** turn over a figure

LIFE**

Operating:

◀ / ▶ / ▲ / ▼ move the cursor on the game field

OK put a cell

the Red **i** button - start/finish the game

the Green **?** button - clear the screen

the Yellow **□** button - make a move

the Blue **UHF** button - start demonstration

Please note: more information can be found in the Internet

SET-TOP BOX STATUS

The "STB status" menu displays the following information: hardware version, software version, database version.



*List of games can be changed without preliminary notification.

** This function may not be equipped in some SW versions

TROUBLESHOOTING GUIDE

Indication of short circuit in antenna cable*

In case of short circuit in antenna cable, LNB or other equipment of antenna route the following message will be displayed on the screen:

“Short circuit! Check antenna cable!”.

To eliminate malfunction:

- Turn off receiver's power.
- Check antenna cable, LNB, other equipment. If necessary, replace faulty equipment. If you are unable to eliminate the fault by yourself - address service center.
- Turn on STB.



TROUBLESHOOTING GUIDE

Problem	Solution
Doesn't respond to commands from front panel and RCU	Restart the STB (switch off and switch on the power)
Does not display any message on the front panel or STB has no power	Check the main power cable to see that it is plugged into a suitable power outlet. Check to see if STB is in Standby mode
No Picture	Ensure that the STB is switched on (see above). If you use the RF Output, check that the RF Lead is connected firmly to the STB and TV/VCR. Check that you have selected the correct channel or Video Output on your TV. If you are using the RF Output, check that you have correctly tuned the UHF channel of the STB or TV. Check the brightness level of the TV.
Poor picture quality	See "No Picture" above. Check the signal level; if it is low then try adjusting the alignment of your dish. Re-start the STB.
No Sound	See "No Picture" above. Check the volume level of the TV and STB. Check the Mute status of the TV and STB.
Remote Control does not operate	Point remote control directly towards the STB. Check and replace batteries.
No Signal or Bad Signal	Check the LNB - replace if necessary. Check the cable from the LNB. Check the position of the dish - realign the dish if necessary. If you use a DiSEqC 1.0 switch, check that you have connected the LNBS to the correct connections on the switch. Check the settings in "Antenna setup" menu. Re-start the STB

* Indication of short circuit works in receivers that has hardware support of this function.

SPECIFICATION

Tuner

Input Connector	F-type, IEC 169-24, female
Frequency Range	950 MHz to 2150 MHz
Input Impedance	75 unbalanced
Signal Level	from -25 to- 65 dbmKv
IF	480 MHz
Band Width	36 MHz
LNB Power & Polarisation	Vertical: +13,5V Horizontal: +18V Current: 400 mA Overload Protection
22 KHz Tone	Frequency: 22 ± 4 kHz Amplitude: $0,6 \pm 0,2V$
"22 KHz" switch	22 KHz Tone
DiSeqC Control	Version 1.0/1.2 Compatible
Demodulation	QPSK
Input Symbol Rate	2-45 Ms/s
FEC Decode	Convolutional Code Rate 1/2, 2/3, 3/4, 5/6 and 7/8 with Constraint Length K=7

MPEG Transport Stream A/V Decoding

Transport Stream	MPEG-2 ISO/IEC 13818 Transport stream specification
Profile Level	MPEG-2 MP@ML
Input Rate	15 Mbit/s Max
Aspect Ratio	4:3, 16:9
Video Resolution	720 x 576
Audio Decoding	MPEG/MusiCam Layer I & II
Audio Mode	Single channel / Dual channel / Joint stereo / Stereo
Sampling Rate	32, 44.1, 48 kHz

Memory

Main Processor	STi 5518
Flash Memory	2 Mb
Graphic(MPEG) & System DRAM	8 Mb

SPECIFICATION

A/V & Data In/Out

VIDEO	SCART (RGB, CVBS), S VIDEO
AUDIO R/L	SCART
RS-232C	Transfer rate 115,200 bps, 9pin D-sub Type
Digital Audio Output (SPDIF)	Optical

