



Digital Free-To-Air Satellite Receiver SRT 6020

User Manual



Figure 1

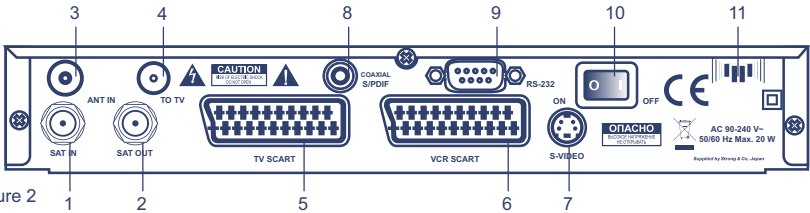


Figure 2

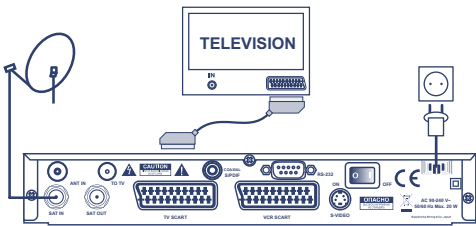


Figure 3

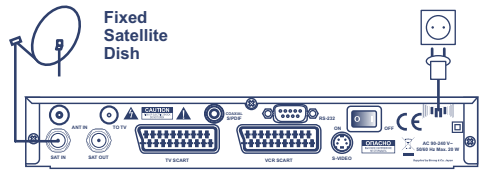


Figure 4

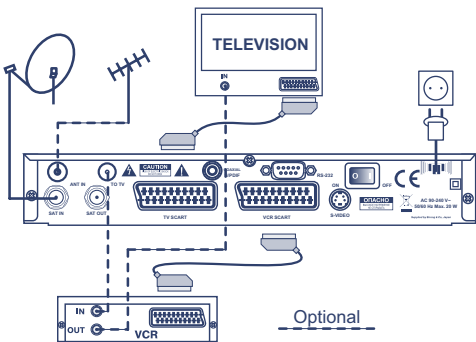


Figure 5

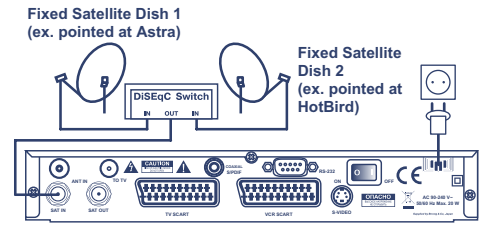


Figure 6

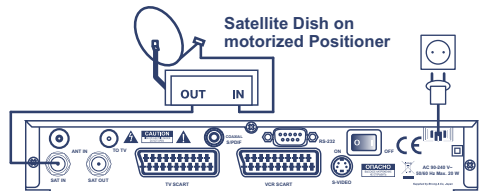


Figure 7

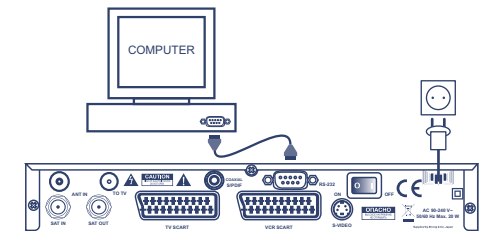


Figure 8

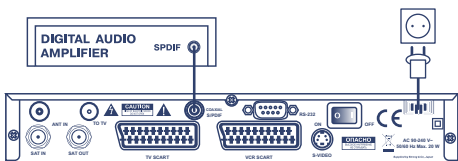


Figure 9

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HOTLINE  0180 5007543*
 0820 400150*

* € 0.12/Min. from German and Austrian wired line

1.0 INTRODUCTION

1.1 Safety Instructions

DO NOT INSTALL YOUR RECEIVER:

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

DO NOT EXPOSE THE RECEIVER OR ITS ACCESSORIES:

- To direct sunlight or near any other equipment that generates heat; to rain or intense moisture; to intense vibration and to any shock which may cause permanent damage to your receiver or to any magnetic objects, such as loudspeakers, transformers, etc.
- Do not use a damaged power cord. It may cause a fire or an electrical shock. Do not touch a power cord with wet hands. It may cause an electric shock.
- Never open the cover. It is dangerous to touch the inside of the receiver due to high voltage currents and possible electrical hazards. Your warranty will be void if the receiver has been opened.
- When the receiver is not used for a long period of time, you should unplug the power cord from the wall socket.
- Do not use alcohol or ammonia based liquids to clean the receiver. If you wish, you may clean your receiver with a soft lint-free cloth slightly made damp with a mild soap solution, only after disconnecting from the mains voltage supply. Make sure no foreign objects fall through the ventilation slots because this could cause fire or an electric shock.
- Do not place any objects on top of the receiver because this might prevent proper cooling of the components inside.

Safety Precautions

- Do not open the receiver cover, as you will be exposed to a shock hazard. It will also void your warranty. Refer all maintenance or servicing to suitably qualified personnel
- When you are connecting the cables, be sure that the receiver is disconnected from the mains supply voltage. Wait a few seconds after switching off the receiver before you move the receiver or disconnect any equipment.
- It is a necessity that you only use an approved extension and compatible wiring that is suitable for the electrical power consumption of the installed equipment. Please ensure that the electrical power supply corresponds with the voltage on the electrical identification plate at the back of the receiver.

