

Thank you for choosing this Strong satellite receiver. This receiver is of our latest development and it is designed to be capable of upgrading its software through the satellite and the Internet. It is highly recommended that you read this manual carefully to safely install your receiver and to achieve its optimum performance.

1. Usage

This user manual is applicable for Strong SRT 4401 Evolution Digital Satellite Receiver and its related accessories. It is advised that first-time and experienced users read this manual in order to safely install the receiver.

Strong has supplied this product with the most recent innovations of software and hardware. Strong reserves the right to make changes in production to the software used by your satellite receiver without prior notification. In order to maintain and ensure that your receiver is compatible and updated with the most recent software technology, we recommend that you visit our website to check the latest software.

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1.1 Safety Instructions

Warning:

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 any shock which may cause permanent damage to your receiver;
- To any magnetic objects, such as loudspeakers, transformers, etc.;
- To intense vibration.
- 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 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.
- Place the receiver in a well-ventilated environment.
- When you are connecting the cables, be sure that the receiver is disconnected from the mains supply voltage.
- Do not use your receiver in humid environment.

Make sure you read this user manual before installing your receiver.

This manual provides complete instructions for installing and using this receiver. The following symbols will be used as follows:

Bold Characters: Represents a button on the remote control or the receiver.

Italic Characters: Represents a menu item within the On Screen Display (OSD)
Menu

1.2 Features & Accessories

SRT 4401 Evolution Digital Satellite Receiver:

- Fully compliant with DVB-S specifications
- Compatible with Viaccess encrypted services
- Viaccess embedded with single smart card reader
- Receives SCPC and MCPC signals from C and KU band satellites
- Easy and various channel scan options
- Supports DiSEqC 1.0 and 1.2
- Over 3000 channels memory capacity
- Fast Channel Switching
- 3 operational modes: Digital TV, Radio and Favorite
- Various organizing functions for TV and Radio channels
- 4 Favourite lists for TV and Radio Programs
- Full DVB subtitling support
- Teletext supported via VBI
- User-friendly multi language on screen menu
- Advanced Electronic Program Guide (EPG)
- Timer for 8 events programmable via EPG
- Future-proof - software updates via satellite
- RS232 connector for software updates and channel data managing

Accessories

- User's Manual
- Remote Control Unit
- Batteries

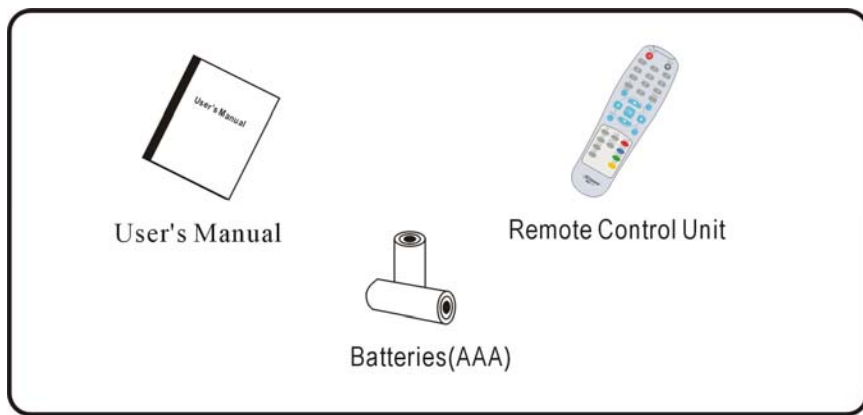


Figure 1. Accessories

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

1.3 Safety Precautions

To maintain your receiver's optimum performance, you are advised to apply the following safety precautions:

- Read this manual carefully and make sure you fully understand the instructions given.
- Refer all maintenance or servicing to suitably qualified personnel
- 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.
- Do not use alcohol or ammonia based liquids to clean the receiver.
- Do not open the receiver cover, as you will be exposed to a shock hazard
- Do not open the receiver cover this will void your warranty.
- Do not place any objects on top of the receiver because this might prevent proper cooling of the components inside.
- Make sure no foreign objects fall through the ventilation slots because this could cause fire or an electric shock.
- Wait a few seconds after switching off the receiver before you move the receiver or disconnect any equipment;
- Please ensure that the electrical power supply corresponds with the voltage on the electrical identification plate at the back of the receiver.
- 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.
- If the receiver does not operate normally even after strictly following the instructions in this user manual, it is recommended to consult your dealer.

1.4 Storage

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

1.5 Equipment Set-up

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

- Refer to the user manual of your TV and dish.
- Make sure that the UHF coaxial cable is in a good condition.
- Make sure that the UHF coaxial cable connections are well shielded
- Make sure that the outdoor components of the dish are in good condition.
- Make sure that the dish is aimed at the satellite of your choice.
- Make sure that the dish is connected with the correct I.F. coaxial cable (75 Ohm) and is in good condition.

2. Your Receiver

2.1 Front Panel

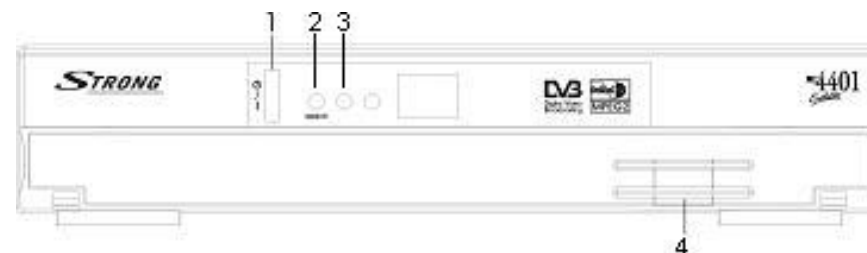


Figure 2. Front Panel

1. Power Button

Turns the receiver On/Off.

2. Mode indicator

The red LED is the STAND BY indicator and the green LED is the operating mode indicator.

