HD Digital Recorder

User's Manual

HDR-1800T
HDR-2000T

The default password is 0000.

HUMAX

Notice

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

Trademarks

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SIMPLIFIED EU DECLARATION OF CONFORMITY

The simplified EU declaration of conformity referred to in Article 10(9) shall be provided as follows:

Hereby, HUMAX declares that the radio equipment type [HDR-2000T/HDR-1800T] is in compliance with Directive 2014/53/EU and relevant directives.
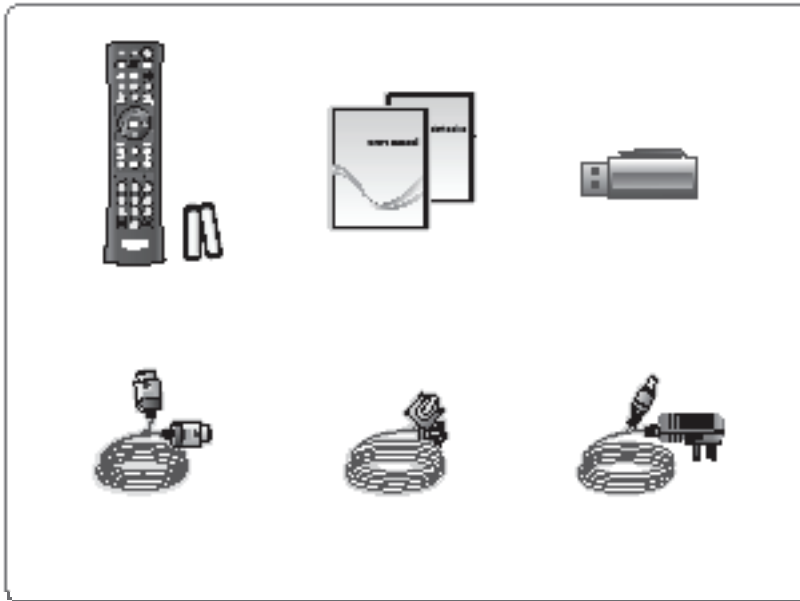
The full text of the EU declaration of conformity is available at the following internet address:

*   United Kingdom : http://uk.humaxdigital.com/ec
*   Germany : http://de.humaxdigital.com/ec

Contents

Quick Start Guide

1. Checking Accessories

Note:
- The accessories may vary according to area.
- HUMAX Wi-Fi USB Adapter is available as optional accessory for other Humax models.

2. Product Overview

Front Panel

STANDBY
Switches between operation and standby modes.

Status LED
Blue lights while in operation, red lights while in standby or while recording.

VOL-/VOL+   **CH∧/CH∨**
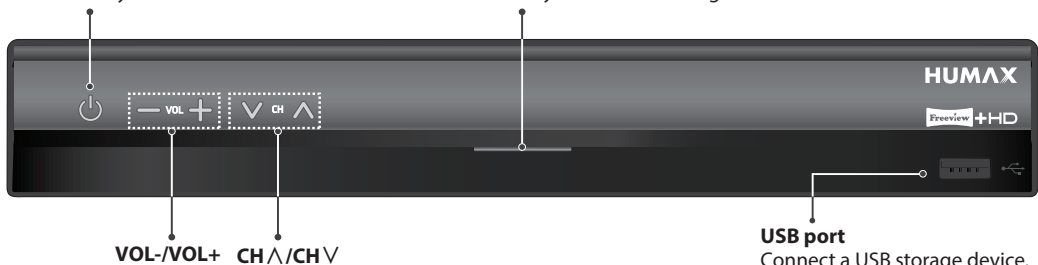
USB port
Connect a USB storage device.

(Only for HDR-2000T, HDR-2000T/1TB/WD)

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

Quick Start Guide

Rear Panel

ANTENNA IN
Connect your main aerial.

ANTENNA OUT
Connect to the TV or VCR using an RF cable.

VIDEO
Connect to the TV or VCR using an RCA cable.

AUDIO
Connect to the TV or VCR using an RCA cable.

ETHERNET
Connect an Ethernet cable.

USB Port
Connect a USB storage device.

TV SCART
Connect to the TV using a TV SCART cable.

SPDIF
Connect to the audio system using an S/PDIF cable (digital audio).

HDMI
Connect to the TV using an HDMI cable.

DC
Connect the AC adapter.
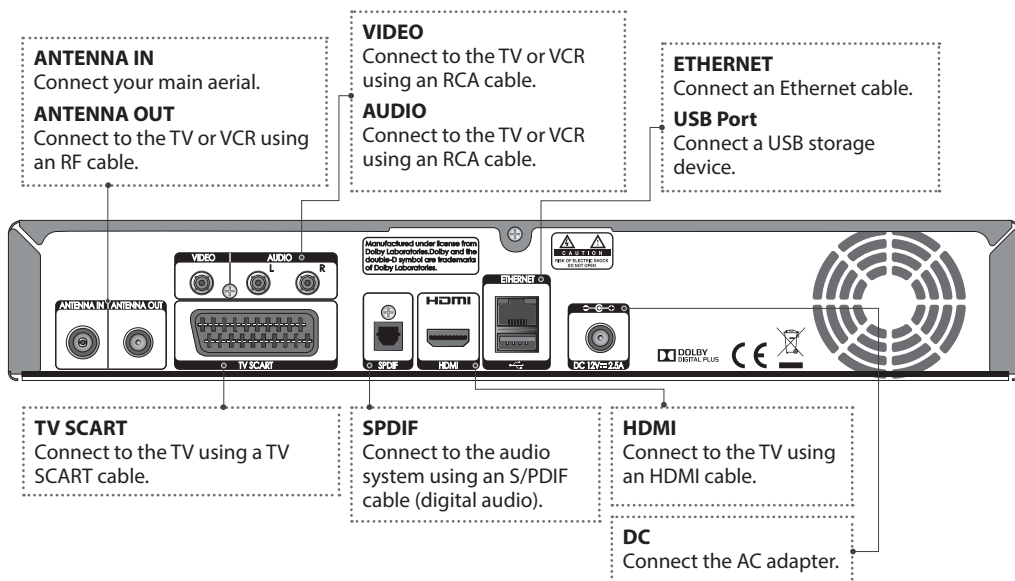
Note: The image shown may differ from the actual product.

Quick Start Guide

Remote Control (Only for HDR-2000T, HDR-2000T/1TB/WD)

To control the product please make sure that the PVR mode is selected on the remote control.
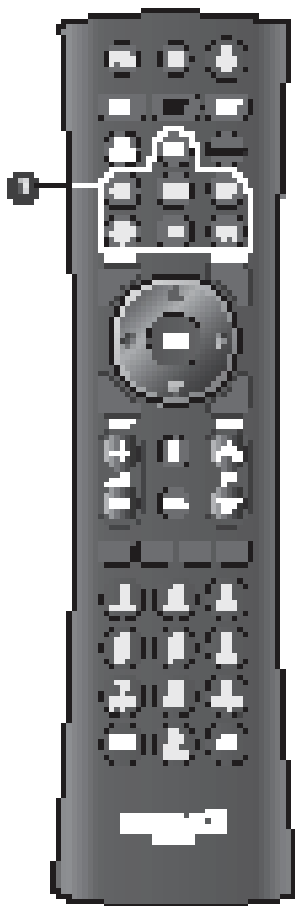
	PVR	Controls your PVR.
	TV	Controls your TV.
	STANDBY	Switches between operation and standby modes.
	MUTE	Mutes audio
	TEXT	Enters the digital text service
	LIST	Displays the channel list.
	TV Portal	Access to Humax TV Portal.
	MENU	Displays the main menu.
❶	**Playback Control Buttons**	**REC** Record, ◀◀ Rewind, ▶/❙❙ Play/Pause, ▶▶ Fast Forward, ↻ Instant Replay, ■ Stop, ↦❙ Skip
	MEDIA	Displays the media list.
	GUIDE	Displays the programme guide
	Arrow	Moves the cursor up, down, left or right.
	OK	Selects a menu or confirms.
	EXIT	Exits all On-Screen Display (OSD) screens
	BACK	Returns to the previous screen.
	VOLUME	Adjusts the audio volume.