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

1.2 Storage

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

1.3 Equipment Set-up

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

- Refer to the user manual of your TV and your antenna.
- Make sure that the SCART cable and outdoor components are in a good condition and the SCART connections are well shielded

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



WARNING: Indicates warning information.



TIPS Indicates any other additional important or helpful information.

MENU Represents a button on the remote control or the receiver (**Bold Character**)

Move to Represents a menu item within a window. (*Italic Character*)

1.4 Features & Accessories

- For all digital Free-To-Air TV and Radio programmes via satellite
- SD Card reader for watching your photo album or music files on your TV (supporting MP3 and JPG file format) and software update
- Display showing channel name or time
- Automatic clock change: summer/ winter time
- Timeshift with 15 seconds play back
- Digital sound through coaxial output (S/PDIF)
- Separate power switch
- Set-up support for first time installation
- Max. 4 800 channel memory capacity for 64 satellites
- Astra and Hotbird channels pre-programmed
- 4 Favourite lists for TV-and Radio programme
- Quick and easy installation & user-friendly menu
- Excellent Audio & Video quality
- Parental lock function for menu and selectable per channel
- Teletext via OSD & VBI
- Supports DiSEqC 1.0, DiSEqC 1.2 and GOTO X
- Electronic Programme Guide (EPG) for present/following event information and up to 7 days for on screen programme information
- Full multi-lingual DVB subtitling and audio track support
- Multi-lingual support on screen menu (OSD): English, German, French, Italian, Spanish, Russian, Croatian, Romanian, Hungarian, Czech, Polish
- Edit functions for TV or Radio programme name and satellite name
- Future-proof: Software update via satellite (OTA)
- Signal strength bar for digital transponders
- Automatic, network and manual channel scan options
- Power on with last viewed channel

- 10 Timer for recording and/ or sleep-timer with 3 modes (daily, weekly, once)
- User-friendly remote control with coloured function buttons
- Low power consumption
- Mosaic function: 9 TV Channel in overview

Accessories:

- User's Manual
- 1 Remote control unit
- 2x Batteries (AAA type)

NOTE: The batteries should not be recharged, disassembled, electrically short-circuited or be mixed or used with other types of batteries.

2.0 YOUR RECEIVER

2.1 Front Panel

Figure 1

1. Power On/Off button
2. Channel Up/Down buttons
3. Mode indicator

The **RED** light indicates that the receiver is in STAND-BY mode.

The **GREEN** light indicates that the receiver is in AWAKE mode.

4. VFD display

In STAND-BY mode this indicates current time

In AWAKE mode this indicates current channel name

5. SD card slot

Insert your SD card to this slot to watch your photos, play MP3 files.

2.2 Rear Panel

Figure 2

1. SAT IN

Connect the digital signal from your LNB on the satellite dish to this connector.

2. SAT OUT

Gives you the possibility to connect an extra receiver (analogue or digital).

3. ANT IN

To connect your aerial antenna or cable TV using coaxial cable.

4. TO TV

If you do not use a SCART cable to connect your receiver to your TV, or if you have connected a cable to the ANT input, you will have to use this connector to connect the receiver to your TV by using a coaxial cable.

5. TV SCART Connector

To connect your receiver to your TV set using a SCART cable.

6. VCR SCART Connector

To connect your receiver to your video recorder using a SCART cable. Your video signal

will now be looped through your receiver to your TV set.

7. S-Video Connector

To connect your receiver to your TV set using a S-Video cable.

8. S/PDIF Digital audio output

Use this coaxial output to connect your receiver to the input of your digital audio amplifier.

9. RS-232 Serial Port

This serial port can be used to connect your PC with your receiver, to download new versions of software to your receiver.

10. Power ON/OFF Switch

11. Power Cord

Your receiver requires a current of 90~240V AC (Auto-selectable), 50~60Hz +/-5%. Make sure to check the power specification before connecting your receiver to the wall outlet.

2.3 Remote Control Unit



Turns the receiver On/Off.



Mutes audio output of the receiver.

AV

Toggle between TV and AV mode

0~9

Changes channel and controls numeric functions

FAV

Toggle Favorite mode ON / OFF.

TV/R

Toggle between TV or RADIO mode

MENU

Shows the main menu and exits from any level of menu to view mode

INFO

Shows information of the current channel

EPG

Shows the EPG (Electronic Program Guide) only when menu is off.

EXIT

Exits from the menu or sub-menu and cancels the progressing function if applicable.



Change the current program to the previous/next program when menu is off.

Moves the cursor upwards/downwards when menu is on.



Increases/decreases the volume level when menu is off. Change the setting values in specific menu item when menu is on.

OK

Activates the highlighted menu item. Displays a channel list according to TV /Radio Mode

V+ / V-

To increase or decrease the receiver volume level.

P+ / P-

Page up and down in menu list.

MOSAIC

Shows pictures of 9 channels simultaneously on the screen

PAUSE

Freeze/Resume picture.

AUDIO

Shows the list of available audio languages for the channel you are watching. In addition it sets the current channel audio to stereo ((n)), left-mono ((n or right-mono n)).

