CONTENTS

1. GENERAL PROPERTIES

- ➤ Teletext (VBI)
- ➤ 200 Channels
- ➤ French, German, English, Spanish, Italian, Polish, Turkish, Finnish, Swedish, Norwegian, Dutch, Czech, Croatian , Danish OSD
- ➤ 7- DAY - EPG
- ➤ TV scart (with RGB support)
- ➤ Loop through output for analog programs and RF output (uhf band) for digital programs on the TV OUT jack. PLL RF Modulator output is UHF band (Ch. 21-69 PAL G)
- ➤ Last watched channel saving
- ➤ Automatic search for all channels
- ➤ 5 timers can be used either for recording or as a sleep timer
  - ▪ 3 timer modes: daily, weekly, once
- ➤ Reminder function (TV timer) programmable via EPG
- ➤ 5 Favaourite modes
- ➤ Parental lock options at different levels
  - ▪ Channel lock (password protected)
  - ▪ Menu/Installation lock (password protected)

- ❖ RECEPTION :
  - ➤ DVB-T Compliant
  - ➤ Input frequency range: 50Mhz – 858 MHz
  - ➤ Input signal level: -81 dBm
  - ➤ Supports 2K and 8K mode
  - ➤ Signal strength and quality bar for antenna adjustment
  - ➤ Manual and automatic search options
- ❖ VIDEO & OSD :
  - ➤ Video: MP @ ML, PAL, 4:3/16:9
  - ➤ 8-bit OSD colour, 720x576 pixels
  - ➤ Decoding & Video Out: PAL
- ❖ AUDIO:
  - ➤ Audio: MPEG Layer I & II, 32/44.1/48 KHz sampling frequencies, single/dual channels, stereo & joint stereo
  - ➤ Multi language audio support (up to 16)
  - ➤ Audio mute and volume control
- ❖ SERVICE:
  - ➤ Software update over the Scart to RS232
- ❖ SYSTEM RESOURCES
  - ➤ 32bit CPU @ 81 MHz
  - ➤ 16Mbyte RAM memory
  - ➤ 2Mbyte Flash memory

2. SAFETY PRECAUTIONS

Power Source

The unit should be operated only from a 220-240V~ 50 Hz outlet. Please do not open the cover by yourself. There is high voltage in the set, which will endanger your life. Please contact local service agent for help and advice. Repairs should be carried out by a qualified technician only.

• The apparatus is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the apparatus itself has been turned off.

• If you are not going to use the apparatus for a long time, be sure to disconnect the apparatus from the wall outlet.

Power Cord

Do not place the unit, a piece of furniture, etc., on the power cord (mains lead), or pinch the cord. Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Never make a knot in the cord or tie it with other cords. The power cords should be routed in such a way that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask closest service agent for help. When the AC power cord needs to be changed, it should be done at a qualified service shop only.

Choice of Location

• Please do not place the set in a place subject to direct sun light, excessive dust or mechanical shock or in a location near heat sources.

• The set should be placed on a solid and safe base. Do not place the apparatus on a soft surface such as a rug that might block the ventilation holes on the bottom.

• A location should not be selected such as a room with high humidity, as the condensation, arising in the kitchen for example, may cause malfunction or damage the set.

• Heating or other thermal radiation under the set also may cause malfunction or damage the set.

• The hot air, which arises during the operation, should be ventilated with sufficient air circulation.

Please do not put the set into closed areas and do not cover it.

• Please avoid the contact of the set with water or humidity. Do not put into operation near bath, swimming pools.

• Take care to provide a good air circulation. Place the apparatus in a location with adequate ventilation to prevent heat build-up in the apparatus.

• Should any solid object or liquid fall into the cabinet, unplug the apparatus and have it checked by qualified personnel before operating it any further.
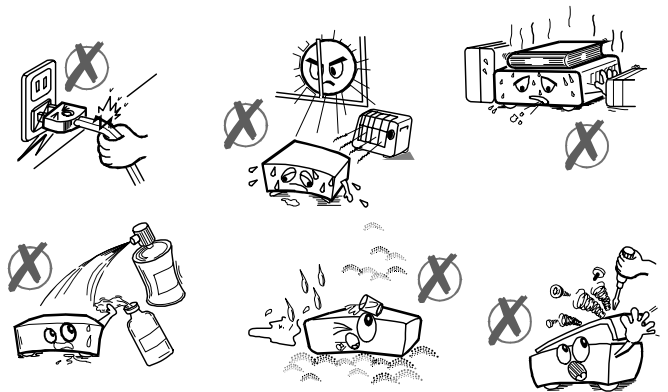
Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

The mains plug or the appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

CAUTION
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

⚡	**WARNING** DO NOT OPEN RISK OF ELECTRICK SHOCK	!
⚡	*The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.*	
!	*The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.*	

C E

FRONT PANEL:

REAR PANEL:

| TV OUT | ANT IN | TV SCART | VCR SCART | AUDIO OUTPUT LEFT/RIGHT |
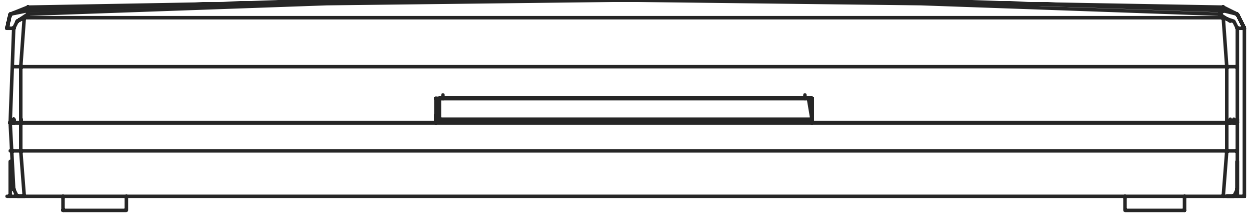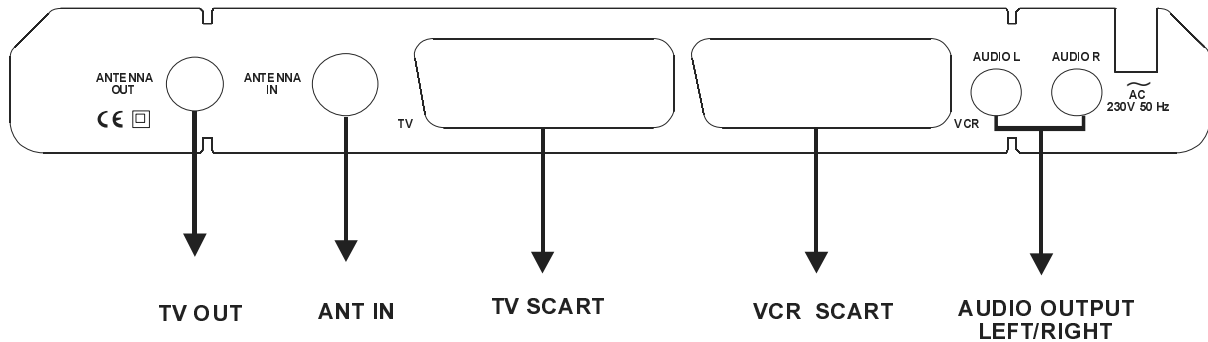
3. PREPARING