Note:
- The image shown may differ from the actual product.
- Some playback control buttons may not function depending on the content/media files you are viewing.

Quick Start Guide

i	Displays the channel and programme information.
OPT+	Displays the channels attributes.
P ∧/∨	Changes the channel or page.
❷ **Colour**	Colour keys for interactive applications.
Numeric	0-9
SUB	Displays the subtitle language list.
AD	Displays the audio description.

Inserting Batteries

1. Press the hook upward and lift the battery cover off.
2. Insert the batteries (supplied) matching the plus(+) and minus(-) at each end.
3. Close the cover.
4. Press the **PVR** button at the top of the remote control.

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Quick Start Guide

Remote Control (Only for HDR-1800T)
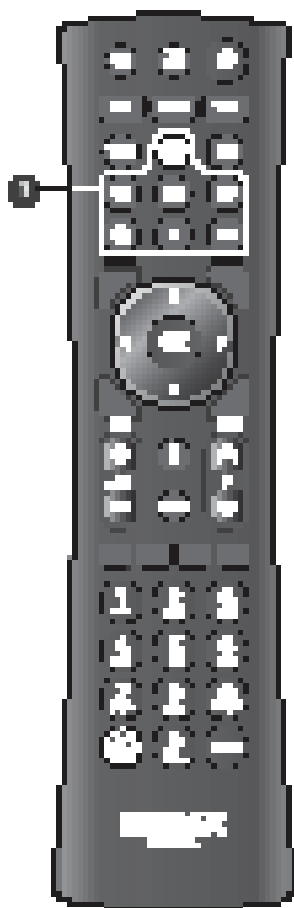
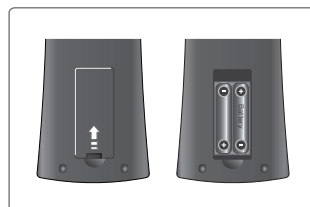|		
MUTE		Mutes audio.
TV/RADIO		Switches between TV and radio modes.
STANDBY		Switches between operation and standby modes.
SUB		Changes the subtitle language.
AUDIO		Displays the audio description.
TEXT		Enters the digital text service.
WIDE		Sets the display format.
LIST		Displays the channel list.
❶	**Playback Control Buttons**	**REC** Record, ◀◀ Rewind, ▶/❚❚ Play/Pause, ▶▶ Fast Forward, ↻ Instant Replay, ◼ Stop, ↦❙ Skip
MEDIA		Displays the media list.
GUIDE		Displays the programme guide
Arrow		Moves the cursor up, down, left or right.
OK		Selects a menu or confirms.
EXIT		Exits all On-Screen Display (OSD) screens
BACK		Returns to the previous screen.
VOLUME		Adjusts the audio volume.

Note:
- The image shown may differ from the actual product.
- Some playback control buttons may not function depending on the content/media files you are viewing.

Quick Start Guide

| **i** | Displays the channel and programme information. |
OPT+	Displays the channels attributes.
P ∧ / ∨	Changes the channel or page.
❷ **Colour**	Colour keys for interactive applications.
Numeric	0-9
TV Portal	Access to HUMAX TV Portal.
MENU	Displays the main menu.

Inserting Batteries

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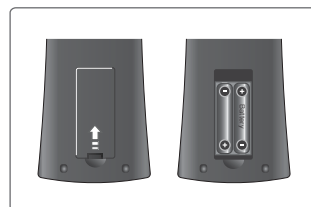
Quick Start Guide

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.

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

Quick Start Guide
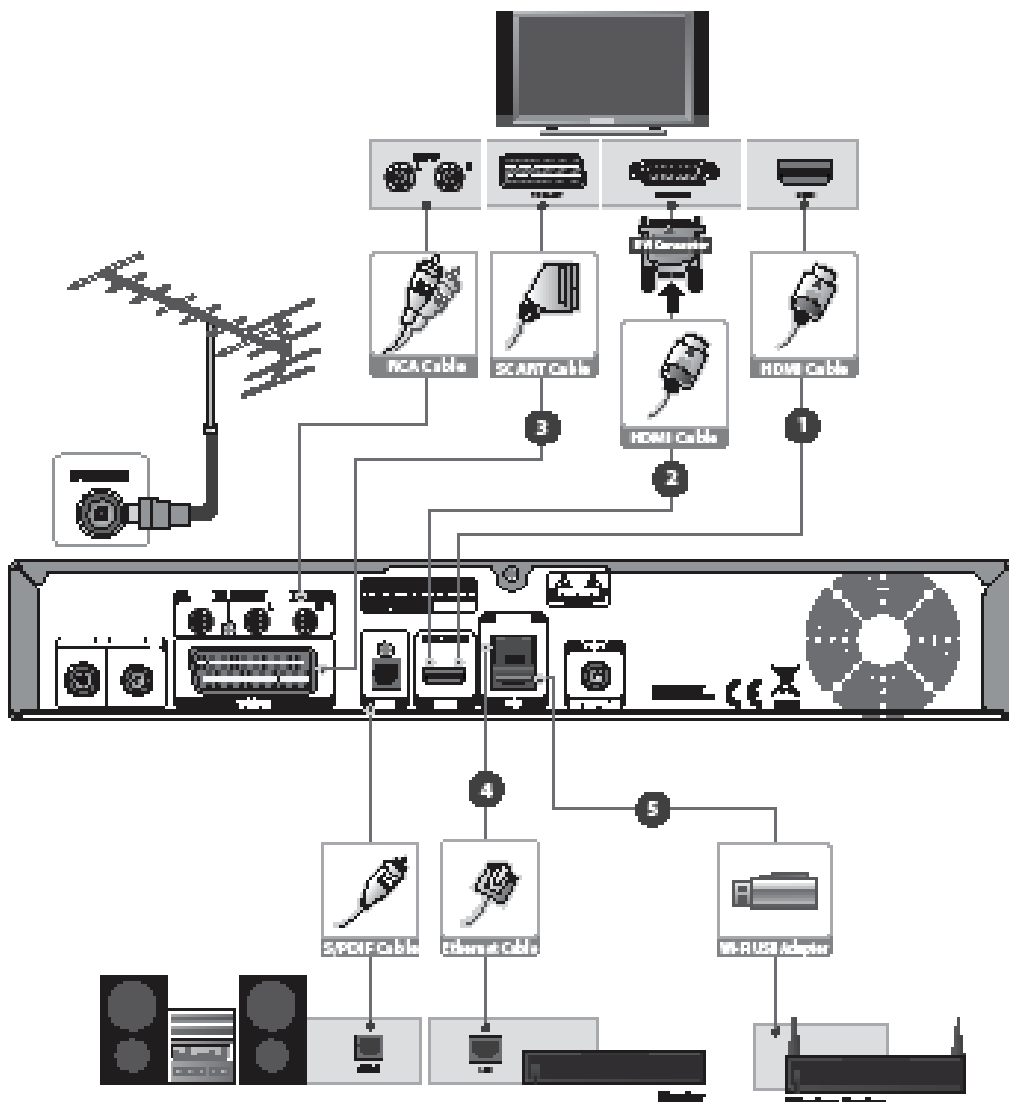
Connecting the Antenna

Connect the aerial to the **ANTENNA IN.**

Connecting the TV

You can select one of the following connections depending on the device you have.

