HD Satellite Recorder
Digital Innovation Life

User's Manual
AV 7000HD PVR

ATEVIO

ATEVIO-HDTV

AV 7000 HD PVR

HDMI DOLBY DIGITAL DVB

ATEVIO

INDEX

Precautions

1. Important Safety Instructions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not reverse the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

   WARNING: To prevent fire or shock hazard do not expose the set to rain or moisture.

2. Notice

- These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- The mains plug is used as the disconnect device. The disconnect device shall remain readily operable.

3. Copyright

4. Disclaimer

5. Trademarks

Before You Begin

1. Main Features

- ✓ Twin Tuner HDTV PVR Receiver (H.264/ MPEG4 HD)
- ✓ Supports MPEG4 /MPEG2 - HD/SD, DVB-S2 /DVB-S
- ✓ Embedded Linux OS & Ethernet port
- ✓ Time Shifting, Recording & Playback with Internal HDD (SATA) / External HDD (USB 2.0)
- ✓ Simultaneously Records of 2 Services and allows Watching 2 others (PIP)
- ✓ Powerful Extended EPG supports and Event Recording
- ✓ Two USB 2.0 Host ports (MP3 Player & JPEG Viewer)
- ✓ Xvid file play back supported
- ✓ Ethernet port Supported
- ✓ Intelligent Blind Scan for both SD and HD TV & Multi-Satellite Search
- ✓ Premium Grade White VFD Display (12 Digit Alphanumeric)
- ✓ Premium Grade Universal remote control unit
- ✓ Multi-LNB Controlled by DiSEqC Control Version 1.0, 1.1, 1.2 and USALS
- ✓ On-Screen Display with Full Color & Resolution
- ✓ Favorite Groups
- ✓ Powerful Service List Manager for Favorites, Lock, Skip, Move, Edit and Delete
- ✓ Service Sorting by Alphabet, Transponder and CAS
- ✓ User Friendly & Multi-language Supported (OSD & Menu)
- ✓ Teletext / Subtitle Supported
- ✓ Maximum 10,000 Services(TV & Radio) Programmable
- ✓ Picture-in-Picture (PIP) & Multi-picture Display(*)
- ✓ Parental Lock / System Lock / Installation Lock
- ✓ HDMI Video & Audio Output (576i, 576p, 720p, 1080i)
- ✓ Supports Y/Pb/Pr(component) Output in HD
- ✓ CVBS(composite) Video & Audio Output via RCA
- ✓ CVBS, RGB, Y/C Video & Audio Output via TV SCRAT
- ✓ Optical Output for Digital Audio(SPDIF)
- ✓ MPEG-II Digital & Fully DVB Compliant
- ✓ Software & Service channel Database upgrade via USB & RS-232C port
- ✓ 2 Conax Card Readers and 2 Common Interface Slots
- ✓ 1W Stand-by Power Consumption

> *NOTE: (*) This feature (Multi-picture Display) will be supported later, by new s/w version by upgrading.   Please refer to your local dealer / distributor.*

2. Accessories

User's Manual	Remote Control

Button cell 3V CR 2025	HDMI Cable

Loop through Cable

NOTE: If any accessories listed above are missing, contact the sales representative where you purchased this unit.

Hardware Description

1. Front Panel Configuration
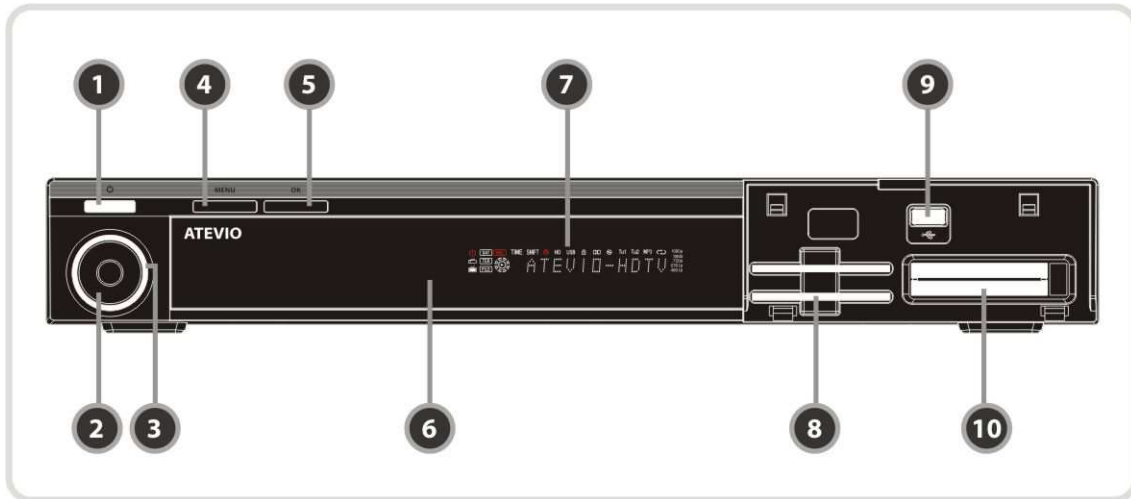
1. ***POWER BUTTON & LED*:** Press to switch between STANDBY and POWER ON modes**.**

2. ***Navigation Button*:**
    Up/Down button (CH Up/Down): Press to change services in normal mode, or to move highlighted-bar in menu mode.
    Left/Right button (Vol Up/Down): Press to change audio volume in normal mode or to navigate menu in menu mode.

3. ***LED indication*:** The LED lights on in running mode.

4. ***MENU Button*:** Press to display the main menu or to move to the previous menu.

5. ***OK Button*:** Press to display the service list in non-menu mode and to select an item or confirm the selection in menu mode.

6. ***Remote Sensor*:** Receives signal from remote controller.

7. ***VFD Display*:** The VFD consists of 12-digit letter and various icons. These letters and icon display the current status of receiver such as service name, service information and so on.

8. ***CONAX SMARTCARD READER*:** Insert smartcard for encrypted service access.

9. ***USB (Front)*:** Use it when connecting to external USB storage device.

10. ***PCMCIA*:** To receive other pay-tv service you need a CA-Module(Viaccess, Irdeto, Nagravison, etc.) and a smartcard from the service provider.

2. VFD (Vacuum Fluorescent Display)
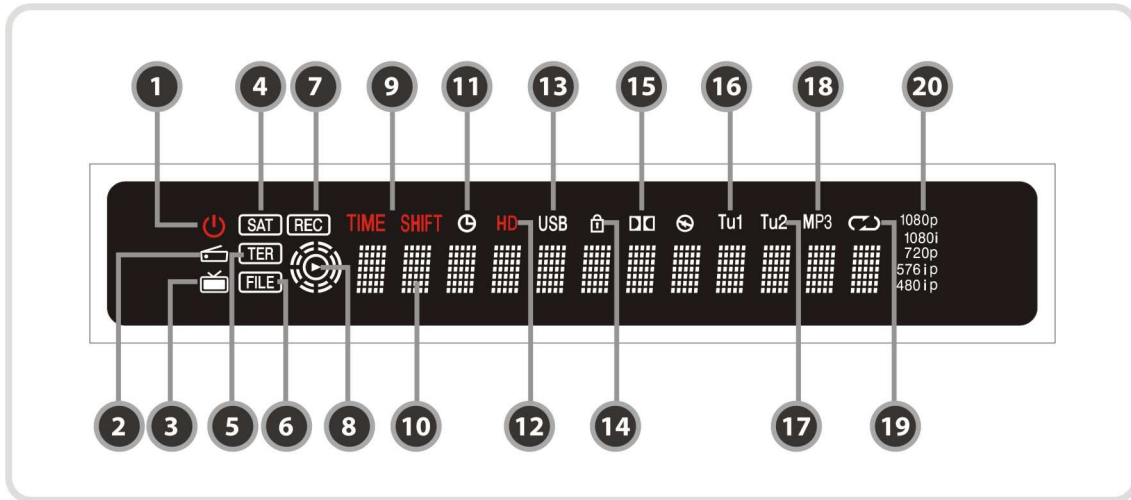
1. **Remote Indication LED:** The LED lights on when a key on the Remote Controller is pressed.

2. **Radio icon:** The icon lights on when it is change the radio service.

3. **TV icon:** The icon lights on when it is change the TV service.

4. **SAT:** Satellite mode.

5. **TER (Option):** Terrestrial mode.

6. **FILE:** Turn on when file list is displayed in the SATA HDD or USB Storage Device.

7. **REC:** Turned on during recording.

8. **PLAY Mode:** Turn on when you play the file on file list. (SATA HDD, USB Storage Device)

9. **TIME SHIFT:** Turned on during Time-shift.

10. **Information:** Display information including service name and other information.

11. **TIMER:** Turned on during timer is set.

12. **HD:** Turned on during HD service.

13. **USB:** Turned on during USB device working.

14. **LOCK:** Turned on during lock service.

15. **Dolby:** Turned on during Dolby service.

16. **Tu1:** Turned on during used Tuner1

17. **Tu2:** Turned on during used Tuner2

18. **MP3:** Turned on during MP3 listen.

19. **Repetition (*):** Turned on during recording repeatedly.

20. **Resolution:** Turned on and indicating current Resolution setting.

NOTE: (*) This icon (Repetition) will be supported later, by new s/w version by upgrading. Please refer to your local dealer / distributor.

3. Rear Panel Configuration
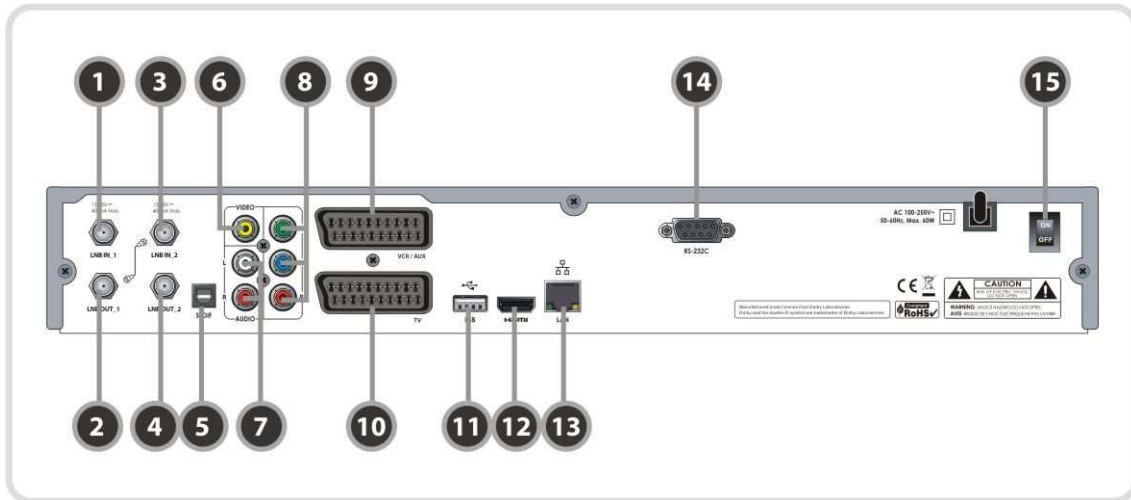
1. **LNB IN_1:**
    Satellite broadcasting signal input socket for the first tuner. Connects a satellite antenna LNB cable.

2. **LNB OUT_1:**
    Satellite broadcasting signal output socket through the first tuner. Connects to a second tuner for loop-through.

3. **LNB IN_2:**
    Satellite broadcasting signal input socket for the second tuner. Connects a satellite antenna cable or from the first tuner LNB OUT_1 connector.

4. **LNB OUT_2:**
    Satellite broadcasting signal output socket through the second tuner. Connects to another STB for loop-through.

5. **SPDIF:** Connects to the audio system using a S/PDIF cable. (digital audio)

6. **VIDEO:** Connects to the TV or VCR using a RCA cable. (Composite video output / Yellow)

7. **AUDIO L/R:** Connects to the TV or VCR using a RCA cable. (Stereo audio output / White, Red)

8. **Component:** Connects to the TV or VCR using a component cable. (YPbPr)

9. **VCR SCART:** Connects to the VCR or DVD using a VCR SCART cable.

10. **TV SCART:** Connects to the TV input using a TV SCART cable.

11. **USB:** Use it when connecting to external USB storage device.

12. **HDMI:** Connects to the TV by using a HDMI cable for the best quality picture and audio.

13. **Ethernet:** Local area network port for direct computer connection.

14. **RS-232C:** Serial port for firmware update and data transfer.

15. **A/C Switch:** Power switch

4. Remote Control Unit
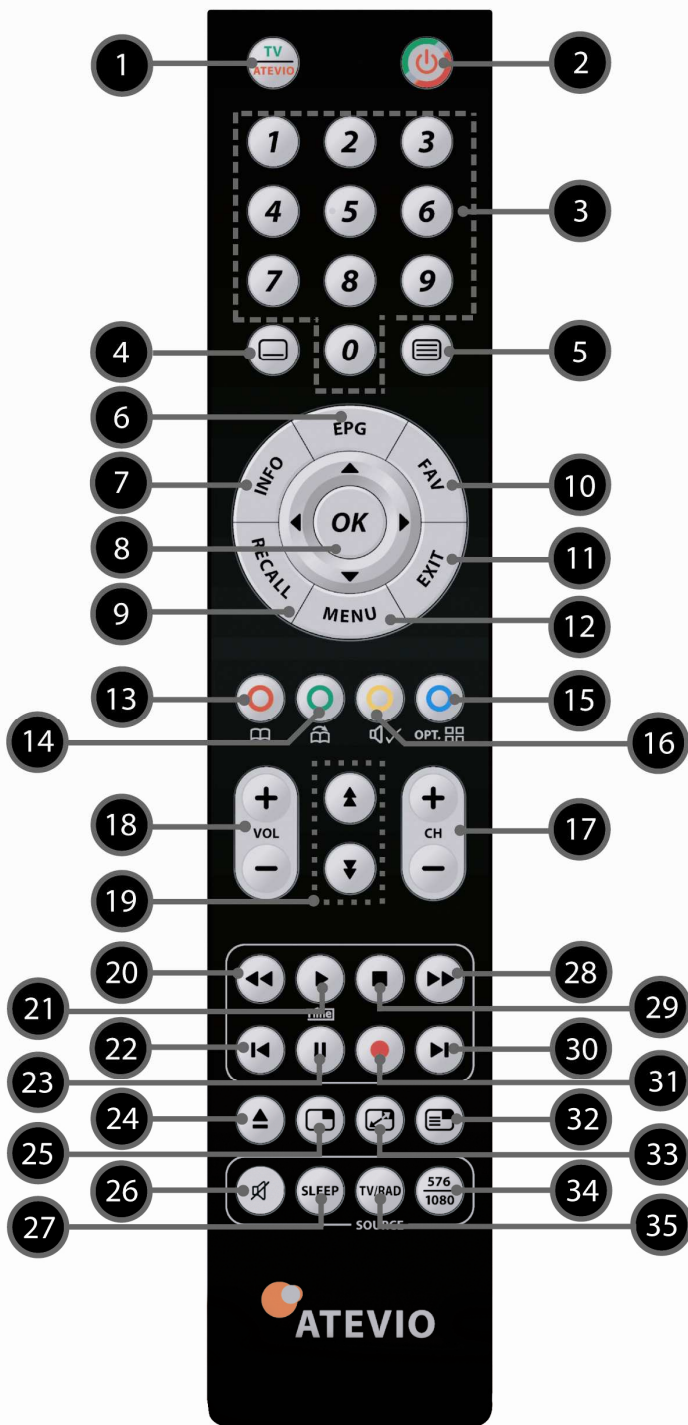
1. **TV/ATEVIO:** You can switch to TV-Function or Atevio-Function.

2. **POWER:** Turns the STB On/Off.

3. **Numeric:** Controls the numerical operation and service numbers directly.

4. **Subtitle:** To show multilingual subtitle.

5. **Teletext:** To show the digital teletext.

6. **EPG (Electronic Program Guide):** Show the TV/Radio program guide.

7. **Information:** Shows the information box of the current program. If you press one more time, a detail information box will be shown.

8. **OK or Service List:** Show the service list in non-menu mode and select an item or confirm in menu mode.

9. **Recall:** Moves to previous service.

10. **Favorite:** To display the satellites programmed into the receiver and the favorite groups.

11. **EXIT:** Exit from the menu or pop-up window.

12. **Menu:** To enter the main menu or to move to the previous menu.

13. **RED:** Used for special function in menu. **RED** key is used to sort lists in service list or go to previous day search in EPG or make/delete the current position as a bookmark.

14. **GREEN:** Used for special function in menu. **GREEN** key is used to set favorites setting in service list or go to the next bookmark position.