3.1. REMOTE CONTROL

First open the battery cover on the underside of the remote control. Put in both batteries 1.5Volt (RO3/AAA) referring to the imprinted symbols (+/-) in the battery case and put on the battery cover again. While using the remote control, direct it towards the front side of the receiver. If the remote control does not work or the chosen function does not work, the batteries are most probably exhausted and they should be replaced as soon as possible. Please use only the leak proof batteries. It is best to remove the batteries from the remote unit if you will not be using the remote control unit for long time.

3.2. CONNECTIONS

3.2.1. CONNECTION TO THE TV

Connect your set-top box with a scart cable using the TV scart connector on the rear panel to your television's scart connector The set-top box gives RGB or CVBS output. If your TV's scart connector has an RGB input then you can switch your digital set-top to RGB mode by toggling TV out menu to RGB mode in configuration menu, so you will be able to achieve high performance from your digital set-top box.

3.2.2. CONNECTION TO A VCR

DVB-T receiver scart can be connected to a VCR'S scart input and VCR's second scart "scart output" can be connected to a TV scart input.

1) Connect one end of Scart cable to TV Scart connector on the STB and the other end of to a Scart connector on your TV

2) Connect one end of Scart cable to VCR Scart connector on the STB and the other end of to a Scart connector on your VCR

When the receiver is in standby mode: When connected device (i.e., DVD, VCD) is switched on, the device will be automatically routed to TV.

When the receiver is on: When connected device (i.e., DVD, VCD) is switched on, the device will be automatically routed to TV. Otherwise the receiver will remain routed to TV.
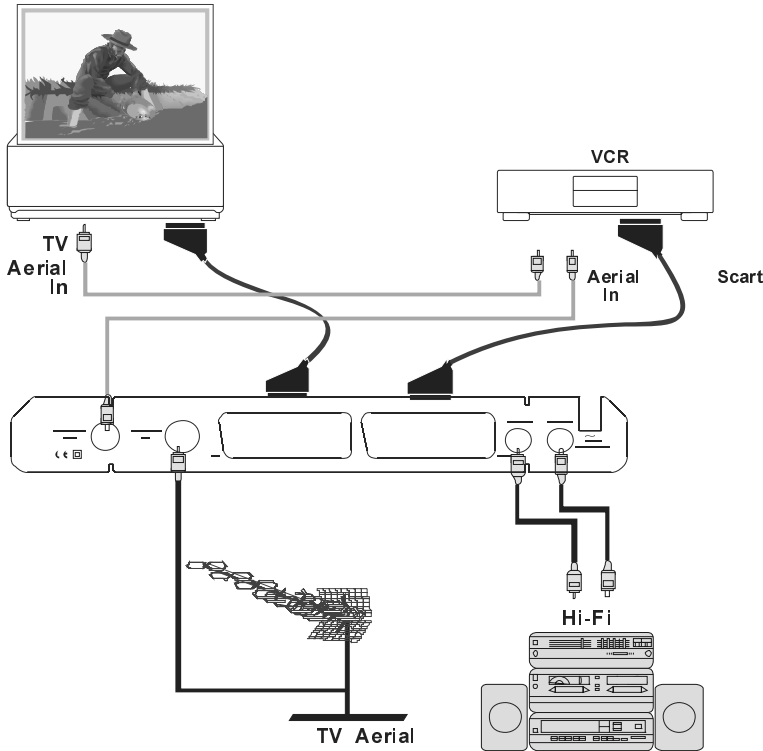
3.2.3. PUTTING INTO OPERATION

Be sure that you put through all the cable connections. After plugging in the mains cord of the set to the mains supply , a red light will be seen on the front panel. (Standby mode). When the set-top-box is first powered up please wait for about 7 seconds before activating the receiver since booting of software will take some time. Then, you can turn on your digital set-top box by pressing the **standby** button on the remote control. You will see that the red light on the front panel will change to green. (Power on mode)

3.2.4. SOCKETS

- TV SCART
- VCR SCART
- Two IEC Connectors, ANT IN is   the antenna input .TV OUT is for to output the loop through of analog signals and to output decoded digital signals through RF Modulator.
- Left / Right Audio Output

