
HD Digital Receiver
Ricevitore digitale HD

User's Manual Manuale dell'utente

HD-5400S

The default password is 0000.
La password predefinita è 0000.



HUMAX

Thank you for purchasing a HUMAX product. Please read this user's manual carefully to be able to safely install, use and maintain the product at maximum performance. Keep this user's manual next to your product for future reference. The information in this user's manual is subject to change without notice.

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Warranty

The warranty does not cover parts which may become defective due to misuse of the information contained in this manual.

Meaning of Symbols



To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.



This symbol indicates dangerous voltage inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.

Warnings, Cautions and Notes

Throughout the whole manual, pay special attention to the following marks that indicate hazardous situations.

Warning

Indicates a hazardous situation which could result in serious injury.

Caution

Indicates a situation which could damage the equipment or other apparatus.

Note

Indicates additional information to make the user aware of possible problems and information of any importance to help understand, use and maintain the installation.

Notice

'WEEE' Instructions



This product should not be disposed with other household wastes at the end of its working life. Please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. This will prevent possible harm to the environment or human health from uncontrolled waste disposal.

Domestic users:

Please contact either the retailer where you purchased this product or their local government office for details of where and how they can take this item for environmentally safe recycling.

Business users:

Contact your supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

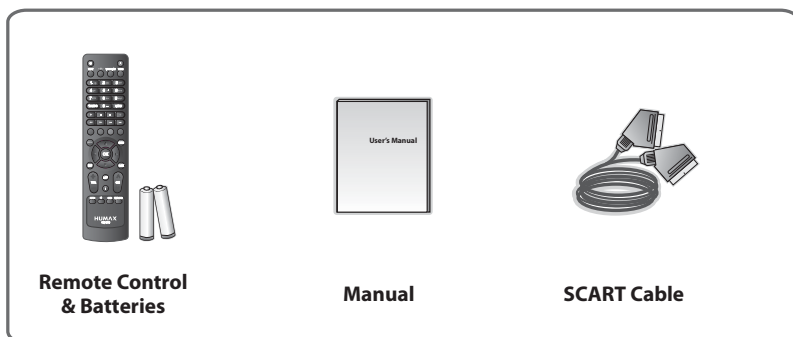
Trademarks

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Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- HDMI, the HDMI Logo, and High-Definition Multimedia interface are trademarks and registered trademarks of HDMI Licensing LLC.

Quick Start Guide	4	Installation	58
1. Checking Accessories	4	Search Channels [Fixed Antenna]	58
2. Product Overview	4	Search Channels [SCD Antenna]	62
3. Connections	9	Search Channels [Motor Antenna]	63
4. Powering On	12	tivùsat Search	66
5. First Installation Wizard	13	Software Update (OTA)	67
6. Menu Overview	15	Regular Auto Update	69
Basic Operation	16	Invisible Channel Search	69
Changing Channels	16	Factory Default	70
Volume / Mute / Audio	16	System	71
Display Format / Resolution	17	System Information	71
Programme Information (i-plate)	18	Signal Detection	71
Subtitle	19	Power Management	72
Option	19	Nagra Smartcard Information	72
Text and Interactive Services	20	Data Storage	73
Channel List	21	Internet Setting	73
Changing Channels	21	tivùsat Service	74
Editing Channels in Channel List	23	tivùsat Service	74
Managing Channels	24	Pay Per View Service	75
Editing tivùsat Channels	24	Conax Conditional Access	75
Editing Channels	26	Appendix	76
Editing Favourite Channels	27	Specification	76
Automatic Channel Numbering	29	Service and Support	78
Renew Channel Numbers	29	Safety Warning	79
TV Guide	30	Trouble Shooting	81
Watching Programmes	30	Error Message	83
Setting Reminders or Recordings	31	Glossary	85
Finding Programmes	32	OPEN SOURCE SOFTWARE NOTICE	87
Scheduling Reminders and Recordings	33		
Recording and Playback	34		
Recording	35		
Playback	39		
Pausing and Rewinding Live TV (TSR)	41		
Media List	42		
Using DLNA Server	44		
Using Video List	45		
Using Music List	48		
Using Photo List	50		
Preferences	53		
Parental Control	53		
Language Setting	54		
Setting Power On/Off Timer	54		
Video Setting	55		
Audio Setting	56		
Screen Display	57		
MHP Settings	57		

Quick Start Guide

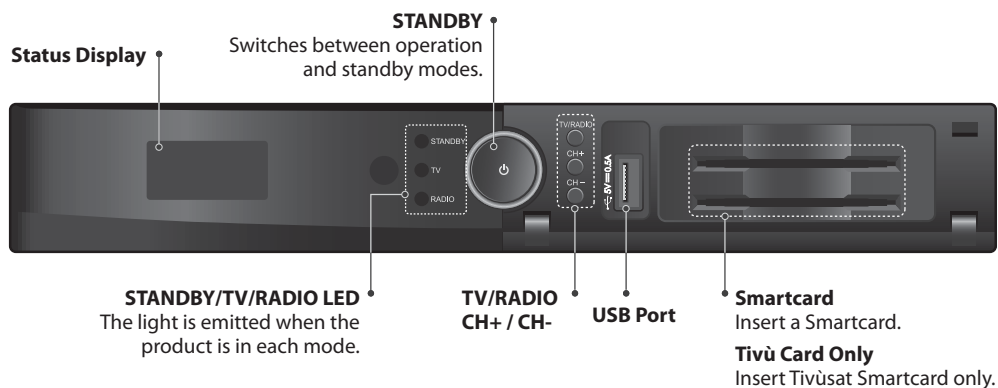
1. Checking Accessories



Note: The accessories may vary according to area.

2. Product Overview

Front Panel



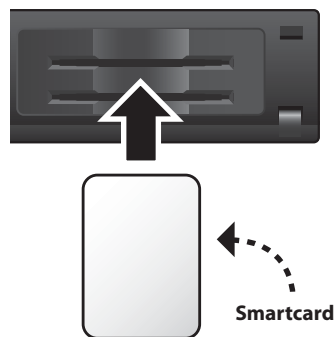
Note: The image shown may differ from the actual product.

Inserting the Smartcard

1. Open the right-hand flap on the front panel to expose the card slot.
2. Hold the Smartcard horizontally with the electronic chip facing downwards.
3. Insert the Smartcard into the slot.

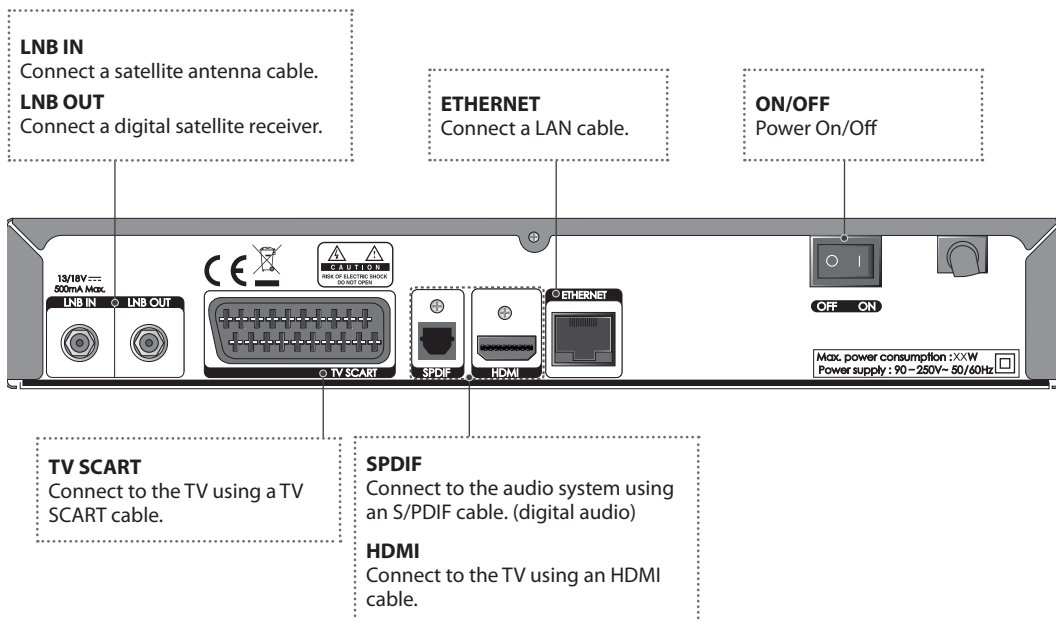
Note:

- Smartcard: Insert a Smartcard.
- Tivù Card Only : Insert a tivùsat Smartcard.



Quick Start Guide

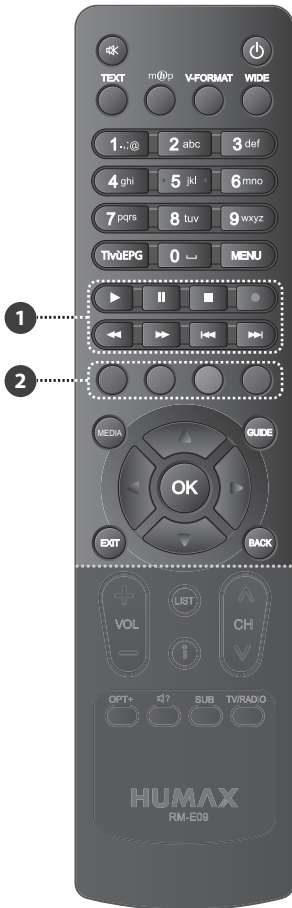
Rear Panel





Note: The image shown may differ from the actual product.

Quick Start Guide

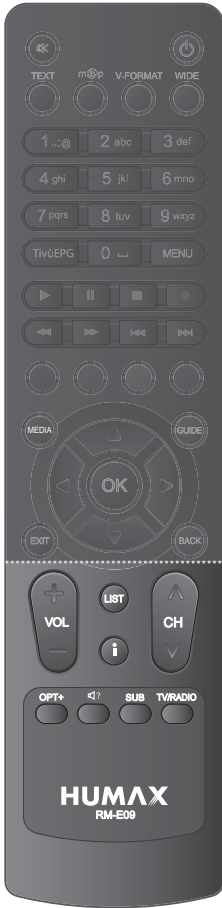
Remote Control



-  **MUTE** Mutes audio.
 -  **STANDBY** Switches between operation and standby modes.
 - TEXT** Enters the digital text service.
 - mhp** Displays MHP application information.
 - V-FORMAT** Sets the resolution of video.
 - WIDE** Sets the display format.
 - NUMERIC** (0-9)
 - TivùEPG** Currently not supported.
 - MENU** Displays the main menu.
- 1 Playback Control Buttons** ▶ Play, || Pause, ■ Stop, ● Record, ◀◀ Rewind, ▶▶ Fast Forward, ◀◀ Previous, ▶▶ Next, ↺ Instant Replay, ↻ Skip
 - 2 COLOUR Buttons** Colour keys for interactive applications.
- MEDIA** Displays the media list.
 - GUIDE** Displays the programme guide.
 - ARROW Buttons** Moves the cursor up, down, left or right.
 - OK** Selects (Enters) a menu or confirms a selection.
 - EXIT** Exits all On-Screen Display (OSD) screens.
 - BACK** Returns to the previous channel. Goes back to the previous screen.

Note: The image shown may differ from the actual product.

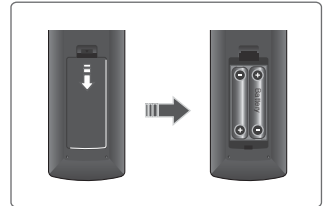
Quick Start Guide



- VOL +/-** Adjusts the audio volume.
- CH ^/V** Changes the channel or page.
- LIST** Displays the channel list.
- i (Information)** Displays the channel and programme information.
- OPT+** Displays the channels attributes.
- 🔊 AUDIO** Displays the audio list.
- SUBTITLE** Displays the subtitle language list.
- TV/RADIO** Switches between TV and radio modes.

Inserting Batteries

1. Press the hook downward and lift the battery cover off.
2. Insert the batteries matching the plus(+) and minus(-) at each end.
3. Close the cover.



Customer information

concerning the "Application of the Directive 2008/103/CE regarding batteries, accumulators and the related waste disposal".

Your remote control needs 2 batteries AAA type, 1,5VDC. The batteries included don't contain mercury (Hg), cadmium (Cd) or lead (Pb).