15. **BLUE:** Used for special function in menu. **BLUE** key is used to set service list option in service list or display **Multi-Picture.(*)**.

NOTE: (*) This Feature (Multi-Picture) will be supported later, by new s/w version by upgrading. Please refer to your local dealer / distributor.

16. **YELLOW:** Used for special function in menu. **YELLOW** key is used to find service in service list or change the audio track. If this button is pressed for more than two seconds, the **Repetition (*)** function

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gets activated. This function is used to play back a recording repeatedly.

17. ***Channel Up & Down:*** To change the TV or Radio service channel.

18. ***Volume Up & Down:*** To change the Volume. If the volume down key is pressed longer than 2 seconds the sound turns off.

19. ***Page Up& Down:*** Move to the next or previous page if more than one page is available. This button also is change the location of sub picture in PIP.

20. ***Rewind:*** Rewinds at high speed. Each time you press this button the rewind speed is increased.

21. ***Play / Timeshift:*** Display the progress bar of playback when no progress bar is displayed. Start playback with normal speed. Return to normal speed from trick mode.

22. ***Previous File:*** To play the previous MP3 file in MP3 play mode. This button is also used to jump back to beginning of recording during a playback.

23. ***Pause:*** This key is used to pause the video. Press once more to resume the video.

24. ***Play List:*** To show the file list in the SATA HDD or USB Storage Device.

25. ***PIP (Picture in Picture):*** To open the PIP window.

26. ***Mute Button:*** Pressing the Mute Button mutes the Volume. Pressing it again brings back the audio.

27. ***Sleep:*** To adjust sleep timer.

28. ***Fast Forward:*** Fasts forward at high speed. Each time you press this button the speed is increased.

29. ***STOP:*** To stop time shifting, play back or recording.

30. ***Next File:*** To play the next file. This button is also used to jump to end of recording during a playback.

31. ***Recording:*** To start Recording.

32. ***PIP (Picture in Picture) Service List:*** To shown the sub-picture service list.

33. ***PIP Swap:*** Switching between main-picture and sub-picture.

34. ***576/1080:*** To select the resolution format. Each time you press the **576/1080** button, the resolution changes in the following sequence: ***576i > 576p > 720p > 1080i***.

35. ***TV/RADIO:*** Switches between TV and Radio.

> ***NOTE: (*) This button (Repetition) will be supported later, by new s/w version by upgrading. Please refer to your local dealer / distributor.***

5. Multi-Brand IR Remote Controller Setting

NOTE: When there is no entry during about 10 seconds from set mode, set mode is cancelled.

1. TV programming (code according to code table)

- Press the key (TV/atevio) on the remote (at least 3 seconds) till the LED flashes 2x.
- According to your TV-equipment (mark) select the appropriate code with 3 digits from the code set (e.g.: Sony) and enter these. The LED flashes for 2x to confirm the code.
- If an invalid code with 3 digits was entered, the LED glows for 3 seconds (error announcement), and the remote is restored into the default mode.
- If your television should not react and/or if it does not react correctly, repeat programming and enter the next code with 3 digits from the list
- If none of the indicated codes steers your television, use the automatic search with the CODE 001.

2. Brand Code Search (code according to brand table)

- Switch on your TV.
- Press the key (TV/atevio) on the remote (at least 3 seconds) till the LED flashes 2x.
- Enter the code 0 0 3. The LED flashes 2x to confirm the entry.
- Enter the 3 digits code the brandlist. The LED flashes 2x, to confirm the entry.
- Press the "ON/OFF" key until the TV switches off.
- Release the key immediately and afterwards press the "OK" key to store the found TV code. (the LED glows every 1.5 seconds as long as the search is activated)
- When a code with 3 digits is not recognized the LED glows for 3 seconds and the remote is restored into the default mode. (Error announcement)
- If your TV switches off and you could not confirm the code, switch on the TV manually and start the brand search from its beginning.
- If your TV label (brand) is not in the code list (the remote flashes 5x at the end of the list), use the automatic search with the CODE 001.

3. Auto Code Search

- Press the key (TV/atevio) on the remote (at least 3 seconds) till the LED flashes 2x.
- Enter the code 0 0 1. The LED flashes 2x to confirm the entry.
- Press the "ON/OFF" key until the TV switches off.
- Release the key immediately and afterwards press the "OK" key to store the found TV code. (This can take up to 15 minutes)
- The LED glows every 1.5 seconds as long as the search is activated
- If the "ON/OFF" key is not released in time with switching off the TV, the TV has to be restarted manually. With the cursor down you can access the last 5 codes. With cursor UP you return to the search. As soon as the correct code is found, the code must be confirmed with the OK key.
- In order to interrupt the search mode, the "EXIT" key must be pressed for 2 seconds.
- At the end of the search mode, the remote returns to its original status.
- The remote flashes 5x at the end of the list.

4. *Code read-out (query-mode)*

To read-out an already programmed remote (code).

- Press the key (TV/atevio) on the remote (at least 3 seconds) till the LED flashes 2x.
- Enter the code 0 0 2. The LED flashes 2x to confirm the entry.
- In order to look for the first digit of the programmed code, the key "1" has to be pressed → the LED begins to flash. E.g. with a code of 356, the LED flashes 3x.
- To look for the second digit of the programmed code, the key "2" has to be pressed → the LED begins to flash. E.g. with a code of 356, the LED flashes 5x.
- To look for the third digit of the programmed code, the key "3" has to be pressed → the LED begins to flash. E.g. with a code of 356, the LED flashes 6x.
- There is no glow for 0.
- If during the programming for the duration of 5 seconds no key is pressed, the remote returns automatically to the default mode.

5. *Code read-out (query-mode)*

- Press the key (TV/atevio) on the remote (at least 3 seconds) till the LED flashes 2x.
- Enter the code 0 0 0.
- The LED flashes 2x to confirm the entry - the remote is restored into the default mode, STB (atevio) is active.
- TV mode without function (no code programmed).

Connections Diagram

1. Receiver to TV with Digital A/V Output

- Connect the satellite antenna cable to LNB IN.
- Connect the HDMI Cable to the HDMI Connector of the TV.
- Connect SPDIF to Digital audio input of the equipment(Digital Audio)
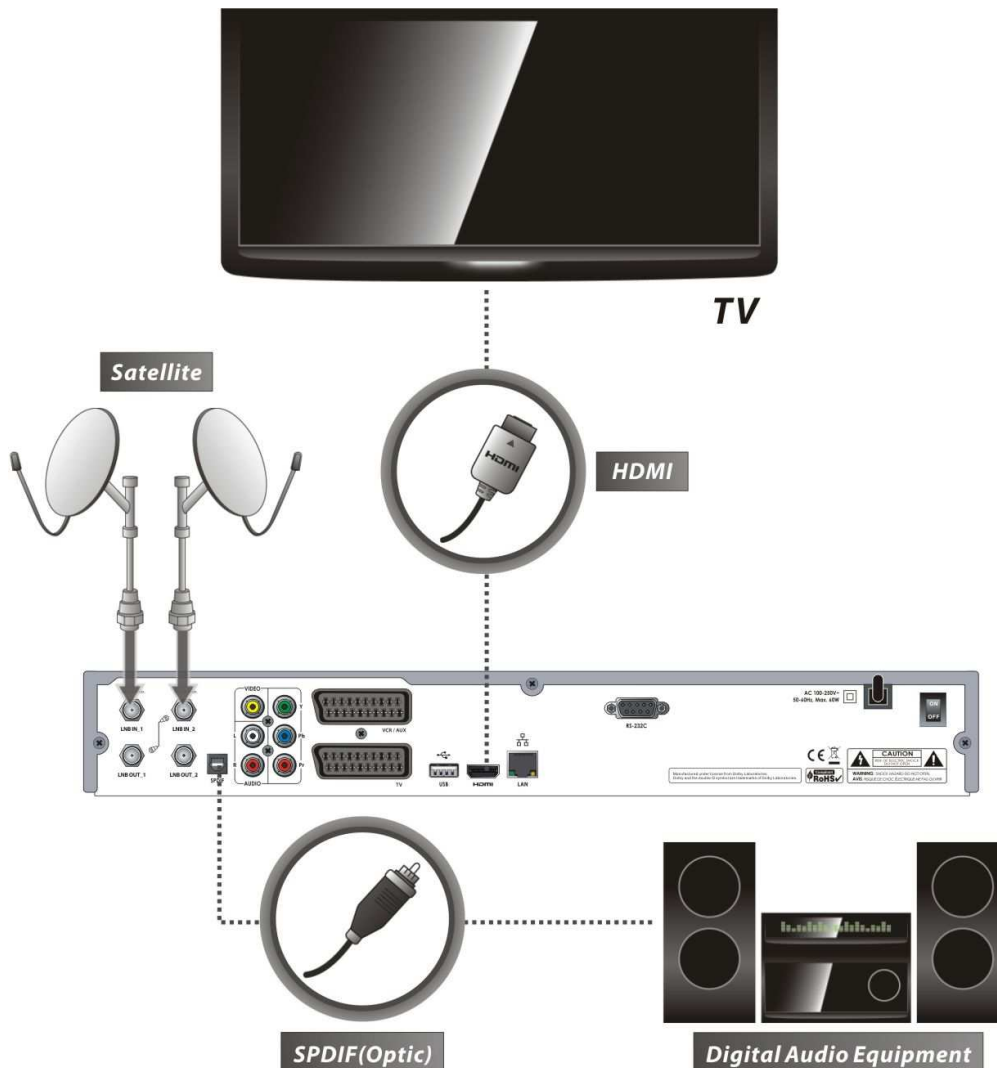
NOTE: Depending on the A/V equipment you own, there are various ways you can connect the STB. To choose the best connection option, please refer to the manual of the equipment you would like to connect to. To get High Definition playback of High Definition content, we recommend that you connect your high definition display with a HDMI cable. HDMI supports standard, enhanced or high-definition video and multichannel audio in a single cable.

2. Receiver to TV With Analog A/V Output

- Connect the satellite antenna cable to LNB IN.
- Connect the TV SCART to the SCART input of the TV.
- Connect the VCR SCART to the SCART input of the VCR.
- Connect the Component to the Component input of the TV.
- Connect the RCA to the RCA input of the TV.
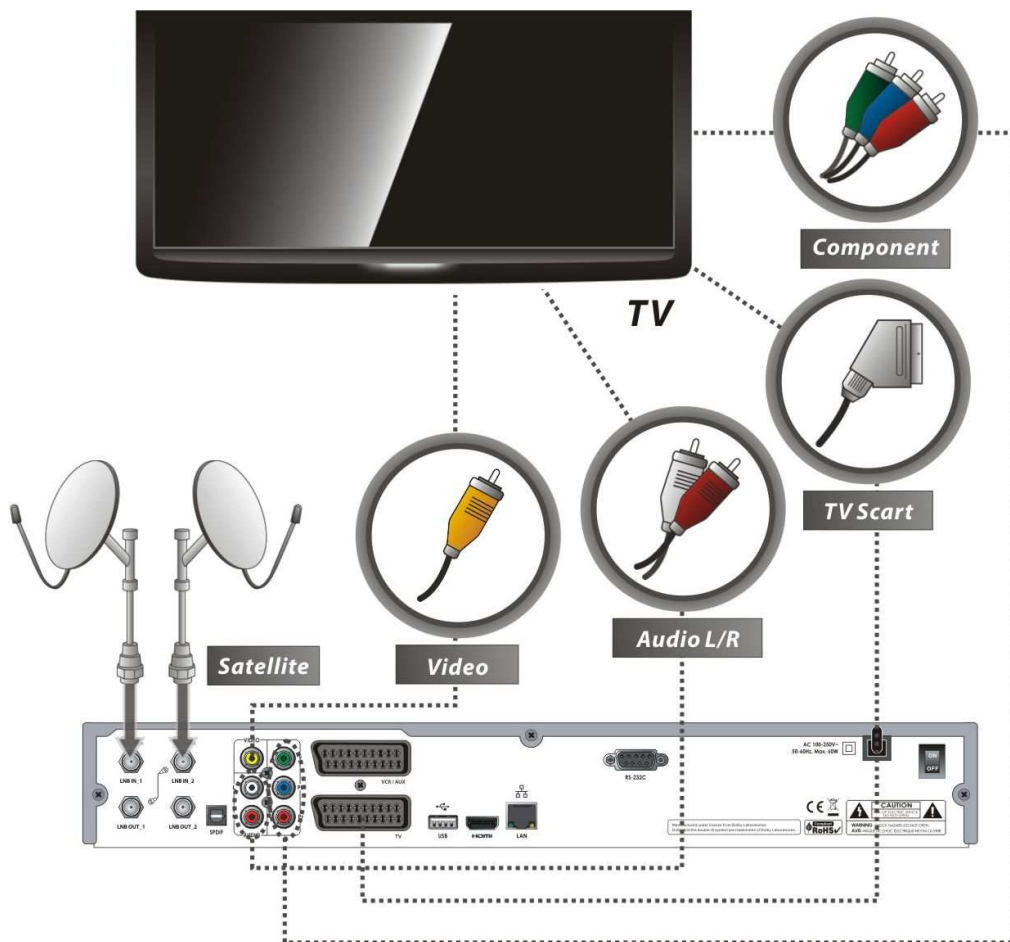
NOTE: The component connection (YPbPr) is recommended for Digital TV.
The SCART cable connection is recommended for analogue TV or VCR.
The composite connection (RCA cable) is recommended for analogue TV.
You cannot view high definition video with the SCART and the composite video connector.

3. Receiver to TV and VCR

- Connect the satellite antenna cable to LNB IN.
- Connect the TV SCART to the SCART input of the TV.
- Connect the VCR SCART to the SCART input of the VCR.
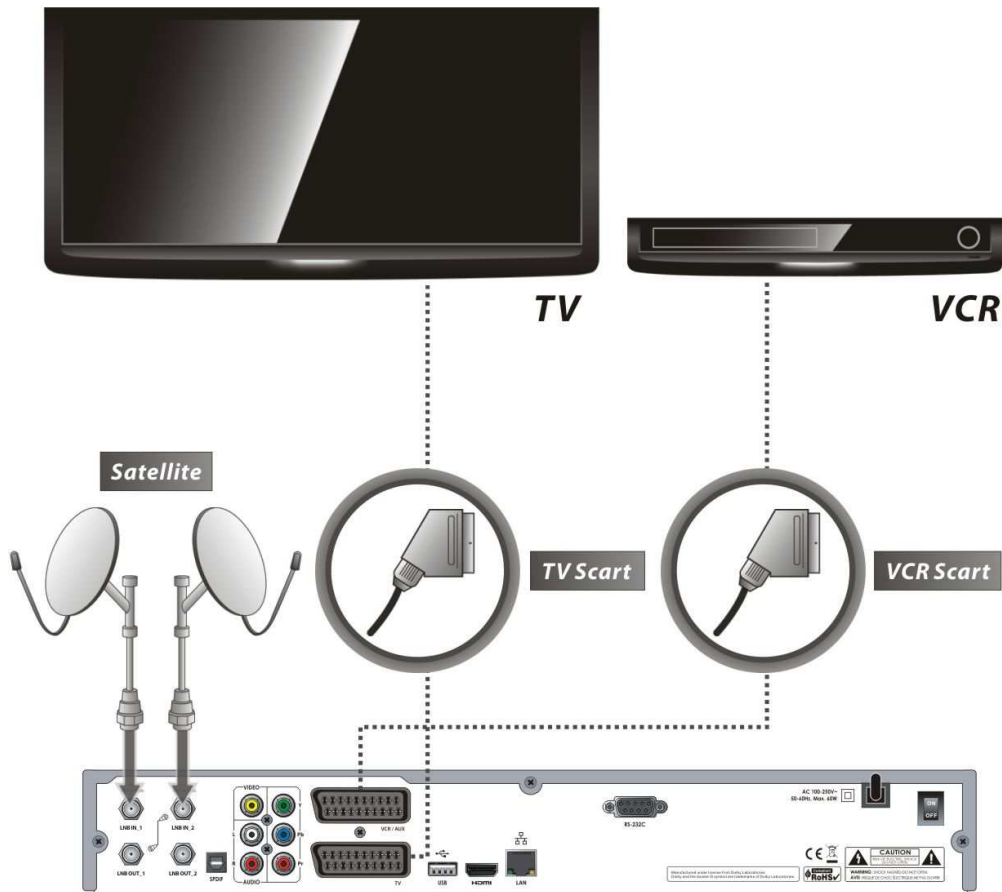
4. Connecting to Dish