4. REMOTE CONTROL FUNCTIONS

4.1. REMOTE CONTROL LAYOUT
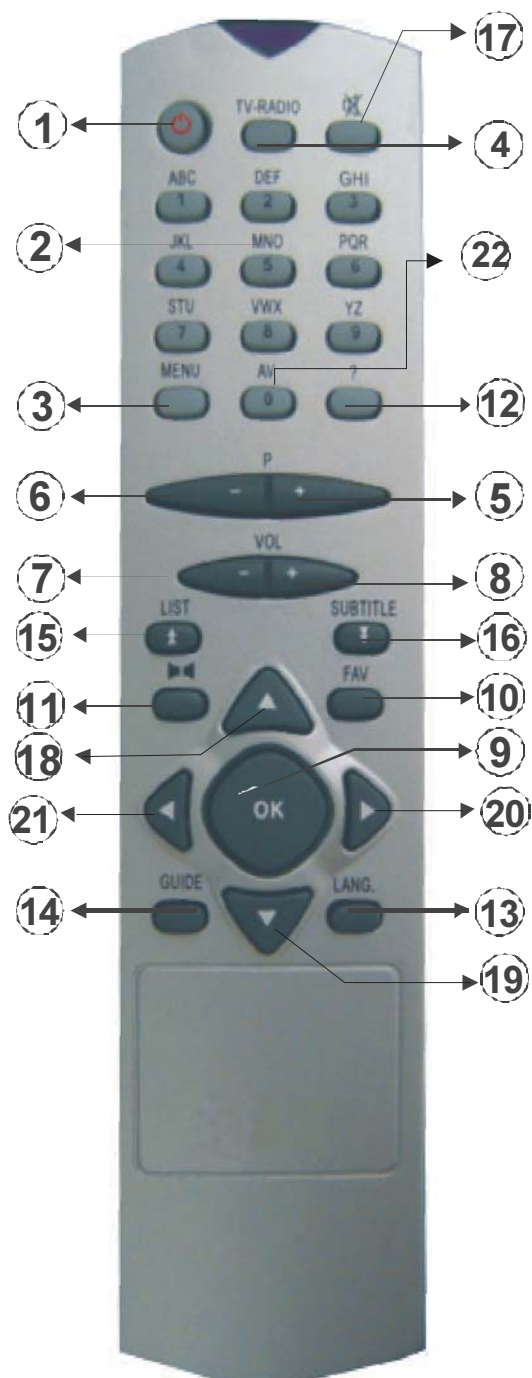
1. STANDBY ON / OFF
2. DIGITS & LETTERS
3. MENU
4. TV / RADIO
5. PROGRAM UP
6. PROGRAM DOWN
7. VOLUME DOWN
8. VOLUME UP
9. OK
10. FAVOURITE PROGRAM (BLUE BUTTON)
11. AUDIO MODE SELECTION (YELLOW BUTTON)
12. INFO / HELP (?)
13. LANGUAGE SELECTION (LANG.)
14. GUIDE (EPG MENU)
15. PROGRAM LIST / PAGE UP (RED BUTTON)
16. SUBTITLE / PAGE DOWN (GREEN BUTTON)
17. MUTE
18. CURSOR UP
19. CURSOR DOWN
20. CURSOR RIGHT
21. CURSOR LEFT
22. AV BUTTON

4.2 STANDBY ON / OFF

After making cable connections, the receiver goes out of stand-by mode. After getting out of stand-by mode, the receiver tunes immediately to the last watched / listened program. When the "STANDBY ON/OFF" key is pressed, it goes directly to the stand-by mode.

4.3. MENU

By pressing MENU key on the remote control, main menu is accessed; MENU key will be also used to go out of the menus (program table, program list, electronic program guide…). "▲/▼, ◀/▶" are used to move up and down in the menus to access the submenus. OK key on the remote control is used to enter the submenu selected.

4.4. TV / RADIO TOGGLE

When the TV/RADIO key is pressed either on the remote control the receiver changes mode (from TV to Radio or from Radio to TV). When the mode is changed, receiver tunes to the last watched / listened program. In Radio mode, if display is available, radio program number glows in display. There are special TV and Radio icons in the channel banner and program info OSD.

4.5. PROGRAM UP / DOWN

When "P+ / P-" key is pressed either on the remote control or front panel (optional), the receiver tunes to the next (respectively previous) program in selected program mode (in the program table, program list or electronic program guide menus, it tunes the program after OK key is pressed). If a program that will be tuned is locked, the user must enter the password. If a wrong password is entered, (a banner will warn the user) it can not tune the desired program, it can tune to the previous or next program by pressing P- and P+ when no menu is active. In program table with keys (▲/▼) next / previous channel can be selected respectively.

4.6. VOLUME UP / DOWN

When "V+ / V-"pressed on the remote control, a banner is displayed, which shows graphically the present volume. The sound is increased or decreased by moving the cursor on volume scale by pressing V+ and V- keys respectively.

4.7. CURSOR UP / DOWN

"▲/▼" keys are used for navigating in the menu options. "▲" Key moves the highlight to the upper menu option, "▼" key moves the highlight to the lower menu option.

4.8. CURSOR RIGHT / LEFT

Cursor "◀ / ▶" keys are used for navigating in the menu options. "▲" key moves the highlight to the menu option on the right or opens the submenus where available, " ▶ " key moves the highlight to the menu option on the left or closes the submenus where available.

4.9. PROGRAM LIST / PAGE UP (RED BUTTON)

When the LIST key is pressed one of 5 favourite lists is displayed. If the last watched/listened program is one of the favourite programs then the favourite list in which the last watched/listened program takes place is displayed.

RED key is also used to display programs page by page in program table and program list, also to display the extended event information page by page in electronic program guide. The upper page is accessed with this key.

4.10. AUDIO MODE SELECTIONS (YELLOW BUTTON)

The YELLOW key (LRS) will toggle the sound mode. The mode is stereo as default. If the user wants to listen to only the left or right audio channel, the sound mode can be changed with this key. On single sound channel modes (left or right channel) same sound channel will be switched to both left and right outputs. When the mode is changed an appropriate OSD will be displayed for a while. And this will be stored for this program to be able to switch to requested audio mode next time.

4.11. INFO / HELP (? BUTTON)

When INFO (?) key is pressed an informative menu OSD is displayed. It gives information related to currently watching program. This info includes program number, program name, program mode (TV,Radio,), transponder name, transponder frequency, favourite list name (if the program is one of the favourite programs), audio mode, whether the program has teletext or not and short event description, additionally audio, video, and PCR PID values of the program. INFO key is also used to show help window which describe some remote control functions in the menus according to the menu function. This help window must be closed (by pressing INFO key again) to be able to perform the options in the menu.

4.12. LANGUAGE KEY (MULTI AUDIO SERVICES)

The LANG. key allows selecting another sound track of the present program. When the language key is pressed a menu is displayed showing the number of possible audio languages for TV and tracks for Radio program available. The user is allowed to navigate using "▲/▼" keys and select with OK key. If an audio language support Dolby digital output, "AC3" expression is seen at the end of the audio language name. If the program does not have multi audio, a pop-up message will warn the user.