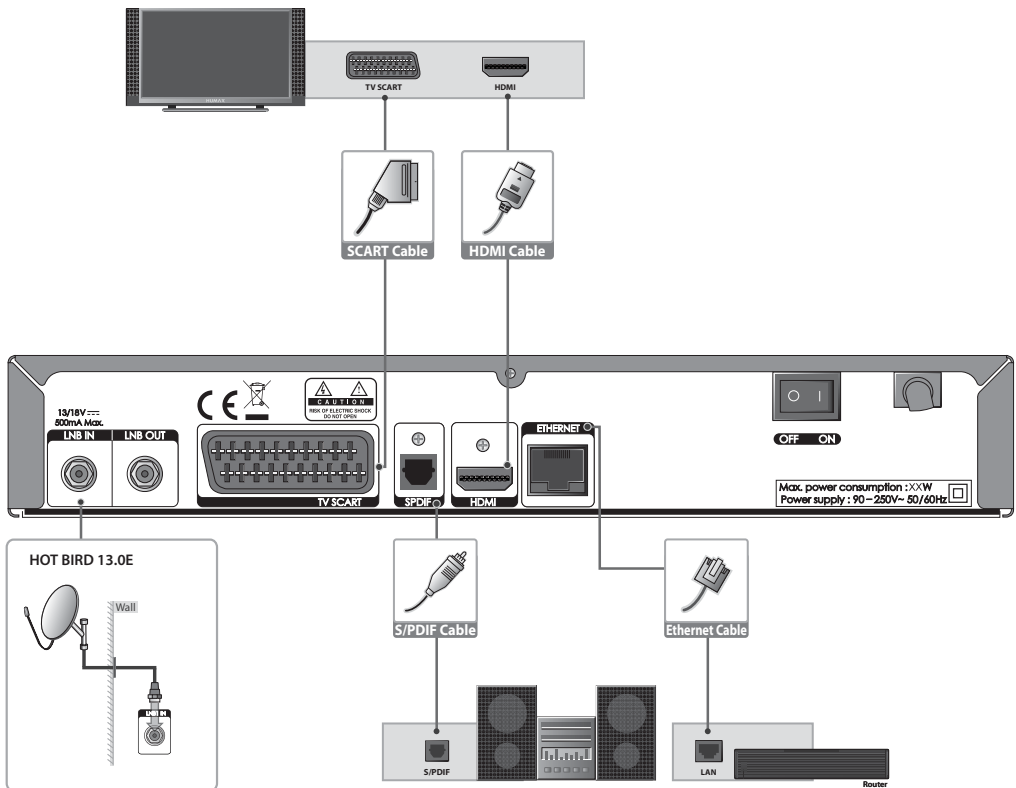
Do not mix different types of batteries or new and old batteries. Do not use rechargeable batteries. In order to avoid any risk of explosion, observe polarities indicated inside the battery compartment. Replace only with the type of batteries specified above. Do not throw them into fire, do not recharge them. If you are not using the remote control for a long period of time, remove the batteries. Please respect the environment and prevailing regulations! Batteries must be collected separately from other refuse!

3. Connections

This section describes how to connect your product to match your particular devices setup and to gain optimum signal quality. The product provides various interfaces to connect to the TV, VCR or other devices. Select the most appropriate procedure depending on the device you have.

Warning: Connect all components before plugging any power cords into the wall outlet. Always turn off the product, TV and other components before you connect or disconnect any cables.

Note: If you encounter any problems setting up your product, please contact your local retailer or HUMAX Customer Helpline.



Quick Start Guide

Connecting the Antenna

Connect the antenna to **LNB IN**.

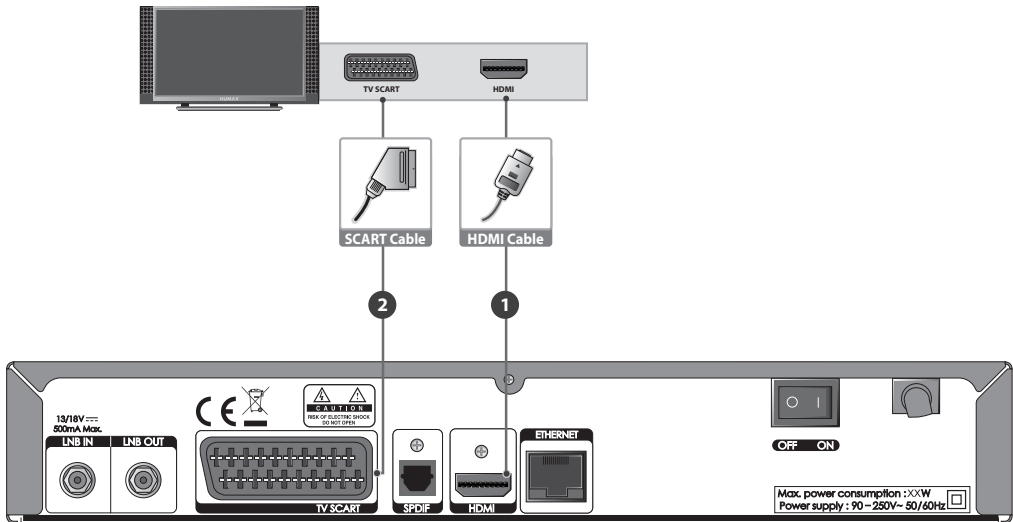
Connecting the TV

① TV with the HDMI connector

For the best picture quality, connect the product and TV using an HDMI cable.

② TV with the SCART connector

For good picture quality, connect the product and TV using a SCART cable.



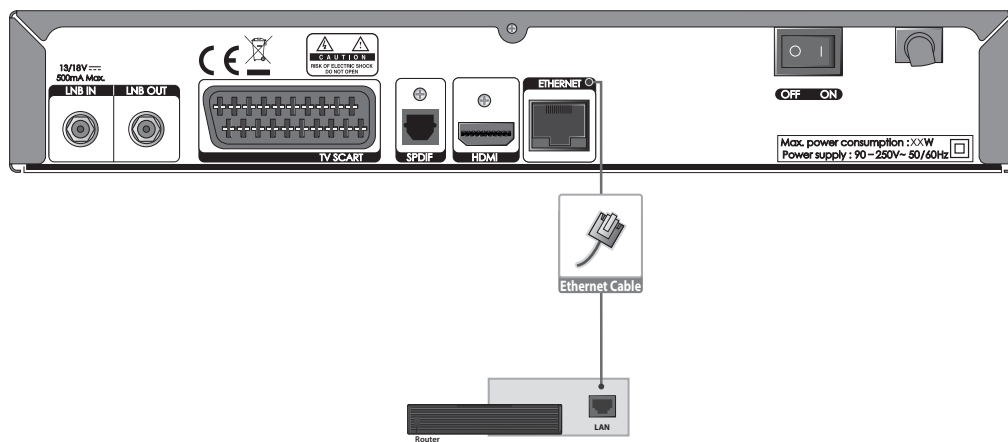
Note:

- When using the digital audio system, connect the product and the digital audio system using an S/PDIF cable for audio.
- Programmes restricted by DRM (Digital Rights Management) may not be viewed via the HDMI cable. Connect using the SCART.

Connecting the Network

1 Connecting to the LAN

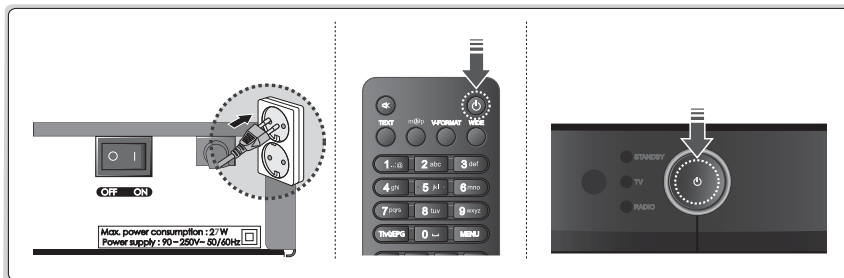
Connect one end of the Ethernet cable to the product and the other end to the LAN router.



Quick Start Guide

4. Powering On

1. Connect the power cord of the product to a wall outlet.
2. Ensure the **ON/OFF** switch at the rear of the product is switched to **ON**.
2. Power on by pressing the **STANDBY** button on the remote control or the **STANDBY** button at the front of the product.



5. First Installation Wizard

When powering on your product for the first time after purchase or performing the factory default in menu, the installation wizard will operate automatically.

Note: If you exit the installation wizard without fully completing the channel searching procedure, you may not have all of the channels available. In this case, you can use the **Settings > Installation** menu to search for more channels.

1. Language

Select your language.



2. Display

Set the video output to your TV.



3. Automatic Channel Numbering

Set channels to be numbered automatically by broadcaster.



Quick Start Guide

4. Search Channels

Select the type of channel search.

- **Automatic Search:** : Search all channels of HOT BIRD (13.0E) automatically.
- **Skip:** If you have SCD or Motor antenna, skip the search process and go to **MENU > Settings > Installation.**



5. Automatic Search

Channel search will begin automatically. Save the found channels when the search is complete.







6. Result

The result of the Installation Wizard is shown. Select **Finish** to exit the wizard.



6. Menu Overview



	Channel List
	TV Guide
	Video
	Music
	Photo
	Settings 

Preferences

- Parental Control
- Language
- Time
- Video
- Audio
- Recording
- Screen Display
- MHP Settings

Edit Channels

- Edit tivùsat Channel List
- Edit Channel List
- Edit Favourite List
- Automatic Channel Numbering
- Renew Channel Numbers

Installation

- Search Channels
- tivùsat Search
- Software Update
- Regular Auto Update
- Invisible Channel Search
- Factory Default

System

- System Information
- Signal Detection
- Power Management
- Nagra Smartcard Information
- Data Storage
- Internet Setting

tivùsat Service

Pay Per View Service

- Conax Conditional Access

How to Navigate

MENU

Displays the main menu

OK or 

Selects (Enters) a menu or confirms a selection

BACK

Goes back to the previous screen

EXIT

Exits all On-Screen Display (OSD) screens



Moves among menus or options



Changes or adjusts the option



Enters the number (0~9)

Basic Operation

Changing Channels

You can change the channels in several ways.

- ❖ Press the **CH** \wedge / **V** button.
- ❖ Enter the channel number directly. **(0-9)**
- ❖ Go to the channel list or TV guide and select a channel.

Note:

- Press the **TV/RADIO** button to switch between TV and radio channels.
- Press the **BACK** button to return to the previous channel.

Volume / Mute / Audio

- ❖ To adjust the audio volume, press th **VOL+/-** button.
- ❖ To mute the audio temporarily, press the **MUTE** button.

Setting Audio Options

Audio options are available only when the programme supports multiple audio languages.

Press the **AUDIO** button to change the audio language and direction.

Each time you press this button, the value changes.

Note:

- The mute function remains set while you change channels.
- You cannot set the audio direction when the programme is broadcast in Dolby Digital.



 Display

Display Format / Resolution

Setting Display Format

Press the **WIDE** button to set the display format according to the screen ratio. Each time you press this button, the value changes.

- Screen ratio 4:3: **Auto** – **Letterbox** – **Centre**
- Screen ratio 16:9: **Auto** – **Pillarbox** – **Zoom**

Note: Refer to **Setting Display Format** for details.



Setting Resolution

Press the **V-FORMAT** button to set the resolution of the screen. Each time you press this button, the value changes.

- **576i - 576p - 720p - 1080i - Original**

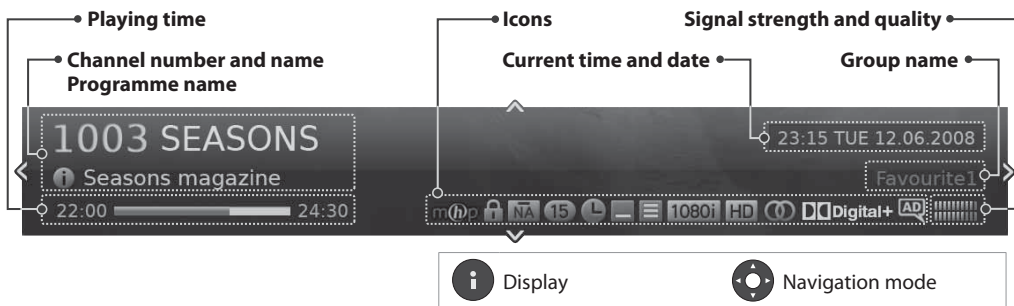
Note: When connected with an HDMI cable, you can only change to resolutions the TV supports.



Basic Operation

Programme Information (i-plate)

The i-plate is an information banner that is displayed for a certain period of time whenever you change channels. Press the **i** button while watching a programme to display the i-plate. Press the **EXIT** button to hide.



- **Viewing detailed programme information**
Press the **i** button again while the i-plate is displayed.
- **Viewing previous/next programme information**
Press the **◀/▶** button while the i-plate is displayed. Press the **OK** button to set reminders or recordings for future programmes.
- **Viewing programme information of other channels**
Press the **▲/▼** button while the i-plate is displayed. Press the **OK** button to change to the selected channel.

Icons

The icons represent the information and services provided.

	Locked programme		Subtitle
	Scrambled programme (CAS icons)		Teletext
	Parental level (minimum age for viewing)		Multiaudio
	HD programme		Screen ratio
	Scheduled programme (Red: Record, Blue: Reminder)		Dolby Digital audio
	Resolution		Dolby Digital Plus audio
	MHP application		Audio description

Note:

- Programme information is not displayed when there is no programme information.
- Setting recordings is available only when the external hard disk drive has been connected for recording.

Subtitle

You can select the subtitle language when subtitle information is provided.

Press the **SUB** button to change the subtitle language.

Each time you press this button, the value changes.

Note: You can choose to always display the subtitle when available.



Option

You can set the options for the watching channel.

1. Press the **OPT+** button.
2. Select an option.
 - **Audio:** Change the audio language and direction.
 - **Favourite:** Select the favourite group to add the channel.
 - **Lock:** Select **On** or **Off**.
 - **Delete:** Press the **OK** button.
 - **Rename:** Press the **OK** button and enter the name in the keyboard.
3. Select **OK** to save and exit.