3. Smart card slot

Insert smart card into smart card slot for conditional access.

2.2 Rear Panel

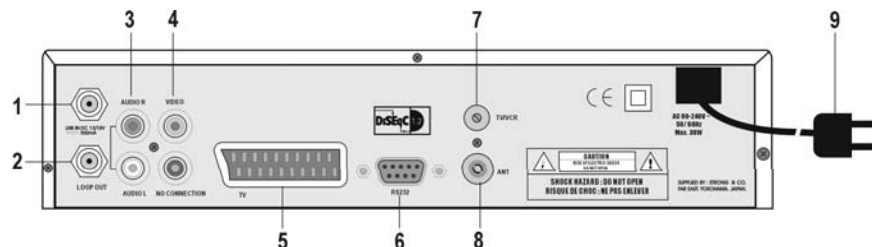


Figure 3. Rear Panel

1. LNB IN

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

2. LOOP OUT

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

3. AUDIO Right (Red RCA) and Left (White RCA)

These connectors give you the possibility to connect the audio signal to an external amplifier, or the audio input of your TV.

4. VIDEO (Yellow RCA)

This connector has a constant video signal for additional VCR-connections.

5. TV Scart Connector

Use this connector to connect your receiver to your TV using a scart cable.

6. RS232 Serial Port

This serial port can be used to connect your PC to your receiver, and enable you to download new versions of software into your receiver.

7. TV/VCR

RF Modulator (male part). If you do not use a scart cable or RCA cable to connect your receiver to your TV, you will have to use this connector to connect the receiver to your TV, using a coax cable. If you connect your receiver to your TV like this, be sure that you set your TV to the Video channel.

8. ANT IN

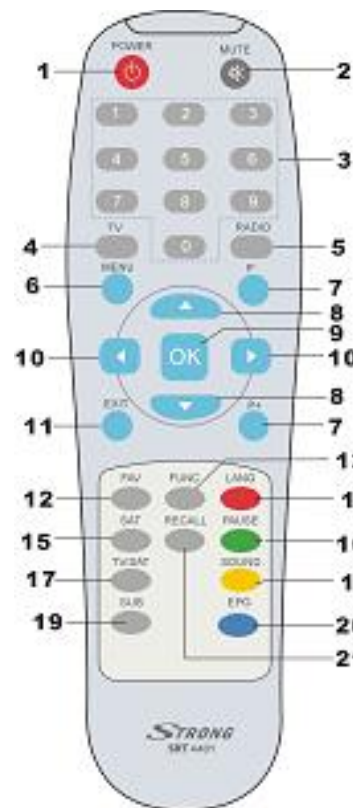
RF Modulator (female part). If you have an additional antenna (cable or terrestrial) as well, and you do not use a scart cable to connect the receiver to the TV, then your additional antenna has to be connected here. If you use a scart cable to connect the receiver to your TV, the additional antenna can be put directly into your TV.

9. 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

All features of the set-top box can be controlled with the remote



1. POWER

Turns the receiver On/Off.

2. MUTE

Mutes audio output of the receiver.

3. NUMERIC KEY (0-9)

Controls the numerical operation and especially changes program directly.

4. TV

Shows the current digital TV program list.

5. RADIO

Shows the current digital Radio program list.

6. MENU

Shows the Main Menu.

7. P+/P-

Page up and down in menu list.

8. UP/DOWN

Change the current program to the previous/next program in NO-menu state. Moves the cursor to upward/downward in Menu state.

9. OK

Shows current channel list in NO-menu state. Confirm selection in Menu state.

10. LEFT/RIGHT

Adjust volume in NO-menu state. Select item in Menu state.

11. EXIT

Exits from the menu or sub-menu and cancel any functions in progress if applicable.

12. FAV (♥)

Shows the current favourite program list.

13. FUNC

Shows program information and channels detail in NO-menu state.

14. LANG

Shows the list of available audio languages.

15. SAT

Shows the list of installed satellites.

16. PAUSE

Freezes the picture on the TV screen. If pressed again the picture will continue.

17. TV/SAT

Switch on or off the automatic switching of your TV to EXT (scart). This enables you to choose between Aerial TV channels or pictures coming from your satellite receiver

18. SOUND

Selects sound mode to either stereo or mono.

19. SUB

Shows the list of subtitled languages the current channel supports.

20. EPG

Shows the Electronic Program Guide during No-menu state only.

21. RECALL

Shows previous channel.

3. Connections

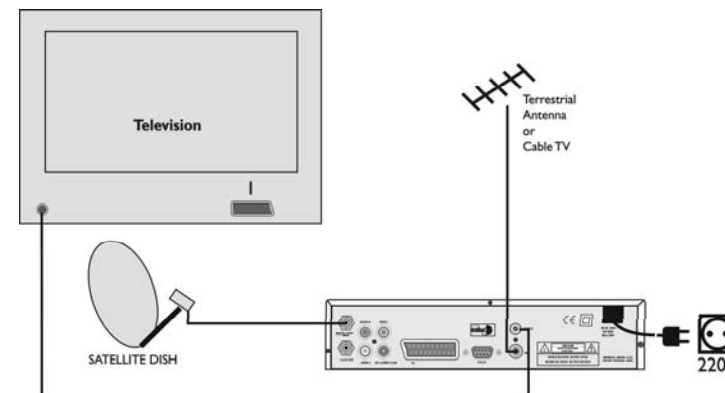
3.1 Connecting to your TV & VCR

Warning:

If you are not sure how to connect your receiver, do not take the risk of doing it yourself. Ask your Strong dealer to do it for you. They are specially trained by our technicians and can get the best performance out of your receiver. Although there are enthusiasts who can do the installation of a satellite receiver unit themselves, it usually needs good knowledge of the reception technologies, and requires specialised equipment. Do not hesitate to ask any questions you have to your Strong dealer about installing your receiver.