RF-Modulator

RF-Connector	75 Ω , IEC 169-2, Male / Female
Frequency	470 - 860 MHz
TV Standard	PAL B/G, PAL D/K, PAL I, SECAM selectable by Menu setting
RF Output Channel	21-69, selectable by Menu setting

Power Supply

Input Voltage	190 -250V, 50/60 Hz
Type	SMPS
Power Consumption	Max. 25 W
Protection	Separate internal fuse. The input includes protection against power surges caused by lightning

Physical Specification

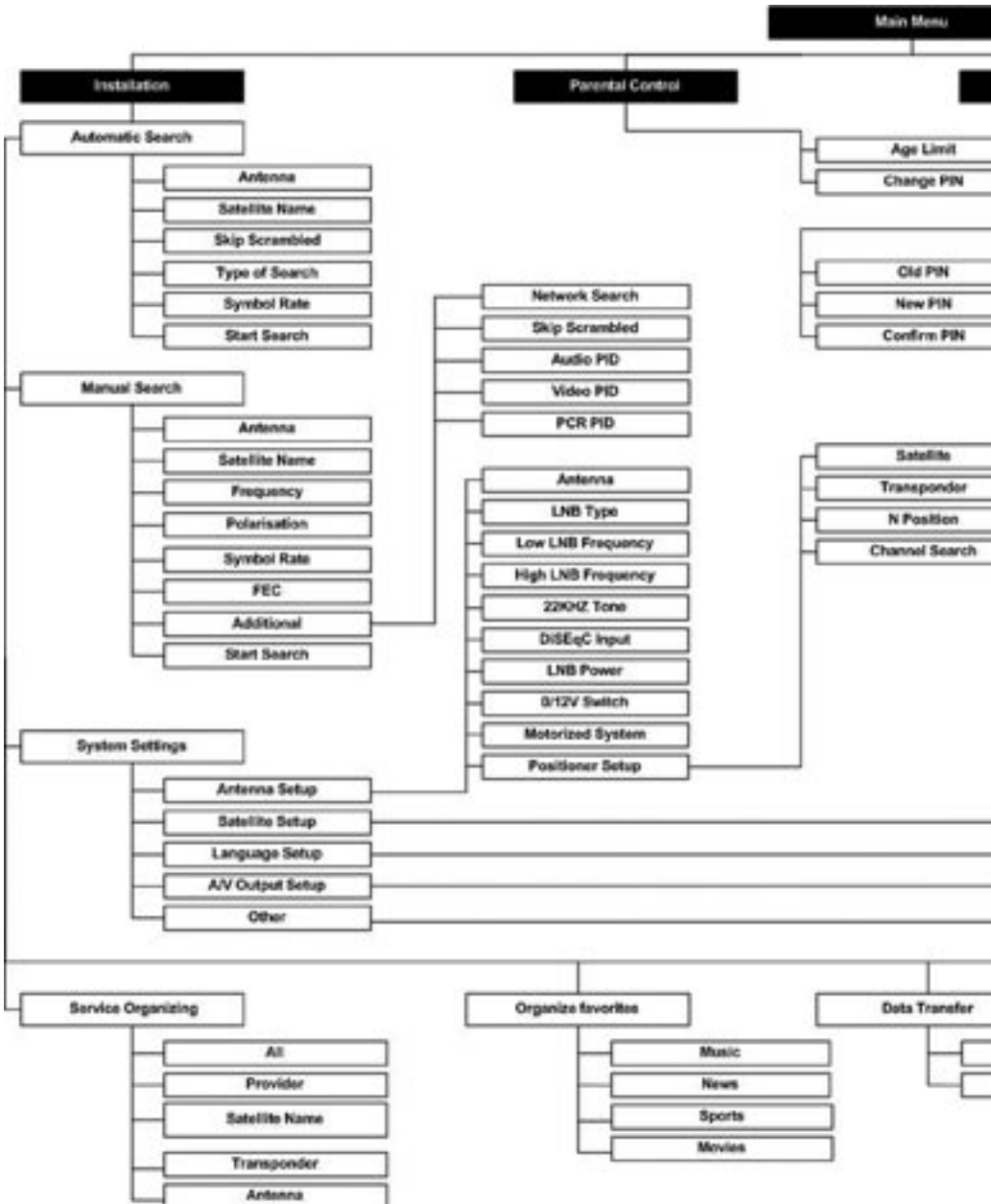
Size (W x H x D)	260 x 50 x 180 mm
Weight (Net)	1,3 kg
Operating Temp	From 0°C to 45°C
Storage Temp	From -10°C to +70°C
Storage Humidity	5% ~ 95% RH (Non-Condensing)