4.13. GUIDE KEY (7 – DAY ELECTRONIC PROGRAM GUIDE)

If the GUIDE key is pressed electronic program guide (EPG) menu is displayed. This menu shows firstly the current and by toggling "◀ / ▶"all EPG events' information (start and end time for current and next events, program no, program name, event name of the programs in tuned transponder). This menu consists of a channel bar which shows time scale from current time to 2 hours + current time. This bar shows current/next event period in current/next event mode weekly as highlighted. There is also an option for every program to make user aware that the next event starts, which is "reminder". If the reminder is set (by pressing OK key in next event mode – the selected event will be highlighted) When that event's start time is reached, a pop up message will appear and if the user accepts to change the program, receiver will switch to that program. (Refer to 5.7.1)

4.14. FAVOURITE PROGRAM (BLUE BUTTON)

Each program can be selected as favourite from the program table menu; the user goes on the program wanted to mark as favourite, then "Favourites" is selected by pressing key. The desired program is added to one or several of 5 independent Favourite lists by pressing OK button on the selected favourite.   When Favourites frame is activated, FAV button toggles between the favourites. The limit for the number of favourite programs is 100. In no menu mode, pressing FAV (blue button) on remote control will cause the receiver to change the current program to the first favourite program. The user can select any program in current favourite list by toggling "◀ / ▶" and other favourite lists by pressing FAV button again. If there is no program in any favourite list a warning message is displayed on screen. If a channel has been locked by the lock code, the user must input the password. If a wrong password is entered (a banner will warn the user) the desired program can not be watched and the previous or next favourite program can be watched by pressing P- and P+ (▲/▼) keys and next favourite lists can be selected by pressing FAV button again.FAV button must be pressed one more time to get out of favourite channels.

4.15. MUTE

When the MUTE key is pressed, mute symbol is displayed on the right side of the screen. The mute symbol will stay until MUTE is pressed again, or "V+ / V-" keys is pressed. The mute symbol is not displayed on the screen in case of any menu displayed.

4.16. SUBTITLE / PAGE DOWN (GREEN BUTTON)

This Green key is also used to display programs page by page in program table and program list, and also to display the event information page by page in electronic program guide. The next page is accessed with this key.
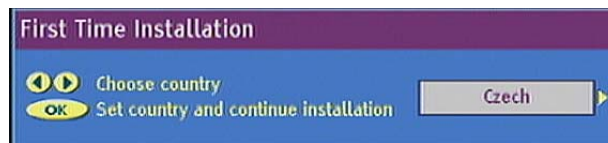
5.MENU INTERFACE

5.1. FIRST TIME INSTALLATION

When the box is opened from stand-by mode and if there is no channel stored in the database, First Time Installation Menu window is displayed on the screen. In the first window, menu language is asked.

Then, you are asked to choose the country you are located.

After choosing the country, you have to set your TV type in the next window.
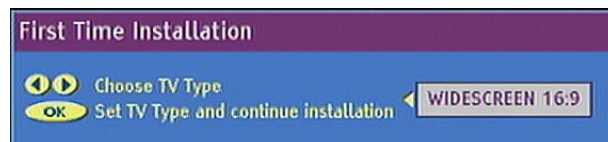
Afterwards set the antenna supply;

If you press OK then "Do you want to start automatic search?" pop-up menu is displayed. Auto search can be started by selecting "Yes" button. The box will automatically find the channels and store them for you.

5.2. MAIN MENU

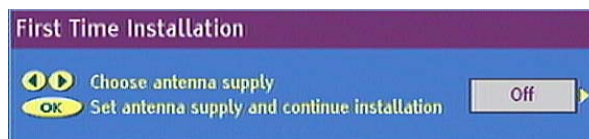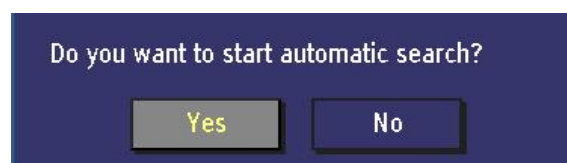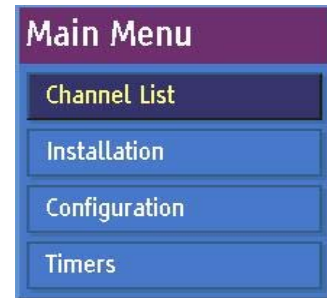The Main Menu is accessed, pressing the MENU key. The items accessed through the Main Menu are:

1.) Channel List
2.) Installation
3.) Configuration
4.) Timers

5.3. CHANNEL LIST

The following operations can be performed in this menu:

1. Navigating the whole list of channels
2. Moving Channels (Optional)
3. Deleting unwanted channels
4. Renaming channels
5. Adding locks to channels
6. Setting the favorite list

Channel table is the place where the channels are managed.

5.3.1. NAVIGATING THE WHOLE LIST OF CHANNELS

In the channel table "▲/▼" serves for moving the focus to the previous or next channel, LIST RED BUTTON / GREEN SUBTITLE BUTTON for page up and page down.To watch a specific channel highlight it using, LIST RED BUTTON / GREEN SUBTITLE BUTTON then press OK key while the "SELECT" button is highlighted. Then the name and number of the selected channel will be displayed in the top-right corner of the screen. If the selected channel is password protected then a pop up menu is displayed. If the correct code is entered then the selected channel can be watched. Also you can select another channel by navigating with "▲/▼" keys. The scroll Bar in middle of the screen shows relative position of the currently visible channels with respect to the whole list.

5.3.2. MOVING CHANNELS (OPTIONAL)

Reordering the list can be done by moving the programs one by one to new positions. In order to do that "Move" button is highlighted using "◄ / ▶"keys then program to move is selected by pressing OK, the colour of the program will be changed to red. In this state "▲/▼" keys will replace the program with the previous or next program. After you're satisfied with last position of the program, press OK to finish moving program.

5.3.3. DELETING UNWANTED CHANNEL

To delete a channel highlight it using "▲/▼" RED/GREEN, then highlight the "Delete" button using "◄ / ▶"and press OK. A message is displayed to confirm your decision, if you still want to delete press OK once more and the channel will be deleted, else the operation will be cancelled if you select "NO".