Basic Operation

Text and Interactive Services

If your chosen channel has digital teletext features, you can access them. Teletext services often load automatically shortly after the digital teletext window is displayed. In which case, simply follow the on screen instructions. (Press colour buttons).

1. Press the **TEXT** button to access digital teletext.
2. Press the **TEXT** button again to return to normal viewing.
3. Press the **CH** \wedge /**V** button to exit this service.

Note: The channel and volume cannot be controlled using the arrow buttons in interactive mode.



Channel List

The channel list will help you find the channel you want to watch quickly and easily.

You can access the channel list in several ways.

- ❖ Press the **LIST** button.
- ❖ Press the **MENU** button and select **Channel List**.

Changing Channels

Select the channel you want to watch and press the **OK** button. The displayed channel will change.

Note:

- : Locked channel, : Scrambled channel (CAS icons)
- Press the **i** button to view the detailed channel information.
- Press the **LIST** or **EXIT** button to exit.

Advanced Options

Changing Group

You can display the list of the selected channel group.

- **tivusat, TV, HDTV, Radio, Favourite 1~5, Recent**

1. Press the **▶** button.
2. Select a channel group.
3. Press the **OK** button.

Note: Press the **TV/RADIO** button to switch between TV and Radio groups.

Sorting Channels

Press the **RED** button to sort the list in numerical or alphabetical order.

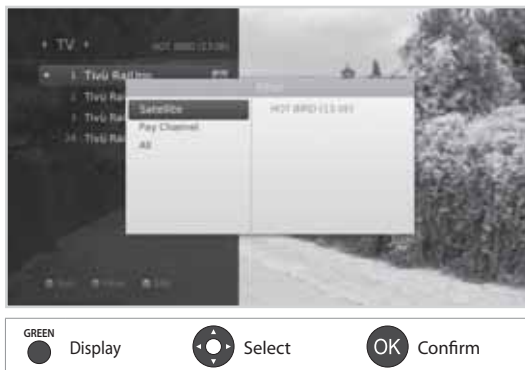


Channel List

Filtering Channels

You can filter the channels according to channel type in TV or Radio list.

1. Press the **GREEN** button.
2. Select the channel type.
 - **Satellite, Pay Channel, All**
3. Press the **OK** button.



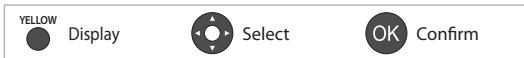
Editing Channels in Channel List

You can edit each channel in the channel list, as well as in menu. To edit the multiple channels, go to the **MENU > Settings > Edit Channels**.

Locking / Deleting / Renaming Channels

1. Select a channel you want to edit and press the **YELLOW** button.
2. Select an option.
 - > **Lock:** Select **On** or **Off**.
 - > **Delete:** Press the **OK** button.
 - > **Rename:** Press the **OK** button and enter the name in the keyboard.
3. Select **OK** to save and exit.

Note: The default password is 0000. If you have forgotten your password, please contact your local distributor.



Setting Favourite Channels

You can select your favourite channels and include them in the favourite group.

1. Select a channel and press the **YELLOW** button.
2. Select **Favourite** and press the **OK** button.
3. Select a favourite group you want to include the channel in and press the **OK** button. To remove a channel from a favourite group, select the group and press the **OK** button again.
4. Select **OK** to save and exit.

Managing Channels

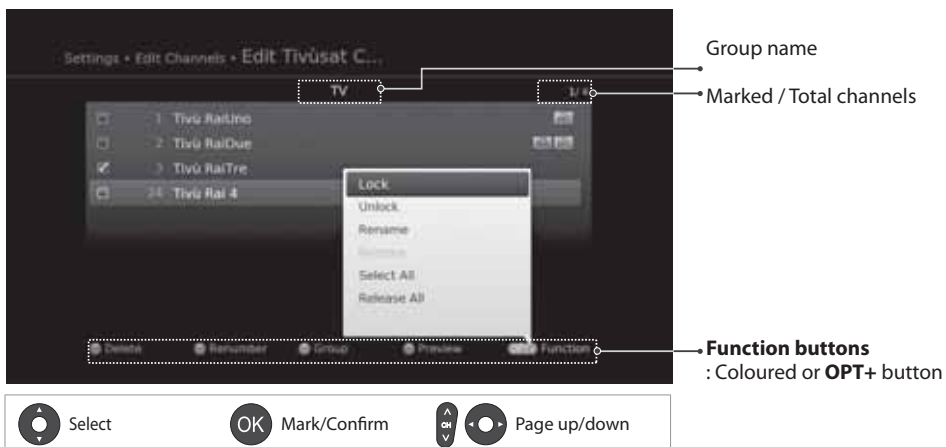
You will be prompted to enter the password to access this menu.

Note: The default password is 0000. If you have forgotten your password, please contact your local distributor.

Editing tivùsat Channels

The Edit tivùsat Channel List menu will help you delete, move, lock or rename tivùsat channels.

MENU → **Settings** → **Edit Channels** → **Edit tivùsat Channel List**



Note:

- : Locked channel, : Scrambled channel (CAS icons)
- Press the **i** button to view the detailed channel information.
- Press the **MENU** or **EXIT** button to exit. Press the **BACK** button to return to the previous screen.
- The channels that are automatically numbered by broadcaster cannot be deleted or moved.

Deleting Channels

1. Select the channels using the **▲/▼** and **OK** button.
2. Press the **RED** button.

Renumbering Channels

Channels can be renumbered only when **Automatic Channel Numbering** is set to **On**.

1. Press the **GREEN** button.
The channels will be renumbered.

Locking / Unlocking Channels

1. Select the channels using the ▲/▼ and **OK** button.
2. Press the **OPT+** button.
3. Select **Lock**. To unlock, select **Unlock**.

Renaming Channels

1. Select a channel to rename.
2. Press the **OPT+** button.
3. Select **Rename**.
4. Enter the name in the keyboard.

Advanced Options

Changing Group

To list the channels of other groups, press the **YELLOW** button and select a group you want.

Note: Press the **TV/RADIO** button to switch between TV and Radio groups.

Changing Background

You can change the channel displayed in the background while editing.

1. Select the channel you want to watch.
2. Press the **BLUE** button. The displayed channel will change.

Selecting / Releasing All Channels

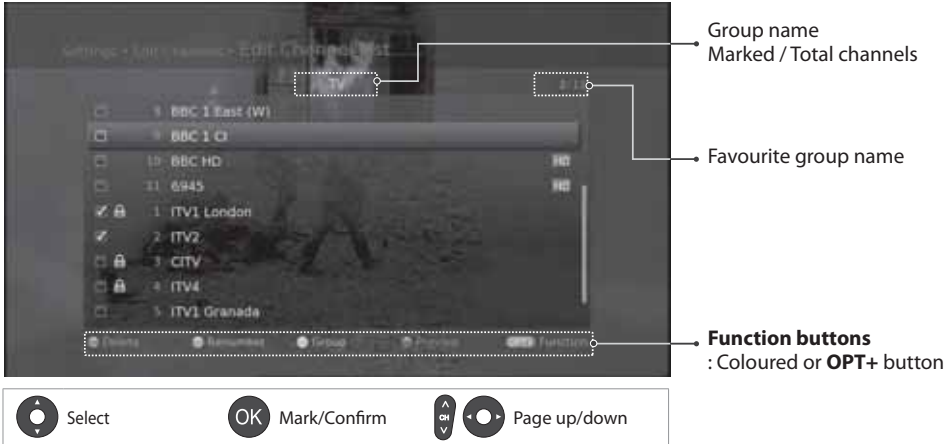
1. Press the **OPT+** button.
2. Select **Select All**.
3. To release all, select **Release All**.

Managing Channels

Editing Channels

The **Edit Channel List** menu will help you delete, move, lock or rename multiple channels.

MENU → **Settings** → **Edit Channels** → **Edit Channel List**



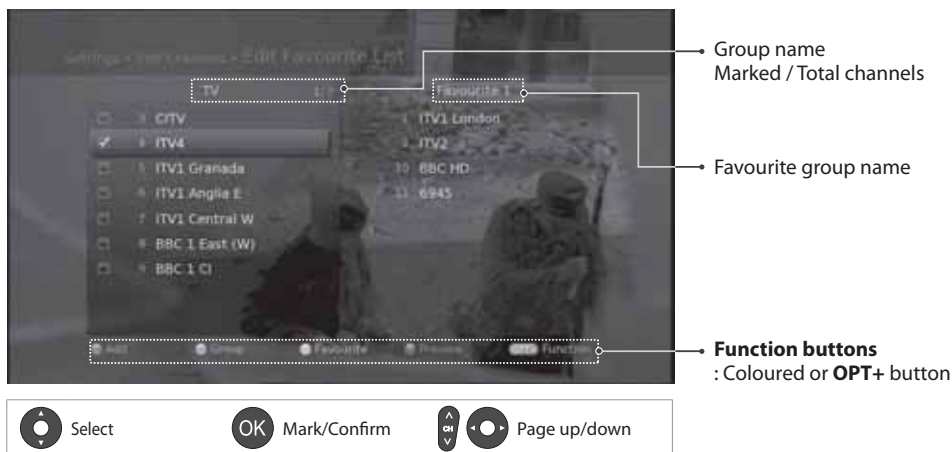
Note:

- : Locked channel, : Scrambled channel (CAS icons)
- Press the **i** button to view the detailed channel information.
- Press the **MENU** or **EXIT** button to exit. Press the **BACK** button to return to the previous screen.
- The channels that are automatically numbered by broadcaster cannot be deleted or moved.
- Refer to **Edit tivùsat Channel List** for operations.

Editing Favourite Channels

The **Edit Favourite List** menu will help you add or remove channels from the favourite groups.

MENU → **Settings** → **Edit Channels** → **Edit Favourite List**



Note:

- Press the **i** button to view the detailed channel information.
- Press the **MENU** or **EXIT** button to exit. Press the **BACK** button to return to the previous screen.
- The channels that are automatically numbered by broadcaster cannot be deleted or moved.

Adding / Removing Favourite Channels

1. Press the **YELLOW** button and select the favourite group you want to edit.
2. To add channels to the favourite list, select the channels you want to add using the **▲/▼** and **OK** button in the left column and then press the **RED** button. The added channels will appear in the right column.
3. To remove channels from the favourite list, select the channels you want to remove in the right column and then press the **RED** button.

Moving Channels

1. Select the channels using the **▲/▼** and **OK** button.
2. Press the **GREEN** button.
3. Move the selected channels to the location you want using the **▲/▼** and **OK** button.

Note: You can move the channels in the right column only.

Managing Channels

Renaming Favourite Groups

1. Press the **YELLOW** button and select the favourite group you want to edit.
2. Press the **OPT+** button.
3. Select **Rename**.
4. Enter the name in the keyboard.

Advanced Options

Changing Group

To list the channels of other groups in the left column, press the **GREEN** button and select a group you want.

Note: Press the **TV/RADIO** button to switch between TV and Radio groups.

Changing Background

You can change the channel displayed in the background while editing.

1. Select the channel you want to watch.
2. Press the **BLUE** button. The displayed channel will change.

Selecting / Releasing All Channels

1. Press the **OPT+** button.
2. Select **Select All**.
3. To release all, select **Release All**.

Automatic Channel Numbering

MENU → Settings → Edit Channels → Automatic Channel Numbering

You can set the channels to be numbered automatically by broadcaster.

Select **On** to set the channel numbers automatically by broadcaster.

Note: Whenever changing the value, channels will be searched again.



Renew Channel Numbers

MENU → Settings → Edit Channels → Renew Channel Numbers

You can renew the channel numbers you edit. Select **Yes** and press the **OK** button to renew the channel numbers.

Note: This function is available only when **Automatic Channel Numbering** is set to **On**.



TV Guide

The TV guide is an on-screen guide of grid type which displays the programme information of channels in time and date order.

You can access the TV guide in several ways.

- ❖ Press the **GUIDE** button.
- ❖ Press the **MENU** button and select **TV Guide**.

Note: Press the **GUIDE** or **EXIT** button to exit. Press the **BACK** button to return to the previous screen.

Annotations for the TV Guide screenshot:

- Preview
- Current time and date
- Information of the selected programme:** channel number & name, programme name, simple information, favourite group, network type, and icons
- Time bar
- Function buttons**: Coloured button

Navigation buttons at the bottom:

- Select
- Confirm
- Page up/down

Note:

- Press the **i** button to view the detailed programme information.
- : Scheduled programme (Red: Record, Blue: Reminder), : Recording programme, : Present time

Watching Programmes

1. Select a programme and press the **OK** button. The programme will be displayed in the preview.
2. Press the **OK** button again to exit the TV guide and watch the programme.

Setting Reminders or Recordings

1. Select a future programme and press the **OK** button.
2. Select **Reminder** or **Record** and press the **OK** button.
3. Press the **OK** button again to cancel the reservation.
The reserved programmes will be added automatically in **Schedule**.