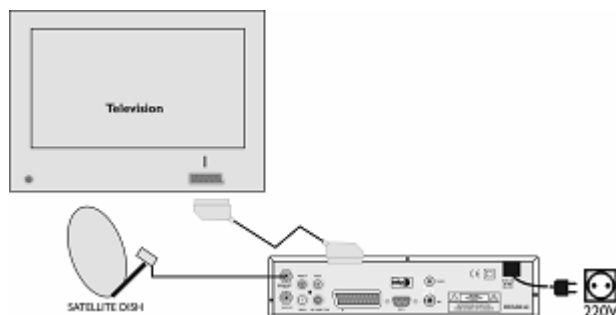
It is possible to connect the receiver through the use of UHF coaxial cables, SCART cables, and/or so called Audio/Video cables with RCA connectors.

3.1.1 Basic connection with a coaxial cable (Figure 4)



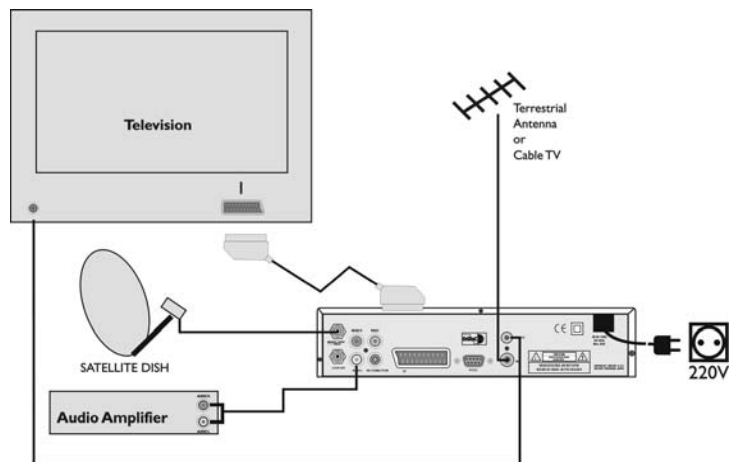
- Connect the satellite signal from the LNB to the LNB IN connector.
- Connect the TV/VCR connector at the back of the receiver to the ANT IN connector on your TV set.
- Optional: connect a UHF coaxial lead or cable antenna lead to the ANT IN input connector at the back of the receiver.

3.1.2 Basic connection with a Scart cable (Figure 5)



- Connect the satellite signal from the LNB to the LNB IN connector.
- Connect the TV scart connector at the back of the receiver to the scart-in connector on your TV set.

3.1.3 Advanced connection. (Figure 6)

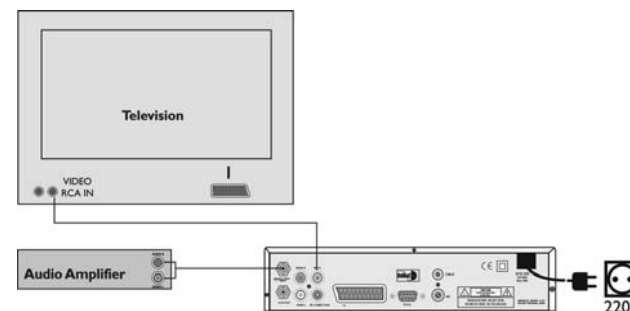


- Connect the satellite signal from the LNB to the LNB IN connector.
- Connect the TV scart connector at the back of the receiver to the scart-in connector on your TV set.
- Connect a UHF coaxial lead or cable antenna lead to the ANT input connector at the back of the receiver. Connect a coaxial cable to TV/VCR

connector at the back of the receiver. Connect the other end of this cable to the ANT IN input of your TV set.

- Optional: Connect the audio left and right RCA-plugs (Red and White) on the back of your receiver to the left and right input of an Audio amplifier, so you can enjoy the excellent quality of the sound that is produced by your Strong receiver.

3.1.4 Connection with Audio Cable RCA Connectors (Figure 7)



- On the back of your receiver you will find the RCA connectors (Audio Left & Right - Red & white, Video - Yellow)
- Install an audio/video cable between the RCA connectors of the receiver and those of your TV set or amplifier.

3.1.5 Connecting a serial cable for downloading software (Figure 8)

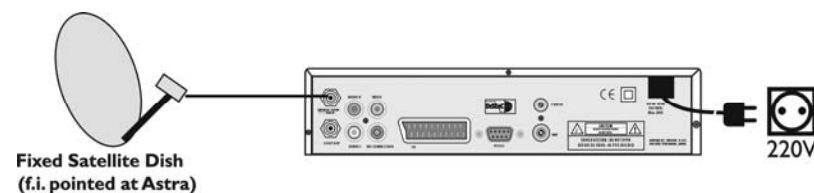


- Connect the RS 232 connector on the back of your receiver to the Serial port of your computer using a serial cable.
- Instructions on how to download software can be found on our website www.strongsat.com (support > downloads). However, this receiver can download new system software automatically by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

3.2 Connecting to a satellite dish

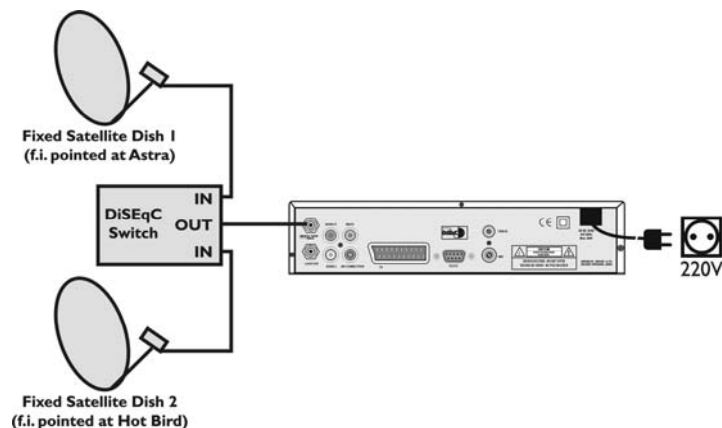
Aligning a satellite dish and LNB to the correct satellite position is a potentially dangerous and specialist job, and can best be done by an official Strong dealer.