5.3.4. RENAMING CHANNELS

To rename a specific channel, the name must be highlighted and then select the "Edit Name" button and OK key must be pressed. Following previous procedure, the name appears on the left side of the menu with the first character highlighted. Now " ◂ / ▸ "moves to the previous/next character. " ▴ / ▾ " toggles the current character, i.e., 'b' character becomes 'a' on " ▾ " and 'c' on " ▴ ". Pressing the numeric buttons '0...9' replaces the highlighted character with the characters printed above the button one by one as the button is pressed. Pressing MENU cancels the editing and OK saves the new name.

5.3.5. ADDING LOCKS TO CHANNELS

Channel Locking provides a password-protected access to channels selected by parents. In order to lock a channel you should know the parental Lock password (set to 0000 in the factory and can only be changed from the **Configuration Menu**), then highlight the channel to be locked and select the "Lock" button, when OK is pressed a password dialog is displayed. Enter the parental Lock code, press OK and the Lock icon will be displayed in front of the selected channel. Repeat the same operation to cancel the Lock.

5.3.6. SETTING FAVOURITES

In channel list highlight "Favourites" by pressing " ◂ / ▸ " keys then press SELECT. The unit will automatically switch to menu "Edit Favourite Lists" in the Main menu.

Favourite lists provide an easy way to group programs in a customizable way. Five favourite lists are available in this product named as List1, List2, List3, List4 and List5. In the Program Table menu the programs can only be added or removed from a specific favourite list. Reordering the programs in a favourite list can only be done from the favourite channel list menu. In order to add or remove a program from a favourite list, highlight the "Favourites" button using " ◂ / ▸ " keys, the favourite submenu will be displayed. Then select the program to be added / removed to/from the favourite list using " ▴ / ▾ ", choose the favourite list name (in which the program will be added) using " ◂ / ▸ " keys then press **OK.** The favourite program icon will be displayed or removed in/from the selected program bar. Pressing Menu key saves all your settings.

5.4. INSTALLATION

The Installation menu mainly intends to help you for building a Channel Table into your receiver in most efficient way. These are located in Installation Menu:
1. Automatic Search
2. Manual Search
3. First Time Installation

5.4.1. AUTOMATIC SEARCH

Automatic search is started by selecting OK in the auto-search pop up menu. All the multiplexes are searched and a channel table is created automatically. All channels found are stored in a sorted form with respect to their channel numbers.

5.4.2. MANUAL SEARCH

In manual search the number of the multiplex is entered manually and only that multiplex is searched for the channels. In manual and auto search, any existing channel in the database is not re-stored to avoid redundant duplicates of that channel.
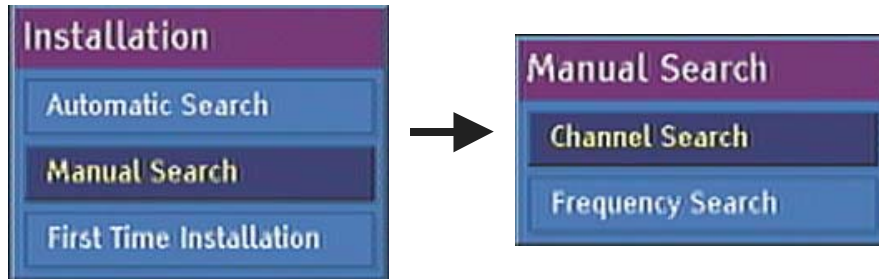
5.4.2.1 CHANNEL SEARCH

Only Channels can be searched. Enter the number by means of numeric buttons and press OK to commence.

5.4.2.2 FREQUENCY SEARCH

Channels can be searched according to their frequency. Enter the number via numeric buttons and press OK to begin.

5.4.3. FIRST TIME INSTALLATION

The user can use this item to load default settings, which had been loaded to the receiver at the factory. To install factory settings, highlight 'First Time Installation' menu and press OK key, then you will be asked to confirm for deleting all channels and settings. Selecting YES and pressing OK the channel table will be deleted all.After factory settings loaded 'First Time Installation' menus as explained in section 5.1 are displayed.
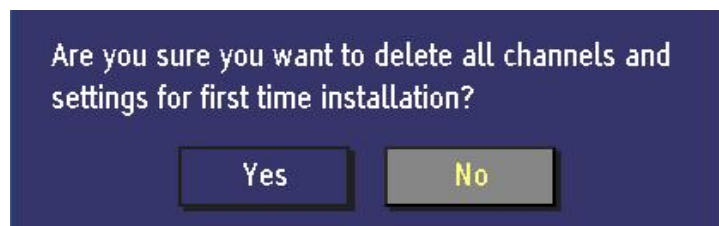
5.5. CONFIGURATION MENU

You can configure the settings of your box. Select Configuration from the Main Menu and Press OK to enter this menu. Press MENU button to exit. Configuration Menu includes the following main items:
System Language, Audio Language, Subtitle Language, Favourite Mode, Channel List, Antenna Power RF Modulator, SW Version, TV Settings, Parental Settings.
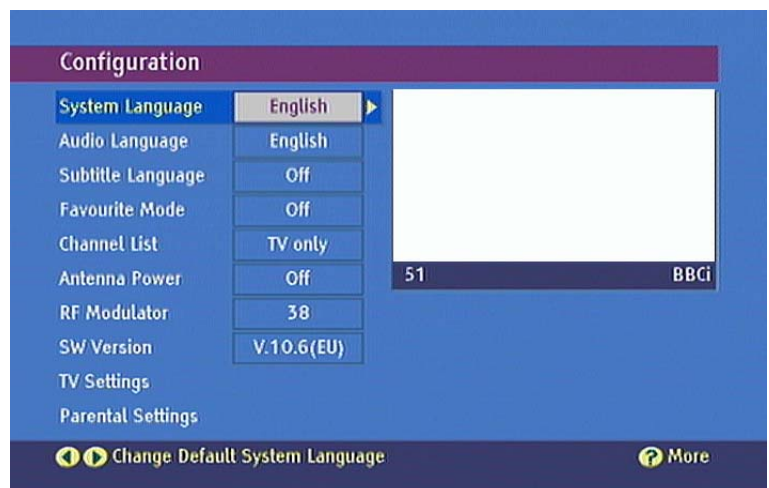
5.5.1 SYSTEM LANGUAGE

User can select French, German, English, Spanish, Italian, Polish, Turkish, Finnish,Swedish, Norwegian,Dutch, Czech, Crotian, Danish language options by using the remote control.