Note:

- If the programme is conflicted with another programme, adjust the reservation appropriately.
- If the channel is locked, you will be prompted to enter your password to complete the reservation. The default password is 0000. If you have forgotten your password, please contact your local distributor.
- You can reschedule reminders or recordings. (Refer to **Scheduling Reminders and Recordings**.)
- Setting recordings is available only when the external hard disk drive has been connected for recording.

Advanced Options

Quick Navigation

Press the ◀/▶ button to move to the previous/next programme.

Press the ◀◀/▶▶ button to jump back/ahead two hours.

Press the ◀◀◀/▶▶▶ button to move to the previous/next day.

Changing Group

To list the channels of other groups, press the **BLUE** button and select a group you want.

Note:

- Press the **TV/RADIO** button to switch between TV and Radio groups.
- To search specific programmes, go to **Find** by pressing the **GREEN** button. (Refer to **Finding Programmes**.)

TV Guide

Finding Programmes

Find will help you find the programmes more specifically using the keyword or genre.

By Keyword

1. Press the **GREEN** button.
2. Select **Keyword** and press the ► button.
3. Select a keyword and press the **OK** button.

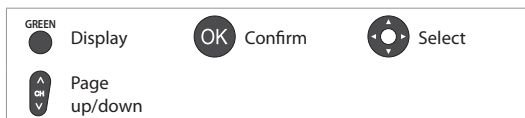
Note: To enter a new keyword, select **New Keyword**.

By Genre

1. Press the **GREEN** button.
2. Select **Genre** and press the ► button.
3. Select a genre and press the **OK** button.
4. Select the specific genre and press the **OK** button. (if provided)

Note:

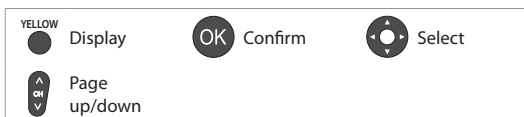
- Press the **i** button to view the detailed programme information.
- Press the **OK** button to watch a found programme.
- You can set reminders or recordings for future programmes. (Refer to **Setting Reminders or Recordings**.)



Scheduling Reminders and Recordings

Schedule lists reminders or recordings and will help you manage them in more detail.

1. Press the **YELLOW** button.
2. You can add, edit or delete your reminders or recordings.
 - To add, select **New Reminder** and press the **OK** button.
 - To edit, select a reservation and press the **OK** button.
 - To delete, select a reservation and press the **BLUE** button.
3. **Reservation** will pop up. You can change the options you want using the ▲/▼/◀/▶, **NUMERIC(0~9)** and **OK** buttons.
4. Select **OK** to save and exit.



Note:

- Press the **i** button to view the detailed programme information.
- You can easily set reminders or recordings in **TV Guide**, **Find** or **i-plate** navigation mode.

Recording and Playback

You can record programmes in the external disk drive and playback the recorded programmes whenever you want.

This function is available only when the external hard disk drive has been connected to the product via the USB port.

Note:

- Certain hard disk drives may not be recognized or function properly.
- Make sure that the external hard disk drive is connected correctly before recording or playback.
- Please connect only the USB hard disk drive which has only one partition and was formatted for recording. If you connect the external hard disk drive for the first time, you will be prompted to format the USB hard disk drive to be used for recording. Please format the device according to the following steps.
- A USB storage device which was formatted with FAT32 or NTFS file system works only for media (MP3, JPEG, XviD).
- Supported features according to USB file system
 - **ext3** : Record, Read, Copy (Digital TV/Radio, MP3, JPEG, XviD)
 - **FAT32** : Read, Copy (MP3, JPEG, XviD)
 - **NTFS** : Read (MP3, JPEG, XviD)
- Even if you have connected more than two external hard disk drives, you can use only one hard disk drive for recording.
- Please connect power to a USB storage device which requires an external power supply. If not, the device may not be recognized.
- Please connect a USB storage device with the cable offered by the device maker. If you use a cable which is not offered by the device maker or an excessively long cable (max 5m), the device may not be recognized.
- If the USB storage device is connected in standby mode, it will automatically be recognized when the product is turned on.
- Please do not disconnect or turn off the USB storage device while recording or playing back. When the USB storage device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- Be sure to back up important files since data stored in a USB storage device may be damaged. We will not be responsible for any data loss.
- Some USB storage devices may not be supported or operated smoothly.
- How fast a USB storage device is detected differs from device to device.
- USB storage devices below USB 2.0 are supported as well. But they may not work properly.



Recording

Instant Recording

You can record the currently watching programme instantly and change the recording duration.

To instantly record the current programme you are watching, press the **RECORD** button.

The recording will start from the current broadcast point and the record banner will be displayed for a few seconds.

Press the **STOP** button to stop recording the programme.



The recording will continue till the end of the current programme. However, if the programme ends in less than ten minutes, it will continue till the end of the next programme. When no programme information is provided, the recording will continue for two hours.

Changing Recording Duration

1. Press the **RECORD** button on the currently recording channel.
2. Set the duration manually or select till the end of the current programme or the next programme.



Recording and Playback

Scheduled Recording

You can easily set the recording reservations in **TV Guide**, **Schedule** or i-plate navigation mode.

- ❖ Select a future programme and press the **OK** button in **TV Guide**.
(Refer to **Setting Reminders or Recordings**.)
- ❖ Select **New Reminder** and press the **OK** button in **Schedule**.
(Refer to **Scheduling Reminders or Recordings**.)
- ❖ Press the **OK** button on a future programme in i-plate and select **Record**.
(Refer to **Programme Information**.)



The recording will start at the scheduled time and the record banner will be displayed for a few seconds. Press the **STOP** button to stop recording the programme.

Note:

- Press the **GUIDE** button to go to **TV Guide**.
- Press the **GUIDE** button and press **YELLOW** button to go to **Schedule**.
- Press the **i** button while watching a programme to display the i-plate.
- Setting recordings is available only when the external hard disk drive has been connected for recording.

Editing Recording Schedule

You can edit or delete your reservations in **Schedule**.

- To edit, select a reservation and press the **OK** button. You can change the options such as channel, date, time, repeat mode, etc.
- To delete, select a reservation and press the **BLUE** button.

Recording Conflict

Recording Duration Conflict

When an instant recording conflicts with a scheduled recording (or reminder), you can either;

- Record for the automatically modified duration.
- Cancel the scheduled recording (or reminder).



Watching Conflict

When a scheduled recording starts on a different channel while you are watching a channel, a record notice will pop-up 30 seconds before the scheduled recording starts.

- **OK:** The channel will change at the start time and the scheduled recording will start automatically.
- **Cancel:** The scheduled recording will be canceled.



Scheduling Conflict

When a new scheduled recording conflicts with the previously set recording (or reminder), you will be prompted to select the programme you want to keep.

Select the programme using the ▲/▼ and **OK** button.



Record



Select



Confirm



Enter 0~9

Recording and Playback

Setting Padding / Jump Time

MENU → Settings → Preferences → Recording

Setting Padding Time

You can set the recording padding time in case the recording starts earlier or ends later than scheduled.

- **Start Padding Time** : Additional recording time before the recording starts.
- **End Padding Time** : Additional recording time after the recording ends.
- **Time Shift Recording** : Time shift recording starts when the channel is changed.



Note:

- You can record radio programmes also.
- The record banner will be displayed with the i-plate whenever pressing the **i** button.
- You can change the recording duration by using the **RECORD** button for instant recording or by going to **MENU > TV Guide > Schedule** for scheduled recording.
- When a new scheduled recording starts while a recording is already in progress, the record banner will be displayed for a few seconds to inform you that the recording has been started. If you are not watching the channel being recorded, a record notice will pop-up 30 seconds before the scheduled recording starts, and the channel will switch to the scheduled programme automatically at the start time.
- Pressing the **STANDBY** button while recording will stop the recording. The scheduled recordings will start even in standby mode if the external hard disk drive is recognized.
- While watching a recording programme, you can trick-play using the playback control buttons such as pause, fast rewind, instant replay, slow, etc.
- You can record the digital TV or radio programmes only. The external AV inputs can't be recorded.
- Ensure that there is enough free space before recording. If the free space on the hard disk drive is insufficient, recording will stop. Recording one hour of programme may require up to 2 or 3GB of hard disk space. The space for recording a 1 hour programme may differ depending on the programme.
- To view the recorded programme list, press the **MEDIA** or **MENU** button and select **Video**. (Refer to **Using Video List**.)

Playback

You can playback the recorded programmes that are stored in the connected hard disk drive.

Note: Make sure that the external hard disk drive is connected correctly before playback.

Playing Recordings (Video)

You can access the recorded file list easily and play the recorded programmes.

- ❖ Press the **MEDIA** button.
- ❖ Press the **MENU** button and select **Video**.

Select a file and press the **OK** button. Playback will start.









You can perform fast rewind, fast forward, slow motion and pause while playing back a recorded file. The green playbar is displayed when pressing the **PLAY**, **FAST FORWARD**, **REWIND**, **SLOW** or **PAUSE** button while playing.



Note: Please do not disconnect or turn off the external hard disk drive while playing back. When the external hard disk drive is suddenly separated or unplugged, the playback will stop and go to live TV.

Recording and Playback

Playback Controls

	Play
	Pause the scene. Press the PAUSE button again to go back to play mode.
	Stop the playback of the current file and go to live TV.
	Fast Rewind
	Fast Forward
	Move to the previous chapter and replay the scenes.
	Move to the next chapter and skip scenes.
	Jump to the previous or next scene.

Note:

- Chapters are made by dividing the recorded programme into eight portions.
- Refer to **Media List > Using Video List** for more details about the recorded files.

Pausing and Rewinding Live TV (TSR)

Time Shifted Recording (TSR) allows you to pause a live broadcast and return to it later and continue where you left off.

The TSR function automatically saves the programmes you watch to the connected hard disk drive temporarily.

TSR lasts for 120 minutes.



To pause the programme you are watching

Press the **PAUSE** button. Press the **PLAY** button to return. Pause makes a time gap between the live broadcasting point and watching point. The time gap is equivalent to the period the programme has been paused.

Press the **STOP** button to close the time gap and go to live programme.

To rewind and watch missed scenes

Press the **REWIND** button. Press the **PLAY** button at the point where you want to start watching. You can pause, rewind or fast forward within the programme.

You can fast rewind back to the start point. If you reach the start point while rewinding, the programme is automatically played at normal speed.

To fast forward and skip scenes

Press the **FAST FORWARD** button. You can fast forward only when there is a time gap between the current watching point and the live broadcasting point caused by pause, slow motion or fast rewind. You can fast forward up to the current broadcasting point. If you reach the live broadcasting point while fast forwarding, the programme is automatically played at normal speed.



Record



Select



Confirm



Enter 0~9

Media List

You can retrieve video, music or photo files from the connected USB storage device, or the DLNA compliant devices.

You can access Media List in several ways.

- ❖ Press the **MEDIA** button.
- ❖ Press the **MENU** button and select **Video, Music** or **Photo**.
- ❖ Connect a USB storage device for media and select your desired media type.

Video	Lists TV/Radio recordings or XviD files.
Music	Lists MP3 files.
Photo	Lists JPEG files.

Note:

- Press the **MEDIA** or **EXIT** button to exit. Press the **BACK** button to return to the previous screen.
- When you connect a USB storage device, the media type menu is displayed automatically.
- Select **Copy** to copy the media files to the different devices. (Refer to **Using the Video List > Editing Files**.)

Switching Storage

1. Press the **BLUE** button to switch the storage.
2. Select the storage and press the **OK** button.
 - **USB:** Displays each partition of the connected USB storage devices. Select a USB.
 - **Network:** Displays the connected DLNA compliant devices. Select the server.