3.2.1 Connecting a fixed satellite dish to your receiver (Figure 9)



- Make your choice of satellite from which you want to receive your TV/Radio channels.
- Have your Strong dealer align your dish at the requested satellite.
- Connect a coaxial cable to your LNB.
- Connect the other end directly to the LNB IN connector of your receiver.

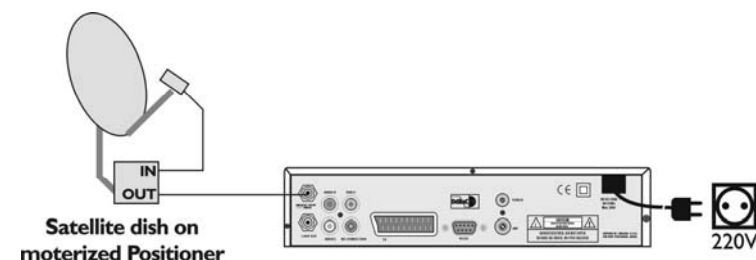
3.2.2 Connecting multiple fixed dishes to your receiver using a DiSEqC1.0 switch (Figure 10)



If you want to watch programs from more than one satellite (For instance from Astra and from Hot Bird) it is advisable to use fixed dishes and a DiSEqC 1.0 switch.

- Have your Strong Dealer aim the dishes at the requested satellites.
- Connect the LNB's with coaxial 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.

3.2.3 Connecting a dish on a motorized positioner to your receiver. (Figure 11)



Another possibility of watching programs from multiple satellites is by mounting a dish to a motorized DiSEqC 1.2 positioner.

- Have your Strong dealer mount the dish to the positioner with the correct azimuth angle of elevation and let him set the centre point for your positioner.
- Connect the LNB with a coaxial cable to the LNB IN connector of the positioner.
- Connect the OUT connector of the positioner to the LNB IN connector at the back of your receiver.

3.3 Connecting to SMART CARD

Insert Smart Card into Smart Card slot for watching TV program from Service Provider.



4. 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).

4.1 Starting up for the First Time:

- When receiver powered ON first time it starts with Main Menu screen. To access to the menu you will need to enter PIN-code. Default PIN-code is '1111'
- The default language is set to English, to choose other languages refer to "System Configuration" described in section 5.1.2 in the manual.
- To download the channels, please refer to "Installation". (Described in section 5.1.3)
- Every time the receiver asks you to put your PIN code, enter '1111' on your remote control using [0-9] numeric keypads.

5. Basic settings

Note: Every time the receiver asks you to put your PIN code, enter **'1111'** on your remote control using **[0-9]** numeric keypads.

Remember: To switch between the TV/Radio channels list, you will have to press the **TV/Radio** buttons on your remote accordingly.

5.1 Main Menu

All the important settings and features of your receiver can be operated from the Main Menu. The Main Menu consists of several sub-menus such as "Channel Organizer", "System Configuration", "Installation", "Timer" and "Smart Card". To display and navigate through the main menu of the receiver please apply the following steps:

1. Press the **Menu** button.
2. Use **UP/DOWN** keys, to navigate through the menu.
3. Press **OK** button every time you select an item from the menu.
4. Press the **Exit** button to terminate an operation.
5. Press the **Exit** button until you go back to main menu.



Tip: Always read the Help bar displayed at the bottom of your screen.

5.1.1 Channel Organizer Menu

The "Channel Organizer" menu enables you to Edit channels, make your own Favourite channels list and reset channels from the list.

Edit Channels Menu:

You can sort, edit and delete channels from the channel list.

Sorting Channels from the channels list:

To sort your channels, please apply the following steps:

1. Press the **Menu** button.
2. Using **UP/DOWN** keys, select "Channel Organizer" and press **OK**.
3. Using **UP/DOWN** keys, select "Channel Edit" and press **OK**.
4. Press the **Red** (Sort) button to sort your channels.
 - If you press the **Red** (Name) button, you can sort the list of channels alphabetically:
 - If you press the **Green** (Type) button, you can sort the channels by the type of the channel, CI or scrambled program.
 - If you press the **Yellow** (TP) button, you can sort the channels by transponder order.
 - If you press the **Blue** (Manual) button you can sort the channels manually. Selected channel will be marked by red colour. Use the **UP/DOWN** buttons to move to the position that you want the channel to be at, and press the **OK**. The channel will then be moved to the position you selected.



Once you have finished sorting the channels, press the **Exit** button until you are back in the Normal TV mode. A message that the receiver is saving the changes you made will be displayed.

Editing Channels from the channels list:

Change name of channel:

To change the name of the channel, please apply the following steps:

1. Press the **Menu** button.
2. Using **UP/DOWN** keys, select "**Channel Organizer**" and press **OK**.
3. Using **UP/DOWN** keys, select "**Channel Edit**" and press **OK**.
4. Press the **Green** (Edit) button.
5. Using **UP/DOWN** or **P+/P-** keys, select the channel.
6. Press **Red** (Name) button on the channel name and the keyboard will appear on screen.
7. Use **P+** button to delete current character, **P-** button to clear whole name. Press **DOWN** to go to virtual keyboard. Use arrow buttons to select a letter, and the **OK** button to enter selected character. Press **Menu** button to confirm the changed name when you have finished.



Change Video Package Identifier V-PID, Audio A-PID, Program P-PID Values:

1. Apply the first five steps detailed in "Change name of channel" described previously.
2. Press **Green** (PID) button to enter to **PID Edit** screen.
3. Using the numeric keypad **[0-9]**, enter the new values.
4. Move your cursor to the "**OK**" and press the **OK** button.