5.5.2. AUDIO LANGUAGE

Use " ▲/▼ " buttons to go to Audio Language option. Use " ◀ / ▶ "buttons to toggle Audio Language. Changes will be updated while exiting Configuration Menu. When you add new channels, they are recorded with the Default Audio Language in DataBase. This means that channels will play audio in specified language if broadcast includes that language.

5.5.3. SUBTITLE LANGUAGE

Use "▲/▼" buttons to go to Subtitle Language option. Use " ◀ / ▶ "buttons to toggle Subtitle Language. Changes will be updated while exiting Configuration Menu. When you add new channels, they are recorded with the Default Subtitle Language in DataBase. This means that channels will play audio in specified language if broadcast includes that language.

5.5.4 FAVOURITE MODE

Use "▲/▼" buttons to go to Favourite Mode option. Use " ◀ / ▶ "buttons to toggle Favourite Mode. You can disable the Favourite Mode by choosing option "Off" or you can choose a specific list among List 1, List 2, List 3, List 4, and List 5.

5.5.5 CHANNEL LIST

Use "▲/▼" buttons to go to Channel List option. Use " ◀ / ▶ "buttons to toggle Channel List Mode. If you select "TV Only", only the TV channels are listed in Channel List. . If you select "Radio Only", only the Radio channels are listed in Channel List.

5.5.6 ANTENNA POWER

Use "▲/▼" buttons to go to Antenna Power Supply Setting. The setting will be OFF as default.If you want connect the receiver to an active antenna that is an instrument amplifying the received signal then you must change the Antenna Power Supply setting to ON. The DVB-T receiver can supply 30mA (5V active antenna output). **Please do not use a normal passive antenna (do not short circuit the ANT IN connector) while Antenna Power Supply setting is ON. This may cause breakdown in your DVB-T receiver**.

5.5.7. RF MODULATOR

Connect an RF CABLE between TV OUT output of digital terrestrial receiver and a TV RF input connector. Use "▲/▼" buttons to go to RF MODULATOR output option in the CONFIGURATION MENU. Use numeric keys to enter UHF band (ch21 –ch69) channel number .Changes take affect after leaving the Configuration menu. Then using your TV remote control tune to specified channel or activate auto search menu of TV. Then you will be able to watch digital program by using RF modulator output of the set-top-box. But if your TV has scart input, it is better to use scart output of the set-top-box for good picture quality.

5.5.8 SW VERSION

You can see the version of the software in your receiver.

5.5.9. TV SETTINGS

Use "▲/▼" buttons to go to TV Settings option and Press OK to enter the submenu. The menu options are:

- TV Out
- TV Type
- Screen Format
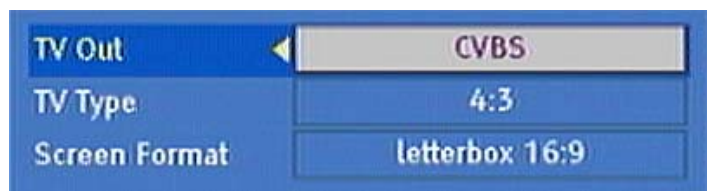
5.5.9.i.TV OUT

Use "▲/▼" buttons to go to TV Out option. TV Output will be changed just after the mode is switched. Possible modes are RGB and CVBS. Picture quality in RGB mode is better than CVBS mode.

5.5.9. ii.TV TYPE

Use "▲/▼" buttons to go to TV Type option. Use "◀ / ▶"buttons to toggle TV type. It can be 4:3 or 16:9 (widescreen) according to the TV that set-top-box is connected to. The aspect ratio conversion mode is letter-box as default.

5.5.9. iii.SCREEN FORMAT

User can select screen display and aspect ratio conversion type as LetterBox or Pan&Scan by using "◀ / ▶" buttons.

5.5.10. PARENTAL SETTINGS

Use "▲/▼" buttons to go to Parental Settings option. Press OK button to enter Parental Settings Menu. A box asking for the lock key is displayed. There is only one key which is set to "0000" initially. Enter lock key. If it is incorrect, it is returned back. If it is correct, the Parental Settings Menu including following items is displayed:

There you can set/reset locking for the Main Menu, or the Installation Menu to restrict access. If the menu lock is disabled, there will be free access to the menu system. You can change the lock key.

5.5.10.i. Maturity Lock

Use "▲/▼" buttons to go to Maturity Lock option. Use "◀ / ▶"buttons to toggle Maturity Lock Mode. When set, this option gets the maturity information from the broadcast and if this maturity level is disabled, does not show video-audio.

5.5.10.ii. Menu Lock

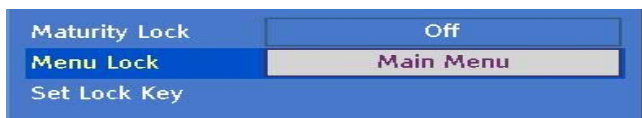Use "▲/▼" buttons to go to Lock Menu option. Use "◀ / ▶" buttons to toggle Menu Lock Mode.

OFF: All menus are unlocked.
MAIN MENU: Main Menu is accessible only with the correct lock key.
So the user can't add, delete, rename, channels, can't set timers.
INSTALLATION: Installation menu is locked.
So the user can't add channels.

Changes will be updated after exiting 'Configuration Menu'.