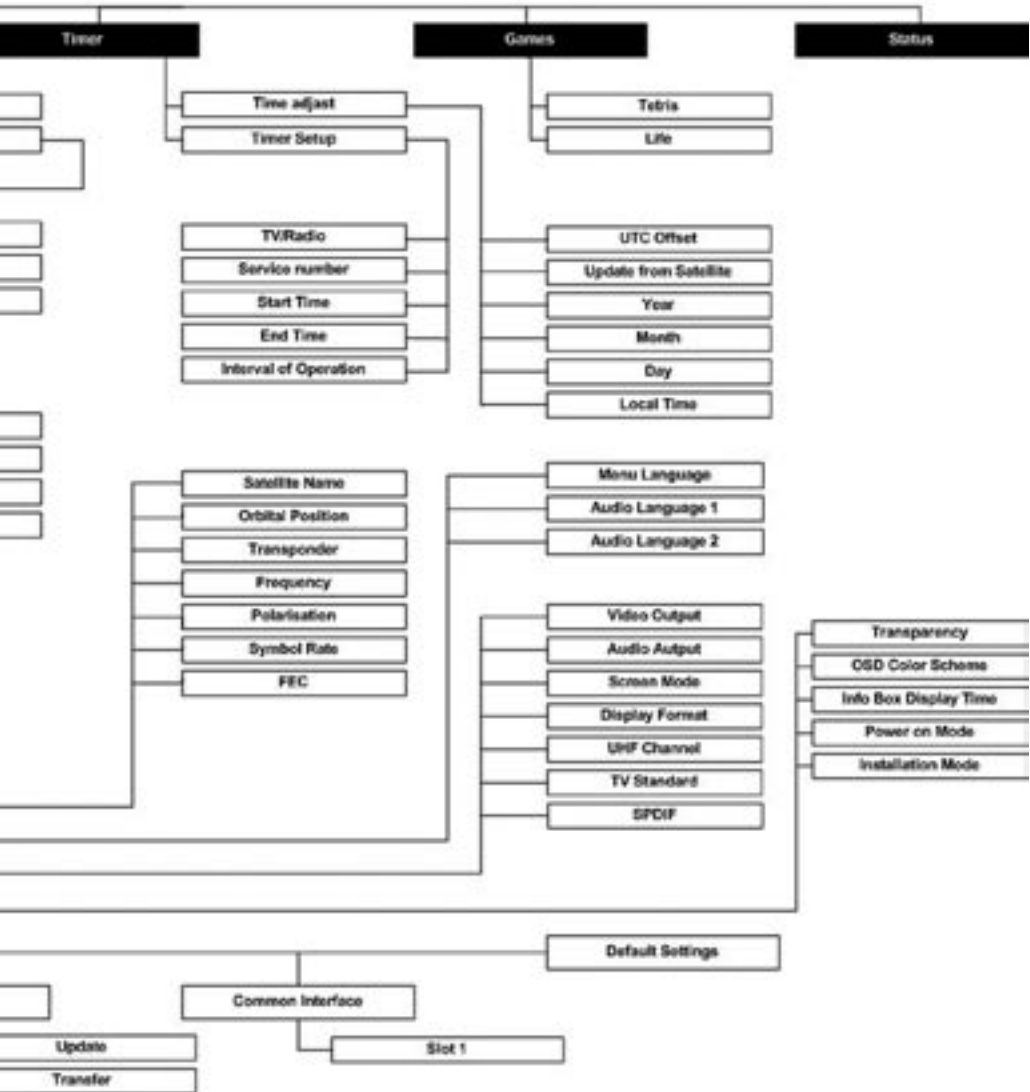
Conditional access interface - CI7101S

PCMCIA slot of conditional access	1 ps.
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Please note : The specifications of the STB may be changed without advance notice.

MENU MAP





WARRANTY CONDITIONS

General Satellite Corporation would like to thank you for choosing one of our products. The quality of this product meets the highest international standards and we are sure that it will fulfill all of your personal needs. If you have any problems with the product that you have purchased from General Satellite Corporation, we recommend that you seek assistance only at one of our authorized service centers (ASC), whose addresses can be obtained from General Satellite Corporation or from one of its dealers. General Satellite Corporation is constantly improving its quality of service and increasing the number of service centers both in Russia and in other countries. Only an authorized service center can offer you skilled assistance and timely solutions to any problems you may encounter. To avoid any misunderstanding, we kindly ask you to read the Operating Instructions thoroughly and to check whether the warranty slip has been filled out correctly. Check the date of sale, shop assistant's signature and the shop's seal.

The manufacturer's warranty period is **36 months** from the date of purchase, except for the cases specified by the manufacturer. Life span of the product is 5 years.

By this warranty slip General Satellite Corporation confirms that the product you purchased is free from any defects, and undertakes to repair and replace any defective elements free of charge during the entire warranty period, which will be extended for the time the product is at an ASC. However, General Satellite Corporation reserves the right of refusing to provide free warranty repairs, in the case that the warranty conditions set forth below are not observed. All warranty conditions shall be valid in the framework of the laws on consumers' rights protection and shall be regulated by the country's legislation.