4.1   Connecting one dish to both tuners by Loop through

4.2 Connecting each Dish to each Tuner

4.3 Connecting Antenna cable to each Tuner using DiSEqC SW (Recommend)
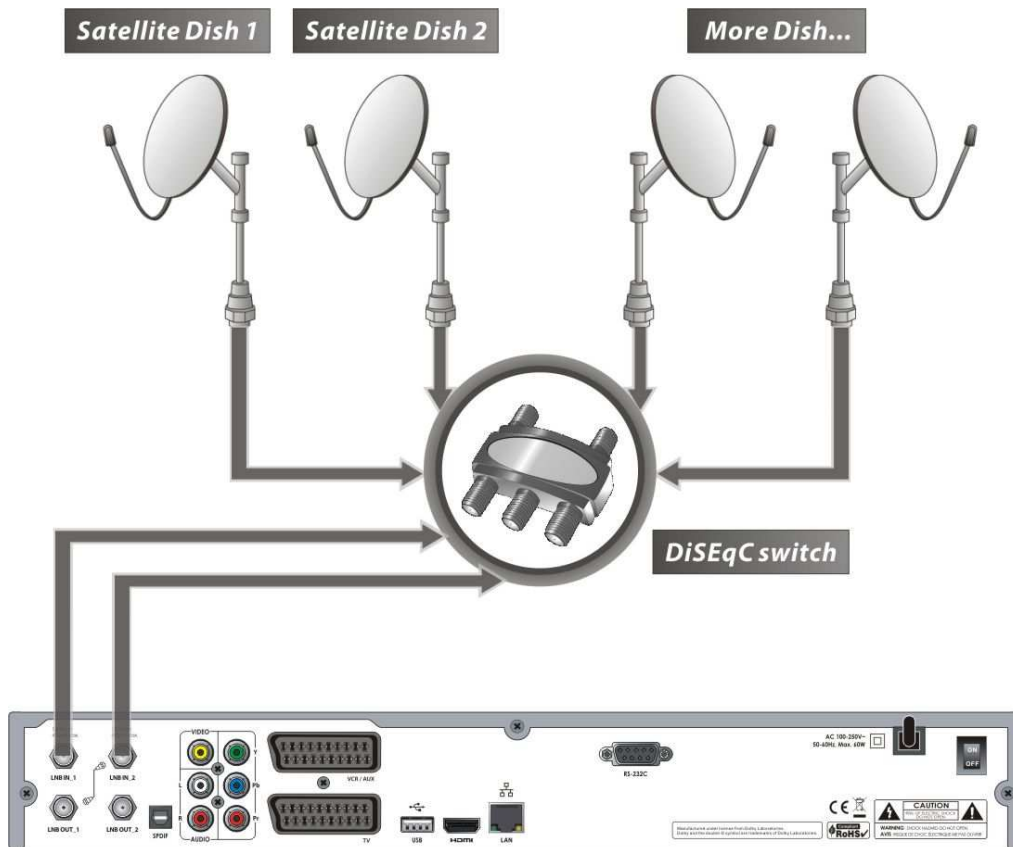
Guide of Functions

1. Selecting a Service

To select the desired service (channel), please refer to the instructions below.

1.1 Using CH UP/DOWN buttons

You can navigate between services by pressing **CH UP/DOWN** buttons. Whenever you press the **CH UP(DOWN)** button, current service will be changed to next/previous service. Please press **CH UP** or **CH DOWN** button until you fine the service you want to watch.

1.2 Using Service List

To select the desired service in the service list, you should firstly display the service list by pressing the **OK** button.

Use the **ARROW** buttons to select a desired service and press the **OK** button.

You can see that the service is changed in the small screen on the top-right.

To watch that service, press the **OK** button once more.

To watch the previous service, press the **EXIT** button.

In the Service List window, you can also select additional functions with the **COLOR** buttons.

Press the **RED** button, and you can sort the services by the Alphabet, Transponder(TP), Group, Tuner and CAS (Conditional Access System).

Press the **GREEN** button, and you can add the services to one of 10 Favorite List.

Press the **YELLOW** button, and you can search & find the service via a virtual keyboard.

Press the **BLUE** button, and you can adjust service list option.

> *NOTE: If you connect the tuner with a loop-through, you cannot use the sort list option.*
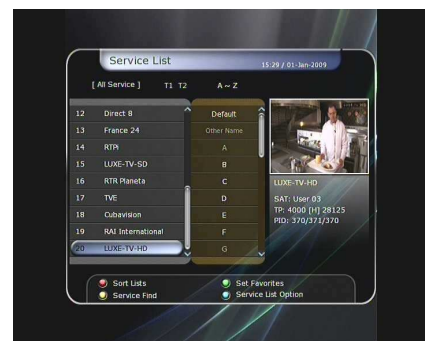
1.3 Using Instant Service List

- If you press **NUMERIC** buttons or **UP/DOWN ARROW** button, instant service list will be displayed.
- Select the desired service by using the **ARROW** button, and press **OK** button to watch.
- You can also enter the service number directly by using the **NUMERIC** button.

1.4 Using Recent Service List

- To return to the previous service that you were watching, press **RECALL** button for a short time.
- To display recent service list, press the **RECALL** button for a little bit longer time.
- To chose the service from the recent service list, use the **ARROW** buttons to select, then press the **OK** button.
- Press **EXIT** button to exit from the recent service list.

2. Information Window

If you want to view the information of the current service that you are watching, press **INFO** button. Then the Information window will be displayed.

This Information window is automatically displayed when changing between the services.   This window contains much useful information such as service number, service name, scrambled types of service, teletext, subtitle, Audio indication for Dolby Digital, Time duration of the service and so on.

By pressing **INFO** button once again, you can get more detailed information about the service.
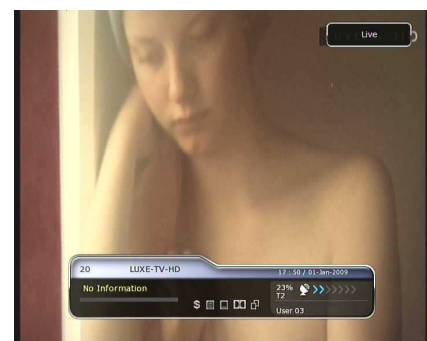
3. Multi-Picture Display. (*)

Press the **BLUE** button to display multiple pictures and use the **RED** button to select the display options for 9 or 12 multiple pictures.

> *NOTE: (*) This feature will be supported later, by new s/w version by upgrading. Please refer to your local dealer / distributor.*

4. Electronic Program Guide (EPG)

Electronic Program Guide (EPG) allows you to see program schedule and program information from the service which includes this data as part of their transmission. Multiple services will be shown with a time line of programming events. The EPG supplies additional information of channel service, such as program listings, start/end times and detailed information about the program listings for all available services.

The availability and details of information of these program details can be varied, depending on the particular broadcasters, individual services.

- Press the **EPG** button, then the EPG menu will be displayed.
- Use the **ARROW** buttons to move to other services or to see previous/next guide.
- Press the **EPG** button once to view full EPG with multi service list, and press it twice to view the additional EPG information of a specific channel service. Keep pressing the EPG button to toggle between the full and detailed menus of EPG.
- Press the **GREEN** button to view next day EPG and the **RED** button to view EPG for a previous day.
- Select the program by using the **ARROW** buttons then set the event timer by pressing **OK**.
- You can schedule a recording with the EPG menu as follows.
  - Press **RECORD** button to schedule the event. This schedule can be checked in the menu of Timer Settings, in the System tool menu.
  - To cancel the schedule of the recording, press the **OK** button for the appointed event.
  - To edit the schedule of the recording, press the **RECORD** button for the appointed event.

5. Favorite Group

Select the **FAV** (Favorite) to view all favorite ten groups such as sports, movie, drama, satellite group and so on. Scroll through the various favorite group using the **ARROW** buttons, and select the desired favorite group by pressing **OK**.

6. Volume Control

- To adjust the audio volume, press the **VOL UP/ DOWN** buttons.
- Audio volume control bar will be displayed at the top of the screen and disappear after 4 seconds.
- When necessary, press the **MUTE** button to turn on/off the audio sound.

   NOTE: The mute function remains set while you change services.

7. Pause

The **PAUSE** button is used to freeze the video. Press **PAUSE** button once more to resume the video.

8. Subtitle

You can select the language for a Subtitle, if the program provides subtitle information.

- Press the **SUBTITLE** button on your remote control unit.
- Select the desired subtitle language then press **OK** button.

- The subtitle will be displayed in the selected language at the bottom of the screen.
- To turn OFF the subtitle from the screen, Select *'Off'* from the subtitle language list.

NOTE: When program does not provide subtitle information, SUBTITLE button is not active.

9. Audio Track

User can select the audio language list by pressing the **AUDIO (YELLOW)** button. Use the **ARROW** buttons to choose the preferred audio track from the list, then press **OK** to change. Multiple use of the **YELLOW** button toggles between additional menus

10. Teletext

When the *TELETEXT icon* on INFO Banner is appeared (Activated), Press the **TELETEXT** button to view the teletext information.

11. PIP (Picture in Picture)

- When you press the **PIP** button, a sub picture screen will appear on the main screen view.
  If you press the **PIP** button one more time, the primary picture and the sub picture will appear together side-by-side with the same size. The picture of the left side is the primary and the picture on the right side is sub. If you press the **PIP** button one more time, the sub picture will disappear.

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● In the PIP mode, you can change primary and sub with the **PIP SWAP** button.

● If you press the **PAGE UP/DOWN** button, the location of the sub picture is changed.
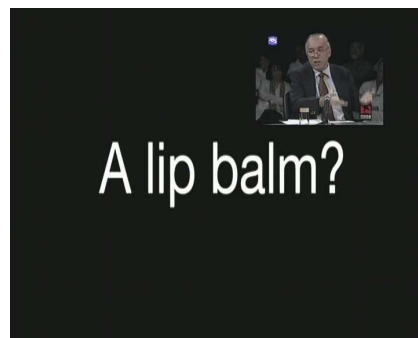
● If you press the **PIP SERVICE LIST** button, you can see the list of services of sub picture.
You can change the service of the sub picture from the service list shown.

> *NOTE: Changing services of sub the picture could be limited by the condition of the tuner connection or an ongoing recording event.*

PVR (Personal Video Recorder) Function

1. Recording

You can select a recording storage device with the following sequence:
Menu > Configuration > Recording Option > Record Device.
Default is set to '*Hard Disk'*.

1.1 Recording methods

There are 3 type recording methods.
(Instant Recording / Time Scheduled Recording / Event Scheduled Recording).

● **Instant Recording:**

At anytime, you may press the **RECORD** button to start your recording instantly.

● **Time Scheduled Recording:**
- In Timer Settings menu, you may set the time & program to record your desired service program.
  (Main Menu > System Tools > Timer Settings)

- Press the **GREEN** button to activate the new timer edit screen.

- In the Timer Edit screen, you may choose start date/time, duration, service, mode, type (Recording/Play), Tuner (Auto/1/2) then simply press the Yes button to schedule your recording event.   Please note that the minimum offset time of 3 minutes is required from the Start time & current time for appropriate recording process to take place.

● **Event Scheduled Recording via EPG:**

In the EPG menu screen, you can choose the event you wish to
schedule or record.

- While watching the LIVE TV screen, press the **EPG** button to
  access the EPG menu screen.

- Go to the event which you wish to view at the time indicated
  on the EPG schedule, then press **OK**. The event will be
  scheduled with the *BLUE play icon*. This BLUE play icon
  means that you want to just watch the event at the scheduled
  time.

- Press the **OK** button one more time, then the event will be
  scheduled with the *RED dot icon*. This RED dot icon means
  that you want to record the event at the scheduled time.

- When you set an event for scheduled recording via the EPG
  menu. It automatically sets a Timer Event in the *Main
  Menu > System Tools > Timer Settings.*

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1.2 Recording Edit

Press the **REC** button while recording to see the recording message window.

- **Pause:** Select **Pause Recording** then press **OK** to pause the current recording process.
- **Duration:** Set recording duration. Press **LEFT/RIGHT ARROW** button to change recording duration.
- **Stop Position:**
  Set the finishing time of recording.
  - **End of current event:** finish recording at the end of current event
  - **End of next event:** finish recording at the end of next event.
  - **Not Available:** EPG is not available.

- **Record Slot:** When you are recording 2 services, you can set Primary / Secondary with **Left/Right ARROW** button.   Press **OK** button to go to the recording service.
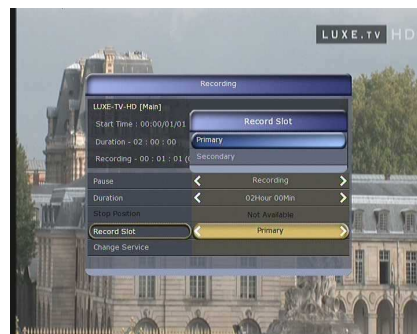
1.3 Long Time recording

During lengthy time recording processes of 4GB(Giga Byte) or more, additional files may be created per every 4GB. (For example; aaa.ts, aaa.ts1, aaa.ts2… and so on).
You must remember not to erase any of duplicated file. These files are only able to be viewed with your PC not with the receiver (STB).

1.4 Pause during recording

- When the **PAUSE** button is pressed during recording, only the live video is paused, but recording is continued at the selected recording device.
  (Menu > Configuration > Recording Option > Record Device)

- Press **PAUSE** button once again and event will resume from the pause time.

● During recording, press the **PLAY/TIMESHIFT** button to show the Play bar screen.

● While the Play bar is shown on your screen, you may use the **LEFT/RIGHT ARROW** button to move (forward & backward) freely within recorded time.

● If you press the **STOP** button, it will go to LIVE and you may press **PREV FILE** button to view the recorded file from the beginning.

● When recording 2 services at the same time, Press the **STOP** button to see a message window of current recording status / information.
If you select one of the 2 recordings and press the **OK** button, that recording service will be stopped.
If you press the **STOP** button during recording 1 service, the recording will be stopped.
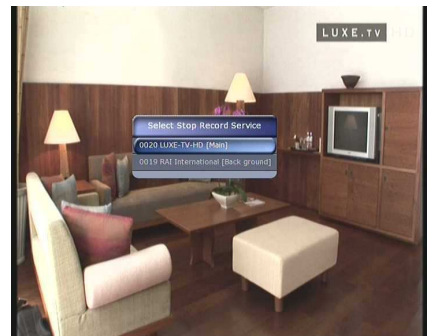
   NOTE: Dual Recording
   STB can record up to two different services simultaneously. Time shifting is also a recording, so Time shifting will be possible on one of the two recordings during dual recording.

2. Time Shifting

You can select a storage device for a temporary file of the Time shifting with the following sequence:
Menu > Configuration > Recording Option > TimeShift Device.
Default storage device is set to '*Hard Disk (SATA)'*

- If pressing the **PAUSE** button during Time shift, the live video is paused but the temporary recording for time shift is continued at the selected storage device.
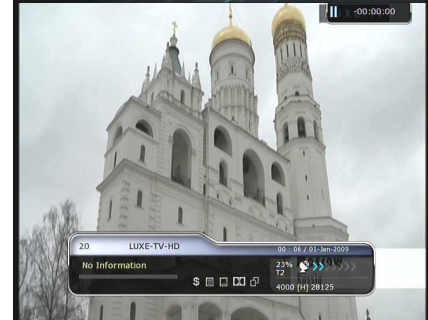
- Press the **PAUSE** button once again, then the event will resume from the paused time.
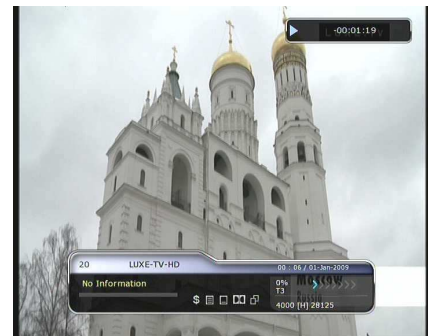
- While watching live TV, press the **PLAY/TIMESHIFT** button to show the play bar on your screen.
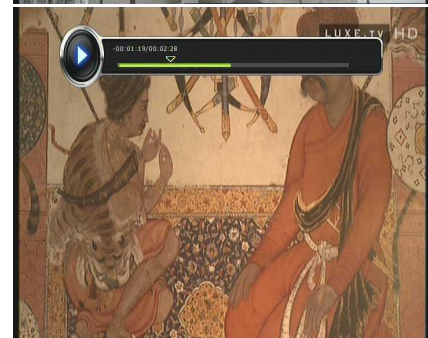
- When the play bar is displayed on your screen, you may use the **LEFT/RIGHT ARROW** buttons to move freely through the recorded times bar.