5.5.10.iii. Set Lock Key

Use "▲/▼" buttons to go to Set Lock Key option. Use OK button to enter new password. New Password Menu is displayed. Use NUMERIC buttons to enter new password. New Password is asked twice for confirmation. If both passwords are four digits long and the same, the password is changed. It is updated after exiting the Parental Menu.
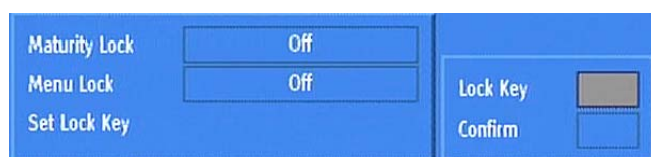
5.6. TIMERS MENU

Timer Menu is entered from the Main Menu. There is a five column summary information, such as timer no, channel name, start time, end time, start date and mode, for each of the five timers. There are two ways to set a timer. If the start/end time and date are valid numbers, the timer can be set directly by changing the mode from "Inactive" to "Active" using " ◀ / ▶ " cursors. If the start/end times and date are invalid or if the set values are to be changed totally, OK must be pressed while the desired timer is highlighted in the summary list. A new window where the timer details are to be entered will be displayed on the lower part of the screen. The timer details are as follows:

Type: By using " ◀ " / " ▶ " keys, program type, i.e., TV or Radio is selected.

Name: According to the type that is chosen above, " ◀ / ▶ " keys will navigate the user through the TV or Radio list and name of the program is selected.

Start: By using "0,1,2…,9" keys start time of the timer is entered.

End: By using "0,1,2…,9" keys end time of the timer is entered.

Date: By using "0,1,2…,9" keys date of the timer is entered.

Mode: By using " ◀ " / " ▶ " keys, timer mode is selected as "Once", "Daily" or " Weekly" .

Start, End and Date field data are entered using number keys. Current time and date are shown on the lower-right part of the screen to help you. After the desired detail fields are filled, one can turn back to the timer info summary list by pressing "OK" to save the settings, or by pressing "Menu" to cancel these new settings. A set timer is cancelled (disabled) by changing the mode to "Inactive" in timer summary list. When a timer start time comes, the Set-Top-Box switches to the set channel, then when the end time is reached, the box goes to stand-by mode. This utility helps the box to be used as a sleep-timer.

5.7 NO MENU

5.7.1. ELECTRONIC PROGRAM GUIDE (7- DAY - EPG)

In no menu mode, EPG Menu is reached by pressing GUIDE key, quit by pressing MENU key. In EPG Menu all channels are displayed. Current channel is highlighted. Use " ▲ / ▼ " buttons to change channels.

Some, but not all, channels send information about the current and next events. Please note that event information is updated automatically. If there is no event information data available in channels, only channel names with "No Information" banner is displayed.

In EPG Menu, you can easily see the extended help information by pressing INFO key. If you highlight an event, short event description, extended event description, start and finish times of event are displayed on the screen. If the extended event information does not fit into dark blue rectangle on top left side of the screen, a scroll bar appears and you can scroll extended event information by pressing RED/GREEN keys.

When the current event is highlighted, the box is switched to the highlighted channel by pressing OK key. If you press OK when a next event is highlighted, a reminder is set for the highlighted program and the border color of the box containing that event's name changes. Program reminders can be set to signal that a program is about to start when you are watching another channel. If you set reminder to a program, then you will be asked for switching to that channel when the reminder time is reached.

The starting time for EPG is the current time. You can see the event information for the next two hours. By pressing "◀ / ▶" key, you can go to the next hours, and by pressing FAV (BLUE BUTTON) key, you can reach the event information for the next days.

The EPG Menu contains information for one week. "▲/▼" keys you can toggle between the channels. From channel list by pressing "▶" you can go to event program list , with "▲/▼" buttons you can navigate through the events if there are more than one event. Via RED and GREEN buttons you navigate within two – hours - scale in the same day page by page. With the YELLOW and FAV (BLUE BUTTON) you can get Information for previous or next days.

5.7.2. MESSAGES

When the box receives no signal (e.g. the antenna cable is disconnected) , "NO SIGNAL" message is seen on the screen.

When there is no channel stored in the box, Timer Menu, Channel Table Menus are not accessible. Channel navigation is not allowed. Therefore, trying to enter these menus or do channel navigation will display "First Add new Channels!" message on the screen.
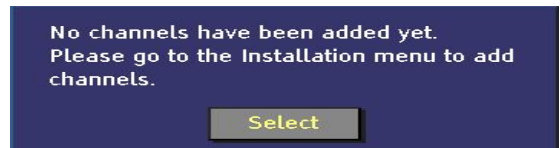
When the list menu is displayed by pressing Red key, the programs of the favourite list are displayed if the favorite mode is on. The name of the current list can be seen on the top left corner of the menu.When there is no menu on the screen, you can switch between Favourite Lists using BLUE (FAV) button. If the favourite list is empty, a warning message is displayed.

5.7.3. CHANNEL NAVIGATION

Channel "P+/P-" Keys: Pressing "P+/P-" keys will help you to go to the next or the previous channel in the list.
Numeric Keys: Pressing a number key will activate a small digit entry window on the left upper corner of the screen. After a digit is entered, the box will wait for 2 seconds till you enter another digit. If no digit is entered during these 2 seconds, then the box will switch to the entered number channel.
If a number that is greater than the maximum number of channels is entered, the box will switch automatically to the last channel. Each time the box switches to the desired channel, an information window is displayed on the lower part of the screen. The small bar on top right of the banner indicates the current signal quality.

On this channel info window there are:
-Current event name next event name, and their start and end times.
- Program mode (TV /Radio)
-Multiplex number
-Channel number
-Name of the channel

1	BBC ONE		📺	16:36
CH 25			Signal:	
Now:	Neighbours			16:35-17:00
Next:	BBC News			17:00-17:30

-An icon indicating that the channel is set as favourite (if the channel is not set as favourite the field is left empty)

When the info window is on the screen and '?' is pressed now/next information apears . By means of " ◄ / ► " key now/next information can be changed.

When switching to a locked channel (channel), lock code is requested via a window as shown in the picture. Only after the correct code is entered, it is allowed to access to this channel. To skip this channel, Channel "P+/P-"keys must be used.

5.7.4. VOLUME CONTROL

When "V+ / V-" keys are pressed, a banner is displayed, this shows the present volume level graphically. By keeping these keys pressed, the sound can be increased with "V+" or decreased "V-" key.
When the MUTE key is pressed, mute symbol is displayed on the upper right side of the screen. The mute symbol will stay until mute is pressed again. Unless there is a menu display, the mute symbol will always be on the screen.

5.7.5 FAVORITE MODE (BLUE BOTTON)

When there is no menu on the screen, you can switch between Favourite Lists using BLUE (FAV) button.