Switching Media

1. Press the **YELLOW** button to switch the media type.
2. Select the media type and press the **OK** button.
 - **Video, Music, Photo**



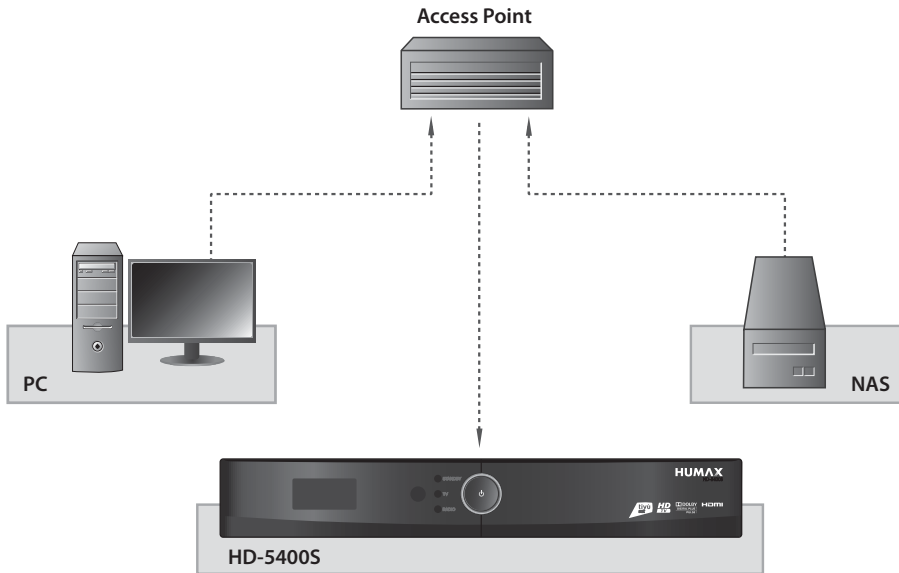
Note:

- Certain hard disk drives may not be recognized or function properly.
- Make sure that the USB storage device or network is connected correctly before using Media List.
- Connect the USB storage device that is formatted with ext3, FAT or NTFS file system.
- Compatible USB devices include portable flash memory (particularly keydrives) and digital audio players (MP3 players) of format FAT12/16/32. It is not possible to connect this unit to a personal computer for USB playback.
- Supported features according to USB file system
 - **ext3**: Read, Copy (Digital TV/Radio, MP3, JPEG, XviD)
 - **FAT**: Read, Copy (Digital TV/Radio, MP3, JPEG, XviD)
 - **NTFS**: Read (MP3, JPEG, XviD)
- USB ports on your product supply 800mA in total. This 800mA is shared among all devices connected to product.
- If the USB storage device is connected in standby mode, it will automatically be recognized when the product is turned on.
- A USB storage device using an automatic recognition programme may not be recognized.
- A USB storage device which uses its own driver may not be recognized.
- The recognition speed of a USB storage device may depend on each device.
- Do not disconnect the USB storage device during playback. The stored files or the USB storage device may be damaged.
- Be sure to back up important files since data stored in a USB storage device may be damaged. We will not be responsible for any data loss.
- If your USB storage device has multiple partitions, or if you use a USB multi-card reader, you can use up to 4 partitions or USB memory devices.
- If the USB storage device is not recognized, remove and connect it again.
- Some USB storage devices may not be supported or operate properly.
- How fast a USB storage device is detected differs from device to device.
- USB storage devices below USB 2.0 are supported as well. But they may not work properly.
- The system may require a longer time to read large amounts of data stored in a USB device.
- The network icon is displayed only when the network has been connected.
- HUMAX cannot guarantee compatibility (operation and/or bus power) with all USB mass storage devices and assumes no responsibility for any loss of data that may occur when connected to this unit.

Media List

Using DLNA Server

You can have access to DLNA servers such as the PC or NAS (Network attached storage) and play the video, music or photo files. To connect to a DLNA server, the receiver must be connected to the local network.



Playing Video Files in Network

1. Go to **MENU>Video**.
2. Press the **BLUE** button and select **Network**.
3. Select the DLNA server from the list and select the folder the video file is located in.
4. Select the video file and play the file.

Note:

- Playing music and photo files is similar as playing video files.
- You can download DLNA tools such as Media Server 11 (<http://www.microsoft.com/windows/windowsmedia/it/player/11/default.aspx>) and XBMC (<http://www.xbmc.org>). The software can be downloaded and updated in each website.

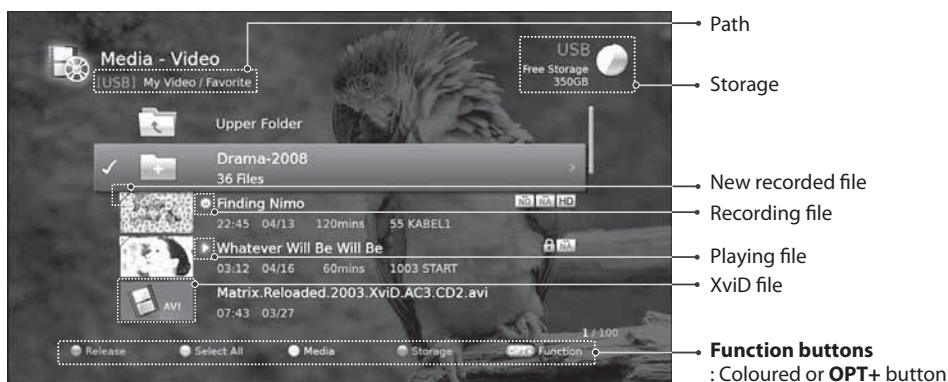
Using Video List

You can play TV/Radio recordings or XviD files from the connected USB storage device, or the DLNA compliant devices.

MENU → **Video**

Note:

- Make sure that the USB storage device or network is connected correctly before using Media List.
- Press the **YELLOW** button to switch the media type.
- Press the **BLUE** button to switch the storage.
- Press the **i** button to view the detailed programme information.



Note:

- : Recording icon, : Playing icon, : HD icon, : CAS icon, : Lock icon
- : DRM (Digital Rights Management) expiration icon

Playing Files

Select a file and press the **OK** or **PLAY** button. Playback will start from the recently viewed point. To play multiple files successively, select the files using the **RED** button and press the **OK** or **PLAY** button. You can perform fast rewind, fast forward, slow motion and pause while playing back a recorded file. Refer to **Recording and Playback > Playback** for details on playback control and playbar.

Note:

- You will be prompted to enter the password when playing locked files.
- Files with DRM (Digital Rights Management) expiration dates may expire if not watched before the written date.
- Some playback control buttons may not function depending on the contents.



Media List

Editing Files

Sorting Files

1. Press the **OPT+** button.
2. Select **Sort** and press the **OK** button. The files will be sorted in alphabetical order.
3. To sort the files in time order, repeat the above procedure.

Note: Sorting files is available for video files only.

Deleting Files

1. Select the file(s) you want to delete and press the **OPT+** button.
2. Select **Delete** and press the **OK** button.
3. Select **Yes** and press the **OK** button.



Locking Files

1. Select the file(s) you want to lock and press the **OPT+** button.
2. Select **Lock** and press the **OK** button.
3. To unlock, press the **OPT+** button again and select **Unlock**.
4. Enter the password.

Moving / Copying Files

1. Select the file(s) you want to move and press the **OPT+** button.
2. Select **Move** and press the **OK** button.
3. Select the folder or storage you want to move the file(s) to and press the **OK** button.
 - **Moving the file(s) within the same storage:** Select the folder you want to move the file(s) to and press the **OK** button.
 - **Copying the file(s) to another storage:** Select the storage and then select the folder to copy the file(s) to. Press the **OPT+** button to create the folder.



Note: When a file is moved to a different storage, it will be copied. However, video recordings cannot be copied to other storages.

Renaming Files

1. Select the file you want to rename and press the **OPT+** button.
2. Select **Rename** and press the **OK** button.
3. Enter the name of the file in the keyboard and press the **YELLOW** button.

Creating Folder

1. Press the **OPT+** button.
2. Select **New Folder** and press the **OK** button.
3. Enter the name of the folder in the keyboard and press the **YELLOW** button.

Media List

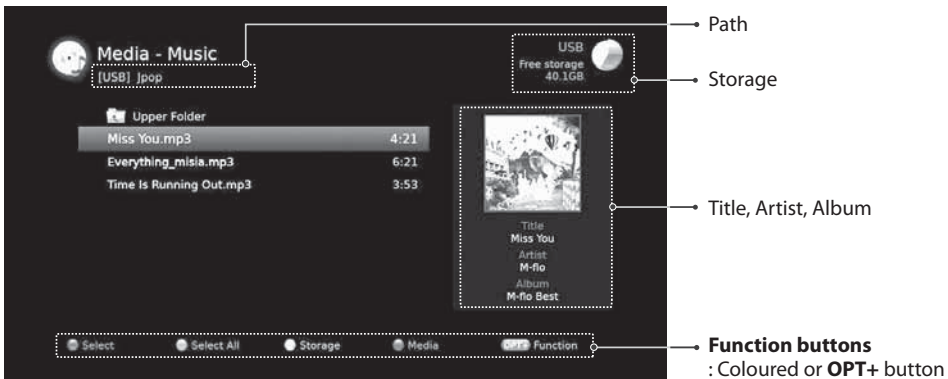
Using Music List

You can play MP3 audio files from the connected USB storage device, or the DLNA compliant devices.

MENU → Music

Note:

- Make sure that the USB storage device or network is connected correctly before using Media List.
- Press the **YELLOW** button to switch the media type.
- Press the **BLUE** button to switch the storage.



Playing Files

Select a file and press the **OK** or **PLAY** button. All files in the folder will be played successively.
To play the selected files only, select the files using the **RED** button and press the **OK** or **PLAY** button.

Music Player

The music player is displayed while playing the music file(s).



	Plays or pauses		Plays
	Plays the previous file		Pauses
	Plays the next file		Changes the play mode (once, repeat, repeat all, shuffle)
	Plays the first file		Stops the music player and displays the list
	Plays the last file		Exits the music player and goes to live TV

Editing Files

Deleting, moving, renaming the music files or creating new folders are the same as in the video list. Refer to **Using Video List > Editing Files**.

Media List

Using Photo List

You can play JPEG photo files from the connected USB storage device, or the DLNA compliant devices.

MENU → Photo

Note:

- Make sure that the USB storage device or network is connected correctly before using Media List.
- Press the **YELLOW** button to switch the media type.
- Press the **BLUE** button to switch the storage.

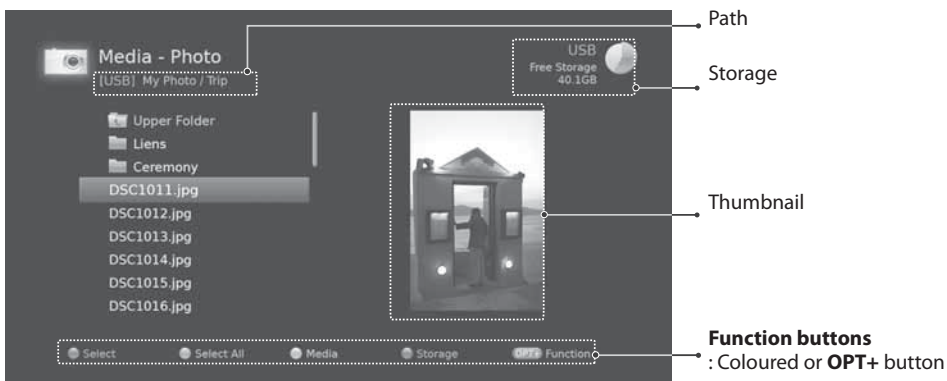


Photo Slideshow

Select a file and press the **OK** or **PLAY** button. All files in the folder will be shown successively. To slideshow the selected files only, select the files using the **RED** button and press the **OK** or **PLAY** button.

The info banner is displayed while slideshow is paused.

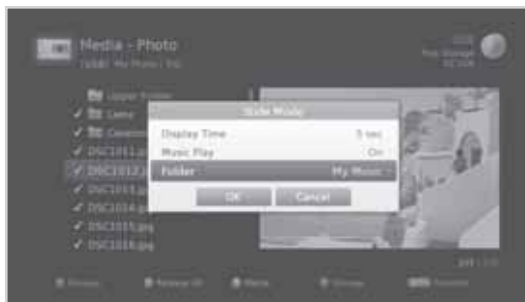


	Pauses or plays		Plays
	Shows the previous photo		Pauses
	Shows the next photo		Stops slideshow and displays photo list
	Shows the first photo		Exits slideshow and goes to live TV
	Shows the last photo		

Slide Mode

You can play music files during slideshow.

1. Press the **OPT+** button.
2. Select **Slide Mode** and press the **OK** button.
 - **Display Time:** The duration a photo is displayed
 - **Music Play:** Select **On** to play music files during slideshow.
 - **Folder:** Select the folder the music files in located in using the **RED** button.
3. Select **OK** to save and exit.



Viewing Photo

You can rotate, enlarge or reduce a photo using the colour buttons.

1. Select the **II** button to pause a slideshow and display an information banner and the colour buttons.
2. Change a photo file using the **▲/▼/◀/▶** buttons.



Rotating Anticlockwise

1. Press the **RED** button to rotate a photo anticlockwise.
2. Each time you press the **RED** button, the photo rotates -90 degrees

Rotating Clockwise

1. Press the **GREEN** button to rotate a photo clockwise
2. Each time you press the **GREEN** button, the photo rotates 90 degrees.

Media List

Zooming In

1. Press the **YELLOW** button to enlarge a photo.
2. Each time you press the **YELLOW** button, the photo is enlarged 100%.
3. To view invisible areas of the enlarged photo, use the ▲/▼/◀/▶ buttons

Zooming Out

1. Press the **BLUE** button to reduce the enlarged photo
2. Each time you press the **BLUE** button, the photo is reduced 50%



Note: The **BLUE** button is activated only when a photo is enlarged.

Editing Files

Deleting, moving, renaming the photo files or creating new folders are the same as in the video list. Refer to **Using Video List > Editing Files**.

In this chapter you can set options for parental control, language, time, video, audio and others.

Note: Press the **MENU** or **EXIT** button to exit. Press the **BACK** button to return to the previous screen.

Parental Control

MENU → **Settings** → **Preferences** → **Parental Control**

You will be prompted to enter the password to access this menu.

Note: The default password is 0000. If you have forgotten your password, please contact your local distributor.

Maturity Rating

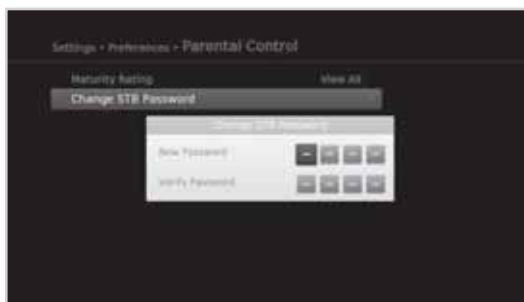
1. Select **Maturity Rating**.
2. Select an option.
 - **View All**
 - **7,12,14,18:** Blocks the programmes for viewers who are not above the age limit.
 - **Lock All**
3. Press the **OK** button

Note: The password is required to view the blocked programmes.