❶ TV with the HDMI connector
For the best picture quality, connect the product and TV using an HDMI cable.
When using an HDMI cable it is not necessary to also use a scart cable.

❷ TV with the DVI connector
For very good picture quality, connect the product and TV using an HDMI cable and a HDMI-to-DVI converter for video.
You will also require an RCA cable(Audio L/R) connected to the necessary connection(s) on your TV/Display for Audio.
Please refer to your TV/Display user manual for further information on the connections required for Audio.

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

For additional audio connections you can either

1. Connect the product and TV using an RCA cable (Audio L/R).
2. When using the digital audio system, connect the product and the digital audio system using an S/PDIF cable.

Connecting the Network

❹ Connecting to the LAN
Connect one end of the Ethernet cable to the receiver and the other end to the LAN router.

❺ Connecting to the Wireless LAN
You can connect to the wireless network with HUMAX Wi-Fi USB Adapter (Optional accessory).

1. Insert the HUMAX Wi-Fi USB Adapter into a USB port.
2. Go to **Menu > Settings > System > Internet Setting > Configure Wi-Fi**.
   If the **Configure Wi-Fi** menu is disabled, check that the Wi-Fi USB Adapter is inserted correctly.
3. Select the network name from the list of available wireless networks.
4. Select the Security Type of your wireless network. The default is WPA-PSK(TKIP).
5. Select **Password** and press the **OK** button. Enter the password and press the **YELLOW** button to confirm. Select **APPLY** and press the **OK** button.
6. After the wireless network is connected, press the **OK** button.

Note: HUMAX Wi-Fi USB Adapter is supplied free with HDR-2000T/1TB/WD but available as optional accessory for other Humax models.

Quick Start Guide

4. Powering On

1. Connect the power cord of the product to a wall outlet.
2. Power on by pressing the **STANDBY** button on the remote control or touching the **STANDBY** button at the front of the product.
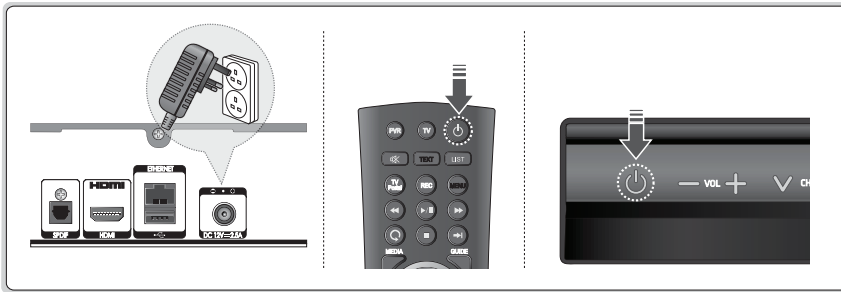
Note: To control the product please make sure that the PVR mode is selected on the remote control. (Only for HDR-2000T, HDR-2000T/1TB/WD)

Quick Start Guide

5. Installation Wizard

When powering on your product for the first time after purchase or performing the factory default in menu, the Installation Wizard will appear on your TV screen.

If you do not see the Installation Wizard please check:
1. Your TV is switched on.
2. The cables between the product and your TV are connected correctly.
3. Your TV is on the correct input (AV channel) for the connection you are using. (Please refer to your TV/Display user manual for further information to select the correct Input/channel.)

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. **Preferred Language**
   Select a language for audio and subtitles and press the **OK** button.
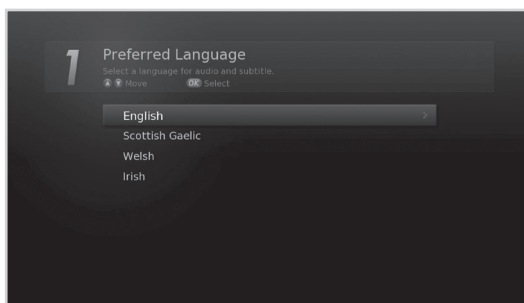
2. **Display**
   Set the video output settings you require.
   To continue to the next step select **Nex**t and press the **OK** button.

   Screen Ratio:
   16:9 - Widescreen TV
   4:3: Traditional TV

   Display Format:
   Select your Required Display Format, the image at the bottom of the screen will indicate how the picture will appear on your TV.

   Resolution:
   Select your Required Video Resolution (576i, 576p, 720p, 1080i, 1080p)

Note: Some TVs/Displays may not support all Video Resolutions, to change this in the future please press the **OPT+** button and select **Resolution**.

Quick Start Guide

3. **Automatic Search**
   Channel search will begin automatically. When the search has completed press the **OK** button to save the channels found during the search.

4. **Result**
   The results of the Installation Wizard are displayed on screen.
   Select **Finish** and press the **OK** button to complete the Installation Wizard.

Quick Start Guide
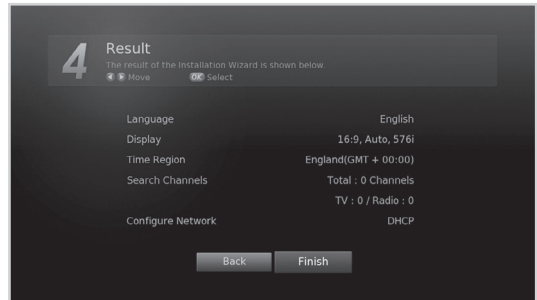
6. Menu Overview
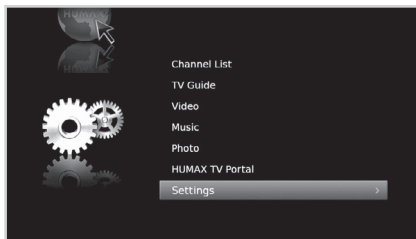
	Channel List
	TV Guide
	Video
	Music
	Photo
	HUMAX TV Portal
	Settings

Preferences
- Parental Control
- Language
- Time
- Video
- Audio
- Recording
- Screen Display

Edit Channels
- Edit Channel List
- Edit Favourite List

Installation
- Automatic Search
- Manual Search
- Software Update
- Antenna Power
- Factory Default

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

How to Navigate

MENU	Displays the Menu OSD		Moves among menus or options
OK or	Selects (Enters) a menu or confirms a selection		Changes or adjusts the option
BACK	Goes back to the previous screen		Enters the number (0~9)
EXIT	Exit all On-Screen		

Basic Operation

Changing Channels

You can change the channels in several ways.

❖ Press the **P∧/P∨** button.
❖ Enter the channel number directly. **(0-9)**
❖ Go to the channel list or TV guide and select a channel.

Volume / Mute / Audio Description

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

Setting Audio Description

You can set to narrate the on-screen visuals which is used for visually impaired viewers.

1. Press the **AD** or **AUDIO** button.
   Each time you press this button, the Audio Description soundtrack will be selected.
2. Select the audio direction (if available) using the ◄/► arrows.

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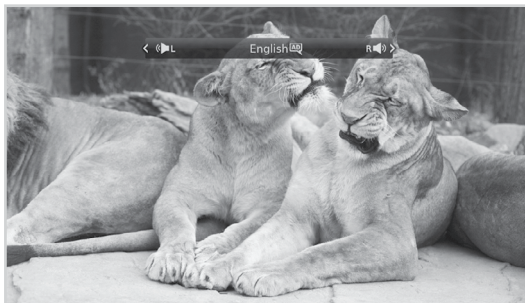
Subtitle

You can select the subtitle language when subtitle information is provided.
Press the **SUB** button.
Each time you press this button, the subtitle language changes.

Note:
• You can choose to always display the subtitle when available.
• The 🄳 icon appears when the DVB subtitle is supported.