Change the Skip function:

If Skip function is activated, the channel will be skipped when you are scrolling through the TV list in normal watching mode. Please apply the following steps:

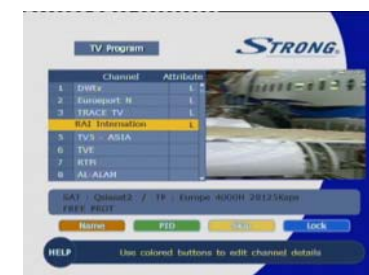
1. Apply the first five steps detailed in "Change name of channel" (Described in section 5.1.1).
2. Press **Yellow** (Skip) button.
3. The skip function will be marked in Attribute column.
4. Apply these steps for all channels that should be skipped.
5. To remove Skip marking of the channel repeat the procedure.



Change lock function:

If you lock a channel, you can only watch it from the TV list after entering your PIN Code. To change lock function, apply the following steps:

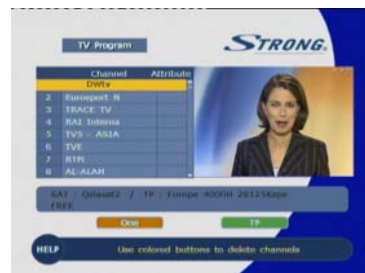
1. Apply the first five steps detailed in "Change name of channel" described in section 5.1.1).
2. Press **Blue** (Skip) button.
3. The lock function will be marked in Attribute column.
4. Apply these steps for all channels that should be locked.
5. To remove Lock marking of the channel repeat the procedure.



Deleting Channels from channel list

You can delete channels from the channel list by applying the following steps:

1. Press the **Menu** button.
2. Using **UP/DOWN** keys, select "Channel Organizer" and press **OK**.
3. Using **UP/DOWN** keys, select "Channel Edit" and press **OK**.
4. Press the **Yellow** (Delete) button
5. Using **UP/DOWN** or **P+/P-** keys on your remote, select the channel.
6. Press the **Red** button to delete the selected channel.
7. Press the **Green** button to delete all channels from the current transponder.



Favourite Setup Menu

You can set a list of Favourite channels from the current TV/Radio channels list. To set your Favourite channels, please apply the following steps:

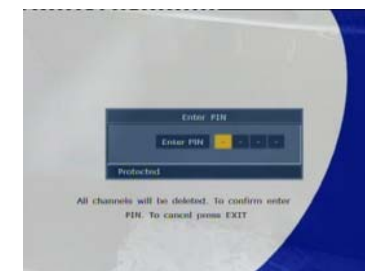
1. Press the **Menu** button.
2. Using **UP/DOWN** keys, select "Channel Organizer" and press **OK**.
3. Using **UP/DOWN** keys, select "Favorite Setup" and press **OK**.
5. Using **UP/DOWN** or **P+/P-** keys, select the channel and press the coloured button on your remote corresponding to the classification of the channel. For example, if you press the **Red** (FAV1) button the channel is designated as "FAV1" Favourite channels. A heart will appear behind the channels' name. If the **Red** button is pressed again the selected channel is un-selected from FAV 1 Favourite list.
6. Press the **Exit** button until you go back to main menu. You can view the Favourite list you set by pressing the **Fav** button while you are watching TV or listening to a Radio channel.



Reset Channels Menu

You can delete all the channels that you have scanned by applying the following steps:

1. Press the **Menu** button.
2. Using **UP/DOWN** keys, select "Channel Organizer" and press **OK**.
3. Using **UP/DOWN** keys, select "Reset Channels" and press **OK**. All the channels will then be deleted.



5.1.2 System Configuration Menu

To install your receiver to your personal preferences, go to “*System Configuration*” menu. Then please apply the following steps:

1. Press the **Menu** button.
2. Using **UP/DOWN** keys, select “*System Configuration*” and press **OK**.
 - **Preferences:** You can change the language of the menu, audio language, subtitles language, Time Zone and the time banner period by applying the following steps:
 1. Select “*Menu Language*” and press the **Right** button to choose the language you want. Repeat the same to change the audio and the subtitle languages.
 2. Select “*Time Zone*” and press the **Right** button to select the appropriate time zone of your country.
 3. Select “*Banner time-out*” and press the **Right** button to choose the time period of the information banner on your screen.
 4. Select “*Smart card update*” and press the **Right** button to set *ON* or *OFF*. If you set *ON* then receiver will keep connection to the LNB in stand-by mode and pass data to the smart card. This option is recommended if your broadcaster update cards at the night time.
 5. Press **OK** button to confirm your selections and go back to “*System Configuration Menu*”

- **TV Output Setup:** You can set the TV settings to your personal preferences. Check your TV and VCR user manuals for the correct settings. You can change your TV settings by changing the following:

1. **Aspect:** Press the **Right** button and set your aspect to “4:3” or “16:9”
2. **Screen Mode:** Press the **Right** button and set your screen mode to “Pan Scan” or “Letterbox”.
3. **RF TV Mode:** Press the **Right** button and set your TV mode to “PAL-BG”, “PAL-I”, “PAL-DK” or “NTSC”.
4. **UHF:** Press the **Right** button and set the UHF channel number to the same UHF channel number of your TV set. This only has to be done if your TV set is connected with a coaxial (RF) Cable. If the UHF Channel numbers of the receiver and the TV set are not set the same, no picture will be displayed.
5. **RGB/CVBS:** Press the **Right** button and set the TV mode to “CVBS” (Composite video) or “RGB” (preferred option if your TV set is compatible with it).
6. **Transparency:** Press the **Right** button and select how transparent you want your OSD.
7. **Brightness:** Press the **Right** button and select how you want the OSD to be.
8. **Contrast:** Press the **Right** button and select how you want the contrast to be.
9. **Saturation:** Press the **Right** button and select how saturated the screen to be.