1. The warranty shall be valid only if there is a warranty slip that is accurately and clearly filled out indicating the serial No. of the product, the date of sale, warranty period and the clear official seal of the Seller.
2. Repairs may be provided free of charge only during the warranty period indicated on this warranty slip.
3. The serial number and model of the product must correspond to the serial number and model indicated on the warranty slip.
4. The warranty for the product shall terminate in case of a breach of the operating rules set forth in the Operating Instructions.
5. Additionally, the warranty for the product will be terminated in the following cases:
 - if the product has any traces of foreign interference or if there has been an attempt at repairing the product at an unauthorized service centre;
 - if any unapproved changes in the design or circuit of the product are found, except for the cases specified in the Operating Instructions;
 - if the appliances intended for application in domestic conditions are used for production or professional purposes.
6. The warranty does not cover the following defects:
 - mechanical damage;
 - damage related to the use of pirate access cards;
 - damage caused by penetration by foreign objects, substances, liquids or insects into the product;
 - damage caused by natural calamities, fire or other domestic factors;
 - damage caused by non-compliance with the parameters of supply, telecommunication, cable networks and other similar factors with the State Standards.The warranty does not cover consumables.

WARRANTY

WARRANTY SLIP № _____

Warranty period	36	months

If there are any questions related to repairs of the terminal, please apply to the addresses indicated by dealers when it was sold.

Address to be indicated by dealer _____

Product	SET-TOP BOX
Model	FTA7001S / CI 7101S
Serial No.	
Date of sale	
Shop-assistant	

Company's (seller's) official stamp

Buyer's address _____

Buyer's signature _____ / _____ /

Data on the first repair

Date of receiving the product for repair
Type of defect
Code of work done
Date of issuing the product after repair

Woker
Signature
Stamp

Data on the second repair

Date of receiving the product for repair
Type of defect
Code of work done
Date of issuing the product after repair

Woker
Signature
Stamp