Basic Operation
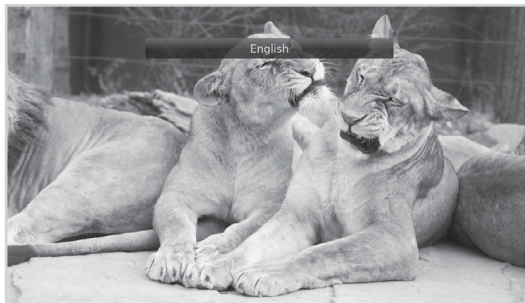
Programme Information (i-plate)

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 progamme to display the i-plate. Press the **EXIT** button to hide.

Playing time

Programme name

Channel number and name

Icons

Current time and date

Signal strength and quality

Group name

103 SEASONS

Seasons magazine

22:00 — 24:30

23:15 TUE 12.06.2008

Favourite1

G 1080i HD Digital+ AD
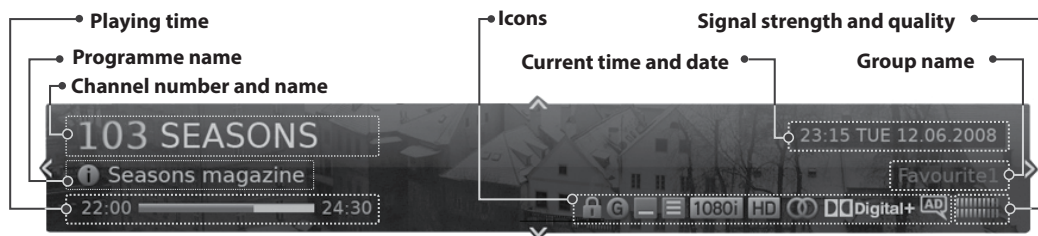
> ➤ **Viewing detailed programme information**
> Press the **i** button again while the i-plate is displayed.
> ➤ **Viewing previous/next programme information**
> Press the ◄/► button while the i-plate is displayed. Press the **OK** button to set reminders for future programmes.
> ➤ **Viewing programme 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	☰	Series Programme
	Pay TV / encrypted programmes (CAS icons)	1080i	Resolution
G	Parental guidance programme	HD	HD programme
🕐	Scheduled programme (Red: Record, Blue: Reminder)	◖◗	Multiaudio
	Subtitle	▯▯D ▯▯D+	Dolby Digital audio Dolby Digital Plus audio
AD	Audio Description		

Note: Programme information is not displayed when there is no programme information.

Text and Interactive Services

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

1. Press the **TEXT** button to access digital text.
2. Press the **TEXT** button again to return to normal viewing.
3. Press the **P∧/P∨** button to exit this service.

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Channel List

Editing Channels in Channel List

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

Locking / Deleting Channels

1. Select a channel you want to edit and press the **GREEN** button.
2. Select an option.
   ➤ **Lock**: Select **On** or **Off**.
   ➤ **Delete**: Press the **OK** button.
3. Select **OK** to save and exit.

Note: The default password is 0000. If you have forgotten your password, please contact Humax Customer Support.

Setting Favourite Channels

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

1. Select a channel and press the **GREEN** button.
2. Select **Favourite**.
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

Editing Channels

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

MENU → Settings → Edit Channels → Edit Channel List

Group name

Marked / Total channels

Function buttons
: Coloured button

Select   OK Mark/Confirm   Page up/down

Note:
- 🔒 : Locked channel, ▨ : Pay TV / encrypted programmes (CAS icons)
- Press the **MENU** or **EXIT** button to exit. Press the **BACK** button to return to the previous screen.

Deleting Channels

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

Locking / Unlocking Channels

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

Managing Channels

Advanced Options

Changing Group

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

Changing Background

You can change the channel displayed in the background while editing.
1. Select the channel you want to watch.
2. Press the **YELLOW** button. The displayed channel will change.

Selecting / Releasing All Channels

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

Managing Channels

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

Settings ▸ Edit Channels ▸ Edit Favourite List

TV	1 / 120		Favourite 1
☐ 801 UKTV History		812 Dave + I
☐ 802 Channel 4+1		813 UKTV STYLE
☑ 803 More Four		814 ITV4
☐ 804 QVC		815 E4
☐ 805 G.O.L.D.		
☐ 806 4Music		
☐ 807 Dave		
☐ 808 Virgin I		
☐ 809 TMF		

● Add　　● Group　　● Favourite　　● Preview　　OPT+ Function

- Group name
  Marked / Total channels
- Favourite group name
- **Function buttons**
  : Coloured or **OPT+** button

Select　　OK Mark/Confirm　　Page up/down

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

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 **RED** 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.

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.

Managing Channels

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.

Changing Background

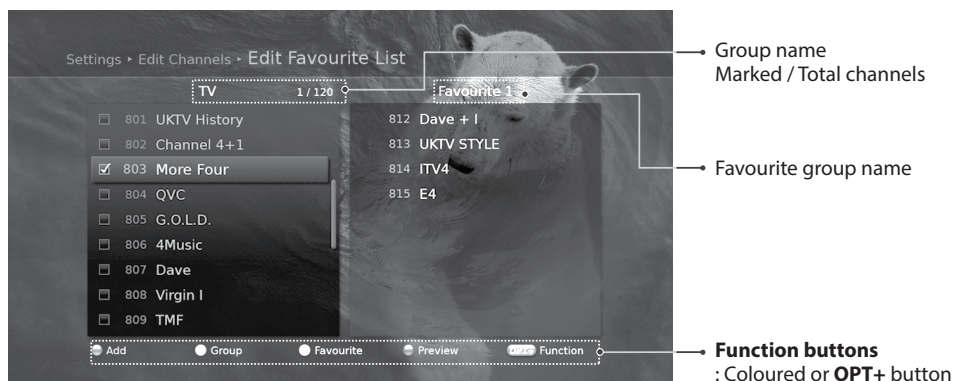To list the channels of other groups in the left column, press the **BLUE** button and select a group you want.

Selecting / Releasing All Channels

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

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.
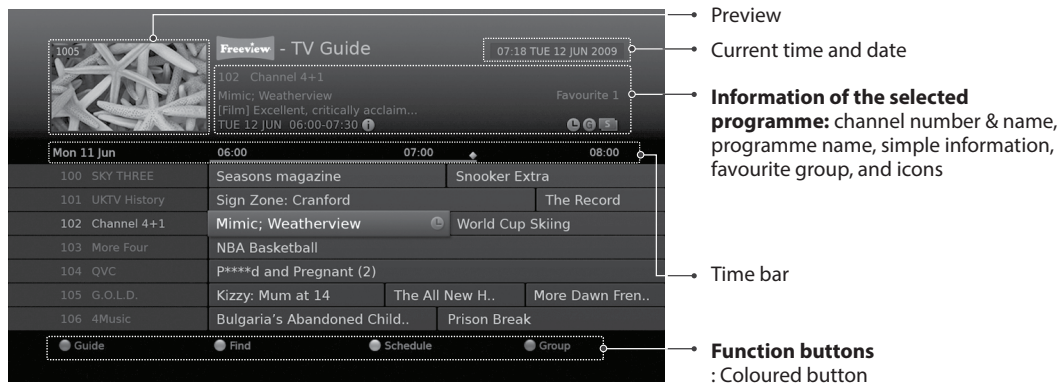
→ Preview

→ Current time and date

→ **Information of the selected programme:** channel number & name, programme name, simple information, favourite group, and icons

→ Time bar

→ **Function buttons**
: Coloured button

Select	OK Tune/Reserve		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.

TV Guide

Setting Reminders

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

Note:
- If the programme is overlapped with another programme, adjust the reservation appropriately.
- If the channel is locked, you will be prompted to enter your password before watching.
  The default password is 0000. If you have forgotten your password, please contact Humax Customer Support.
- In standby mode the product will switch on to the channel when the programme starts.
- You can reschedule reminders or recordings. (Refer to **Scheduling Reminders and Recordings**.)