EDIT

Program edit

REPLAY

Replay last 15 seconds of current channel

TEXT

Shows current service's Teletext on OSD

SUB

Show the list of subtitled languages the current channel supports.

RECALL

Switches back to last channel viewed

3.0 CONNECTIONS

3.1 Connecting to TV & VCR

Basic connection with a Scart cable (Fig. 3)

1. Connect the satellite signal from the LNB to the LNB IN connector.
2. Connect the TV SCART connector at the back of the receiver to the SCART IN connector on your TV set.

Advanced connection of the receiver to the TV set and VCR (Fig. 4)

1. Connect the satellite signal from the LNB to the LNB IN connector.
2. Connect the TV SCART connector at the back of the receiver to the SCART-in connector on your TV set.
3. Connect the VCR SCART connector at the back of the receiver to the SCART-in connector on your VCR.

Optional:

- Connect a UHF coaxial lead or cable antenna lead to the ANT IN input connector at the back of the receiver.
- Connect a coaxial cable to the TO TV connector at the back of the receiver. Connect the other end of this coaxial cable to the ANT IN connector of your VCR.
- Connect the TV OUT connector of your VCR to the ANT IN connector of your TV set with a coaxial cable.

3.2 Connecting to Digital Audio Amplifier

The Digital Audio Amplifier is connected with the receiver from the S/PDIF connector. (FIGURE 5)

3.3 Connecting to Satellite Dish

Connecting a fixed satellite dish to your receiver (Fig. 6)

First choose a satellite you want to receive your signals from, and have your dealer aim your dish at the requested satellite. Connect a coax cable to your LNB and the other end directly to the LNB IN connector of your receiver.

Connecting multiple fixed dishes to your receiver using a DiSEqC 1.0 switch (Fig. 7)

If you want to watch programs from more than one satellite (For example from Astra and from HotBird) it is advisable to use fixed dishes and a DiSEqC 1.0 switch. Have your Dealer aim the dishes at the requested satellites and connect the LNB's with coax cables to the IN connectors of the DiSEqC 1.0 switch. Connect the OUT connector of the DiSEqC 1.0 switch to the LNB IN connector at the back of your receiver.

Connecting a dish on a motorized positioner to your receiver (Fig. 8)

Another possibility for watching programs from multiple satellites is by mounting a dish to a motorized DiSEqC 1.2 positioner. Have your dealer mount the dish to the positioner, set the correct angle of the elevation and let him set the center point for your positioner. Connect the LNB with a coax cable to the LNB IN connector of the positioner, and connect the OUT connector of the positioner to the LNB IN connector at the back of your receiver.

3.4 Connecting to serial cable for downloading software

Connect the RS-232 connector on the back of your receiver to the Serial port of your computer using a serial cable. Instructions how to download software can be found on our website www.strongsat.com (support > download). However, this receiver can download new system software automatically by satellite. (Fig. 9)

4.0 STARTING UP

Ensure that your satellite receiver is correctly connected to your television and dish, and that your satellite signal is of good quality. (If you are not sure about this then ask your local strong dealer to check your installation or satellite signal.)

Confirm that the power plug on the receiver is plugged into the wall outlet. Turn on the receiver. The following picture is shown the first time you switch on the receiver.

It is recommended that you perform the first time installation following the Installation Wizard step by step. It will help you to easily achieve system configuration and channel installation. If you are a professional installer then you can skip wizard by pressing **MENU** button and set-up channels using the *Installation* menu.

4.1 Language Selection

Press **UP/DOWN** to choose your language, press **OK** to confirm. The *Select Satellite* menu will appear.

4.2 Select Satellite

Future installation steps are depending from satellite where your dish is aimed.

- a) *Your dish is aimed to Astra 1C, 1E, 1F or Hotbird satellite.*

Press **UP/DOWN** to select the ASTRA or Hotbird satellite and press **OK** button on your remote control.

Follow instruction written on screen. When you have fixed your dish at correct direction choose **NEXT** and press the **OK** button. The *Channel Setup* menu will appear.

- b) *Your dish is aimed at another satellite*

Select *Other* in *Select satellite* menu and press **OK**, more satellites will be listed. If you select a satellite in the satellite list, the *Configure Antenna* menu will appear, please set the LNB Type, LNB Low Freq, LNB High Freq, Band control, Polarisation control, DiSEqC Switch and Antenna mode.

4.3 Antenna mode

- a) *Fixed dish*

Set Antenna mode to *Fixed*, select **NEXT** and press the **OK** button. The *Adjust antenna* screen appears, select transponder receivable at your location and adjust the antenna position for maximum level for the signal strength and quality. When you have completed the adjustment, choose **NEXT** and press the **OK** button. The *Channel Setup* menu will appear.