- **Parental Lock:** This function changes the Personal Identification Number (PIN) that is used to control access to the menu and individual channels. In this function, you can lock/unlock channels and you can change your PIN code by applying the following steps:
 1. **Menu:** Using **RIGHT** / **LEFT** keys, you can select either "lock" or "unlock" and press **OK**. By selecting "lock", the receiver asks you to enter your PIN every time you want to access the menu. By selecting "unlock" it gives you the possibility to access the menu all the time without the receiver asking you for a PIN code.
 2. **Current PIN:** Enter '1111'
 3. **New PIN:** Enter a new PIN
 4. **Retype PIN:** Enter the same new PIN

You are recommended to write down your new PIN code. In case you forget it, you can reset your receiver to factory default settings but you will lose all information you saved.

Your Personal PIN Code: _____

- **Calendar:** Shows you the date on your screen.
- **System Upgrade:** You can download the latest software available including new technologies to your receiver. The receiver will display the message "Please wait, checking for new software". If there is a recent software version available for your receiver, it will automatically download it via the satellite signal. If you already have the latest version nothing will happen.

NOTE: Be sure that your receiver is connected to the satellite signal. Do not turn off your receiver while you are downloading new software.

- **Factory Reset:** 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 have made a Factory Reset you will have to re-install your preferences and re-scan your channels.

Note: Your PIN code will change back to the factory setting "1111".

- **System Information:** The system information displays information about your receiver such as model number, software and boot version.

5.1.3 Installation Menu

All settings that are related to TV, Dish, LNB and Satellites are within this menu. The installation menu contains "Antenna Setup", "Diseqc1.2 Setup", "Manual Scan" sub-menus. To access the different sub menus, apply the following steps:

It is recommended that you read the manual and installation instructions of your LNB, your DiSEqC switch, your 0/12V switch and your Positioner before you start setting up your receiver.

Antenna Setup Menu:

To set up your antenna, please apply the following steps:

1. Press the **Menu** button.
2. Using **UP/DOWN** keys, select "Installation" and press **OK**.
3. Using **UP/DOWN** keys, select "Antenna Setup" and press **OK**.
4. Use the **UP/DOWN** keys on your remote to select an item and use the **LEFT/RIGHT** buttons to set up any values.



- **Antenna:** Select an index for the satellite you wish to scan
- **Satellite:** Select the satellite you wish to scan from the satellite list.
- **LNB:** Select the LNB type from Universal 1 ~ 3, 5150, 9750 or 10750. If you have different LNB type – select '0' and type the local oscillator value. In UNI1=9750/10600 MHz, UNI2=9750/10700MHz, UNI3=9750/10750 MHz
- **13/18V:** Select auto, 13/18V, 13V or 18V for LNB. Select "Off" if you want to switch the power of the LNB to off.
- **22KHz:** It is always set to "Auto" for UNI LNB. For other types of LNB you can select value.
- **DISEqC:** Select the type of DiSEqC you have or set it to "OFF" if you are not using a DiSEqC switch.
- **TP:** Select the satellite frequency that you wish to scan.

- **Network Search:** Set this field to "On" to perform Network TP Search.
- **Scan Mode:** Designate channels scanning whether "FTA" (Free to Air) only or "All" channels (including scrambled channels)

After setting up all the functions above, you can use the coloured buttons on your remote to perform the following functions:

- **Red (Scan):** This will allow you to scan only one satellite that you have chosen in the "Satellite" field above.
- **Green (All Scan):** This will allow you to scan all the satellites you have set in the "Antenna" and "Satellite" field.
- **Yellow (TP Set up):** This will allow you to select a specific TP that represents the operator that you wish to scan. You can use the **UP/DOWN** to select the operator you wish to scan and then press **OK** to scan. You can also use the coloured buttons to insert a new operator parameters, delete an operator from the list, modify the parameters of an operator and scan the selected operator.
- **Blue (SAT NAME):** This will allow you to change the name of the satellite. To edit satellite name apply same steps as for channel name edit.



DiSEqC1.2 Setup Menu:

Before you setup dish positions for different satellites make sure that all parameters for these satellites has been defined in *Antenna Setup* menu. Make sure that dish is installed correctly and mechanical limits are defined.

1. Press the **Menu** button.
2. Using **UP/DOWN** keys, select "Installation" and press **OK**.
3. Using **UP/DOWN** keys, select "DiSEqC 1.2 Setup" and press **OK**.
4. Use the **UP/DOWN** keys on your remote to select an item and use the **LEFT/RIGHT** buttons to set up any values

- Satellite: Select the satellite which position you will setup.
- TP: select reference transponder which will be used to detect signal during installation
- On/Off: select Fixed if satellite aligns to the fixed dish or Moving if satellite aligns to the moved dish. If you select Moving – item Position will be shown on screen.
- Move cursor to the Position item.



1. Use **Left/Right** buttons to move dish in corresponded direction. For North hemisphere pressing Left button moves dish to East, Right button moves dish to West.
2. Refer to Signal power and quality indicators to define dish position. When signal is locked indicators will change colour to green.
3. Adjust dish position for best level of the signal power and quality.
4. Press **Yellow (Store)** button to store dish position.

Coloured buttons functions:

Red (Command): This menu allows you to store limits, enable and disable limits.

You can use commands to move dish to center position, step to East/West and move dish to East/West.

Green (Auto Position): To use this feature move dish to West limit. Make sure that signal from reference transponder can be received in your location. Press this button. Dish will start moving from West to East. Pay your attention to the signal power and quality indicators. When signal is locked (indicators are green) press **Red** (Stop) button. If necessary adjust dish position and store it.

Yellow (Store): press this button to store position.

Blue (Original Pos): allows you to move dish to last stored position (original position).