- If you press the **STOP** button while time-shifting, the screen will be turned to a live TV channel. You can also use **PREV FILE** button to move to a start location of the Time-shifted file.

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3. Playback (Play List)

You can playback many files with the Playlist which you access by the **PLAYLIST** button.
In the Playlist, you can check and playback recorded files, multimedia movie files, MP3 music files, and image files. With the **LEFT/RIGHT ARROW** button, go to the Recorded Files, Imported Files, Music and Photo category and check & for playback files in each category. Press the **RIGHT ARROW** button once to go to Imported Files, press the **RIGHT ARROW** button one more time to go to the Music menu and press the **RIGHT ARROW** button one more time to go to the Photo menu.

3.1 Recorded Files

- To enter Recorded Files menu, press the **PLAY LIST** button.
- Locate the recorded file(s) you wish to play with the **UP/DOWN** button and press the **OK** button to playback the recorded file(s).
- To choose a particular selection of files, select a desired file and press the **RED** button. Press the **OK** button to begin the selected files.

- **Select Device :** Press **PLAYLIST** button one more time in the Playlist mode to see "Select Device" window, and select the device which has the file you want to play.

    NOTE: "Select Device" window shows devices which are currently connected to the STB.

- **Sorting:** If you press the **YELLOW** button, you can sort the files by Time / Name / Size.

- **File Option:** If you press the **BLUE** button, you can delete or move files, make a folder, rename in File Option. You can select multiple files together and delete or move all of them at once.

3.2 Imported Files

- If you press **RIGHT ARROW** button in Recorded Files, you can go to Imported File menu.
- Locate the file(s) you wish to play with the **UP/DOWN** button and press the **OK** button to enjoy the movie.
- To choose a particular selection of files, select a desired file and press the **RED** button. Press the **OK** button to begin the selected files.
- You can use the same 'Select Device', 'Sorting' and 'File Option' features as in the Recorded Files.
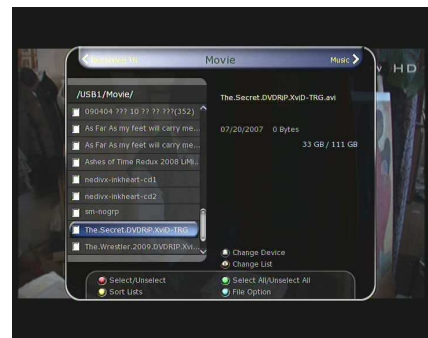
3.3 Music

- If you press the **RIGHT ARROW** button in Imported Files, you can go to Music menu.
- If you press the **RECALL** button, you can enjoy music with Shuffle playback and repeat.
- You can use the same 'Select Device', 'Sorting' and 'File Option' features as in the Recorded Files.

3.4 Photo

- If you press the **RIGHT ARROW** button in Music, you can go to the Image Photo menu.
- If you press the **RED** button or **OK** button, you can start the slide show of image files. Press the **EXIT** button to stop slide show.
- If you press the **GREEN** button, you can adjust the Slide Time, Repetition, Title, Down-scale.
- You can use the same 'Select Device', 'Sorting' and 'File Option' features as in the Recorded Files.

4. Bookmark

- When the Play bar is displayed, you may move to desired time and book mark it by pressing the **RED** button.   Bookmark(s) are indicated with a Green line on the play bar. Also, you may press the **RED** button to activate the play bar to mark your bookmark(s).
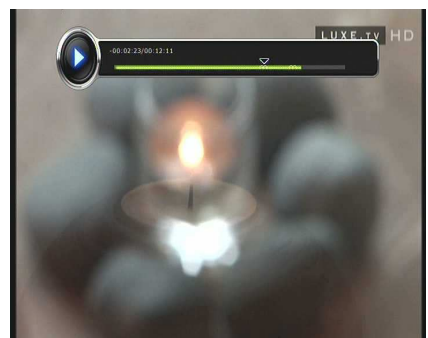
● When the play bar is on, user can move / jump between the bookmarks by pressing the **GREEN** button.
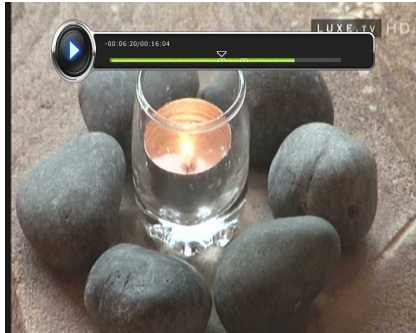
● If you wish to delete any Bookmarks, go to that bookmark by pressing the **GREEN** button, then press the **RED** button to delete the current bookmarks.
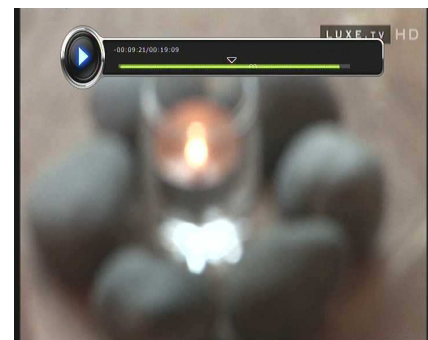
5. Trick mode

● The user can change the speed of a fast forward play with **FF** (Fast Forward) button.   Press **FF** button to change the speed to x2, x3, x4, and x5.   If you once again press **FF** button in its x5 mode, it returns to normal(x1) speed play.

● You can also change rewind speed with the **REWIND** button. Press **REWIND** button to change the speed to x2, x3, x4, and x5. If you press the **REWIND** button again in it is at the x5 mode, it returns to normal speed.

● You may press the **PAUSE** button at any time to pause a pre-recorded event. Press the **PAUSE** button once again to resume play of the recorded event.

Menu Map

Main Menu	
System Tools	1. Storage Manager 2. Timer Settings 3. Service List Manager 4. Data Transfer
Configuration	1. Recording Option 2. Parental Control 3. Display Setting 4. Time Setting 5. Language Setting 6. A/V Output Setting
Installation	1. Dish Setting 2. Positioner Setting 3. Service Search 4. Network Setting 5. System Recovery 6. System Information
Utilities	1. Calculator 2. Calendar 3. CAS

Main Menu of Guide

To display the menu, press the **MENU** button at any time. You can select the sub menus by using the **ARROW** buttons.

The selected sub menu becomes highlighted. After selecting (highlighting) the sub menu you want to access, press the **OK** button. If you want to return to the previous menu, press the **MENU** button. And if you want to exit from the menu, press the **EXIT** button.
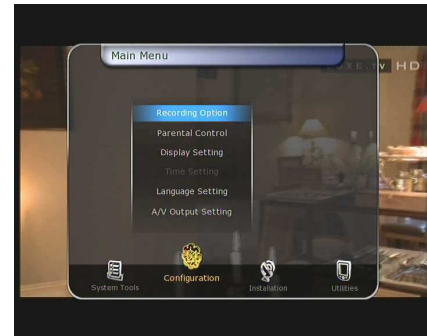
1. System Tools

1.1 Storage Manager

The items in this menu allow you to access and control the storage devices that you want.

- **Current Device:** Select the storage device you want to access with the **ARROW/OK** buttons.
- **Status:** You can see the information of current connected devices, such as *'Mounted', 'Not Available'*
- **File System:** It shows the file system of the current device. You can also select desired file system that you want when you format the device.

    NOTE: You must select FAT32 file system, if you want to access the USB storage devices in Windows

- **Total:** Displays total size of current device.
- **Free:** Displays free size of current device.
- **Format:** If you press the **OK** button to format current device, the device will be formatted with above file system.

    NOTE: When file system is 'Unknown', the device will be formatted with 'Journaled'.

- **Play List:** Press **OK** button to move to **'Play List'** menu directly.

1.2 Timer Settings

Insert a new timer entry or modify an existing timer entry.

- **To add new timer entry:** Press the **GREEN** button. Timer Edit window will popup. You can set the specific start date, time, duration and service for its reservation. And you can choose one of Timer Modes as '*Once*' or '*Daily*' or '*Weekly*'. You can choose timer operation type as '*Recording*' or just to '*Play*'.
    - If you choose '*Recording*', it will start recording at that time.
    - If you choose '*Play*', it will change and tune to the service that you wish to watch.
- **To modify existing timer entry:** Choose the timer entry which you wish to modify and press the **OK** button.
- **To delete an existing timer entry:** Choose the timer entry that you want to delete and press the **RED** button.

    NOTE: If you reserve one or more event through the EPG menu, the reserved event(s) will be added to Timer Settings automatically.

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1.3 Service List Manager

Service List Manager menu will appear when you press the **OK** button.
You can select Edit Mode by pressing the **YELLOW** button.

● **Lock Services:** All service lists will be shown on the left side of the window, the middle will show the list of service to be locked. By using the **ARROW** and **OK** buttons, you may move the chosen service to the middle window to lock that service. Services can also be moved back from the middle to the left side to un-lock them.

● **Move Services:** All service lists will be shown on left side of the window, services to be moved will be shown on the middle window. Move the service to the middle window by using the **ARROW** and **OK** buttons, then the middle window service will be moved to a specified location when the desired location is selected from the left window.
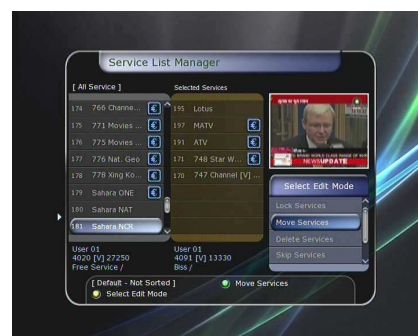
● **Delete Services:** All service lists will be shown on left side of the window. By using the **ARROW** and **OK** buttons you may select services to be deleted by placing them in the middle window. The press the **GREEN** button to delete the selected services.
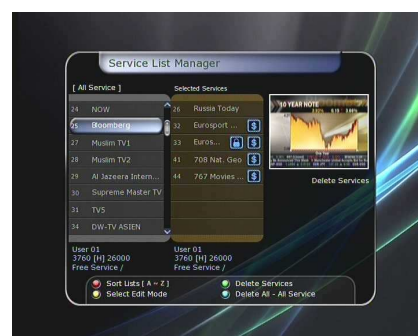
● **Skip Services:** All services will be shown on left side of the window, the middle window will only show the services that are chosen to be skipped. By using the **ARROW** and **OK** buttons you may move the selected services from the left to middle window to skip them.
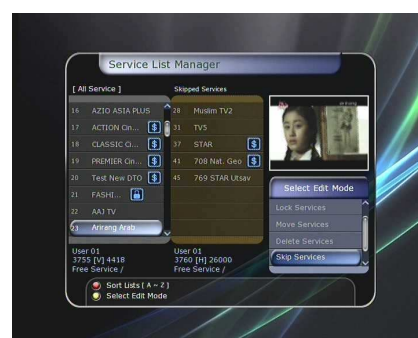
- **Set Favorite Services:** Use the **ARROW** and **OK** buttons to select your desired favorite group. Once, favorite group is chosen, the left side window will show all service lists and the middle window will only show the selected services of the favorite group selected. By using the **ARROW** and **OK** buttons, you may ADD the desired services to a favorite group or DELETE any from the favorite group. The name of the favorite group can be edited by pressing the **GREEN** button.

- **Edit Services:** All service names will be shown on the left side of the window. Move the highlighted bar to the service where you want to edit its name and press the **OK** button. Then you will see the virtual keyboard. Using the **ARROW** and **OK** buttons, you can edit the name of the service with the keyboard.
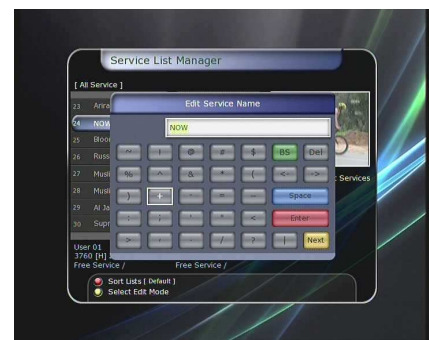
1.4 Data Transfer

When the data transfer task is in process, the Front USB slot is set to a default device slot.   But, if no USB device is connected on a front USB slot, then the Rear USB slot is set as a device to be used for the data transfer process.

NOTE: If no USB device is connected on either two (Front & Rear) USB slots, then a Menu item will not be available.

- **Transfer all System data to USB storage:** If you want to transfer and use BOTH of the current system parameters and service data in the future, this menu will allow you to store all data to your USB device. Press **OK** button to store all current data to an external USB storage.
- **Transfer Service data to USB storage:** If you want to transfer and use ONLY the service data in the future, this menu allows you to store current service data. Press the **OK** button to store the current service data to your external USB storage. The service data can also be viewed and edited on a PC with an appropriate editor (DrEdit) for the file saved.
- **Data download from USB storage device:** This menu allows you to download the saved data from the external USB storage to your STB. Press **OK** button to download data.

2. Configuration

2.1 Recording Option

- Confirmation message when 'stopping' your Recording process :
  - *Set 'On':* When you press the **STOP** button while recording, then a confirmation window is displayed.
  - *Set 'Off':* When you press the **STOP** button while recording, the STB will stop the recording process immediately / instantly with no extra confirmation message.
- **Extra Event Recording:**

  You can add an extra recording time(*1 Min/2 Min/3 Min/4 Min/5 Min/10 Min/15 Min/off*) to scheduled recording events.

  If you set an extra recording time by using the **ARROW** and **OK** buttons, the scheduled recording event will have a 'Start' and 'End' time of additional recording time added to the basic event. This option only works for real time events. But, when you schedule a service recording in the Timer Settings menu, this option has no affect.

- **Time-Shift:**

  You can adjust the time-shift in 30 minute intervals.

  (*30 Min/60 Min/90 Min/120 Min*)

  When selected, time shifting function works automatically up to the limit of time that you set, as long as the Time-Shift storage device has enough memory space. If you set this option to 'OFF' status, then the time shifting function never works.

- **Time-Shift Device:**

  You can select the Time-Shift Device you want, such as Hard Disk / USB1(Front) / USB2(Rear).

- **Record Device:**

  You can also set a Recording Device which you want to use, such as the Hard Disk / USB1(Front) / USB2(Rear). Recorded files are stored in the device you set.

2.2 Parental Control

User's access rights to a service and programs are controlled by a 4-digit secret code that is defined by the user. Whenever you attempt to access the parental control menu, a pop-up window will ask you to input a PIN code. (If necessary, you can change it.)

NOTE: The default PIN code is '0000'

- **Censorship:** Set the parental guidance rating of highlighted censorship classification. The parental level is given as an age-based number.
- **Change Pin code:** To change your PIN code, input the new PIN code using the **NUMERICAL** buttons. To verify the new PIN code, input the new PIN code again.
- **System:** Set the access rights to the System menu.
- **Installation:** Set the access rights to the Installation menu.
- **Configuration:** Set the access rights to the Configuration menu.
- **Edit Service:** Set the access rights to the Edit menu.

2.3 Display Setting

● **Info Box position:** Set a position of the information window.

● **Info Box Display Time:** Set the time duration of the information window being displayed on the screen after changing services.

● **Volume Bar Display Time:** Set the time duration of the volume bar being displayed on the screen after changing audio volumes.

● **EPG Time Range:** You can set the time range in hours which is displayed for a program in the EPG window.

● **Zapping Mode:** You can set the zapping mode as follows (zapping mode is when changing services).
   - *Black screen:* Display a black screen when changing between services.
   - *Freeze:* Display the last still picture when changing services.

● **Front Display Scroll:** You can set how the VFD Display Scrolls.
   - *On:* Continually scroll the service name, if the letters of the service name is over 12 characters.
   - *Off:* Scroll service name once, if the letters of the service name is over 12 characters.

● **Front LED Lighting Time:** You can adjust the lighting time of the front LED.

● **Front LED Brightness:** You can adjust brightness of the front LED with 4 steps. By setting '*off*' this option, will turn off the front LED lighting.

2.4 Time Setting

● **Time Setting:** To set the current time, you can use two modes; *Auto* or *Manual*.
   - *Auto Time Setting*
      Local Offset: Enter the offset value by using the standardized information of current service area.
      Daylight Saving: If you want to apply daylight saving, select the counter by using the **ARROW** buttons.
   - *Manual Time Setting*
      *Date***:** Enter the calendar date by using **ARROW** buttons then press the **OK** button to finish.
      *Time***:** Enter the time by using the **NUMERIC** buttons.

● **Clock Mode:** Select the type of clock display(12 Hours or 24 Hours) using **ARROW** buttons.