- b) *Dish mounted on DiSEqC 1.2 motor*

Set Antenna mode to *DiSEqC 1.2*, choose **NEXT** and press the **OK** button. The menu

Adjust antenna will appear. Select transponder receivable at your location (choose *Transponder* field and select transponder by pressing **LEFT/RIGHT** button). Then choose field *Move Dish* and adjust position of the dish by pressing the **LEFT/RIGHT** button. Once you adjust the dish position choose *Store position*, set number of the position by pressing **LEFT/RIGHT** button. Then choose **NEXT** and press the **OK** button. The Channel Setup menu will appear.

c) *Dish mounted on GOTO X motor*

Set Antenna mode to *GOTO X*, choose **NEXT** and press the **OK** button. The menu *Adjust antenna* will appear. Select transponder receivable at your location (choose *Transponder* field and select transponder by pressing **LEFT/RIGHT** buttons). Then choose field *My Longitude* and using numeric buttons enter value of your longitude. Use **LEFT/RIGHT** buttons to select hemisphere East or West. Then choose field *My Latitude* and using numeric buttons enter value of your latitude. Use **LEFT/RIGHT** buttons to select hemisphere Nord or South. Choose field *Goto Position* and press **OK**. Your dish will be turned to the position of satellite. Then choose **NEXT** and press the **OK** button. The *Channel Setup* menu will appear.

Choose **NEXT** and press the **OK** button to start the scan. When the scan is completed, the receiver will save the services information automatically and exit to the normal play state.

5.0 MAIN MENU

All the important settings and features of your receiver can be operated in *Main Menu*. The Main Menu consists of five sub-menus which are “*Channel Organizer*”, “*Installation*”, “*System setting*”, “*Timer*” and “*SD Card*”.

Press the **MENU** key when the menu is off, The **MAIN MENU** screen will appear.

5.1 Channel Organiser

In the *MAIN MENU* screen, press **UP/DOWN** to move the cursor to *Channel Organizer*, and then press **OK** to enter the *Channel Organizer* menu, which consists of two sub-menus; “*Channel Manager*” and “*Favourites Manager*”.

5.1.1 Channel Manager

In this menu, you can change the order of the channels, move, delete and edit channels. To change the satellite use the **RED** button,

■ **Sort (GREEN button)**

You can sort the channel order in the channel list by “*Name a-z*”, “*Name z-a*”, “*Free-CA*”, “*Fav – NO Fav*” or “*Default*” type.

■ **Edit (YELLOW button)**

Select the channel that you wish to edit, press the **YELLOW** (Edit) button to move into the modify program menu. In this menu, you can modify the Program Name, Down Frequency, Symbol rate, Video PID, Audio PID.

If you want to rename the channel, use the **UP/DOWN** keys to select “*Program Name*” and press **OK**, the Program Name dialog will be shown.

Use the **LEFT/RIGHT** buttons to move the cursor to the character you wish to edit. Use the **UP/DOWN** buttons to change character (scroll alphabet). If you wish to delete character you have to replace it with “space” character. When editing is complete, press the **OK** button.

■ Move channel

Press the **UP/DOWN** keys to point the focus of the menu to the channel of your selection. Press the **LEFT/RIGHT** keys to point the focus of the menu to the column “Move”. When the focus is on column “Move”, press the **OK** button to confirm selection of the channel, using the **UP/DOWN** buttons move the channel to its new location and press the **OK** button to confirm the new location. Repeat this for every channel that you want to move.

■ Delete channel

Press the **UP/DOWN** keys to point the focus of the menu to the channel of your selection. Press the **LEFT/RIGHT** keys to point the focus of the menu to the column “Del”. When the focus is on column “Del”, press the **OK** button to mark the channel as selected to be deleted from the list. To apply the changes press the **EXIT** button and confirm the channel's deletion.

■ Delete all channels

To delete all channels from current satellite press **BLUE** button (Dell All). You will be asked to confirm operation.

5.1.2 Favorites Manager

Press the **UP/DOWN** keys to select the channel. Press the **LEFT/RIGHT** keys to point the focus to the favorite group. Press the **OK** button to add the selected channel to the Favorite group. To remove the channel from the favorite group, repeat same operation.

5.2 Installation

The installation menu contains three sub-menus; “Antenna Installation”, “Auto Scan” and “Manual Scan”.

5.2.1 Antenna Installation

You can add a satellite, edit a satellite and delete a satellite in this menu.

■ Add satellite

If you want to add a new satellite, press the **RED** key in this menu, a satellite list will appear on the screen. Press **LEFT/RIGHT** to select the satellite. If the satellite does not exist in the satellite list, please select “NEW SAT1”. After selection of a satellite from the satellite list, the *Configure Antenna* menu will appear, please set the LNB Type, LNB Low Freq, LNB High Freq, Band control, Polarisation control, DiSEqC Switch and Antenna mode. Future steps of installation are described in 4.2.

■ Edit satellite

If the parameters of the satellite were changed or the satellite is a new satellite, you must set the parameters of the satellite, such as LNB type, LNB low Freq, LNB High Freq, Transponder, LNB Power, 22k Tone, DiSEqC and Antenna Mode. Sequence of editing of satellite parameters is same as sequence of “Add satellite” and described in 4.2

■ Delete satellite

If you want to delete a satellite, press the **YELLOW** key. Then a warning message will appear. Select **OK** and press the **OK** button to confirm.

5.2.2 Auto Scan

Press the **GREEN** key to set the scan mode to Free or Free+Scrambled. If mode is Free only “Free to Air” channels will be added to the channel list. If mode is Free+Scrambled all channels from selected satellite will be added to the channel list.