Manual Scan Menu:

The manual scan menu allows you to scan and insert new satellites manually in case you wish to scan a satellite or a TP frequency that is not presented in the available list in the "Antenna Setup" menu. Use the **UP/DOWN** keys on your remote to select an item and use the **LEFT/RIGHT** buttons to set up any values.

- **Satellite:** Select the satellite you wish to scan from the satellite list.
- **Frequency:** Select the TP frequency of the satellite you wish to scan.
- **Polarisation:** Select Vertical or Horizontal.
- **Symbol Rate:** Insert the provider symbol rate
- **Scan mode:** Select one of the available options of scanning. If you select "Channel Scan", then you can insert the correct Audio, Video and PCR PID values.
- **Network Search:** Set this field to "On" to perform Network TP Search.



5.1.4 Timer Menu

The timer can automatically switch on or off your receiver at any time. This enables you for example to record programs with your VCR while you are not at home. It also can be used to wake you up at the time you set it. Please apply the following steps:

1. Press the **Menu** button.
2. Using **UP/DOWN** keys on your remote, select "Timer Menu" and press **OK**.

- **Index:** You can select up to 8 different events.
- **Timer Status:** Set to "ON" to use the timer function, or "OFF" to stop the timer functions of the timer number you selected.
- **Timer mode:** You can select the following functions in the timer mode.

1. "Power On": The receiver powers on at the designated date and time.
2. "Power Off": The receiver powers off at the designated date and time.
3. "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 ending time).



- **Timer Cycle:** You can set the cycle of the action designated in the timer mode (once, daily or weekly).
- **Weekday:** Select the day of the week or press **OK** to select date using calendar.
- **Time:** You can set the starting time of the timer action.
- **Duration:** You can set the time period of the timer action.
- **Channel List:** You can select the channel list (D-TV, D-Radio or favourite)
- **Channel:** you can insert the channel number or select channel using **Left/Right** buttons.

Once all is done press **OK** or the **Exit** button.

5.1.5 Smart Card Menu

This screen displays the following options for consulting or settings parameters for:

- Define or modify Smart Card PIN code
- Setting a morality level
- Consulting the Smart card and subscription information

To access to Smart card menu:

1. Press **Menu** button
2. Using **Up/Down** buttons select “*Smart Card*”
3. Next menu indicate status of the card (inserted or extracted). Insert your card and press **OK**
4. Using **Up/Down** buttons to select the desired item and press **OK**

Consultations:

Enter to this menu to check subscription right status (subscriptions list, including start and end of subscription, class, theme and level)

Prebooking:

If your broadcaster supports prebooking you can reserve program. Please, check with you content provider if this option available and how to use it.

Authorizations:

In this menu you can change maturity rating (from 0 to 15). Please, check with your content provider if this option is available and how to use it.

Change PIN code:

You can change PIN code of the Smart card.

6.0 Basic functions

While viewing TV or Radio channels various functions can be applied using your remote control. Outlined is an explanation of the buttons on your Remote and their corresponding functions that can be performed while watching TV or listening to the Radio. (See for the illustration of the remote control)



1. **Standby ON/OFF:** Turns the receiver On/Off.
2. **MUTE:** Mutes audio output of the receiver.
3. **NUMERIC KEY (0-9):** Change the channel directly by pressing the channel number
4. **TV:** Shows the list of current digital TV channels.
5. **RADIO:** Shows the list of current digital Radio channels.
6. **MENU:** Shows the main menu for additional settings.
7. **P- / P+:** Switches between the different channels. It jumps 10 channels up or 10 channels down if you are in the TV, Radio or in your favourite channel list.
8. **UP/DOWN:** Change the current channel to the previous/next channel in the TV or Radio list.
9. **OK:** You can select an item in the SAT, SUBTITLE or LANG list.
10. **Left/Right:** **Left** sets the volume down and **Right** sets the volume up.
11. **EXIT:** Exits from the menu or sub-menu and cancels any functions in progress if applicable.
12. **FAV:** Shows the list of your current Favourite channels.
13. **FUNC:** Displays information banner with current program details. If you press this button second time while banner is displayed additional information about channel details will be shown on screen.

14. **LANG:** Shows the list of available audio languages for the channel you are watching. You can change the audio language you want to hear by using the **Up/Down** keys, and pressing the **OK** button.
15. **SAT:** Displays the list of satellites you have scanned with your receiver. You can change the satellite you want to watch by using the **Up/Down** keys and pressing the **OK** button. (The channel list is configured with the channels searched in that satellite. If you have set up a motorized positioner to change the satellite, a message "wait moving dish" is displayed. The SAT button is disabled in the favourite channel mode because there can be a number of different satellites on which you have different favourite channels.
16. **PAUSE:** Freezes the picture on the screen. If pressed again the picture will continue.
18. **SOUND:** It sets the current channel audio to stereo ((•)), left-mono ((• or right-mono •)). Pressing the sound button changes the sound icon on the top banner. The selected sound information is saved by channel, and is set to the sound mode when you watch the channel.
19. **SUB (Subtitle):** Shows the list of subtitle languages the current channel supports. You can change the subtitle language you want by using the **Up/Down** keys and pressing **OK** on your remote.

6.1 EPG (Electronic Program Guide)

EPG shows the event information for the current channel list by time zone. EPG is divided into Extended mode, Now mode and Timer mode. It provides timer based recording and automatic power ON/Off. The event is displayed only if the channel supports EPG. If you press **EPG**, the Now mode is displayed as default.



- **Extended (Red Button):** The current channel list is displayed on the left, and the event information is displayed with detailed information on the top left. On the right side of the screen you can see picture of current channel. You can use the **RIGHT/LEFT** buttons to view the different programs up to 7 days. You can use **P-/P+** buttons for quick navigation between days.
- **Now (Green Button):** If you want to display the Now mode of the current channel, press **Green** (Now). In the Now mode, the receiver shows the designated channel in PIG, and displays the channel event in detail.
- **Timer (Yellow Button):** Move the cursor to an event in the required time zone, and press **Yellow** (Timer). The timer is then set to the designated time. See "Timer Menu" (Described in section 5.1.4) for details of the timer.
- Press **EXIT** to close the EPG menu.