Changing STB Password

1. Select **Change STB Password**.
2. Enter the new password.
3. Enter the new password again for verification.



Preferences

Language Setting

MENU → Settings → Preferences → Language

1. Select **System Language, Audio Language** or **Subtitle Language**.
2. Select the language.

Note:

- If you select **Off** in subtitle language, the subtitle will not be displayed.
- You can change the audio or subtitle language by pressing the **AUDIO** or **SUBTITLE** button while watching a programme.



Setting Power On/Off Timer

MENU → Settings → Preferences → Time

1. To turn on the product automatically, select **Power On Timer** and select **Set Timer**.
2. Enter the time.
3. Set the options for the power on timer.
 - **Channel:** Select the channel to be displayed when powering on.
 - **Volume:** Adjust the volume of the audio when powering on.
 - **Repeat:** Select the repeat mode of the power on timer.
4. To turn off the product automatically, select **Power Off Timer** and select **Set Timer**.
5. Enter the time.



Note: The power on time and power off time should be set different from each other.

Video Setting

MENU → Settings → Preferences → Video

Setting TV Screen Ratio

You can select the screen ratio of your TV.

1. Select **Screen Ratio**.
2. Select an option.
 - **16:9 – 4:3**









Setting Display Format

You can select the display format according to the screen ratio of your TV.

1. Select **Display Format**.
2. Select an option.
 - Screen ratio 4:3: **Auto – Letterbox – Centre**
 - Screen ratio 16:9: **Auto – Pillarbox – Zoom**

Note: You can set the display format by pressing the **WIDE** button while watching a programme. Refer to *Display Format / Resolution*.

Screen Ratio	Display Format		
4:3	 Auto	 Letterbox	 Centre
16:9	 Auto	 Pillarbox	 Zoom

Setting Letterbox & Pillarbox Colour

You can set the colour for the margin space according to the display format.

1. Select **Letterbox & Pillarbox Colour**.
2. Select an option.
 - **Black – Gray**

Preferences

Setting TV SCART

You can select the video signal output option for the TV SCART.

1. Select **TV SCART**.
2. Select an option.
 - > TV SCART: **CVBS – RGB**

Audio Setting

MENU → **Settings** → **Preferences** → **Audio**

Setting Digital Audio Output

You can select the digital audio signal output of your product.

1. Select **Digital Audio Output**.
2. Select an option.
 - > **Multi-channel – Stereo**

Setting Lip-Sync

You can adjust the sound difference of audio and video.

1. Select **Lip-Sync**.
2. Adjust the lip-sync using the ◀/▶ button.
Pressing the right button increases the audio speed and pressing the left button decreases it.



Screen Display

MENU → Settings → Preferences → Screen Display

Setting Info Display Time

You can set the duration the information box is displayed every time the channel is switched.

1. Select **Info Display Time**.
2. Select an option.
 - **Off** – 1~20 sec

Setting Transparency

You can set the transparency of the On-Screen Display.

1. Select **Transparency**.
2. Select an option.
 - **Off** – 25% – 50% – 75%

Setting Subtitle Font

You can adjust the subtitle font.

1. Select **Subtitle Font**.
2. Select an option.
 - **Variable** – Fixed

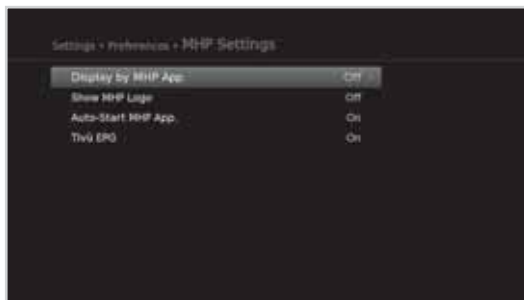


MHP Settings

MENU → Settings → Preferences → MHP Settings

You can set MHP applications.
Select **MHP Settings**.

- **Display by MHP App.:** Display i-plate when changing channels.
- **Show MHP Logo :** Display MHP logo.
- **Auto-Start MHP App.:** Start interactive MHP application automatically.
- **Tivù EPG :** This menu is not currently supported.



Installation

Installation menu allows you to configure your antenna and search the available TV and radio channels. You can configure the fixed antenna, SCD antenna or motor antenna with this receiver. LCN channels update, software update and default setting are also available in this section.

MENU → **Settings** → **Installation**

You will be prompted to enter the password to access this menu.

Note:

- The default password is 0000. If you have forgotten your password, please contact your local distributor.
- Press the **MENU** or **EXIT** button to exit. Press the **BACK** button to return to the previous screen.

Firstly, you should select your antenna type which is connected to this receiver.

Selecting Antenna Type

1. Press the **RED** button.
2. Select your antenna type.
 - **Fixed Antenna**
 - **SCD Antenna**
 - **Motor Antenna**
3. Select **OK** to save and exit.

Note: All channels will be deleted when the antenna type is changed.



Search Channels [Fixed Antenna]

MENU → **Settings** → **Installation** → **Search Channels**

You can search channels by selecting the switch type and setting the required satellite.

Note: If the antenna is not properly set, channel search cannot be activated which means you cannot watch any of the programmes on air.

Using LNB Switch Only

Select **LNB Only** if you want to search only channels of one satellite using the fixed antenna.

1. Check that your antenna connection and the selected antenna type are correct.
2. Select **Switch Type** and select **LNB Only**.
3. Select a satellite figure and press the **OK** button.
 - **Satellite:** Select the satellite.
 - **LNB Frequency:** Select the LNB frequency.
 - **Test Transponder:** Check the signal status of each transponder and select the one with the best quality.
4. Select **OK**.
5. Select **Transponder** under the activated satellite figure and press the **OK** button.
6. Select a value in the transponder list.
7. Select **Search** and press the **OK** button. The found channels will be listed.
8. When the search has completed, select **Save** and press the **OK** button to save the found channels.

Note:

- Select **User Define** to enter options directly.
- Refer to **Setting Transponder** for details in transponder setting.
- Select **Stop** and press the **OK** button to stop the channel search.



Installation

Using DiSEqC Switch

Select **DiSEqC** if you want to search the channels of more than one satellite using the fixed antenna.

1. Check that your antenna connection and the selected antenna type are correct.
2. Select **Switch Type** and select **DiSEqC**.
3. Select a satellite figure and press the **OK** button.
 - **Satellite:** Select the satellite.
 - **LNB Frequency:** Select the LNB frequency.
 - **22kHz Tone:** Select **On** when using a 22kHz tone switch box.
 - **DiSEqC:** Select the DiSEqC switch.
 - **Test Transponder:** Check the signal status of each transponder and select the one with the best quality.
4. Select **OK**.
5. Select **Transponder** under the activated satellite figure and press the **OK** button.
6. Select a value in the transponder list.
7. Repeat the four steps above to set more satellites.
8. Select **Search** and press the **OK** button. The found channels will be listed.
9. When the search has completed, select **Save** and press the **OK** button to save the found channels.

Note:

- Select **User Define** to enter options directly.
- Refer to **Setting Transponder** for details in transponder setting.
- Select **Stop** and press the **OK** button to stop the channel search.



Setting Transponder

The available transponders for each satellite are automatically listed. You can enter the transponder setting options directly if necessary.

1. Select **Transponder** under the activated satellite figure and press the **OK** button. You can also select **Test Transponder** in **Satellite Setting** box.
2. Select **User Define** to enter options directly.
 - **Frequency:** Enter the frequency of the transponder.
 - **Polarisation:** Select the polarisation of the transponder.
 - **Symbol Rate:** Enter the symbol rate of the transponder.
 - **Transmission:** Select **DVB-S2** for HD broadcasts.
 - **Modulation:** Select **QPSK** or **8PSK** when selecting **DVB-S2** in **Transmission**.
 - **FEC:** Select the FEC of the transponder.
3. Select **OK**.

Note: Refer to the following websites for information on up-to-date transponder frequencies.
www.lyngsat.com

Setting Search Options

You can set the options for more specific search.

1. Press the **OPT+** button.
2. Set the search options.
 - **Network Search:** Select **On** to receive the latest channel information.
 - **Scrambled Type:** **All - FTA - CAS**
 - **Channel Type:** **All - TV - Radio**
3. Select **OK** to save and exit.



Installation

Search Channels [SCD Antenna]

MENU → Settings → Installation → Search Channels

Single Cable Distribution enables the delivery of broadcast programming over a single cable to multiple users eliminating the numerous cables required to support other electronics devices.

If you are using more than one satellite receiver, set one receiver at a time and turn off the others while setting. Refer to the satellite antenna manual for details.

1. Check that your antenna connection and the selected antenna type are correct.
2. Select **SCD Setting** and press the **OK** button to set the channel(band) and frequency for this receiver.
 - **Tuner1**: Select from Channel 1~8.
 - **Frequency**: The frequency is set based on the channel of tuner1.
3. Select **OK**.
4. Select a satellite figure and press the **OK** button.
 - **Satellite**: Select the satellite.
 - **LNB Frequency**: Select the LNB frequency.
 - **22Khz Tone**: Select **On** or **Off**.
 - **Test Transponder**: Check the signal status of each transponder and select the one with the best quality.
5. Select **OK**.
6. Select **Transponder** under the activated satellite figure and press the **OK** button.
7. Select a value in the transponder list.
8. Repeat the four steps above to set more satellites.
9. Select **Search** and press the **OK** button. The found channels will be listed.
10. When the search has completed, select **Save** and press the **OK** button to save the found channels.

Note:

- Select **User Define** to enter options directly.
- Select **Stop** and press the **OK** button to stop the channel search.
- Refer to **Setting Transponder** for details in transponder setting.



Setting Search Options

You can set the options for more specific search.

1. Press the **OPT+** button.
2. Set the search options.
 - **Network Search:** Select **On** to receive the latest channel information.
 - **Scrambled Type:** **All - FTA - CAS**
 - **Channel Type:** **All - TV - Radio**
3. Select **OK** to save and exit.



Search Channels [Motor Antenna]

MENU → Settings → Installation → Search Channels

You can set the position of the satellites when using a motor antenna for efficient channel search.

1. Check that your antenna connection and the selected antenna type are correct.
2. Set the type and location of your motor. (**Motor Setting**)
3. Select the satellites that the motor antenna is pointing to. (**Edit Satellite Data**)
4. Set your antenna position for the selected satellites. (**Position Setting**)
5. Set the operation limit of your motor. (**Limit Setting**)
6. Select a satellite figure and press the **OK** button.
7. Select a satellite you want to search.
8. Select **Transponder** under the activated satellite figure and press the **OK** button.
9. Select a value in the transponder list.
10. Select **Search** and press the **OK** button. The found channels will be listed.
11. When the search has completed, select **Save** and press the **OK** button to save the found channels.



Note:

- Only channels of one satellite can be searched when using a motor antenna. Please repeat the search process to search more satellites.
- Select **Stop** and press the **OK** button to stop the channel search.
- Refer to **Setting Transponder** for details in transponder setting.

Installation

Motor Setting

Set the type and location of your motor.

1. Select **Motor Setting** and press the **OK** button.
2. Select **Motor Type**.
 - **DiSEqC1.2**: General motor antenna using DiSEqC 1.2.
 - **USALS**: Motor antenna using USALS.
3. Select **My Longitude** and enter the longitude and direction.
4. Select **My Latitude** and enter the latitude and direction.
5. Select **LNB Frequency** and enter the LNB frequency.
6. Select **OK**.



Note: When **Motor Type** is set as **DiSEqC 1.2**, both **My Longitude** and **My Latitude** are inactivated.

Edit Satellite Data

Select the satellites that the motor antenna is pointing to.

1. Select **Edit Satellite Data** and press the **OK** button.
2. Select satellites using the **▲/▼** and **OK** button.
3. When selecting **User Define**, enter the **Longitude** and **Direction**.
4. Press the **BACK** button to save and return.



Position Setting

Set your antenna position for the selected satellites.

1. Select **Position Setting**.
2. Select **Satellite** and select the satellite.
3. Select **Transponder** and select the transponder.
4. Select **Motor Driving** and select the motor driving option.
 - ▶ **Continuous – Step – Time**
5. When motor driving a set to **Step** or **Time**, select **Driving Size** and select one from **1~127**.
6. Select **Go to Stored Position** to make the antenna turn toward the position of the selected satellite.
7. Fine-tune the position using the ◀/▶ button until the signal strength and quality reaches the maximum level.
8. Select **Store Current Position** to save the adjusted position.
9. Select **Recalculate** to recalculate the positions of all satellites based on the position of current satellite.



Note: When **Motor Type** is set as **USALS**, **Motor Driving**, **Store Current Position** and **Recalculate** are inactivated.

Limit Setting

Set the operation limit of your motor.