Press the **YELLOW** Key to set the Blind Scan to ON or OFF. Blind scan function is useful to scan new added satellite, but scan may take long time.

Press the **BLUE** Key to set the scan type to NIT OFF or NIT ON while Blind Scan is set to OFF and to Quick Search or Detail Search while Blind Scan is set to ON.

When the set-up is completed, press the **RED** key to start the scan.

5.2.3 Manual Scan

In this menu, you can scan single transponder, add a new transponder, edit the transponder or delete the transponder. You can switch between satellites with the **RED** button.

■ Scan transponder:

Use **UP/DOWN** buttons to select the transponder. Press **OK** button to start the scan.

■ Add Transponder:

In this menu, you can add a new transponder to the system. Press the **GREEN** button, the *Add Transponder* sub-menu will appear on screen.

Frequency: input the frequency of the new transponder.

Symbol Rate: input the symbol rate of the new transponder.

Polarity: Select the Polarity of the new transponder.

■ Edit Transponder:

In this menu, you can edit a transponder in the system. Press the **YELLOW** button, the *Edit Transponder* sub-menu will appear on screen. This menu is similar to *Add Transponder* menu.

■ Delete Transponder

Press the **BLUE** button to delete a transponder. You will need to confirm operation. Press **LEFT/RIGHT** to select **OK**, press the **OK** button to confirm.

5.3 System setting

In this menu, you can configure the systems such as *Language Setting*, *OSD Style*, *Parental Control*, *TV Settings* and *Time Setting*.

5.3.1 Preference

5.3.1.1 Language Setting

You can change the language of the OSD, preferred Audio and Subtitles. Use **UP/DOWN** to select the OSD language, Audio language or Subtitles language. Press **OK** or Right to enter the language list and Press **UP/DOWN** to select the language. Press **OK** to confirm.

5.3.1.2 TV settings

You can set the *TV mode*, *Screen mode*, *Video output* and *Modulator* setting.

- **TV mode**

In TV mode Screen press **OK** or **RIGHT** to select mode, press **OK** to confirm. If you don't know which standard your TV has, please select **AUTO**.

- **Screen mode**

In TV format Screen press **OK** or **RIGHT** to select 4:3 or 16:9, press **OK** to confirm.

- **Video output**

Press **OK** or **RIGHT** to select *CVBS*, *RGB* or *S-Video*, press **OK** to confirm.



WARNING: if RGB is selected then S-Video output is OFF.

- **Modulator setting**

The modulator setting screen will appear. Use **UP/DOWN** to select *RF Audio* mode or *RF channel*. Use **LEFT/RIGHT** to change the settings and press **OK** to confirm the settings or **EXIT** to cancel.

5.3.1.3 Time Settings

If a broadcaster provides GMT, you can set the time using GMT, or set your own time by yourself. If the GMT usage is ON then you have to set the Time Zone. If you set GMT Usage to OFF, *Set Data* and *Set Time* item are displayed. To set the time value manually, move the cursor to the time item and use the numeric buttons on the remote control.

5.3.1.4 Set Factory Default

Please be careful when using this function, because it will erase all the data and parameters you may have set earlier to your receiver. Once you set the factory default you will have to re-install your preferences and re-scan your channels. To reset your receiver to factory default, apply the following steps:

Select *Set Factory default* and press **OK**. Confirm warning message with **OK** and press the **OK** key, the receiver will return to its factory default state, and all user data will be deleted.

NOTE: Your PIN code will change back to the factory setting "0000".

5.3.2 OSD Style

In this menu, you can set the *Menu Colour*, *Transparency Level* and *Border Pattern*.

5.3.3 Parental Control

In this menu, you can set *channel lock status* (ON or OFF), the *menu lock status*, *parental setting* and *change the PIN code*.

The default PIN code is 0000.

- **Channel Lock**

Set the system channel lock to ON or OFF. If the channel lock is on, the user has to enter the parental PIN code correctly before watching the locked channel.

- **Menu Lock**

Press **OK** to select whether you need the lock or not for the Menu, *YES* or *NO*, press **OK**

to confirm. If the menu lock is on, then for some operations such as search program and set factory default, you need to enter your PIN.

■ Parental Setting

Set some channels to lock status. If a channel is locked, the user has to enter the parental PIN code correctly before watching the locked channel. Use the **UP/DOWN** keys to select the channel you want to lock. Press the **OK** button to lock the channel.

■ Change PIN

For modifying the PIN, you must enter the 4 digits PIN and confirm it again; the system PIN will be changed to the new PIN.

5.3.4 System info

The system information displays information about your receiver such as software and *User Interface version*. Compare the software version with the available in the internet in order to know if you have the latest version.

5.3.5 System Update

In this menu, you can select between “*STB to STB*” and “*OAD*”

■ STB to STB software transfer.

- a) First power off both STBs, connect them with cross RS-232.
- b) Then power on master STB (master is STB from which you will copy software) and keep slave STB off. Navigate in the menu of master STB and select “*System Update – STB to STB*”.
- c) When the status displays “*detecting slave STB*”, power on slave STB, after the master STB detects the slave, the master starts transmission and burns.
- d) While transmitting and burning, it is very important to avoid other operations such as power off because this may cause destruction of the data in the FLASH memory and the receiver will need to be repaired.
- e) When update is complete, first power off both STBs, then disconnect the RS-232 line.