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: 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.
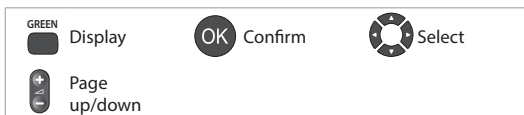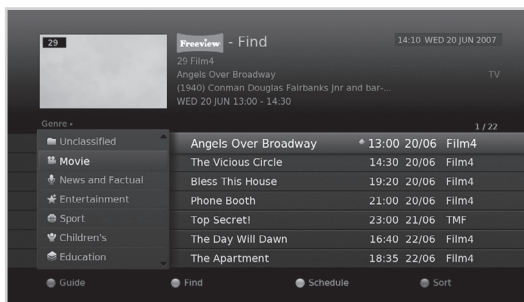4. Press the **YELLOW** button to confirm.

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. (Refer to *Changing Channels*.)
- You can set reminders or recordings for future programmes. (Refer to *Setting Reminders or Recordings*.)

Scheduling Reminders and Recordings

Schedule list of reminders and recordings will help you to manage them in more detail.

1. Press the **YELLOW** button.
2. You can add, edit or delete your reminders.
   - ➤ To add, select **New Reminder** and press the **OK** button.
   - ➤ To edit, select a reminder and press the **OK** button.
   - ➤ To delete, select a reminder 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.
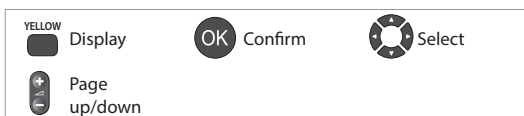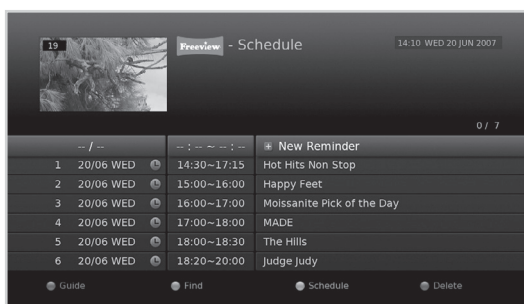
Recording and Playback

You can record programmes in the built-in hard disk drive and playback the recorded programmes whenever you want.

Recording

You can watch another channel while recording a channel or record programmes from two different channels at the same time.

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 **REC** 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.

Note: You can also press the **REC** button while in the Guide to start recording a current programme on a different channel.

Delayed Recording

You can record the scenes of a live broadcast you have been watching until now by rewinding with the time shifted recording function.

Find the starting point you want to record by using the **REWIND**, ◄ or ► buttons, then press the **REC** button.

The recording will start from the point you select.

Changing Recording Duration

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

REC Record	Select	OK Confirm	Enter 0~9

Recording and Playback
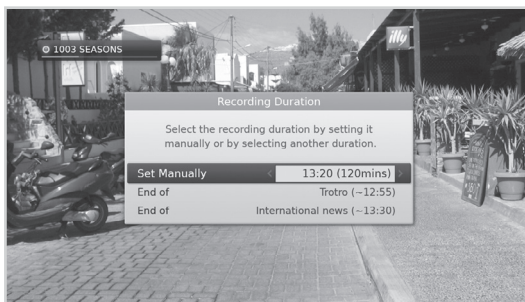
Scheduled Recording

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

❖ While in the **TV Guide** highlight a future programme and press the **OK** button.
❖ Select from:
  Record Whole Series
  Record the Whole Programme
❖ Press the **OK** button on a future programme in i-plate and select either **Record Series** or **Record the Whole Programme**.
  (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.**
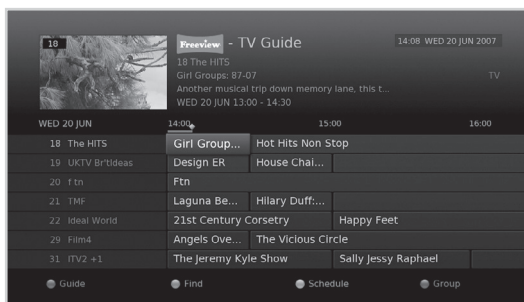• Press the **i** button while watching a progamme to display the i-plate.

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 **OPT+** button.

REC Record	Select	OK Confirm	Enter 0~9
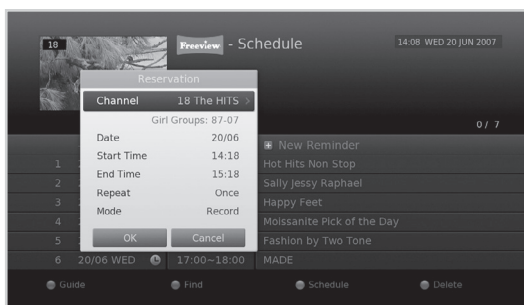
Recording and Playback

Recording Conflict

You can watch another channel while recording a channel or record programmes from two different channels at the same time.

Recording Duration Conflict

When an instant recording conflicts with one of the scheduled recordings (or reminders), you can either;

➤ Record for the automatically modified duration.
➤ Cancel either of the scheduled recordings (or reminders).
➤ Cancel the previous recording.
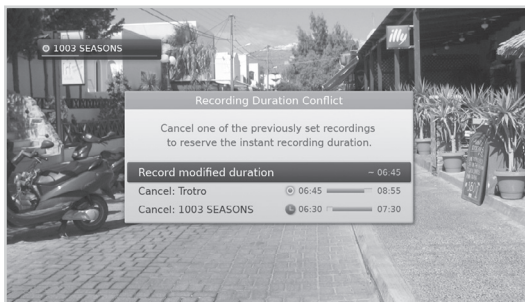
Watching Conflict

When a scheduled recording starts on a different channel while you are watching a channel and recording another 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 cancelled.
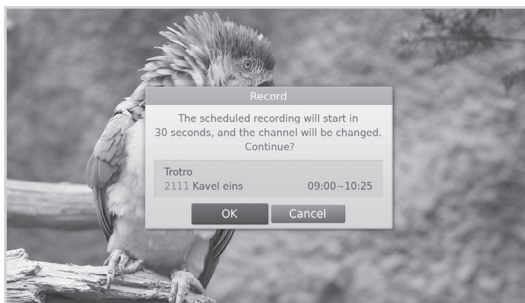
Scheduling Conflict

When a new scheduled recording conflicts with one of the previously set recordings (or reminders), you will be prompted to select up to two programmes you want to keep.
Select the programme using the ▲/▼ and **OK** button.

| REC Record | Select | OK Confirm | Enter 0~9 |

Recording and Playback

Setting Recording Option

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.

Setting Jump Time

You can set the jump time to replay or skip scenes during playback or time shifted recording.

> ➤ **Instant Replay Time :** 7 sec, 15 sec, 30 sec
> ➤ **Skip Forward Time :** 30 sec, 60 sec, 120 sec, 240 sec

Setting Automatic Option

Auto Delete: The oldest programme is deleted automatically to make the space for new programmes.