● **Wake Up Mode:** Enter the time for the receiver to automatically power **ON**. And you can choose one of Wake Up Mode as '*off*' or '*Once*' or '*Daily*' or '*Weekly*'.
   - *Wake Up Date:* Select the date when the STB is turn on. Press the **OK** button to display calendar.
   - *Wake Up Days***:** Select a day of the week when the STB is turn on.
   - *Wake Up Time***:** Enter the wake up time of the STB using the **NUMERIC** buttons.
   - *Wake Up Service***:** Select the service when the STB is turn on. Press the **OK** button to display the service list.

● **Sleep Mode:** Enter the time for the receiver to automatically switch **OFF** and go to standby mode. And you can choose one of the Wake Up Mode as '*off*' or '*Once*' or '*Daily*' or '*Weekly*'.
   - *Sleep Date***:** Select the date when the STB is turn off. Press the **OK** button to display the calendar.
   - *Sleep Days***:** Select a day of the week when STB is turn off.
   - *Sleep Time***:** Enter the turn-off time of the STB using the **NUMERIC** buttons.

2.5 Language Setting

● **Menu Language:** Select the desired menu language by using the **ARROW** buttons.

   NOTE: The menu and operation languages can be changed depending on the country sold. Available languages are subject to change without prior notice.

Audio Language: Select the default language for the audio when changing services. If no other language is provided, then the default language of current will be automatically selected.

● **Subtitle Language:** Select the default language for subtitle when changing service.

2.6 A/V Output Setting

● **TV Type:** Select the TV types.(*PAL/NTSC/Auto*) In Auto mode, the STB is automatically selected to NTSC or PAL accordingly to the service played.

● **TV Aspect Ratio:** Select the aspect ratio of TV which is connected to the STB (4:3/16:9). This menu must be set prior to selecting the Display Format function.

● **Display Resolution:** Select the Display Resolution of the screen by using **ARROW** or **OK** button. You can also change the resolution with **576/1080** button in the remote. Each time you press the **576/1080** button, the resolution changes in the following sequence: *576i > 576p > 720p > 1080i*

> *NOTE: Please note that your TV may not show a picture depending on the Display Resolution set by your STB as well as if set to PAL when NTSC is required or vice versa. If you set the Display Resolution as SD (576i), your TV cannot display anything when the TV is connected to the Component Video (YPbPr). If you set the Display Resolution as HD (more than 576p), your TV cannot display anything when the TV is connected to the SCART or Composite Video output of the STB. In case of HDMI, your TV can display a picture for all of the resolution settings of the STB. But it is also possible that your TV may not display a picture with 576i, because some HDTV's does not support 576i.*

● **Display Format:**
In case of a 4:3 ratio TV set, you can select *Letter Box* or *Pan&Scan*. In case of a 16:9 ratio TV set, you can select *Pillar Box* or *Full Screen*.
- *16:9 Display format on 4:3 TV set*
   Letter Box: You can see the full screen of 16:9, but top and bottom edges of your TV screen display black horizontal Pillars.
   Pan&Scan : The picture is displayed in full on your 4:3 TV screen, but left and right sides of the original picture cannot be displayed.
- *4:3 Display format on 16:9 TV set*
   Pillar Box: You can see the full screen of 4:3, but left and right sides of your TV screen display black vertical Pillars. 4:3
   Full Screen: The picture is displayed in full on your 16:9 TV screen, but left and right sides of the original picture is displayed with widening of the screen from left and right. Because of the artificial widening, the TV picture will be distorted.

● **Video Output Mode:** According to Display Resolution, you can select the *Video Output Mode*.
- *In case of More than 576p (HD):* The *'RGB'* output will be disabled automatically. You can select Video Output Mode (*CVBS, YPbPr, YC*).
- *In case of 576i (SD):* The *'YPbPr'* output will be disabled automatically. You can select Video Output Mode (*CVBS, RGB, YC*).

● **Sound Mode:** Set the audio mode output among the RCA jack, optical SPDIF and HDMI.(*Stereo/Mono/Left/Right*).

3. Installation

3.1 Dish Setting

Select the satellite/antenna and LNB settings for service search. The values that are set in this menu will be available for selection in other service searching menus.

- **Satellite:** Select the satellite which you want to do a search for.
  - Press the **LEFT/RIGHT ARROW** button to select the satellite.
  - If you press the **OK** button, the entire satellite list will be displayed.
  - Select the desired satellite name to search.
  - If the desired satellite name is not listed then select User Defined.
- **Tuner Connection:** You can set connection type between Tuner and LNB.
  - *Separate:* Set the connection type option to '*Separate*', if each of the tuners are connected to different LNBs (*LNB IN_1 / LNB IN_2*) individually / independently.
    This Separate connection is used, when each two tuners are connected to different LNBs. Due the independent & separate connections between two Tuners & LNBs, user can watch all the services scanned by one tuner (1), while the other tuner (2) is set for recording at the same time.
  - *Loop-Through:* Set the connection type option to '*Loop-Through*', if you have connected the *LNB OUT_1* and *LNB IN_2* with a loop-through cable. In this case, you would have some limitations in using some features such as dual recording.
    This connection is used when the Tuner (1) is connected with LNB output, and the Loop-through output of the Tuner (1) is connected with input of the Tuner (2). This is the way to use & activate both tuners when you have only 1 LNB with your dish antenna. However, this will limit the possible tuning range (Satellite & Polarization) of the 2nd tuner, while the 1st tuner is being used for its recording process (because the input signal of 2nd tuner is dependent of the signal which the 1st tuner is tuned to).
    NOTE: User should make the appropriate connection by choosing the right tuner connections between the Loop-Through and Separate connections. Due to the difference of these two connections, wrong LNB and Tuner connection may cause the loss of signal reception. We strongly recommend the use of professional service personnel to make this installation and connection if your knowledge is limited.

- **Tuner:** Select the tuner which you want to set (*Tuner 1/ Tuner 2*). If you set '*Loop-Through*' on the menu (*Installation-Dish Setting-Tuner Connection*), this menu (Tuner) will be disabled automatically.
- **Frequency:** Select the satellite frequency which you want to use for checking the signal.
- **LNB Power:** Select the LNB power on or off.
- **LNB Type:** Select the LNB type.
- **LNB Frequency:** Select the local oscillator (L.O.). frequency that is specified for the LNB used..
  - Use the **LEFT/RIGHT ARROW** buttons to select the LNB frequency.
  - If the required LNB frequency is not listed, then enter the frequency manually using the **NUMERIC** buttons.
  - When you select Universal LNB type, both 9750 and 10600 are supported at the same time. And then the LNB 22KHz setting is disabled.
- **LNB 22KHz:** When you use a separate coax 22 KHz tone switch box, make the 22 KHz tone switch enabled or disabled to select the input you desire of the tone switch.
- **DiSEqC Switch:** If you use *DiSEqC 1.0* or *DiSEqC 1.1* switch, select one of the DiSEqC inputs.
- **Service Search:** Press the **OK** button to move to the Search Menu

3.2 Positioner Setting

● **Satellite:** Select the satellite which you want to search for the Service.
- Press the **LEFT/RIGHT ARROW** button to select the satellite.
- If you press the **OK** button, a complete satellite list will be displayed.
- Select the wanted satellite name.
- If the desired satellite name is not listed then select User Defined.

● **Tuner:** Select tuner that you want to set (*Tuner 1/ Tuner 2*). If you have set **'Loop-Through'** in the menu (*Installation-Dish Setting-Tuner Connection*), this menu (Tuner) will be automatically disabled.

● **Frequency:** Select the satellite frequency you want to use to check for a signal.

● **Positioner:** Select the positioner.
- *None : (No Positioner)*
- *Using DiSEqC 1.2:*
  Move : To move the dish, press **LEFT/RIGHT** button.
  Fine Move: To move the dish in smaller steps, press the **LEFT/RIGHT ARROW** button.
  Step: Set to positioner moving steps as 1, 2, 3, 4
  Positioner Command: To use various positioner commands, press the **OK** button. Then, available positioner commands will appear.
- *Using USALS:*
  Move: To move the dish, press the **LEFT/RIGHT** button.
  Fine Move: To move the dish in smaller steps,, press the **LEFT/RIGHT ARROW** button.
  Step: Set to positioner moving steps as 1, 2, 3, 4
  Dish Longitude: Enter the longitude position of the antenna using the **NUMERIC** buttons.
  Dish Latitude: Enter the latitude using the **NUMERIC** buttons.
  Go To: Press the **OK** button to rotate the dish to the selected antenna position.

● **Dish Setting:** Press the **OK** button to move to *Dish Setting* menu directly.

● **Service Search:** Press the **OK** button to move to *Service Search* menu directly.

3.3 Service Search

You can select the following search mode.

● **Auto Search Mode:**
- *Satellite:* Press the **OK** button to select the target satellite to be searched.
- *Tuner:* Select tuner what you want to set (*Tuner 1/ Tuner 2*). If you set **'Loop-Through'** on the menu (*Installation-Dish Setting-Tuner Connection*), this menu (Tuner) will be automatically disabled.
- *Search Typ:* Select the search type.
- *Network Search:* You can select Off or On. When you select '*On*', you can find more transponders using the home network. As it refers to NIT during searching, if there is the frequency information of other transponder, it searches the other transponder besides the transponder that the user inputs.
- *Dish Setting:* Press the **OK** button to move to Dish Setting menu directly.
- *Positioner Setting:* Press the **OK** button to move to the Positioner Setting menu directly.
- *Start Search:* Press the **OK** button to start search.
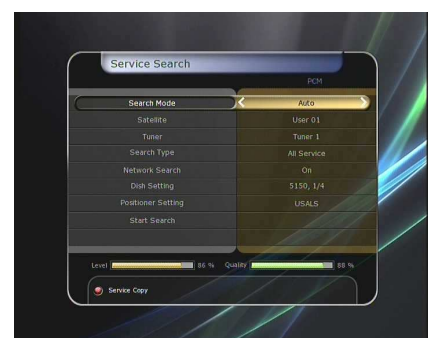
● **Manual Search Mode :**
  - *Satellite:* Press the **OK** button to select the target satellite for search.
  - *Tuner:* Select the tuner which you want to use (***Tuner 1/ Tuner 2***). If you set **'Loop-Through'** on the menu (*Installation-Dish Setting-Tuner Connection*), this menu (Tuner) will be automatically disabled.
  - *Frequency:* Select the frequency from the list to search.
  - *Symbol rate:* Enter the symbol rate using the **NUMERIC** buttons.
  - *Polarity:* Select the polarity. (***Vertical/Horizontal***)
  - *Search Typ:* Select the search type.
  - *Network Search:* You can select Off or On. When you select 'On', you can find more transponders using the home network. As it refers to NIT during searching, if there is the frequency information of other transponder, it searches the other transponder besides the transponder that the user inputs.
  - *Dish Setting:* Press the **OK** button to move to the Dish Setting menu directly.
  - *Start Search:* Press the **OK** button to start a search
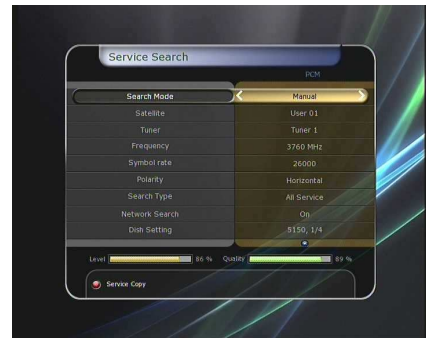
● **Blind Search Mode:**
  - *Satellite:* Press the **OK** button to select multiple satellites.
  - *Tuner:* Select the tuner which you want to set (***Tuner 1/ Tuner 2***). If you set **'Loop-Through'** on the menu *Installation-Dish Setting-Tuner Connection*), this menu (Tuner) will be automatically disabled.
  - *Frequency:* Set ***Auto*** to search whole frequency, Set ***Manual*** to search only desired frequency.
  - *Polarity:* Select the polarity. (***All Polarity/Vertical/ Horizontal***)
  - *Search Type:* Select the search type.
  - *Dish Setting:* Press the **OK** button to move to the Dish Setting menu directly.
  - *Start Search:* Press the **OK** button to start a search.
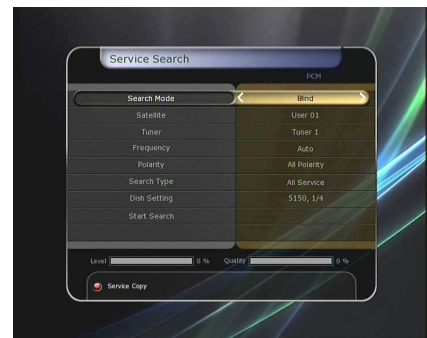
● **Advanced Search Mode:**
  - *Satellite:* Press the **OK** button to select the target satellite for search.
  - *Tuner:* Select the tuner which you want to set (***Tuner 1/ Tuner 2***). If you set **'Loop-Through'** on the menu (*Installation-Dish Setting-Tuner Connection*), this menu (Tuner) will be automatically disabled.
  - *Frequency:* Select the frequency from the list to search.
  - *Symbol rate:* Enter the symbol rate by using the **NUMERIC** buttons.
  - *Polarity:* Select the polarity. (***Vertical/Horizontal***)
  - *Video PID:* Enter the video PID using the **NUMERIC** buttons.
  - *Audio PID:* Enter the audio PID using the **NUMERIC** buttons.
  - *PCR PID:* Enter the PCR PID using the **NUMERIC** buttons.
  - *Start Search:* Press the **OK** button to start a search.

3.4 Network Setting

To use a Network connected to the STB Ethernet port, you have to prepare the STB Network settings. When the STB and a PC are connected via a network, you can access the files of the STB storage device such as the SATA Hard Disk Drive (HDD) or USB storage device.

> *NOTE: If you use DHCP function of router, you can set easily network configuration.*
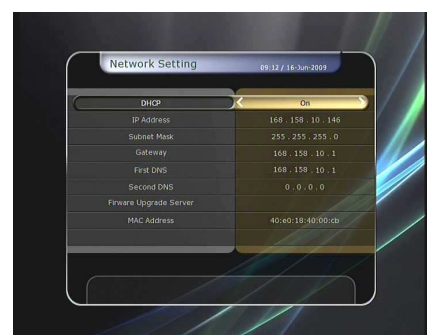
- **DHCP:** You can select *On/Off* for the Dynamic Host Configuration Protocol (DHCP) to get the all configuration from the router.
  - **If you select 'On':** You will obtain the configuration from network and be set up automatically. In this case, the remaining item (*IP Address, Subnet Mask, Gateway, First DNS, Second DNS*) are automatically set and you don't have to configure them manually.
  - **If you select 'Off':** You have to input the IP address manually together with the following data.
- **IP Address, Subnet Mask, Gateway, First DNS, Second DNS:** You can input the address with the **OK** button, **NUMERIC** buttons and the **LEFT/RIGHT** buttons. You can move to the next item of Subnet Mask with the **DOWN** button and you can configure the other items in the same way.
- **Firmware Upgrade Server:** This feature is not supported for the time being.   It will be available in the future.
- **MAC Address:** This will display the MAC address of the STB Ethernet interface and is a fixed assignment unique to each STB.
- **Control of the files via the network and your PC.**
  - Check the IP Address of the STB on the Network Setting menu.
  - Press Enter button on your PC, after writing IP Address on the web browser address line.
    Ex.) //168.158.10.146/storage
  - You can see the folder name of HDD, USB1 and USB2 in the Storage folder.
    HDD: SATA HDD (internal HDD or external-SATA)
    USB1: Front USB Storage Device
    USB2: Rear USB Storage Device
  - You may be able to load and retrieve data between the PC and the STB via the browser
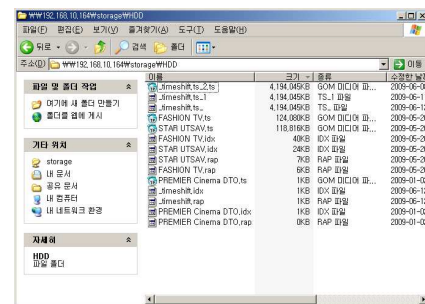
W-LAN Netzwerkeinstellungen

Switch off the receiver and plug in the W-LAN stick in one of the free USB slots.
Now start the Atevio.