■ Over Air Download (OAD)

Select this option in order to update your receiver with the latest software version. Software update service is available from satellites Astra 1C, 1E, 1F at 19E and Hotbird 1, 2, 3, 4 at 13E.

If your antenna is primed to Astra 1C, 1E, 1F at 19E then enter following parameters:

Frequency: 12603; Polarity: H (Horizontal); Symbol rate: 22000

If your antenna is primed to Hotbird 1, 2, 3, 4 at 13E then enter following parameters:

Frequency: 12476; Polarity: H (Horizontal); Symbol rate: 27500

Move menu focus to **OK** and press **OK** button on remote control. The receiver will check availability of the software update on air and load the latest software, if available. Do not switch power off and do not disconnect the receiver from the aerial during update process. Availability of the software update is subject of local broadcast condition and may not work in all countries. Contact your vendor to find out more about this function.

■ Update from SD card

First you need to store the file with extension *.crd to the root folder of the SD card. File with software update can be downloaded from our web site www.strongsat.com. Insert the SD card with *.crd file to the SD card slot of the receiver. Go to menu *System Setting – System Update*. Select *SD Card Data* and

press **OK**. On the left side of the screen you will see the list of folders, at the right side you will see the list of files in root folder. Use **UP/DOWN** buttons to select file with software update and press **OK**. Confirm the update. The message “Updating software from SD card. Please wait” will appear on screen. Receiver will reboot automatically once the update is finished.

NOTE: Do not eject SD card during software update process.

■ Update through PC to STB

Connect the computer to the receiver (receiver must be powered off) with a 9-pin cross cable (two females). The computer will follow the steps below:

Start->Programs->Accessories->Communications->Hyper terminal

Then choose “COM1” or “COM2” according to the computer port you are using and port setting as follows:

Bits per Second: 115200
 Data bits: 8
 Parity: None
 Stop bits: 1
 Flow Control: None

In Hyper Terminal menu select “Transfer” item and then press “Send file” item. Select the file with the new software (*.UPD) you want to download and choose the protocol “1K Xmodem”. Finally press **OK** and a download menu will appear in the computer screen. Power on the receiver, then the download process will begin. After about 2.5 minutes, the message “OK, Reset” will appear on the computer on Hyper Terminal window, which means the download has been completed successfully. Power off the receiver and then unplug the RS-232 interface.

***NOTE: INCORRECT OPERATION MAY CAUSE UNREPAIRABLE DAMAGE TO THE RECEIVER.**

1. DO NOT POWER OFF THE RECEIVER DURING THE PROCESS OF DOWNLOAD.
2. DO NOT PLUG IN OR UNPLUG THE RS-232 INTERFACE WHEN RECEIVER IS POWERED ON

5.4 Timer

You can set the timer to make the receiver perform designated actions including timer based wake up or sleep instructions to the receiver. Use the **UP/DOWN** buttons to select timer. Press the **RED** key to activate/inactivate current timer. Press the **OK** button to enter your selected timer settings.

Action: You can select the following functions:

“Power On” The receiver powers on at the designated date and time within defined channel.

“Time interval” The receiver switches on at the designated date and time, displays the channel and then switches off at the designated date and time (The value set at the end time).

“Power Off” The receiver powers off at the designated date and time.

Cycle: You can set the cycle of the action designated in the timer mode (One time, Daily or Weekly).

Start Date: You can set the start date of the timer action.

Start Time: You can set the start time of the timer action.

End Time: You can set the end time of the channel viewing when the Timer mode is on Time Interval.

Channel Type: Select between TV and Radio.

Channel name: Press the Right button to display the channel list and using the navigation buttons select the channel to be shown when the receiver will power on by the timer.

5.5 SD Card

To watch you photos or play music from SD card enter to menu *SD Card*.

This menu consist two submenus: *JPG Guide* and *MP3 Guide*.

Please insert you SD card into SD card slot before entering to the menu.

5.5.1 JPG Guide

The receiver supports photos in JPEG format. Maximum supported resolution of the picture is 10 Mega pixels 24 bit colour depth.

While entering JPG Guide menu, the screen with Folder list and Picture list will appear.

■ Navigation in folder list:

Use **UP/DOWN** buttons to select folder

Use **OK** to open folder

Use **GREEN** button to go to Upper folder

Use **LEFT/RIGHT** button to select folder list or file list (left or right panel)

■ Navigation in the picture list:

Use **UP/DOWN** buttons to select

Use **OK** to watch picture

Use **RED** button to switch to full screen view

USE **GREEN** button to go to upper folder

User **YELLOW** button to start slide show

Use **BLUE** button to delete file current displayed file. Current displayed file is marked by “finger” symbol. You will be asked to confirm operation.

■ Watching pictures

To watch picture on screen select file with picture and press **OK** button. Picture will be shown at background. Press List (**RED**) button to remove folder list from screen and watch picture in full screen mode.

■ In picture watching mode:

Use **UP/DOWN** buttons to go to next/previous picture

Use **RED** or Exit button to return to folder list

■ Slide show

To start slide show press **YELLOW** button while menu focus is at Picture List.

Slide Show setup menu will appear.