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 **REC** 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 not stop the recording. New recordings will start even in standby mode.
- While watching a recording programme, you can trick-play using the playback control buttons such as pause, fast rewind, instant replay, etc.
- You can record the digital TV or radio programmes only. The external AV inputs cannot be recorded.
- Make sure that there is enough free space before recording. If the free space on the hard disk drive is insufficient, recording will stop. Recording HD programme requires more space than SD programme. Recording one hour of HD and SD programmes may require 8 GB and 2~3 GB of hard disk space, respectively. The space for recording one 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.*)

REC Record	Select	OK Confirm	Enter 0~9
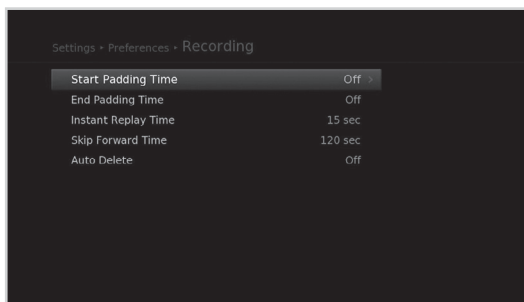
Recording and Playback

Playback

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

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, and pause while playing back a recorded file. The green playbar is displayed when pressing the **PLAY/PAUSE, REWIND** or **FAST FORWARD** button while playing.

Play status

Start time

Present time

Play pointer

Total time

Playback Controls

▶/⏸	Play / Pause
⏹	Stop playback and go to live TV
◀◀	Rewind
▶▶	Fast Forward
↺	Replay the scene
⏭	Skip the scene

Note:
• When you press the **BACK** button during playback, the playback stops.
• 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.

| | REC Record | | Select | | OK Confirm | | Enter 0~9 |

Recording and Playback

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 built-in hard disk drive temporarily.
TSR lasts for 120 minutes.

To pause the programme you are watching,

Press the **PLAY/PAUSE** button. Press the button again 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/PAUSE** button at the point where you want to start watching.
You can pause, rewind or fast forward within the programme.
You can fast rewind to the start point. If you reach the start point while rewinding, the programme is automatically played at the 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 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.

Note: Press the **INSTANT REPLAY** or **SKIP** button to instantly replay or skip scenes at regular intervals you set in the menu. (Refer to Setting Jump Time.)

To record the Time Shift Recording buffer

Rewind to the point you wish to record and press the **REC** button on t he remote control.

Note: The recording will not appear immediately in the Media list as time is required to transfer the buffer into a recording.

Media List

You can retrieve video, music or photo files from the built-in hard disk drive, the USB storage devices, or with 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.

   ➤ **HDD**: Displays the internal HDD.
   ➤ **USB**: Displays each partition of the connected USB storage devices. Select a USB.
   ➤ **Network**: Displays the connected DLNA compliant devices. Select the server.
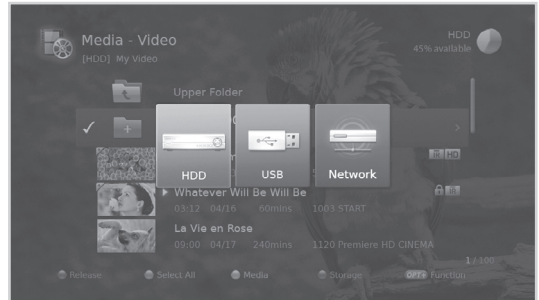
Switching Media

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

MEDIA Media On/Off	Select	OK Confirm	Enter 0~9

Media List

Note:
- Please use only the USB storage device which was 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.
- You can play back XviD/MP3/JPEG files (except files with copy-protection or restricted 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.
- 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.
- 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.
- Please do not disconnect or turn off the USB storage device while 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.
- 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 memory stick does not work properly, disconnect and reconnect it.
- 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.
- The system may require a longer time to read large amounts of data stored in a USB device.
- Only one USB icon will appear even when there are more than one USB.
- 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.
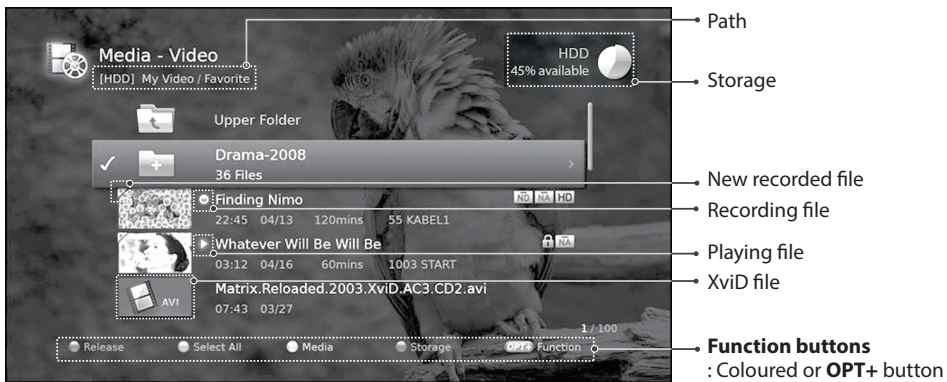
Media List

Using Video List

You can play TV/Radio recordings or XviD files from the built-in hard disk drive, the USB storage devices, or DLNA compliant devices.

> **MENU → Video**

Note:
- 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.

- Path
- Storage
- New recorded file
- Recording file
- Playing file
- XviD file
- **Function buttons** : Coloured or **OPT+** button

Note:
- ◉ : Recording icon , ▷ : Playing icon , HD : HD icon, ▣ : CAS icon, 🔒 : Lock icon
- When you record the whole series of the programme, the programmes will be recorded in the same series folder.

Playing Files

Select a file and press the **PLAY/PAUSE** button. Playback will start from the recently viewed point.
To play multiple files successively, select the files using the **RED** button and press the **PLAY/PAUSE** button.

Using Play Options

1. Select a file and press the **OK** button.
2. Select a play option.
   - ➤ **Resume Play**: Plays from the recently viewed point.
   - ➤ **Play from the Start**: Plays from the start.
   - ➤ **Delete**: Deletes the selected files.
   - ➤ **Rename**: Renames the selected file.
   - ➤ **Lock/Unlock**: Locks or unlocks the selected files.
3. Press the **OK** button.

You can perform fast rewind, fast forward, and pause while playing back a recorded file. Refer to *Recording and Playback > Playback* for details on playback control and playbar.

MEDIA Media On/Off	Select	OK Confirm	Enter 0~9

Media List

Note:
- To play multiple files successively, select the files using the **RED** button and press the **OK** button. When multiple files are selected, **Resume Play** and **Rename** are not available in **Play Options**.
- You will be prompted to enter the password when playing the locked files or the files with guidance policy.
- Some playback control buttons may not function depending on the contents.

Editing Files

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.

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.

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/Copy** 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.
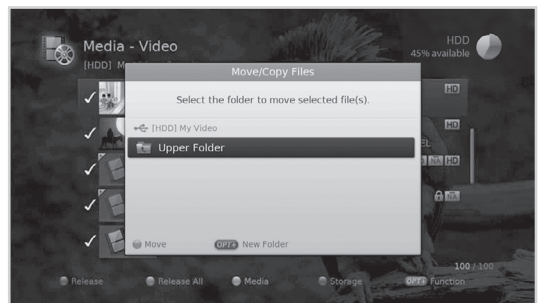
Note:
- When moving a locked file, you will be prompted to enter the password.
- When a file is moved to a different storage, it will be copied. However, video recordings cannot be copied to other storage devices.

| MEDIA Media On/Off | Select | OK Confirm | Enter 0~9 |

Media List

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 Media On/Off   Select   OK Confirm   Enter 0~9

Media List

Using Music List

You can play MP3 audio files from the built-in hard disk drive, the USB storage devices, or with DLNA compliant devices.

MENU → Music

Note:
- Press the **YELLOW** button to switch the media type.
- Press the **BLUE** button to switch the storage.