1. Select **Limit Setting**.
2. Select **Limit Position** and select **East** or **West**.
3. Select **Set Limit** and set the operation limit to **East** or **West** using the ◀/▶ button.
4. Select **Reset Position** to initialise the position of the motor antenna to the original position (factory default).



Installation

Setting Search Options

You can set the options for more specific search.

1. Press the **OPT+** button.
2. Set the search options.
 - **Network Search:** Select **On** to receive the latest channel information.
 - **Scrambled Type:** **All – FTA – CAS**
 - **Channel Type:** **All – TV – Radio**
3. Select **OK** to save and exit.



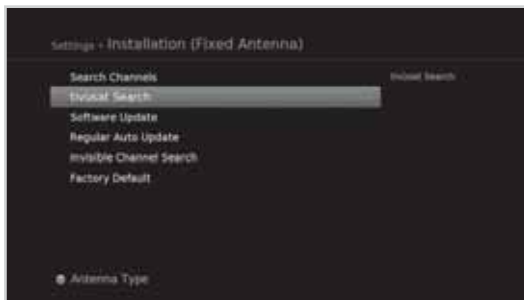
tivùsat Search

MENU → **Settings** → **Installation** → **tivusat Search**

You can search tivùsat channels.

1. Select **tivùsat Search** and press the **OK** button to search for tivùsat channels.
2. When the search has completed, select **Save** and press the **OK** button to save the found channels.

Note: **tivusat Search** is activated only when the satellite is set to **HOT BIRD**.



Software Update (OTA)

In order to maintain proper performance of the product, it is essential to have the most up-to-date software. Visit the HUMAX website to check the latest news and newly released software versions. (<http://www.humaxdigital.com>) It is recommended that you periodically check for the availability of software update.

OTA, an abbreviation of **Over-the-Air**, means that the software can be downloaded through your aerial. The manufacturer reserves the right to decide when and where to release software by this process.

You can also search and download new software manually.

MENU → **Settings** → **Installation** → **Software Update**

Automatic Update

You can update software via the transponder pre-appointed by the manufacturer.

1. Select **Automatic Update** and press the **OK** button to search for new software.
2. When new software is detected, select **Yes** to start the update process now.



Installation

Manual Update

You can update software via another transponder.

1. Select **Manual Update** and press the **OK** button.
2. Enter the options manually.
 - **Satellite:** Select the satellite. Select **User Define** to enter the options directly.
 - **Frequency:** Enter the frequency of the transponder.
 - **Polarisation:** Select the polarisation of the transponder.
 - **Symbol Rate:** Enter the symbol rate of the transponder.
 - **FEC:** Select the FEC of the transponder.
3. Select **Search** and press the **OK** button to search for new software.
4. When new software is detected, select **Yes** to start the update process now.



Please wait until the update is complete. When completing the software update, the product is automatically powered off and on again.

Note:

- It may take 5~10 minutes to update software.
- Other functions such as scheduling programmes will not activate while software update takes place.
- Be sure to update software when the signal strength and quality is high. If the weather is not favorable and the signal strength and quality are not recommendable, perform the software update later.
- The product will search new software automatically during standby. If new software is detected, you can choose either to download immediately or later when you switch into operation mode. If you select **Later**, the message will be displayed again when you power on.
- You can also update the software by connecting a USB device which has the new software file. The file can be downloaded from the HUMAX website.
- Software update through the network is also possible if the network is connected through the LAN.

Caution:

- Please be careful to keep the power on and the power cord plugged in during software update. If the power is off during software update, fatal damage may be caused to the product.
- Please be careful not to pull out the signal line (RF cable) during software update. Update may be interrupted and the product may not operate.

Regular Auto Update

MENU → **Settings** → **Installation** → **Regular Auto Update**

You can set to update the channel and software regularly.

1. Select **Regular Auto Update**.
2. Set the options.
3. Select **Manual Update** if you want to update the software by entering the options manually.
 - **Update Target:** Select **All**, **Channel** or **Software**.
 - **Auto Search in Standby:** Select **On** or **Off**.
 - **Auto Search in Operate:** Select **On** or **Off**.
 - **Search Time:** Enter the search time.
 - **Frequency:** Select **Daily** or **Weekly**.



Invisible Channel Search

MENU → **Settings** → **Installation** → **Invisible Channel Search**

1. Select **Invisible Channel Search** to set **On** or **Off**.
2. If you set **Invisible Channel Search** to **On**, search channel again to view the invisible channels.



Installation

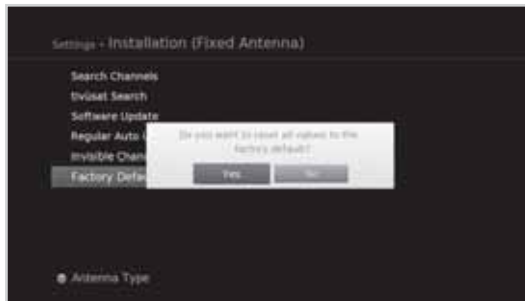
Factory Default

MENU → Settings → Installation → Factory Default

1. Select **Factory Default**.
2. A popup will appear. Select **Yes**.
3. You will be prompted to enter the password. Enter the password.

Note: The default password is 0000. If you have forgotten your password, please contact your local distributor.

Warning: Please note that once you perform Default Setting, all data such as antenna setting information, channel list, and all user configured data will be deleted. After completing the default setting, the installation wizard will appear automatically in a few seconds.



In **System**, you can view system information, signal detection, Nagra Smartcard information. Power management, data storage and internet setting options are also available in this section.

Note: Press the **MENU** or **EXIT** button to exit. Press the **BACK** button to return to the previous screen.

System Information

MENU → **Settings** → **System** → **System Information**

The system information is displayed.



Signal Detection

MENU → **Settings** → **System** → **Signal Detection**

You can check the signal strength and quality of the searched channels.

Note: This menu will not be activated while recording.



System

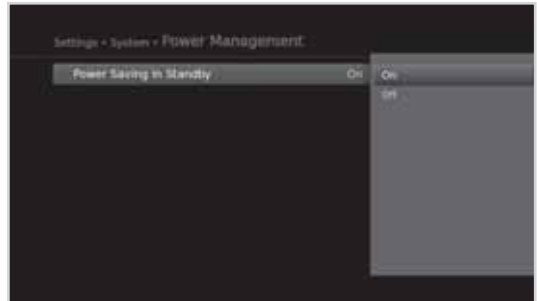
Power Management

MENU → Settings → System → Power Management

Setting Power Saving in Standby

You can minimise the standby power consumption to below 0.5W.

1. Select **Power Saving in Standby**.
2. Select **On** to deactivate the certain features and minimise the power consumption.



Nagra Smartcard Information

MENU → Settings → System → Nagra Smartcard Information

The Nagra Smartcard Information information is displayed.



Data Storage

MENU → **Settings** → **System** → **Data Storage**

You can check the size of the external USB storage device.

Note: This function is available only when the external hard disk drive has been connected to the product via the USB port. Make sure that the external hard disk drive is connected correctly.

1. Select a storage to display the details for each storage.
2. To format the selected storage, select **Format Storage**. If you select **Yes**, you will be prompted to enter the password.
3. To assign the selected HDD for recording purpose, select **Select the HDD for PVR**. Select **Yes** and press the **OK** button to confirm. (Disabled when **HDD** is selected in **Storage**.)



Note:

- The default password is 0000. If you have forgotten your password, please contact your local distributor.
- Supported Features according to USB file system
 - **ext3:** Read, Copy (Digital TV/Radio, MP3, JPEG, XviD)
 - **FAT:** Read, Copy (Digital TV/Radio, MP3, JPEG, XviD)
 - **NTFS:** Read (MP3, JPEG, XviD)

Internet Setting

MENU → **Settings** → **System** → **Internet Setting**

Configuring LAN

1. You can configure the Ethernet setting options.
 - **DHCP:** Apply the options according to the DHCP.
 - **Manual:** Enter the options manually,

Select **Apply** and press the **OK** button.

Note: When entering the IP address manually, enter 3 digits in a row.



tivùsat Service

You can use tivùsat Service only when you tune to Pay TV channels.

tivùsat Service

MENU → Settings → tivùsat Service

You can view the tivù Smartcard information.



You can use Conax Conditional Access only when you tune to Pay TV channels.

Conax Conditional Access

MENU → Settings → Pay Per View Service → Conax Conditional Access

You can check the information of the Conax Conditional Access.

1. Select **Conditional Access**.
2. The information of the conditional access is displayed.



Appendix

Specification

Tuner & Channel	
No. of Tuners	1
Input Connector	IEC 60169-2, F-type, Female, 75 ohm
Frequency Range	950 MHz to 2150 MHz
Signal Level	-25 to -69 dBm
LNB Power & Polarisation	Vertical : +13 V (+14.3 V at high voltage) Horizontal : +18 V (+19.3 V at high voltage) Current : Max. 500 mA, over-current protection
22KHz Tone	Frequency : 22 ± 2 KHz Amplitude : 0.7 ± 0.2 V
DiSEqC Control	Version 1.0, 1.2 USALS, 2.0(Transmit)
Audio/Video Decoding	
Audio Decoding	MPEG/MusiCam Layer I & II, Dolby Digital, Dolby Digital Plus
Audio Mode	Single channel/Dual channel/Joint stereo/Stereo
Video Decoding	MPEG-2 ISO/IEC 13818 H.264 AVC Transport Stream Specification
Video Format	4:3, 16:9
Video Resolution	1080i, 720p, 576p, 576i
Memory	
Flash Memory	32 MB(NOR)
RAM	256 MB
EEPROM	8 KB
Audio/Video In/Out	
Video	TV-SCART, HDMI
Audio	TV-SCART, S/PDIF (Digital Audio Output)

Data In/Out	
USB	USB 2.0 Host (5 V $\overline{=}$ 500 mA Max.)
File Format	JPEG(jpeg, .jpg, .jpe, .jfi f), MP3(mp3, .mp2, .mp1)
Power Supply	
Input Voltage	90-250 V a.c., 50/60 Hz
Type	SMPS
Power Consumption	Max. 27 W (Standby : Under 0.5 W)
Protection	Separate internal fuse. The input should be protected against lightning.
Physical Specification	
Size (w/h/d)	280 mm \times 45 mm \times 200 mm
Weight	1.3 kg
Operating Temperature	0 °C to +45 °C

Note: The specifications are subject to change without notice.

Appendix

Service and Support

Information concerning troubleshooting, software upgrade and product support is provided in the following website. Should your product require warranty service, please contact the customer service center of which telephone number is on the website.

HUMAX

Italia	Website: E-mail:	www.humaxdigital.com/italy servizioclienti@humaxdigital.com
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Note: For hardware repair, please visit our website.

Humax Srl
Via Brescia 28
20063 Cernusco S/N (MI)
Fax. +39 02 99765669

Safety Warning

This product has been manufactured to comply with international safety standards. Please read the following safety precautions carefully.

Safety Instructions and Precautions

1. MAINS SUPPLY

- Operate this product only from the type of power supply indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company.
- Disconnect the product from the mains before you start any maintenance or installation procedures.

2. OVERLOADING

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

3. LIQUID

- The product should not be exposed to liquid of any kind. In addition, no objects filled with liquid should be placed on the apparatus.

4. CLEANING

- Disconnect the product from the wall outlet before you clean it.
- Use a moist cloth to clean the product. Do not use solvents. Wipe the surface gently with a soft cloth as it may get scratched.

5. VENTILATION

- Make sure that the slots on top of the product are not blocked. It is necessary to have a sufficient airflow into the unit.
- Do not put the product on soft surfaces.
- Do not put objects on the product. This will block the ventilation or cause damage to the surface.

6. ATTACHMENTS

- Do not use any unsupported attachments as these may be hazardous or cause damage to the product.

7. LIGHTNING, STORM OR NOT IN USE

- Unplug the product from the wall outlet and disconnect the antenna during a thunderstorm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-surges.

8. EXTRANEIOUS OBJECTS

- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts.

9. REPLACEMENT OF PARTS

- When replacement of parts is required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitution may result in additional damage to the unit.

10. CONNECTION

[Satellite] CONNECTION TO THE SATELLITE DISH LNB

- Disconnect the product from the mains before connecting or disconnecting the cable from the satellite dish. Failure to do so can damage the LNB.

[Cable] CONNECTION TO THE CABLE TV SIGNAL

- Connect all components before plugging any power cords into the wall outlet. Always turn off the product, TV and other components before you connect or disconnect any cables.

[Terrestrial] CONNECTION TO THE AERIAL

- Disconnect the product from the mains before connecting or disconnecting the cable from the aerial. Failure to do so can damage the aerial.

Appendix

11. CONNECTION TO THE TV

- Disconnect the product from the mains before connecting or disconnecting the cable from the TV. Failure to do so can damage the TV.

12. EARTHING

[Satellite] The LNB cable must be earthed to the system earth for the satellite dish.

13. LOCATION

- Place the product indoors to avoid exposing it to lightning, rain or sun. Do not place it near a radiator or heat register.
- We recommend that the product has 10 cm clearance from any other appliances susceptible to electromagnetic influences, such as a TV or a VCR.
- Do not block the openings with any object, and do not place the product on a bed, sofa, rug, or other similar surface.
- If you place the product on a rack or a bookcase, ensure that there is adequate ventilation and that you have followed the manufacturer's instructions for mounting.
- Do not place the product on an unstable cart, stand, tripod, bracket, or table where it can fall. A falling product can cause serious injury to a child or adult, and serious damage to the appliance.
- Do not place naked flames such as lighted candles on or near the product.