A.1 Trouble Shooting

Occasionally receivers can hang-up (just like with a PC) so you are recommended to reset the receiver by disconnecting it from mains power. Wait 30 seconds and connect to mains power again and now check if the unit is working as expected. If the receiver does not work properly after checking the trouble shooting section, please contact the dealer. Don't open the receiver cover, it may cause an electrical shock due to high current voltage and the warranty of your receiver will be void if the receiver has been opened.

Symptoms	Cause	Solution
The front panel indicator do not light up.	The power cord is not plugged in.	Check that the power cord is plugged into the wall outlet.
No picture and sound	TV is set to wrong channel.	Check if the TV is switched on and set your TV to the correct EXT / AV or UHF channel.
No picture and sound.	Problem in cable connections between receiver and TV	Check if the scart and/or RF cable is connected correctly to the TV and to the back of the receiver.
No picture and sound	Receiver "hang-up"	Switch off receiver; disconnect the main power cord of the receiver from the 220V main power. After 30 seconds reconnect to the main power and check if it is working properly.
No sound	The receiver or TV is in "MUTE" mode	Press the MUTE button on the remote control unit of your receiver and TV.
No sound or picture	Problem in scart cable connections between receiver and TV	Firmly press the scart connectors on the backside of the TV and receiver. Replace the scart cable
The receiver displays the message ' No or Bad signal" during bad weather conditions (heavy rain or snow)	This is normal, the bad weather is interfering the signal between the satellite and your dish	Once the weather is better the picture will appear. If not : check if there is no snow on your dish

Symptoms	Cause	Solution
The receiver displays the message ' No or Bad signal"	Wrong satellite selected in the menu.	Press the SAT button on the RCU and select the correct satellite
The receiver displays the message ' No or Bad signal"	Wrong parameters set in the menu.	Check settings in LNB- and Channel set up menu.
The receiver displays the message ' No or Bad signal"	Wrong alignment of the dish.	Ask your dealer to check the outdoor unit and antenna cable to LNB
Both LED (RED and GREEN) indicators on front panel are light	Overload of the maximum available LNB power. (Short circuit in the LNB cable)	Disconnect the 220V main power and ask your dealer to check the LNB cable.
The remote control is not working.	The batteries of the remote control are not inserted or exhausted.	Check whether the batteries are inserted correctly in your remote control. Check the batteries, and if they are exhausted, replace them.

A.2 Specifications:

1. Smart card

- 1 Smart card slot
- ISO 7816, GSM11.11 and EMV (payment systems) compatibility

2. Tuner & Channel

Input Connector	F-type, IEC 169-24 Female
Frequency Range	950MHz to 2150MHz
Input Impedance	75Ω unbalanced
Input sensitivity	-25 to -65dBm
LNB Power	Vertical : +13V Horizontal : +18V Current: Max, 500Ma
Polarization	13V/18V
22kHz Tone	Frequency: 22kHz±2kHz Amplitude: 0.6V±0.2V
DiSEqC Control	Version 1.0 and 1.2 Compatible
Demodulation	QPSK
Input Symbol Rate	2-45 Ms/s
FEC Decoder	Convolution Code Rate 1/2, 2/3, 3/4, 5/6 and 7/8 with Constraint Length K=7

3. System & Memory

Main Processor	SC2005(LSI-LOGIC)
Flash Memory	2Mbyte(up to 8Mbyte)
Processor SDRAM	8Mbyte(up to 16Mbyte)
A/V decoder SDRAM	2Mbyte(up to 4Mbyte)
EEPROM	8Kbyte
Channel Memory	Digital Channel : 3000
Multi-Satellite	Up to 64

4. MPEG Transport Stream & A/V Decoding

Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification
Profile Level	MPEG-2 MP@ML
Input Rate	Max 90Mbit/s
Aspect Ratio	4:3, 16:9
Frame Rate	25Hz for PAL, 30Hz for NTSC
Teletext	Through VBI
Audio Decoding	MPEG/MUSICAM Layer I & II
Audio Mode	Single channel/Dual channel Joint Stereo/Stereo
Frequency Response	20kHz~20kHz +/-2dB, 60kHz~18kHz +/-0.5dB
Sampling Rate	32, 44.1, 48kHz

5. A/V & Data In/Out

TV Scart Output	RGB, CVBS, L, R Output with Volume Control
RCA Output	CVBS, L, R Output(Yellow, White, Red Jack) with Volume Control
Data Interface	RS-232, Bit Rate : 115200baud, Connector : 9-Pin D-Sub Male type

6. RF-Modulator

RF-Connector	75Ω IEC169-2, Male/Female
Frequency	470MHz to 860MHz
Output Channel	CH21-69 for the Demodulator
TV Standard	PAL G/I/K Selectable by Menu Setting
Audio Output	Mono with Volume Control
Preset Channel	CH 36, Software changeable by Menu Setting

7. Power Supply

Input Voltage	AC 90~240V, 50Hz~60Hz
Type	PWM Regulator
Power Consumption	Max. 30W
Stand-by Power	<=6.5W
Protection	Separate Internal Fuse

8. Physical Specification

Size(W × H × D)	280 × 55 × 235mm, Excluding the foot. Foot height is 6mm
Weight	2.0kg

9. Environmental Condition

Operating Temperature	0~40°C
Storage Temperature	-30°C ~ 80°C
Operating Humidity Range	10 ~ 85% RH, Non-condensing
Storage Humidity Range	5-90% RH, Non-condensing

A.3 Glossary of terms

C band	3.7 ~ 4.2GHz 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.