Path

Storage

Title, Artist, Album

Function buttons
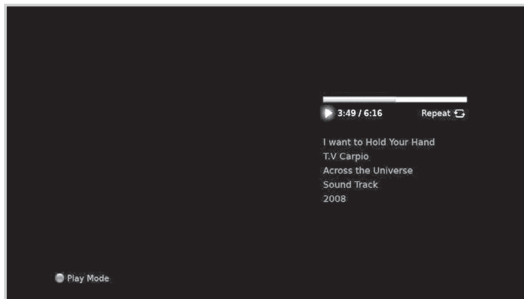: Coloured or **OPT+** button
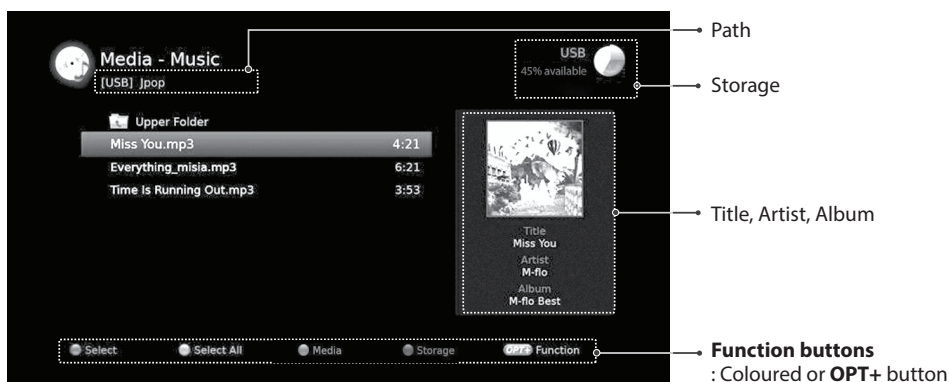
Playing Files

Select a file and press the **OK** or **PLAY/PAUSE** 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/PAUSE** button.

Media List

Music Player

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

	Play / Pause		Stop the music player and display the list
	Play the previous song		Play the next song
	Change the play mode		Exit the music player and go 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*.

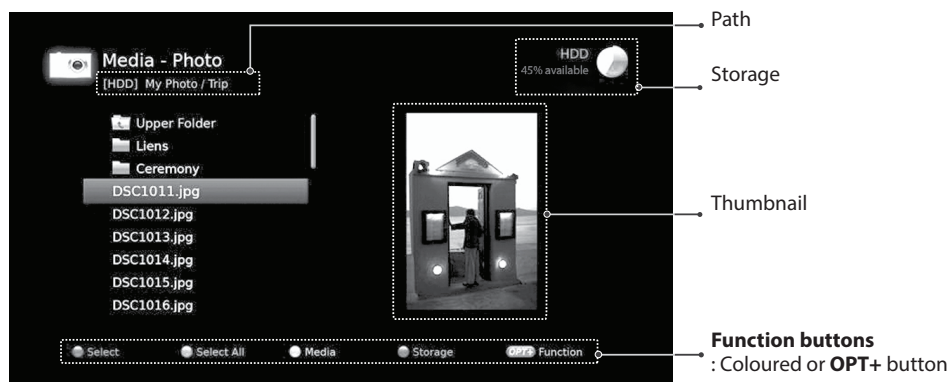|							
MEDIA	Media On/Off		Select	OK	Confirm		Enter 0~9

Media List

Using Photo List

You can play JPEG photo files from the built-in hard disk drive, the USB storage devices, or with DLNA compliant devices.

MENU → Photo

Note:
- Press the **YELLOW** button to switch the media type.
- Press the **BLUE** button to switch the storage.

Path

Storage

Thumbnail
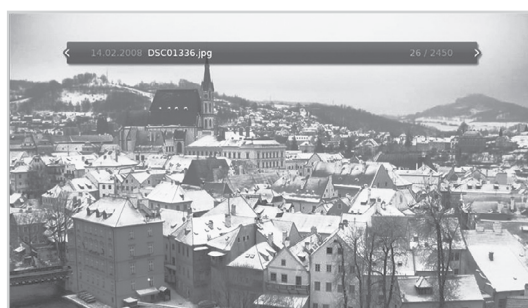
Function buttons
: Coloured or **OPT+** button

Photo Slideshow

Select a file and press the **OK** or **PLAY/PAUSE** 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/PAUSE** button.

The info banner is displayed while slideshow is paused.

	Play / Pause		Stop slideshow and display the photo list
	Show the previous photo		Show the next photo
	Exit slideshow and go to live TV		

Media List

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*.

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.

| MEDIA Media On/Off | Select | OK Confirm | Enter 0~9 |

HUMAX TV Portal

TV APPS is the new name of HUMAX TV Portal which provides catch-up TV services and various web applications.

You can access **TV APPS** in several ways.
- ➤ Press the **TV Portal** button.
- ➤ Press the MENU button and select **HUMAX TV Portal**.

Note:
- Press the **EXIT** button to exit.
- Make sure to connect the network before using this service.
- TV APPS service is subject to change without notice.
- Read and agree to Privacy Policy to use certain applications.

- This screen shot will be different depending on model type.

Creating Account

1. Go to the HUMAX server http://www.myhumax.net.
2. Click **New account** and follow the instruction to create your personal account.

Note:
- You need to enter the registration code to register your receiver to the HUMAX server.
  Go to **MENU > HUMAX TV Portal** and select **REG. CODE**. The registration code is valid for 3 hours.
- You can create up to 4 personal accounts.
- To use social network service on your receiver, go to HUMAX server > **My Page > Manage App Account** and connect your personal account to your social network account.

Featured APPS

Popular apps with agreement between HUMAX and content providers are displayed for promotion.

BBC iPlayer

You can watch live TV or radio programmes and watch them again for seven days after they are broadcast.

BBC News

You can get the latest, breaking news and see the top stories from the UK and around the world. (Available on HDR-2000T only)

BBC Sport

You can get the latest sports news, live action and highlights. (Available on HDR-2000T only.)

YouTube

You can browse popular videos and view them on your TV.

Picasa

You can access Picasa to view photos on your TV. (Available on HDR-2000T only)

Note:
• You cannot add or delete featured apps.
• Featured APPS are subject to change without notice.

HUMAX TV Portal

MY APPS

My Apps differ depending on model type.

You can browse and download various apps from App Market.
The apps displayed in MY APPS may differ according to a personal account.

Note: You can sort, move and delete the apps.

Disclaimer: You agree that your use of the HUMAX TV Portal Service ("Service") is at your sole risk and acknowledge that the Service and anything contained therein, including, but not limited to, content, services, goods or advertisements (the "Items") are provided "AS IS" and that HUMAX makes no warranty of any kind, express or implied, as to the Items, including, but not limited to, merchantability, no infringement, title or fitness for a particular purpose or use. HUMAX is not responsible for the quality of the broadband, and any disruptions or discontinuation of the Services as a result of broadband provided by your Internet Service Provider ("ISP").
HUMAX does not warrant that the Service is compatible with your equipment or that the Service is free of errors or viruses and is not liable for any damage you may suffer as a result of such destructive features. You agree that HUMAX, its Suppliers and its third-party agents shall have no responsibility or liability for any injury or damages, whether caused by the negligence of HUMAX, its employees, subcontractors, agents, Suppliers or otherwise arising in connection with the Service and shall not be liable for any lost profits, losses, punitive, incidental or consequential damages or any claim against HUMAX by any other party or any fault, inaccuracy, omission, delay or any other failure in the Service caused by your equipment or arising from your use of the Service on such equipment. For any issues or questions about the compatibility with your broadband, please contact your ISP.

Preferences

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

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, call HUMAX Customer Support on 0344 318 8800 or e-mail uksupport@humaxdigital.co.uk

Guidance Policy

You can set the guidance on the recordings or internet contents during the watershed which is the time period (21:00 to 05:30) for adult contents.