In the menu Installation – Network settings - you should be able to choose between Ethernet and W-LAN.
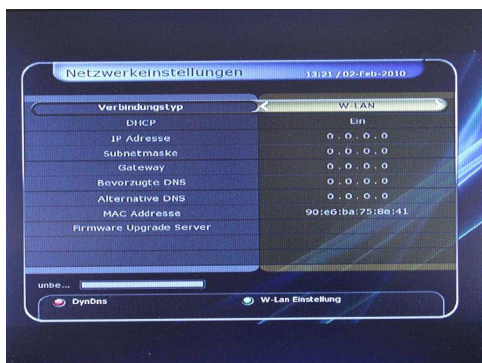
In the above mentioned menu change the connection type to W-LAN.
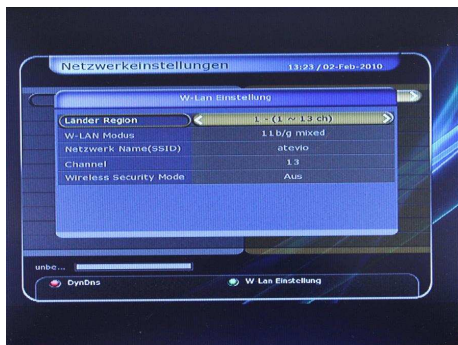
Push the green button to modify the W-LAN settings.
Adjust the SSID according to your Network.
If you choose channel 0, the channel will automatically be assigned.
For the Wireless Security Mode you have the options of: Off, WEP, WPA.
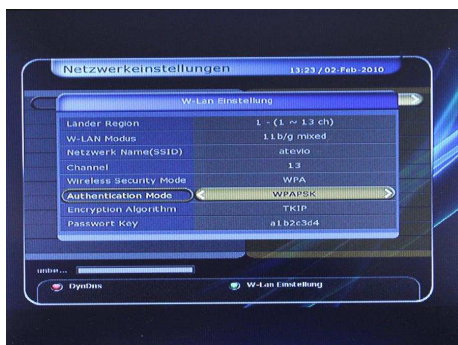
This example shows the security Mode WPA with the Authentication Mode WPAPSK.
The Encryption Algorithm is TKIP.
With Authentication Mode WPA2PSK the Encryption Algorithm is EAS.
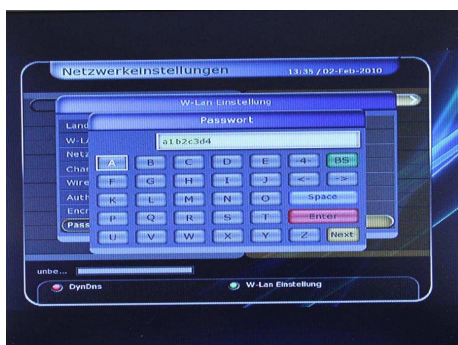
Pushing the button OK allows you to modify the SSID and the Password Key.
In this case the Password is a1b2c3d4.
You have to set the password of your router.
Confirm your input with the red button and leave the W-LAN settings when you are finish with exit.
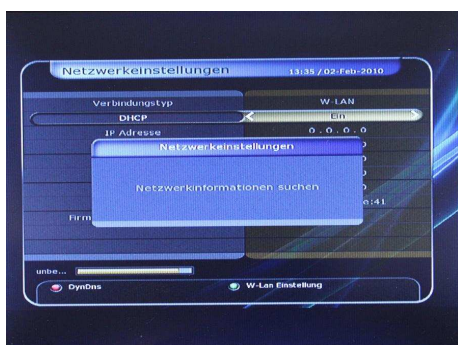
If DHCP is turned on the receiver searches automatically the Network Information.
This takes some seconds.
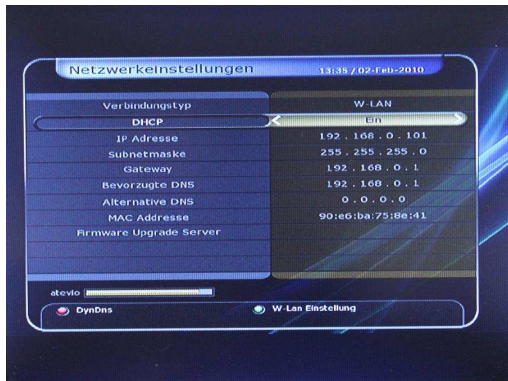
The IP Address is assigned when the settings are made correctly.
The yellow bar displays the signal strength.
Beside this, you can see the connected SSID.
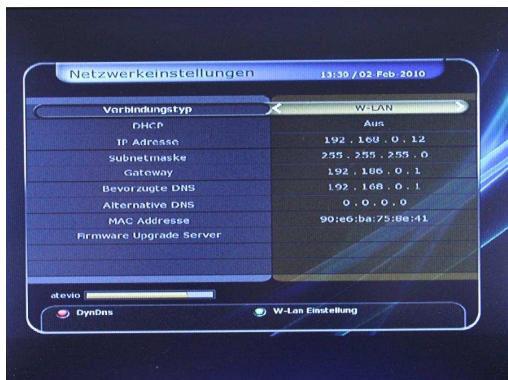
If you prefer a static IP Address, turn DHCP off.
Set the desired IP Address, Subnet Mask, Gateway (IP of your Router) and the First DNS by yourself.

The access will be automatically connected if the data was entered correctly.
The yellow bar displays the signal strength.
Beside this, you can see the connected SSID.

W-LAN is immediately activated, when the Atevio is in Standby (A/V Settings –Standby „On").
If the Atevio was disconnected from the power (even if A/V Settings – Standby „Off"), wait for 30 seconds.
The setting "W-LAN" will be turned on automatically.

3.5 System Recovery
- **System restore to factory default:** This menu allows you to restore the factory set values in case the user has encountered some problems after changing any new parameters of service data and other parameters which may be in error. Press the **OK** button to erase all services and restore default setting.
- **System restore to stored position:** This menu allows you to restore the stored values including service data and system parameters. Press the **OK** button to restore all data.
- **Store system data:** If you want to use system parameters and

service data in the future, this menu allows you to store current state. Press the **OK** button to store current state.

3.6 System Information
This menu displays general information about the hardware and software version of your receiver.

4. Utilities

4.1 Calculator

To use the calculator, highlight the calculator and press the **OK** button.

4.2 Calendar

To display the calendar, highlight the calendar and press the **OK** button. Utilize the **ARROW** buttons to choose the date. If you press **PAGE UP/DOWN** button, you can see the past/next month of the calendar.
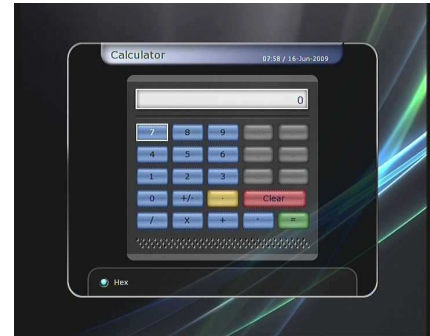
4.3 CAS (Conditional Access System)

- **Smartcard Slot**
  - **Conax smartcard menu:**
    To watch scrambled services, you need to have an appropriate Conax smartcard from the service providers. Insert a valid smartcard into smartcard slot. The message of 'Smartcard Initializing…' will appear on the screen. After the message disappears, you can watch the service you want.

  - **Smartcard information:**
    You can view the current status of smartcard. Select the slot which you want to view using the **ARROW** buttons. And press the **OK** button.

- **CAM Initializing**

  To watch scrambled services, you need to have a Common Interface Conditional Access Module (CAM) and an appropriate smartcard from the provider. Insert the CAM together with a valid smartcard into CI slot (two slots available). The message

  of '***CI Initializing…***' will appear on the screen. After the message disappears, you can watch the service you want.

- **CAM information**

  You can view the current status of CAM. Select the slot which you want to view using the **ARROW** buttons, and press the **OK** button. If the CAM is available, you can view information about each slot.
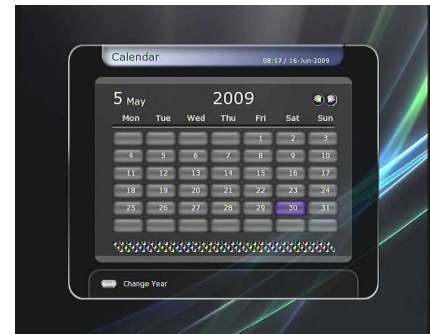
  NOTE: The displayed information of each CAMs may be different depending on the CAM used.

Software update for Atevio via USB or Network

You find the latest Software for your Atevio here: www.atevio.de.

Software update via USB

You can save the Software directly on the USB flash drive or save it on your PC before you copy the Software on an USB flash drive.
The USB flash drive has to be formatted in FAT32, otherwise the system is not able to recognize it.

Plug in the USB flash drive in the USB Port at the front of your receiver.
It doesn't matter if
1. you are currently watching TV
2. the receiver is in Standby.

In case 1 the USB flash drive will be recognize automatically and a pop up window will show you the option "Software Download" and "Channel Data Download".
You can switch with the left and right button.
Also this window displays the current software version.
Choose the software or the channel list you like to import and push the red button to start the download.

In case 2 switch on the receiver.
When the pop up window appears continue with the download as described in case 1.

Online-Softwareupdate

To update your receiver via Network the Address is http://www.atevio.de/database/AV7000/
Voraussetzung dafür ist, dass das Gerät mit dem Internet verbunden ist.

The Atevio has to be connected with the internet.

Please enter the Address under 3.4 "Network Settings – Firmware Upgrade Server".
You can't enter **http://**. This is preset and can't be changed.
The input takes place like the one from the installation of the W-LAN.

If the input is done choose Download and push OK.
Now the system is checking which Software Version is available.

Before you start the software download, check if the offered software is more recent than your receiver is currently running with.

Hard Disk installation

The installation of a hard disc can easily be made by yourself.
Before you start, consider the following steps.
- The Atevio has to be turned off and detached from the power supply.
- Avoid unnecessary touching parts inside the box.
- Pay attention to electric static. Discharge yourself, for example at a radiator.
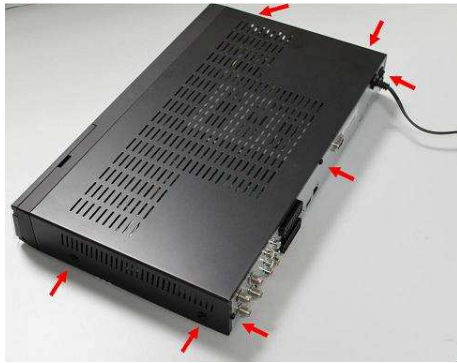
To open the Box the seven screws from the housing (as the picture shows) have to be removed.
Pull the top cover carefully backwards.

You find the S-ATA connector on the Mainbord directly above the Processor.
The connector is encircled in the picture. The connector and the plug have a lug.
This provides only one fitting position.
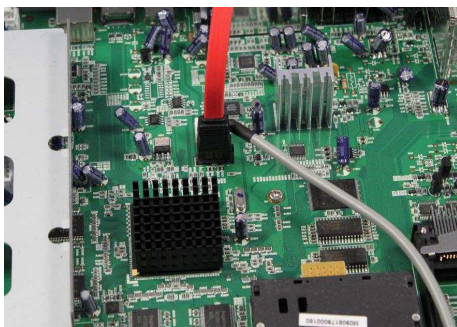
The picture shows the correct installed plug.
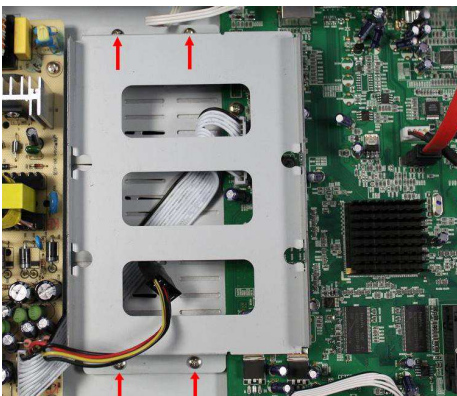
Now remove the four screws which are holding the hard disk frame.

Now the hard disk has to be fixed into the frame.
Therefore put the four rubber cushions from aside into the designated indentations.
Continue with fixing the hard disk with the enclosed screws.
Pay attention to adjust the hard disk into the right position.
Otherwise the cables can't be connected.

Fix the hard disk frame with the housing.
Now you can connect the power cord and the S-ATA cable as the picture shows.
The data cable can be connected before.
There is only one fitting position for the plugs.

When the installation is finished, you can fix the top cover with the screws. Now you can connect all devices and plugs as before. Now plug in the power cord and turn on the receiver.

The screen displays the message "Format Hard Disc".
You have to confirm this with "Yes".
If the screen doesn't display this message or you skip that by mistake,
find the next step on the following page.
The HD will be formatted with the file system "Journaled".

The hard disk will now be formatted.
Depending on the size of the HD, this procedure could take up to two minutes.

When the formatting is completed a message will confirm that.
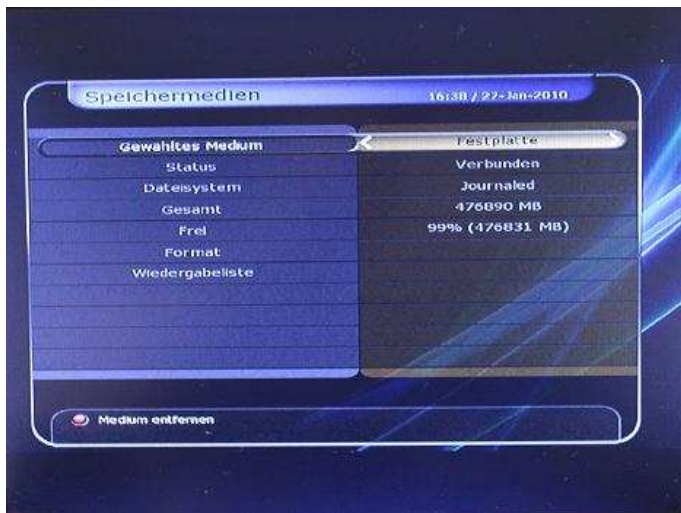
In the menu System Tools – Storage Manager you can see if the formatting was successful.
By success the HD will be shown as "Mounted".

If the screen doesn't display a formatting window in first place, continue as following:

Find the menu "System Tools – Storage Manager", as the picture shows.

In the menu "System Tools – Storage Manager"
you will see that the HD is not connected.
Choose "Format" with the OK button and confirm the following message.

"All Data will be DELETED. Are you sure to continue?" with "Yes".
The HD will be formatted with the file system "Journaled"
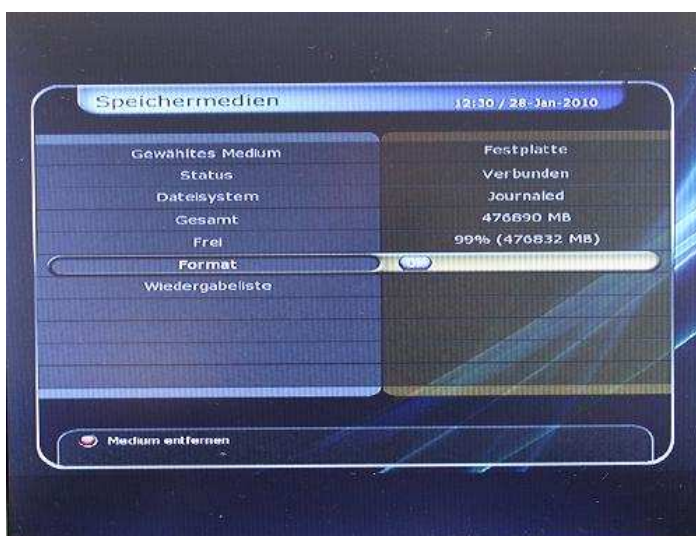
When the formatting procedure is successful completed, the Storage Manager displays the HD as "Mounted".

Troubleshooting

Problem	Solution
Does not display any message on the front panel.	✓ Check the main power cable and check that it is plugged into a suitable power outlet. ✓ Check the STB main power switch 'ON' at the rear of the STB.
No Picture	✓ See *'Does not display any message on the front panel'* above. ✓ To match the STB system with your TV system (PAL/NTSC), press *V.Format* button until a picture is displayed. ✓ Check the video output port is firmly connected to the TV or VCR. ✓ If you are using the RF output, check that the RF lead is connected firmly to the STB and TV/VCR. ✓ Check that you have selected the Video Input on your TV. ✓ Press the STB button on the remote to assure you are controlling the STB and no other device with the remote. ✓ Check the brightness level of the TV. ✓ Check the resolution that your TV supports, and set the proper resolution with the remote *576/1080* button to obtain a picture.
Poor picture quality	✓ See *'No Picture' above.* ✓ Check the signal level, if this is low then tries adjusting the alignment of your dish.
No Sound	✓ See *'No Picture'* above. ✓ Check the volume level of the TV and STB. ✓ Check the Mute status of the TV and STB.
Remote Control does not operate	✓ Point remote control directly towards the STB. ✓ Check that the STB button lights up when you press any button ✓ Check and replace batteries.
No or Bad Signal	✓ Check the LNB; Replace the LNB if necessary. ✓ Check the cable from the LNB. ✓ Check the position of the dish; realign dish if necessary. ✓ If you are using a DiSEqC 1.0 switch, check that you have connected and programmed the LNBs to the correct connections on the switch. ✓ Check the 'Signal Level' and the 'Signal Quality'.