Warning

1. To avoid damage of the power cord or plug;

- Do not modify or process the power cord or plug arbitrarily.
- Do not bend or twist the power cord.
- Make sure to disconnect the power cord holding the plug.
- Keep heating appliances as far as possible from the power cord in order to prevent the cover vinyl from melting.
- The main plug (all pole main switches), as a disconnection device, shall remain readily accessible by the user.

2. To avoid electrical shock;

- Do not open the main body.
- Do not insert metal or inflammable objects inside the product.
- Do not touch the power plug with wet hands.
- Disconnect the power cord in case of lightning.

3. To avoid damage of product;

- Do not use the product when it is out of order. If you continue to use the product when defective, serious damage can be caused. Make sure to contact your local product distributor if the product is out of order.
- Do not insert metal or alien substance into the slots for the modules or Smartcards. (where applicable) It may cause damage to the product and reduce its life span.

4. To avoid damage of the hard disk drive (PVR only)

- Do not move the product or turn the power off suddenly while the hard disk drive is running.
- The company shall not be liable for any corruption of data on the hard disk drive caused by carelessness or misuse.

Trouble Shooting

Before contacting your local service centre, please read the tips below carefully. If the problem persists after completing the following procedure, please contact your local product distributor or service centre for further instructions.

1. No message displayed on the front display. (The product will not switch on.)

- Check the main power cable and make sure it is plugged into a suitable power outlet.
- Check that the mains supply is switched on.
- Connect the power cable to a different power outlet.
- Check that the power switch is on at the rear of the product. (where applicable)

2. No picture

- Make sure that the product is powered on and in operation mode. (Press the **STANDBY** button)
- Make sure that the AV cable is firmly connected to the TV.
- Make sure that the antenna cable is properly connected to the product.
- Be sure to activate channel search.
- Check the brightness level of the TV.
- Check if the channel is currently on air. Contact the broadcaster to ensure that the channel is running.
- Press the **SOURCE** button if the product is in external input mode. (where applicable)
- **Satellite:** Make sure that the antenna setting in the menu is correct.

3. Poor picture/sound quality

- Make sure there is no mobile phone or microwave oven near the product.
- Keep the power and the RF cables apart from each other.

Note: If the antenna is covered with snow or the RF is weakened by heavy rain, the condition of the sound and picture may temporarily be poor. However, the poor sound and picture quality due to weather conditions cannot be accepted as a malfunction of product.

- **[Satellite]** Check that your dish alignment is correct.
- **[Satellite]** Change the satellite dish for a larger one as this will increase the signal levels received.
- **[Satellite]** Replace the LNB with a lower noise factor in cases where the noise factor is too high.
- **[Satellite]** Replace the LNB with a new one in case it is damaged or out of order.
- **[Satellite]** Install the antenna in an obstacle-free place.
- **[Satellite]** Check the signal levels and adjust your antenna if the level is too low. The signal level may be affected by weather conditions.
- **[Terrestrial]** Adjust the antenna direction to get a better picture.
- **[Terrestrial]** Set the antenna power in menu to On, if you use the active antenna to improve the reception. (where applicable)

4. No or poor sound

- Check that your AV cable is connected correctly.
- Check the volume levels of your TV set and the product.
- Check if the product or TV is on mute.
- Check audio type or soundtrack option. (where applicable)

5. Remote control does not operate.

- To control the product, the top end of the remote control should point directly towards the receiving part of the product.
- Remove and reinsert the batteries in the remote control.
- Replace the batteries in the remote control for a new set.
- Set the remote control to STB or PVR mode, if you are using the universal remote control. (where applicable)

6. Cannot make reservations.

- Check that no previous reservations are conflicting with the new reservation.

Appendix

7. No password information is given.

- The default password is always **0000**.

8. Channel search does not work.

- **[Satellite]** Make sure that the antenna setting in the menu is correct.
- **[Cable]** Make sure that your cable is connected correctly.
- **[Terrestrial]** Use the appropriate antenna capable of receiving VHF or UHF channels for your area.

9. Cannot update new software.

- You can get an update. If the product does not show a message requesting update, this means no software is available.

10. Cannot watch scrambled channels.

- Check that you have the appropriate Smartcard or CI-Module. Reinsert the Smartcard or CI-Module and make sure it initialises correctly.
- Check in the menu that the product is detecting the Smartcard or CI-Module.
- Check in the menu that you have a valid and working subscription to the channels you wish to view.
- Ensure that the Smartcard or CI-Module is not damaged.

11. Cannot watch pay channels.

- Check in the menu that you have a valid and working subscription to the channels you wish to view.
- Contact your network operator for more information.

12. The product makes a humming noise.

- The noise is from the fan; the hard disk is operating normally. This kind of noise is inevitable but seldom noticeable.

13. Cannot record programmes. (PVR only)

- The hard disk is full. Delete unnecessary programmes and make space for new recording.
- Check if recording is conflicted with another channel. Stop the current recording or wait until the recording is finished.
- Check that the product is switched on when recording starts.

14. Cannot operate TSR (Time Shifted Recording). (PVR only)

- TSR may not be available during recording. Wait until recording is finished.
- Delete unnecessary programmes and make space for new recording.

15. Cannot playback. (PVR only)

- To playback the recorded file of a scrambled channel, use the Smartcard. In case it has been a long time since you last recorded, this may not work. Contact the product distributor.
- The signal during recording may be weak or the hard disk too full.

16. Cannot change channels while recording. (PVR only)

- Certain channels may not be changed due to restriction of the tuner or connection type.

Error Message

Error message	Possible causes	What to do
No or bad signal [Satellite]	The satellite dish is not pointing at the satellite.	Adjust dish alignment.
	Signal is too weak.	Increase the LNB voltage or connect a signal amplifier.
	Satellite dish is too small.	Change to a larger dish.
	Problem with LNB.	Change the LNB.
	Wrong antenna setting.	Set the antenna correctly.
No or bad signal [Cable]	The cable is not connected.	Make sure the cable is connected correctly.
	The cable may be damaged or defective.	Exchange the cable.
	The channel is not broadcasting.	Exchange the cable.
No or bad signal [Terrestrial]	The aerial is not pointing properly.	Adjust aerial. Check the cable from the aerial. If you cannot resolve the problem, you may need to have your aerial and installation tested by a professional.
The channel is scrambled or not available.	The channel has a signal, but no audio or video.	Confirm if the channel is currently on air.
	The channel has been deleted by the broadcasting company.	Check if the channel is currently on air
	The channel is for data broadcasting.	Remove the channel from the channel list and check for new transponder details.
The audio is not available.	The channel has a video signal, but no audio.	Press the audio button to confirm that the channel has audio options.
No access	No access	Make sure you are subscribed to the channel.
	No authorization.	If the product has been turned off for a long time (standby or power off), please wait for authorization. It may take up to 60 minutes.
No card inserted.	Smartcard is not inserted.	Insert Smartcard.

Appendix

Error message	Possible causes	What to do
Incorrect card	Wrong Smartcard is inserted.	Insert the correct Smartcard.
	Smartcard is not inserted correctly.	Remove the Smartcard and reinsert it.
	Smartcard is damaged.	Contact your Smartcard retailer or channel broadcaster for a Smartcard replacement.
CI-Module not installed.	CI-Module is not inserted.	Insert CI-Module.
	CI-Module is not inserted correctly.	Remove the CI-Module and reinsert it.
	CI-Module is not recognized.	Insert a different CI-Module to check if your existing module is working.
Invalid CI-Module	Wrong CI-Module.	Insert the correct CI-Module.
	CI-Module is damaged.	Replace the CI-Module.
The antenna cable is short-circuited. [Satellite]	LNB cable is short.	Replace LNB cable.
	LNB is internally short.	Replace LNB.
	Alien substance is inserted in the LNB IN port. The port may be damaged.	Remove the alien substance and contact the local service centre in case damaged has occurred.

Glossary

CVBS (Composite Video Baseband Signal)

A technology for transmitting video signals via a cable. Mixes luminance (brightness) and the chrominance (colour) signals together.

DiSEqC (Digital Satellite Equipment Control)

A DiSEqC compatible receiver relies on a switching box which detects the 22kHz tone pulsing rapidly on and off. In this way, a specially designed receiver can control numerous LNBs through a DiSEqC switching box.

Dolby Digital

An encoding system that digitally compresses up to 5.1 discrete channels of audio (left front, centre, right front, left surround, right surround) into a single Bitstream. A low frequency effect (LFE) channel is included providing the sound needed for special effects.

DVB (Digital Video Broadcasting)

Set of standards that define digital broadcasts using satellite, cable or terrestrial systems.

EPG (Electronic Programme Guide)

An electronic equivalent to a printed television listings magazine; it is an application used with digital set-top boxes and digital television sets to list current and scheduled programs that are or will be available on each channel, including a short summary or commentary for each program. The information supplied in the EPG is sent and updated by the channel broadcaster.

FEC (Forward Error Correction)

A technique for error control of data transmission.

Frequency

The property of a signal measured in cycles per second (=Hz).

FTA (Free-To-Air)

An unscrambled broadcaster allowing customers to view channels or services without paying any subscription.

HDD (Hard Disk Drive)

The primary computer storage medium, which is made of one or more aluminum or glass platters, coated with a ferromagnetic material.

HDMI (High-Definition Multimedia Interface)

An all-digital audio/video interface that supports standard, enhanced, or high-definition video, plus multi-channel digital audio on a single cable. It transmits all ATSC HDTV standards and supports 8-channel digital audio.

Hi-Fi (High Fidelity)

The characteristics of audio devices that can play back all the audio frequencies a person can detect, which is the range of 16Hz-20KHz. Sometimes it is used to indicate good quality of audio devices such as stereo tape recorders.

LNB (Low Noise Block)

A device that is mounted on an arm facing your satellite dish, focusing on satellite signals. A LNB converts signals received from satellite to a lower frequency and sends them to a satellite receiver via coaxial cable.

NVOD (Near Video On Demand)

A technology that allows customers to view the start of popular programmes or films within a short period from the time they make their selection. This is possible as the broadcaster sends multiple copies with staggered start times.

OSD (On Screen Display)

OSD displays the basic information necessary for the users to configure monitor or TV settings. OSD information may include brightness, contrast, tuning, RGB adjustment, and screen size and position.

Appendix

OTA (Over the Air)

A standard for the transmission of software for equipment, through a broadcast system. Manufacturers reserve the right for deciding the release of the software for their products.

PID (Packet Identifier)

A set of numbers identifying stream packets contained within a single data stream.

PIP (Picture In Picture)

A function that allows you to display two different TV channels (or TV inputs) on a single screen.

Polarisation

The direction of the electrical and magnetic fields of a signal. Satellites use both vertical and horizontal polarisation. Means that a frequency can be used twice.

PVR (Personal Video Recorder)

Video recorder that can record and playback programmes directly using the embedded hard disk drive(s).

QPSK (Quaternary Phase Shift Keying)

Digital modulation technique in which the carrier phase can have one of four possible values.

RF (Radio Frequency)

Television signals are modulated onto RF signals and are then demodulated by your television's or STB's tuner.

RF Modulator

Enables you to output the receiver's digital signals to a TV's RF (Aerial) input, allowing you to connect the receiver to a TV set without a SCART connection.

RGB (Red – Green – Blue)

A technology for transmitting video signals via a cable. RGB is a system to represent red, green, and blue colours on a TV or monitor display. Red, green, and blue can be combined in various proportions to obtain any colour.

RS-232C

A connection to allow you to connect to a PC to update receiver's software.

SCART

A 21-pin connector standard to connect two pieces of Audio-Visual equipment such as a TV and a VCR. Each device will have a 21-pin female connection; a cable with male connection at both ends is used for connecting the devices.

Smartcard

A credit card sized card that contains updateable chip memory. It is used for accessing Pay TV (encrypted) channel or services when inserted into an appropriate receiver.

S/PDIF (Sony/Philips Digital Interface format)

A standard format for the transfer of digital audio signals. It allows the transfer of digital audio between two devices without any conversion to and from analogue, which could degrade the signal quality.

S-Video (Super-Video)

Sometimes referred to as Y/C video; a technology for transmitting video signals via a cable. It is a video signal transmission in which the luminance (brightness) and the chrominance (colour) signals are transmitted separately to achieve superior picture clarity.

Transponder

A satellite is divided up in parts called transponders. A transponder is one distribution section of the satellite. Each transponder can be used for distribution of several channels or services.

Trick-Play

Pause, Fast Forward/Fast Rewind, Slow Motion, Instant Replay, Commercial Skip, Repeat A-B.

TSR (Time Shifted Recording)

A function that records the present programme temporarily to support trick-play.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a “work that uses the Library”. Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a “work that uses the Library” with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a “work that uses the library”. The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a “work that uses the Library” uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a “work that uses the Library” with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer’s own use and reverse engineering for debugging such modifications. You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:
 - a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable “work that uses the Library”, as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
 - b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user’s computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
 - c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
 - d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
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