5.7.6. LIST MENU (RED BUTTON)

List Menu is the place where the favourite lists are managed. The following operations can be performed in this menu:
1. Navigating the current List of programs in the selected Favourite List
2. Removing a channel from the selected Favourite List

When the list menu is displayed by pressing Red key, the programs of the favourite list are displayed if the favorite mode is on. The name of the current list can be seen on the top left corner of the menu.

5.8. SOFTWARE UPGRADE THROUGH SCART TO RS232

The object of this manual is to give necessary information and details to the user to upgrade the software of the receiver through Scart to RS232.
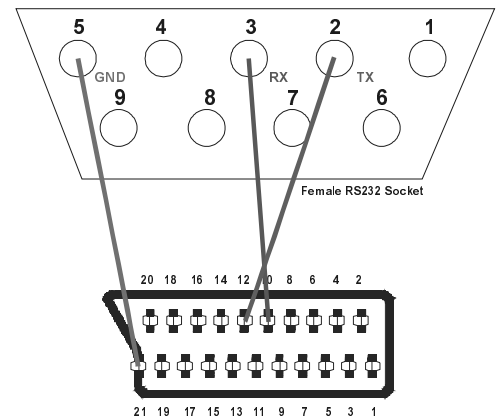
The list of the necessary equipment is as follows:
Receiver and TV
PC with "Hyper Terminal" function
RS232 serial communication cable (female to male)

Steps to be followed by the user are given below:

1. Connect the serial communication cable between the RS232 out port of the receiver and the serial communication port (COM1 or COM2) of the PC.
2. Make sure that the PC is on and the receiver is first reset and then turn to Standby mode.
3. Run "Hyper Terminal" program of the PC from Start / Programs / Accessories / Communications / Hyper Terminal menu.
4. For a new connection, run Hypertrm.exe file.
5. Give a name and choose an icon for the connection. (You do not need to make a new connection every time. You can use this name for the future connections.)
6. Choose communication port in the new coming window (COM1 or COM2) whichever you have used in Step 1.
7. Port settings should be as follows:
8. Bits per second   :   115200
9. Data Bits   :   8
10. Parity   :   None
11. Stop bits   :   1
12. Flow control   :   None
13. Now Hyper Terminal connection is established. From "Transfer" menu, choose "Send File".
14. Enter file name to be sent.
15. Choose Xmodem1K as protocol type.
16. To activate the Software Upgrade function of the receiver, reset the receiver.
17. Press Send button. You will see the progress on the PC screen. Wait for the transfer to be completed. Then, disconnect and exit from Hyper Terminal window.
18. Receiver will automatically start to operate

6. TROUBLE SHOOTING GUIDE

Trouble	Possible reasons	What to do
The standby led is not lit.	Mains cable is not connected.	Check if the mains cable is plugged into the power socket.
No picture or sound.	No signal or weak signal.	Check the antenna and scart connectors
The settings you have done in the menus have not been changed.	The digital set-top box was unplugged without first going to standby.	Before unplugging your digital set-top box, wait for going to standby.
The remote control is not working.	- The digital set-top box is in standby. - Remote control is incorrectly aimed. - Battery exhausted.	- Press the standby key - Check if nothing blocks the front panel. - Change the batteries.
You have forgotten any channel lock code.		From Manual search menu search for that multiplex again and store them then channel lock is cancelled.

7. TECHNICAL SPECIFICATIONS

GENERAL
Supply Voltage   :   220 - 240 V AC, 50Hz
Input Frequency   :   50MHz - 858 MHz
Power consumption   :   8 W (max)
Operating temperature   :   5ºC to +45ºC
Storage temperature   :   -20ºC to +70ºC
Humidity   :   25 to 75 % rel
Physical dimensions   :   248x155x40 mm
Weight   :   735 gr

DIGITAL CAPABILITIES
Transmission Standards: DVB-T, MPEG2

i. DEMODULATION
- COFDM with 2K/8K FFT mode.
- FEC for all DVB Modes.

ii. VIDEO
- All MPEG2 MP@ML formats with up-conversion and filtering to CCIR601 format.
- RGB analogue outputs.
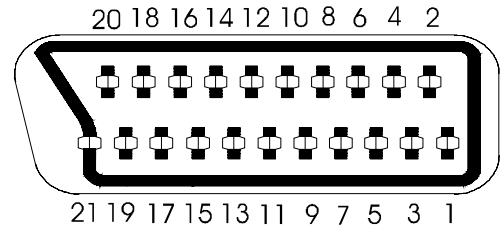- CVBS analogue output.

iii. AUDIO
- All MPEG1 Layer 1 and 2 modes
- Sampling frequencies supported are 32, 44.1 & 48 kHz

REMOTE CONTROL

Operating Distance	:	10m Max.
Batteries	:	2x1.5V (R-03/AAA)

TV SCART

Video output: Composite video signal; 1 Vp-p±3dB/75 Ω
Audio output: 0.5 Vrms / Z = 1kΩ
Function switching: 12V / 6V for 4:3 / 16:9 / Z = 10kΩ

TV SCART SOCKET

PIN	SIGNAL	PIN	SIGNAL
1	Audio Right Output	12	TX
2	No Connection	13	GND
3	Audio Left Output	14	No Connection
4	GND	15	RED Output
5	GND	16	Fast Blanking Output
6	No Connection	17	GND
7	BLUE Output	18	GND
8	Function Switching Output	19	CVBS Output
9	GND	20	No Connection
10	RX	21	GND
11	GREEN Output		

VCR SCART SOCKET

PIN	SIGNAL	PIN	SIGNAL
1	Audio Right Output	12	No Connection
2	Audio Right Input	13	GND
3	Audio Left Output	14	GND
4	GND	15	RED Output
5	GND	16	No Connection
6	Audio Left Input	17	GND
7	BLUE Output	18	GND
8	Function Switching Input	19	CVBS Output
9	GND	20	CVBS Input
10	No Connection	21	GND
11	GREEN Output		

HARDWARE CONFIGURATION

Main Processor	:	Sti5518
Flash Memory	:	2 Mbyte
SDRAM	:	16 Mbyte
EEPROM	:	32 KBit
Demodulator	:	STV 0360