Specifications

Tuner & Channel Decoder

Input Connector	F-type, IEC 169-24, Female
Loop through out	F-type, IEC 169-24, Female
Frequency Range	950MHz ~ 2150MHz
Input Impedance	75Ω, unbalanced
Signal Level	-65 to -25dBm
LNB Power	13/18VDC, max.400mA
22KHz Tone	(22±2)KHz, (0.6±0.2)V
DiSEqC Control	V1.0/1.2/USALS Compatible
Demodulation	QPSK / 8PSK
Input Symbol Rate	2 ~ 45 Ms/s(QPSK of DVB-S)
	2 ~ 45 Ms/s(QPSK of DVB-S2)
	2 ~ 37 Ms/s(8PSK of DVB-S2)
FEC Decoder	1/2, 2/3, 3/4, 5/6 and 7/8 with
	Constraint Length K=7(DVB-S)
	1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9 and 9/10 (DVB-S2)

MPEG Transport Stream A/V Decoding

Transport Stream	H.264(MPEG-4 part 10, MPEG-4/AVC and H26L)
	MPEG-II ISO/IEC 13818-2/11172-2
Profile Level	MPEG-4/AVC MP@L4, MPEG-II MP@HL
Input Rate	Max. 15Mbit/s
Video Formats	4:3 Letter Box, 4:3 PanScan, 16 : 9
Video Resolution	720 x 576i, 720 x 576p, 720 x 480i, 720 x 480p
	1280 x 720p, 1920 x 1080i
Audio Decoding	Dolby AAC, AC-3, MPEG-1 Layer 1,2 and 3
Audio Mode	Stereo/Joint stereo/Mono, Dolby AC-3
Sampling Rate	32KHz, 44.1KHz and 48KHz(According to input)

Main System

Main Processor	STi chipset
Memory	Flash-ROM : 32 Mbyte
	SDRAM : 192 Mbytes
	EEPROM : 128 bytes

Audio / Video & Data IN/OUT

TV SCART	RGB, Y/C, CVBS Video, Audio L, R Output
VCR SCART	CVBS Video, Audio L, R Output
	RGB Video input, CVBS Video, Audio L, R Input
RCA	CVBS Video Output, Audio L, R Output
Component	YPbPr Video Output
HDMI	Video & Audio Output
OPTIC	AC-3 Dolby Digital (SPDIF)
RS-232C	9 pin D-SUB (Male) type, Transfer rate 115Kbps
USB	USB 2.0 Host Front & Rear Support. (5 Vdc 500 mA max.)
Ethernet	RJ45 connector, 100 Mbps

Front Panel

Slot	1 USB 2.0 Host port
	2 Common interface PCMCIA slot
	2 Conax Smartcard Slot
Display	VFD(Vacuum Fluorescent Display) - 12Digit
Buttons	7 Buttons (Standby, Menu, Select, CH UP/DOWN, Volume UP/DOWN)

Power Supply

Input Voltage	AC 100 ~ 250V, 50/60Hz
Type	SMPS
Power Consumption	Max. 35W
Standby Power	Max. 1W
Protection	Separate Internal Fuse & Lighting protection

Physical Specification

Size (W x H x D)	430mm X 60mm X 270mm
Weight (Net)	2.7 Kg (Excluding HDD)
Operating Temp.	0°C ~ +45°C
Storage Temp.	-10°C ~ +70°C

Code list for the universal remote control

1. TV - List

Refer to *'5.Multi-Brand IR Remote Controller Setting'* at page 14 of this manual.

TV Brand	Code-Nr.				
2					
2M Electronics	248				
A					
A.R.Systems	212	280	285	419	421	504
	518	774				
Accent	153	421				
Action	153	281	421	666	766	
Admiral	153	193	285	421	558	752
Advent	723					
Adyson	292	421				
Aeg	487	741				
Agashi	421					
Agazi	285					
Agb	206					
Aiko	153					
Aim	421					
Aiostay	212	558				
Airis	633					
Aiwa	165	243	421			
Akai	145	148	153	213	240	251
	277	368	370	381	398	405
	414	421	423	472	486	488
	498	628	665	725	766	776
	782					
Akiba	145					
Akira	421	736				
Akura	145	153	260	285	421	473
Alba	145	153	157	213	260	277
	285	327	329	398	405	421
	453	697	720	743	752	
Albiral	212	421	753	760		
Alcyon	351					
Alfa	426					
Allorgan	698	776				
Allstar	421	504				
Alphatronik	598					
Altus	486	488				
American High	281					
Americana	281					
Amstrad	146	153	363	578	768	
Andersson	472					
Anglo	153	285				
Anitech	144	153	285	292	348	351
	421	504	760			
Ansonic	153	217	258	260	285	398
	405	472	487	489	507	523
	743	760				
Antecno	145					
Aoc	421	684				

TV Brand	Code-Nr.				
Arc En Ciel	780	784				
Arctic	486	488				
Aristona	250	419	421			
Art Tech	421					
Asa	265	275	351	353	564	
Asberg	348	351	421	752	760	
Asora	153					
Astra	153	421				
Asuka	145	285				
Atec	335					
Atlantic	263	421	776			
Atlas	419					
Atori	153					
Atoro	153					
Audio Technica	204					
Audiosonic	145	153	258	260	285	421
Audioton	153					
Audiovox	421					
Ausind	351					
Autovox	216	351	776			
Aver Media	687					
Awa	153	421				
Axxion	144	153	277			
B					
Bang	241					
Bang & Olufsen	421	543	561			
Basic Line	144	145	148	153	156	398
	405	421	472	473	486	487
	488	489	606	741	743	
Bauer	288					
Baur	153	240	241	250	251	347
	363	419	421	425	451	491
	530	535	537	610	615	620
Baysonic	285					
Bec	206	421	666	766		
Becrese	347	421	610	620	665	666
	671					
Beko	258	260	266	398	400	433
	485	486	488	493	503	670
	671	742	743	782		
Bell & Howell	193	421	605			
Benchmark-Beaumark	153	281	421			
Benq	673					
Beon	421	752				
Best	258	260				
Bestar	260	421				
Bigston	153					
Black Panther	760					
Black Star	217					
Blackstripe	281	605	610	620		

TV Brand	Code-Nr.					
Blaupunkt	148	157	238	240	241	243
	247	250	251	255	270	271
	273	419				
Blautech	516					
Blue Sky	145	157	398	405	421	455
	472	473	486	487	488	489
	507	523	674	712	741	743
Bondstec	216					
Boxford	496	502	705			
Brandt	303	780	782	784	793	
Brandt Electronique	780	784	790	793		
Braun	425	794				
Brendstar	153					
Brinkmann	752					
Brionvega	421	423	519	558	756	
Brother	285					
Bruns	258	558	758	760		
Bsr	698					
Btc	145					
Bush	145	157	213	277	282	285
	329	398	405	415	421	453
	486	697	743			

C

TV Brand	Code-Nr.					
Campomatic	622					
Capehart	421	766				
Capsonic	285	421				
Carrefour	351	421				
Carver	421					
Casio	426					
Cathay	421					
Cci	583					
Centurion	421					
Century	217	558				
Cge	153	217	271	272	348	351
	752					
Cgm	144	153				
Changhong	617					
Charisma	551					
Charpy	634					
Ciate	558					
Cie	153	156	216	578		
Cihan	426					
Cimline	153	697				
Cinex	507	523				
Citizen	281	421	620			
City	153					
Clarivox	206	210	212	217	346	421
	748	763	773			
Claton	398	405				
Clatronic	145	153	217	260	277	348
	421	486	488	752	760	
Claud	421					
Clubinternet	621					
CMX/Commax	686					
Colortyme	281	421				
Combi	692					
Computec	509					

TV Brand	Code-Nr.					
Computron	153	421				
Concorde	153					
Condor	144	153	217	260	421	504
	752	760				
Conic	421	666				
Conrac	745	746				
Constructa	419					
Contec	144	153	301			
Continental	157					
Continental Edison	157	780	784	793		
Corfung	285					
Cosmel	153					
Craig	421					
Crosley	217	260	271	348	351	421
Crosley	558	666				
Crosswood	398	405				
Crown	153	193	258	260	261	348
	351	421	754	760		
Crystal	421					
Cs Electronics	145	216	217			
Ctc Clatronic	217	752	760			
Curtis	421	513	752			
Curtis Mathes	281	421	605	620		
Cyberpix	473					

D

TV Brand	Code-Nr.					
Daewoo	153	156	161	163	164	165
	166	167	168	218	421	430
	441	453	504			
Daichi	153					
Daimond	421					
Dainichi	145					
Dalco	735	736				
Dantax	258	447	486	488		
Davis	421					
Dawa	421					
Daytron	153	610				
Dce	398	405	432			
Deca	507	523				
Decca	207	421	450	507	523	559
	750	767				
Dell	739					
Denon	732					
Denver	153					
Desmet	153	421				
deuromedia	566					
Diamond	153					
Diboss	505	509				
Digiline	743					
Digitech	363					
Dixi	153	421	758			
Dmtech	398	405	472	473	474	521
	574	695				
Dts	153					
Dual	145	153	262	263	347	363
	421	429	439	443	452	453
Dumont	265	351	558	752	760	

TV Brand	Code-Nr.					
Dynamic	153					
E						
Eaton	281					
Ecrom	398	405				
Ecron	455					
Edison	157					
Edison Minerva	157					
Eksperten Vest	252					
Elbe	212	262	398	405	419	421
	459	487	489	573	704	706
	762					
Elbit	421	426	444			
Elbit Fraba	436					
Elcit	217	760				
Elecs	426					
Electro Tech	153					
Electrohome	605	666				
Electronika	261	421	445			
Elekta	144	153	285			
Elektronika	261	426	445			
Elemis	258	260				
Elin	153	265	421	504		
Elite	145	273	281	421	605	620
Elmak	395	431	435	741		
Elman	760	782				
Elta	153	421				
E-Max	675	726				
Emerson	145	258	260	277	398	405
	421	486	487	488	489	558
	743	760	773			
Eon	281					
Erres	419	421	528			
Eternity	726					
Etron	153	421				
Euro-Feel	285					
Euroline	426	486	488			
Euroman	421					
Euromann	258	285	421			
Europhon	206	213	214	217	421	760
	762					
Excelsior	397					
Expert	263	373	776			
F						
Fenner	153	421	743			
Ferguson	176	212	240	241	251	265
	271	301	303	346	359	388
	390	419	421	459	465	517
	530	535	537	610	615	620
	626	661	663	666	670	671
	694	750	765	767	782	784
	788	789	790	793	796	
Fidelis	153	421				
Filsai	153					
Final	560					
Finlandia	275	606	790			

TV Brand	Code-Nr.					
Finlux	153	207	217	265	275	276
	351	353	368	369	370	371
	373	376	378	381	384	419
	421	450	486	507	523	558
	729	744	750	752	760	
First Line	153	156	212	217	398	405
	419	421	472	473	486	488
	504	532	606	686	698	743
Fisher	159	260	265	347	537	558
	605	607	608	610	758	759
Flint	421					
Force	587	726				
Formenti	213	351	421	426	429	
Fortress	193					
Fraba	260					
Frontech	153	209	217	285		
Fuji	776					
Fujitsu	234	263	538	745	746	766
	776					
Fujitsu General	263	776				
Fujitsu Siemens	479					
Fulton	518					
Funai	153	285	414	538	579	698
G						
Galaxis	260	752	760			
Galaxy	260	752	760			
Galeria	153					
Gbc	153	210	218	421		
Ge	790					
Gec	207	421	666	750		
Geloso	145	153	218			
Gemsound	153					
General	153	736				
General Technic	153					
Genexxa	145	421				
Gericom	335	717				
Giant	421					
Gitem	250	421	784	790		
Gm	153					
Gmg	153	752				
Goldhand	153					
Goldi	423					
Goldstar	150	153	157	209	216	240
	260	263	281	285	349	421
	426	434	486	488	504	599
	666	755	766			
Goldy	736					
Goodmans	145	153	156	165	167	172
	277	311	325	329	359	394
	398	405	406	419	421	428
	432	441	452	472	473	504
	511	571	628	677	689	725
	743					
Gorenje	258	260				
Gpm	145	153				
Gradin	145	153	421			
Graetz	398	405				
Gran Prix	507	523				

TV Brand	Code-Nr.					
Granada	148	176	189	192	207	227
	258	260	275	346	373	375
	381	408	419	421	456	463
	605	606	608	615	620	651
	655	658	665	750	766	767
	790					
Grandin	398	405	704	743		
Grenadier	153	421				
Gronic	421					
Grundig	152	157	236	237	238	239
	240	241	243	247	250	251
	254	256	259	261	327	346
	348	350	351	355	356	400
	404	419	421	423	426	445
	455	456	459	477	516	542
	697	726				
Grunkel	398	405				
Gtt	153	752				
Gze Unimor	260					

H

TV Brand	Code-Nr.					
Haier	181	283	287	291	456	605
	608					
Halifax	285					
Hanseatic	153	165	250	258	262	347
	421	429	453	467	504	698
	755	756				
Hantarex	153	210	421			
Harley Davidson	281					
Hb Ingelen	398	405	486			
Hcm	144	145	153	258	285	
Heathkit	421					
Hifivox	780	784				
Hiline	153					
Hinari	145	153	301	421	504	
Hisawa	145					
Hisense	685	686				
Hit	558					
Hitachi	165	167	193	207	250	303
	347	368	373	398	405	421
	432	434	441	448	450	453
	456	462	472	473	610	620
	636	637	638	639	640	641
	643	644	645	646	647	648
	649	650	651	652	653	654
	655	656	657	658	659	660
	661	662	663	664	665	666
	667	668	669	670	671	672
	731	750	756	766	780	793
Hitachi Fujian	639					
Hoher	398	405	472	473	486	488
Höher	398	400	405	455	472	
Home Electronics	705	741				
Horizont	426					
Hornyphon	421					
Hoshai	145					
Hotel International	257					
Hq	421					
Humax	160	679	680	681	682	683
	710	716				
Huspi Elektronik	752					

TV Brand	Code-Nr.					
Hyper	153	213	216	277	426	
Hypervision	476					
Hypson	153	285	421			
Hyundai	162	283	286	516	723	727
	728	736				

I

TV Brand	Code-Nr.					
I.V.	421					
Ice	145	153	209	213	277	285
	421					
Iekei	588					
Im Internet	740					
Imperial	217	260	271	348	351	421
	752					
Indesit	788					
Indiana	421					
Infinity	421					
Infratex	284	330	426	453	733	734
	741	743	747	769	772	774
Ingelen	704	742				
Ingersoll	153					
Inno Hit	153	206	349	421	750	
InterACTV	482					
Interbuy	153	217	285	292		
Intercord	347					
Interdiscount	303	421	537	784	790	793
Interfunk	217	260	270	354	419	421
	557	564	610	752	784	
Intertronic	446					
Intervision	145	216	217	258	260	285
	292	419	730	755	760	
Irradio	145	153	216	346	349	351
	421	504				
Iskra	760					
Ist	145	213	421			
Isukai	145	421				
Itl	153					
Its	145	153	209	277		
Itt	192	193	243	301	346	368
	373	381	605	610	697	744
	756	780				
Itv	285	504				

J

TV Brand	Code-Nr.					
Jacson	208	750				
Jbl	421					
Jdb	705					
Jec	620					
Jetpoint	281	421				
Jinlipu	153					
Jrc	277					
Jumbotronic	426					
Jvc	196	197	198	199	200	201
	202	203	204	205	277	421
	605	744				

K

TV Brand	Code-Nr.					
Kaiser	421					

TV Brand	Code-Nr.					
Kaisui	145	153	421			
Kambrook	303	793				
Kapsch	263	776				
Karcher	153	258	261	421	504	507
	523	762				
Kawa	277					
Kds	227	419				
Kendo	153	398	405	421	449	485
	504	697	704	756	757	760
	776	777				
Kenmark	406	678				
Kennedy	145	263	776			
Kennex	441					
Kenstar	632					
Kenwood	238					
Kerion	421					
Keymat	336	586	623	635		
Kimay	285					
Kiota	153					
Kiton	398	405				
Klh	766					
Kloss	281					
Kneissel	156	212	262	421	441	573
	704	743	748			
Kobic	153					
Kolster	145	216	421	760		
Konichi	153					
Konka	145	171	277	290	568	
Korpel	421					
Kortek	719					
Körting	258	260	261	558		
Kotron	572					
Kuasho	421					
Kuba	347					
Kuba Electronic	347					