Slide Delay: use **LEFT/RIGHT** to select how long you want to display each picture before it will be changed to the next one.

Repeat All: use **LEFT/RIGHT** to select ON or OFF. If you selected ON then slide show will be looped continuously, until interrupted. If you selected OFF then each picture will be shown once.

After selection of slide show options select **OK** and press **OK**.

During Slide Show:

Use **UP/DOWN** buttons to force slide change to next/previous

Use **PAUSE** button to delay current slide on screen as long as you wish. To resume slide show press **PAUSE** button again

Use **EXIT** button to stop Slide Show.

5.5.2 MP3 Guide

MP3 Guide allows you to play music in MP3 format from your SD card. Supported bit rates are up to 320 kbit/s, variable bit rate is supported. While entering MP3 Guide menu, the screen with Folder list and Playlist will appear.

- **Navigation in folder list:**
 - Use **UP/DOWN** buttons to select folder
 - Use **OK** to open folder
 - Use **GREEN** button to go to Upper folder
 - Use **LEFT/RIGHT** button to select folder list or file list (left or right panel)
- **Navigation in the play list:**
 - Use **UP/DOWN** buttons to select file
 - Use **OK** or **RED** to play file
 - USE **GREEN** button to go to upper folder
 - User **YELLOW** button to setup play list parameters
 - Use **BLUE** button to delete file current file. You will be asked to confirm operation.
- **Playing a single file**
 - Select file that you want to play and press **OK** or **RED** button.
 - Use **UP/DOWN** buttons to select previous/next file to play
 - Use **LEFT/RIGHT** button to adjust volume
 - Use **OK** or **RED** button to stop file play
 - Use **GREEN** button to pause file play
- **Setup of Play List**
 - Press **YELLOW** button to setup Play List
 - Play mode:** use **LEFT/RIGHT** to select between Sequential and Intro. If mode is Sequential then files will be played one after another. If mode is Intro then only first 10 seconds of each file will be played.
 - Repeat All:** use **LEFT/RIGHT** to select ON or OFF. If you selected ON then playing will be looped continuously, until interrupted. If you selected OFF then each file will be played once.

6.0 WATCHING TV AND LISTENING TO THE RADIO

6.1 Program Information

In normal operation status (no menu operation), press the **INFO** button. The program information banner will be displayed at the bottom of screen. From program information banner you can read channel number, channel name, current and next program name (if available from broadcast) and current time.

To check technical information about channel press **INFO** button twice, the Program Information menu will appear on screen as show on <Screen44>. In this menu, the user can view the current program information such as the satellite name, program name, program number, local frequency, polarity, 22K tone, DiSEqC, down frequency, symbol rate, video PID and audio PID. You also can view the signal strength of the current program and its signal quality.

6.2 MOSAIC (Nine picture view)

In normal operation status (no menu operation), press the **MOSAIC** button, there are nine picture being shown on screen.

6.3 EPG (Electronic Program Guide)

The EPG shows a program schedule of the channels.

NOTE: not all broadcasters provide program information. From normal view mode press the EPG button. The EPG Menu will appear. Press **UP/DOWN** to choose the channel. Press **RIGHT** to display programs schedule of the current channel.

1. In EPG program schedule menu: Press the **UP/DOWN** keys to choose the program items. Press **LEFT/RIGHT** keys to get programs schedule for previous/next dates. Press **EXIT** to return to EPG Menu. Press **GREEN** to display the details of the current program.
2. In program details: Press **UP/DOWN** to scroll information (next/previous page). Press **LEFT** or **EXIT** to return to the EPG schedule Menu.

Programming Timer from EPG

You can set up the event timer by pressing **RED** button or **OK** button from the EPG program schedule.

To set up a timer event: Press **UP/DOWN** to move the cursor to the program for which you want to add a timer. Press **RED** button to add a timer. You can also use this screen to modify each value. To save the settings, press **OK**. To quit event timer setup, press **EXIT**.

6.4 Changing channel list mode between TV, Radio and Favourite

To change between TV and Radio channel lists use TV/R button from normal operation mode or from channel list mode.

To change channel list to favourite mode press **FAV** button from normal operational mode. Use **LEFT/RIGHT** buttons to select favourite group. Press **OK** to confirm selection. Then select channel of your choice and press **OK** to switch to full screen mode.

If you wish to select another favourite group of channels or exit from favourite channel list mode – press **FAV** button. List of favourite channels will appear on screen. Press **RED** or **FAV** button to move menu focus to selection of group. Use **LEFT/RIGHT** buttons to select group of your choice. Select group “**NO FAV**” and press **OK** if you wish to exit from favourite channel list mode.

6.5 Selection Audio Language

Press the **AUDIO** button on the remote control to select the audio language. Select the Audio Channel or Sound mode with **UP/DOWN** buttons. Select Audio channel number or Sound mode (Stereo, Left or Right channel). Press **OK** to confirm your selection. Your selection will be memorized for current channel. Receiver will play last selected audio track every time when you select this channel in future.

NOTE: Audio track with “(AC3)” sign can be listened only if receiver is connected to digital audio amplifier and amplifier is ON.