L

TV Brand	Code-Nr.					
Latona	716					
Lavis	156	421	445	455	748	
Leader	153					
Legend	153	421				
Lenco	153	154	156	170	285	421
	466	760				
Lenoir	153	421				
Lesa	217					
Level	688					
Lexus	285					
Leyco	285	421	698	766		
Lg	455	472	473	486	488	504
	508	577	590	591	592	593
	594	595	597	599	600	601
	632					
Liesenkötter	421					
Life	153					
Lifetec	145	153	156	285	398	405
	421	427	453	743		
Linitron	193					
Lloyd'S	153	346				
Locatel	235					

TV Brand	Code-Nr.					
Lodos	405					
Loewe	206	227	303	416	421	425
	440	451	461	497	558	563
Logik	301	694				
Lögik	301	421				
Love	212					
Luma	153	263	421	776		
Lumatron	263	398	405	414	574	743
	776					
Lux-May	277	421	773			
Luxor	153	275	349	354	368	370
	373	376	378	379	384	398
	405	450	501	515	744	766
Lxi	193	421	605			

M

TV Brand	Code-Nr.					
M Electronics	153	218	265	275	347	373
	376	378	381	384	421	782
Magasin	597	600				
Magnadyne	153	206	216	217	218	421
	426	504	558	752	760	
Magnafon	206	213	351	426	760	762
Magnasonic	153	193	421	504	605	
Magnavox	419	421	437	666		
Magnex	421					
Magnum	455	520				
Mandor	285					
Manesth	285	421	697			
Marantz	347	418	421	471		
Mark	156	258	398	405	421	451
	486	488				
Marshal	145					
Mascom	507	523				
Mascot	217					
Match Italia	421					
Matsui	153	157	213	240	241	277
	301	329	331	332	333	398
	405	504	538	578	605	606
	608	626	694	697	700	
Maxam	153					
Maxell	153					
Maxwell	760					
Mc Michael	666					
Mce	153					
Mcperson	512					
Media Station	627					
Media Tv	442					
Mediator	421					
Medion	368	369	398	405	423	453
	472	486	487	488	489	628
	725	743	745	746		
Megas	704					
Megatron	665					
Melbox	763					
Melectronic	373	376	377	381		
Memorex	153	285	605			
Memory	472	473				
Memphis	153	766				
Mercury	153	421				

TV Brand	Code-Nr.					
Meteor	762					
Metz	240	241	242	243	244	245
	246	249	250	251	253	385
	386	387	398	405	472	504
	557	558	562	564	565	567
	745					
Mga	421					
Micromaxx	398	405				
Minerva	157	240	241	250	251	346
	351					
Minoka	421					
Minsonic	152					
Mirai	534	538	575	707		
Mitsubishi	153	173	174	175	176	177
	178	240	251	301	421	441
	456	558				
Mitsubushi	398	405				
Mivar	210	213	215	262	349	352
	761					
Monitor	281					
Motion	351					
Motorola	193	421				
Mtc	260	281	451			
Multichoice	477	703	738	795		
Multimedia	151					
Multistandard	760					
Multitec	398	405				
Multitech	153	217	301	348	421	760
Murphy	265					
N						
Naim	478					
Namsunc	153					
Nap	421					
National	421					
National Star	736					
Nec	153	281	301	584	713	714
	715	716				
Neckermann	153	197	206	217	240	241
	243	250	260	261	270	347
	419	421	426	447	453	504
	528	530	535	537	558	697
	698					
Nei	145	421	773			
Neovia	324	506	717			
Nesco	218					
New World	145					
Newtech	153	421				
Nikkai	145	285	421	620	766	
Nikkei	421					
Nikko	504	775				
Nissan	281					
Noblex	153	159				
Nobliko	213	346	348	760		
Nogamatic	780	784				
Nokia	144	153	275	276	277	281
	285	354	368	370	372	373
	374	375	376	377	378	379
	381	382	383	384	421	426
	558	605	610	744	752	

TV Brand	Code-Nr.					
Nordmende	192	303	304	333	423	426
	780	782	784	787	789	790
	793					
Nordway	212					
Nortek	421					
Northern Star	716	718				
Nova	265	421				
Novatronic	153	421				
O						
O General	153					
Oceanic	194	373	376	378	381	384
	605	698	776			
Okano	153	260	751			
Olympic	153					
Onceas	153	218				
Onida	421					
Onkyo	711					
Onwa	145	213	277			
Opera	421					
Optanka	193					
Orava	426	438				
Orbit	421					
Orbiter	260					
Orian	735					
Orient	153					
Orion	145	153	179	180	285	301
	305	329	330	332	333	339
	398	405	419	421	423	426
	430	437	447	459	535	578
	697	698	700	726	779	
Osaki	145	421	766			
Oso	145					
Osume	766					
Otake	697					
Otava	464	504	514	517	518	
Otf	153					
Others	142	144	145	153	206	209
	211	240	277	279	301	303
	349	398	421	434	470	493
	504	510	517	605	651	675
	698	750	766	786		
Otrum	423					
Otto Versand	144	148	153	189	192	193
	194	214	216	217	227	240
	241	243	250	251	258	277
	347	363	419	421	425	426
	447	453	504	528	530	535
	536	537	610	615	620	697
	698	755	756	779	782	790
Ovp	499	500				
P						
Pacific	333					
Pael	213	346	504			
Palladium	243	250	260	398	405	421
Palsonic	421					
Panama	153	217	285	421		
Panashiba	153					

TV Brand	Code-Nr.					
Panasonic	147	148	222	223	224	225
	226	227	228	229	230	231
	232	233	240	246	250	251
	421	750				
Panavision	737					
Panavox	153					
Panorama	153					
Panoramic	784					
Pathe	262	780	784			
Pathe Marconi	780	784				
Pausa	153					
Pce/Pec	281	605	610	620		
Peacock	335	574	673			
Penney	281	347	620			
Perfekt	421					
Performance	301					
Pershin	346					
Philco	153	217	260	271	348	351
	421	558	666	748	752	
Philex	421					
Philips	250	263	303	392	393	395
	396	397	399	401	402	406
	408	409	410	411	412	413
	417	418	419	420	421	423
	424	426	436	445	456	459
	460	465	468	504	525	526
	527	528	537	615	666	766
	780	793				
Phocus	400					
Phoenix	421	426	447			
Phonola	421					
Phonotrend	724					
Pioneer	303	338	340	341	421	426
	548	549	550	552	553	554
	555	556	793			
PKS	421					
Plantron	153	285	421			
Platinium	690					
Playsonic	398	405	486	488		
Policom	760	784				
Poppy	153					
Portland	426					
Prandoni Prince	206	217	277	351	504	760
Prima	153	281	285	421	605	620
Princess	153					
Pringston	486	488				
Prinz	347	766				
Pro Basic	699					
Proelco	258	426				
Profex	153	348	760			
Profilo	479	480	487	489	495	507
	522	523	617			
Profitronic	421	504	760			
Proline	165	406	441	450	492	524
	571	582	678	756		
Proscan	281					
Prosonic	486	488	518			
Protec	153	217	285	421	760	
Protech	398	405	419	421	743	

TV Brand	Code-Nr.					
Proton	153					
Proview	631					
Provision	419	486	488	504		
Pulser	153	281	421	666	766	
Pye	421					
Pymi	153					
Q						
Qty1	426					
Quadro	394	398	405	414	432	446
	469	472	473	675	696	749
Quasar	153	217	760			
Quelle	148	153	197	216	227	240
	241	243	250	251	260	261
	263	265	270	271	272	273
	275	301	346	349	351	353
	363	373	376	378	381	384
	398	405	414	418	419	421
	425	426	447	451	504	528
	530	535	537	540	578	610
	615	620	697	698	743	751
	759	776	790	796		
R						
R Line	421					
Radio Shack	193	605				
Radiola	419	421	456			
Radiomarelli	206	217	218	426		
Radiotone	153	258	285	398	405	421
	504	743				
Radix	610					
Rank	351					
Rca	281	544	545			
Realcolor	209					
Realistic	605					
Recor	421	426				
Record	149	258	421	426		
Red Star	507	523				
Regente	153					
Relisys	631					
Revox	351	421	451			
Rex	262	263	776			
Rft	145	258	262	264	423	558
	758					
Rice Club	281					
Roadstar	145	153	258	285	329	398
	405	414	419	421	426	447
	455	486	488	514		
Robotron	241					
Roombase	576					
Rosita	153					
Rosner	209					
Rowa	153					
Royal	144	145	153	240	258	284
	285	421				
Royal Nec	486	488				
Runco	281					

TV Brand	Code-Nr.					
S						
Saba	206	241	303	304	358	390
	488	760	778	780	782	784
	789	790	791	792	793	
Sagem	693	701	704			
Saisho	209	301	421	578	697	
Saivod	398	405	472	473	486	487
	488	489	507	523	743	
Sakio	153	285				
Sakura	153					
Salora	275	349	368	369	373	376
	377	378	380	381	384	425
	495	605	744	766		
Sambers	206	346	348	349	351	504
	760	762				
Samsung	153	154	158	159	209	260
	281	285	289	307	308	309
	310	312	313	314	315	317
	318	319	320	321	322	323
	349	399	407	421	428	490
	491	494	504	510	517	676
Samsung	750	751	766			
Sansui	153	281	285	301	421	
Sany	303	793				
Sanyo	153	209	260	262	265	301
	347	398	405	472	473	488
	507	523	558	602	603	604
	605	606	607	608	609	610
	611	626	750	758	759	766
Sbr	421					
Schaub Lorenz	398	405				
Schneider	145	153	216	262	263	277
	285	347	348	363	391	398
	399	405	419	421	426	432
	440	444	445	453	455	456
	457	458	459	481	486	487
	488	489	495	504	505	506
	507	509	512	520	523	743
Scientific Labs	495					
Scott	596	691				
Screenlant Tft	458					
Sea	472	473				
Sears	605					
Seg	145	153	209	217	285	348
	394	398	405	414	415	472
	473	540	743	758	760	
Seleco	262	263	419	421	482	756
	757	770	776	777	780	790
	795					
Sencora	153					
Sentra	145	620				
Serino	704					
Sharp	182	183	184	185	186	187
	188	189	190	191	192	193
	194	195	421	620	657	756
Shintom	504					
Shintoshi	504					
Shivaki	149	421	504			
Shorai	698					
Show	153					
Siarem	206	210	558	760		

TV Brand	Code-Nr.					
Sicatel	260	764				
Sice	240	251				
Siemens	240	241	243	250	251	259
	270	273	421	444	456	470
	507	523	773			
Siena	455					
Siera	455					
Sierra	421					
Siesta	258	260				
Sigmax	281					
Signature	620					
Silma	421					
Silva Schneider	153	398	432	458	472	473
	479	480	487	489	495	503
	504	505	507	508	509	522
	523	570	613	617		
Silver	145					
Singer	153	217	421	558	760	
Sinotec	504					
Sinudyne	333	421	423	426	437	447
Sinudyne	449	455	537	558	578	697
	698	741	760	762	779	
Sky	337	581	709	726		
Smaragd	157					
Snyder	421					
Sogo	487	489				
Sole	155					
Sonitron	260	605	606	607	610	
SONiX	616	726				
Sonoko	153	285	421			
Sontec	260	421				
Sony	270	301	302	419	421	528
	529	530	531	532	533	535
	536	537	539	540	541	
Sound & Vision	145	760				
Soundcolor	507	523				
Soundesign	281					
Soundmaster	153					
Spectra	156					
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Sr2000	605					
Standard	145	153	218			
Star	283	421	517	696	736	
Star General	735					
Starlite	153	504				
Starlux	153					
Staßfurt	758					
Stern	262	263	776			
Strato	285					
Sungoo	629					
Sunkai	145	697	698			
Sunrise	158					
Sunstar	153					
Sunwatt	421					
Sunwood	153	421				
Supersonic	421					
Supertec	153	421	426			
Supertech	153	426				

TV Brand	Code-Nr.					
Supra	153					
Sutron	153					
Swisstec	288	569	580	581	585	589
	708	709	717	724	726	
Syc Line	153					
Sylvania	421					
T						
Tadistar	504					
Talent	240	251				
Tandberg	246	398	630	784		
Tandy	145	193	217	766		
Targa	321					
Tashiko	666					
Tatung	157	207	301	316	408	421
	423	447	450	495	502	507
	515	518	523	559	671	750
	766	767				
Tauras	613					
Teak	153	421				
Tec	153	156	216	217	263	773
Techline	414	760				
Technica	281	398	405	472	473	487
	489	741				
Technics	421					
Techniland	421					
Technisat	423	741	771			
Technol	153	421				
Technosonic	423					
Technotrend	724					
Techwood	186	281	394	398	404	405
	473					
Tecnimagen	418	423	455	488		
Tecnison	153	504				
Teco	143					
Tedelex	153	421				
Teknant	153	421				
Tekon	153	281				
Teleavia	303	780	782	784		
Teleco	483					
Telefac	153					
Telefunken	217	271	272	303	304	359
	381	389	390	403	421	479
	480	745	776	778	780	782
	783	784	785	787	788	790
	793	796				
Teleopta	153					
Telerent	451					
Teleservice	240	251				
Telestar	153	507	523			
Teletech	153	217	398	405	524	743
Teleton	263	776				
Teleview	507	523				
Telra	507	523				
Tempest	153					
Tensai	145	153	209	213	218	265
	421	504	698	755	760	
Tenson	153					
Tesla	421	484	504	558	741	

TV Brand	Code-Nr.					
Tevion	398	405	453	486	488	507
	523	585	628	716	725	743
Thomas	153	281	421	666	766	
Thomson	169	212	240	265	271	303
	346	358	359	360	361	362
	390	457	765	780	782	784
	785	788	789	790	793	796
Thorn	176	212	240	251	265	276
	278	301	346	421	465	517
	537	609	610	620	625	626
	661	666	750	765	782	784
	788	789	790	793		
Thorn-Ferguson	212	240	250	251	271	303
	346	421	535	537	765	782
	784	788	793	796		
Tmk	281					
Tobo	153					
Tokai	418	421	766			
Tokyo	158	281				
Toshebia	736					
Toshiba	165	240	241	281	308	326
	328	329	351	398	405	421
	486	488	605	610	612	614
Toshiba	615	617	618	619	620	624
	625	626	721	722		
Tosonic	281					
Towada	760					
Transonic	421					
Trc	144	153	504			
Trevi	153					
Triad	421					
Triax	358	507				
Trilux	258	408	426	441	743	
Tristar	145					
Triumph	351	578				
Trivision	153					
U						
Uher	263	347	351	421	451	535
	760	776				
Ultra	766					
Ultravox	213	217	421	558	760	
Uma	145	240	251	260	271	272
	273	303	346	421	780	784
	793					
Unic	260					
Unimor	258	421				
United	329	398	421	486	488	
Universum	153	217	240	243	250	251
	258	259	260	265	271	275
	285	301	346	369	381	398
	405	414	415	419	421	426
	445	475	504	537	743	776
Univox	218	421	558			
Upc	422					
Uranya	153	760				
V						
Vanguard	153					
Vasilinec	153					
Veco	153	421				

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TV Brand	Code-Nr.						TV Brand	Code-Nr.				
Vega	558						Wegavox	153	217	421	752	
Vente	456						Welltech	486	488			
Vestel	394	398	405	406	414	415	Welstar	398	405	472	473	581
	421	426	427	432	472	473	Weltblick	421				
	743						Whirlpool	358	359	456		
Vexa	153	421					White Westinghouse	213	398	405	421	454	605
Victor	204							752	760			
Videcon	421						Wilson	674				
Video System	421						Windsor	398	405	743		
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Videosat	217						Winston	153	421			
Videoseven	538	726					Winternitz	153				
Videoton	303	752	781	793			Wizja	408				
Vidion	153						World Of Vision	306	335			
Viditel	285						World-Tech	156				
Viewpia	723						Worldview	153	421			
ViewSonic	334	702										
Vision	153						**Y**					
Vison	421						Yamaha	615	618	642	653	
Vogells	588						Yamo	145				
Vortec	421						Yevici	153				
							Yokan	421				
Voxson	351	421	504	558			Yoko	145	153	156	261	285	421
Vtq	758							426	605	784		
							York	421	610			
W							Yorx	145				
Walkie	263						Yoshita	421				
Waltham	303						Yotaka	421				
Wards	204	421										
Watson	145	153	273	398	405	414	**Z**					
	421	426	486	488	743		Zanussi	776				
Wattradio	213	504	752	760	762		Zenith	421				
Wega	558											

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