6.5 TELETEXT function

From normal view mode press **TEXT**. In TEXT on OSD, press **UP/DOWN** to add / subtract displayed page number. Press the Numeric keys to input the page directly.

6.6 Subtitles function

From normal view mode press **SUB** button. If channel has subtitle information the subtitles language selection menu will appear. Use **LEFT/RIGHT** buttons to select between DVB and Teletext subtitles. Use **UP/DOWN** to select subtitles language. Press **OK** to confirm your selection.

A.1 TROUBLESHOOTING

There may be various reasons for the abnormal operation of the receiver. Check the receiver according to the procedures shown below. If the receiver does not work properly after checking it, please contact the dealer. Don't open the receiver cover. This may cause a dangerous situation.

Symptom	Cause	Remedy
The display on front panel does not light up.	The power cord is not plugged in.	Check that the power cord is plugged in to the wall outlet.
No picture or sound	Wrong connection of the Audio/ Video output of the receiver to TV. Audio muting. TV power off.	Connect the Audio/ Video output of the receiver to TV correctly. Press the Mute button Turn TV on.
No picture	The receiver can't receive the signal Incorrect values of some tuner parameters Wrong direction of the dish	Check the antenna cable, replace the cable, or connect the cable to the receiver tightly. Set the values of the tuner parameters correctly in the installation menu. Check the signal strength with a spectrum analyzer and adjust your dish correctly.
Message "Antenna Power Overload" displayed on TV	Receiver detected short cut in your cable system	Disconnect receiver from main power Check your cable system. Remove short cut. Replace LNB. Restart receiver.
The remote control does not work	The batteries of the remote controller are not inserted or exhausted	Check whether the batteries are inserted correctly in your remote control. Check the batteries, and if exhausted replace the batteries in the remote control.

A.2 SPECIFICATIONS

Demodulator

Modulation: QPSK
Input Symbol Rate: 2 ~ 45 Ms/s
SCPC & MCPC signals from C & KU-Band satellites

Video Decoder

Profile level: MPEG-2 MP@ML
Input Rate: Max. 60 Mbits/s
Video Resolution: 720 x 576 (PAL),
720 x 480 (NTSC) pixels
Aspect Ratio: 4:3, 16:9

Audio Decoder

ISO/IEC 11172 LAYER I&II
Sampling rate: 32, 44.1, 48 kHz
Audio modes: Stereo, Joint stereo, Dual mono, Mono

Tuner

Front-End: DVB-S
Input Frequency Range: 950~2150 MHz
RF Input Level: -25 ~ -65 dBm
LNB Power: 13/18 V DC (+/- 5%) Max. 500 mA, Overload protected
DiSeqC Version: 1.0 & 1.2

System and Memory

Flash Memory: 16 Mbits
SDRAM: 64 Mbits

RF Modulator

Ouput channels: PLL CH 21~64
TV Standard: PAL-BG/I/DK

Connectors:

SAT IN, SAT OUT
ANT IN, TO TV
2 SCARTS TV (RGB, CVBS) / VCR (CVBS)
S/PDIF: coaxial output
S-VIDEO output
Data Interface – serial port: RS-232, 9-Pin D-Sub Male type
Separate power switch
SD Interface

General Data

Input Voltage Range:	90~240 V AC 50/60 Hz
Power consumption:	max 25 W
Stand-by Power consumption:	< 8 W
Operating Temperature:	+0 °C ~ 40 °C
Storage Temperature:	-30 °C ~ 80 °C
Operating Humidity Range:	10% - 85%, RH, Non-condensing
Size (WxDxH) in mm:	260 x 210 x 40
Weight:	1,2 kg

A.3 GLOSSARY OF TERMS

C-Band	3.7 ~ 4.2 GHz Frequency.
DiSEqC	Digital Satellite Equipment Control.
EPG	Electronic program guides that are transmitted by a broadcaster from a particular satellite to display information guide about a program content.
Fixed Dish	A dish antenna that is aimed at one particular satellite.
Free-To-Air broadcast	Unscrambled broadcast which you can view for free
Ku-Band	11 ~ 13GHz Frequency.
LNB	(Low-Noise Block down-converter). The LNB is an electronic unit mounted on the satellite dish. It receives the signals reflected by the dish and converts them to signals that can be used by Satellite receiver.
MPEG	The Moving Picture Experts Group is founded by the ISO. MPEG is a standard method for digital transmission of video and audio.
Network	A network which is also known as a bouquet is a set of channels that is offered by a single broadcaster.
PAL	Referring to the Phase Alternate Line colour system adopted by European broadcasters.
Parental lock	This function gives you the possibility to 'lock' other several functions of the receiver to prevent unauthorized users such as children to view channels that are not suitable for them. A PIN code is required to use of the parental lock.
PID	The transmitted packages have identifiers (PID) that tells the receiver what to do with the received information. Satellite receivers normally use four types of PID, these are V-PID (video PID), A-PID (audio PID), P-PID (Program PID) and data PID (EPG information).
PIN Code	Personal Identification NumberA four-digit code that is used for locking/unlocking, e.g. with the parental control feature.
Polarization	Allows several programmes to be fitted into the same frequency band. The signals from a satellite are transmitter either with linear (vertical or horizontal) polarization or circular (right or left) polarization.
RS-232	Serial data port.