1. Select **Guidance Policy**.
2. Select an option.
   - ➤ **All Content**
   - ➤ **All Guidance Marked Content**
   - ➤ **Internet Content Only**
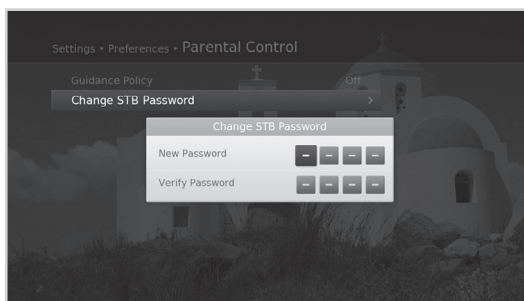   - ➤ **Off**
3. Press the **OK** button.

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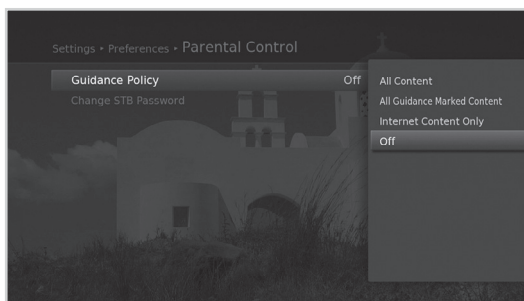
Changing Password

You can change the current password. This password is prompted every time a password blocked menu is accessed.

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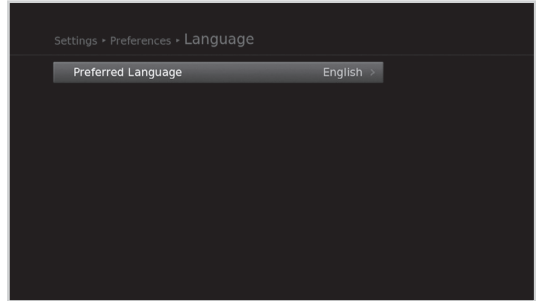
Preferences

Language Setting

You can set the preferred language for audio and subtitle.

1. Select **Preferred Language.**
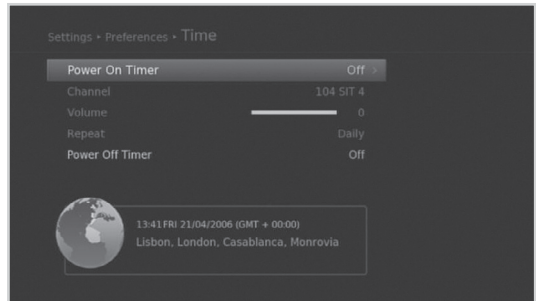2. Select the language.

Note:
- You can change the subtitle language by pressing the **SUB** button while watching a programme.
- The Preferred Language will be the priority when you change channels or restart the product.

Settings ‣ Preferences ‣ Language

Preferred Language   English ›

Setting Power On/Off Timer

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.

Settings ‣ Preferences ‣ Time

Power On Timer   Off ›
Channel   104 SIT 4
Volume   0
Repeat   Daily
Power Off Timer   Off

13:41 FRI 21/04/2006 (GMT + 00:00)
Lisbon, London, Casablanca, Monrovia

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

MENU Menu On/Off   Select   OK Confirm   Enter 0~9
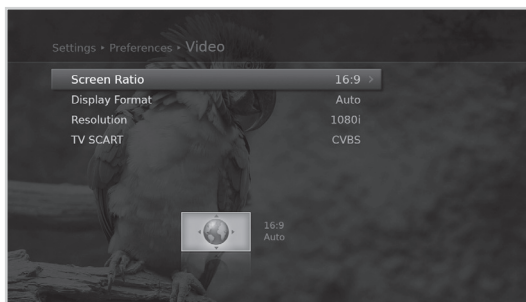
Preferences

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 16:9 - Letterbox 14:9 - Centre**
   ➤ Screen ratio 16:9: **Auto - Pillarbox - Zoom**

Screen ratio	Display Format			
4:3	Auto	Letterbox16:9	Letterbox14:9	Centre
16:9	Auto	Pillarbox	Zoom	

Setting Resolution

You can select the resolution of the screen.
1. Select Resolution.
2. Select an option.
   ➤ **576i - 576p - 720p - 1080i - 1080p**
3. Select **OK** to change the resolution.

Note: When connected with a SCART cable you can set the resolution to 576i only.

Setting TV SCART

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

1. Select **TV SCART**.
2. Select an option.
   ➤ **CVBS – RGB**

Preferences

Audio Setting

Setting Audio Description

You can set to narrate the on-screen visuals which is used for visually impaired viewers.

1. Select **Audio Description**.
2. Select an option.
   ➢ **On - Off**

Note: Not all channels/programmes will provide Audio Description; for further information please contact the Broadcaster.

Settings • Preferences • Audio

Audio Description   Off >
Digital Audio Output   Multi-channel
Lip-Sync   0 ms
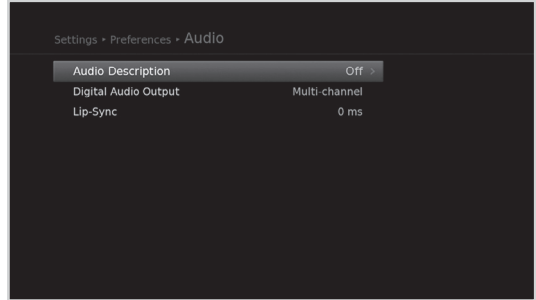
Setting Digital Audio Output

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

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

Item	Audio	Digital Audio Output
Multi-channel	MPEG	PCM
	DD	DD
	DD+	DD
Stereo	MPEG	PCM
	DD	PCM
	DD+	PCM

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.

MENU Menu On/Off   Select   OK Confirm   Enter 0~9

Preferences

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 Display

You can set to display the subtitle automatically or not.

1. Select **Subtitle Display**.
2. Select an option.
   ➤ **On - Off**

Setting Subtitle Font

You can adjust the subtitle font.

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

Settings • Preferences • Screen Display			
Info Display Time		5 sec	
Transparency		Off	
Subtitle Display		Off	
Subtitle Font		Variable	
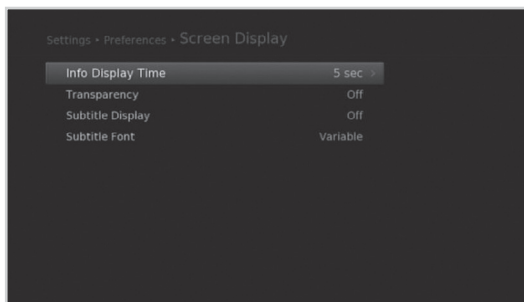
Installation

Installation menu allows you to search the available TV and radio channels. Software update, antenna power and factory default setting are also available in this section.

> **MENU → Settings → Installation**

Note:
- You will be prompted to enter the password to access this menu. The default password is 0000. If you have forgotten your password, call HUMAX Customer Support on 0344 318 8800 or e-mail uksupport@humaxdigital.co.uk.
- Press the **BACK** button to save the changes and return to the previous screen. Press the **MENU** or **EXIT** button to exit.

Automatic Search

You can search channels automatically without entering any other information.

1. Select **Automatic Search**. Channel search starts.
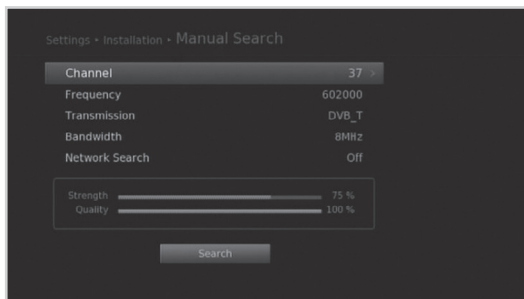2. Select **Save** and press the **OK** button to save the results.

Note: Select **Stop** and press the **OK** button to stop the channel search.

Installation
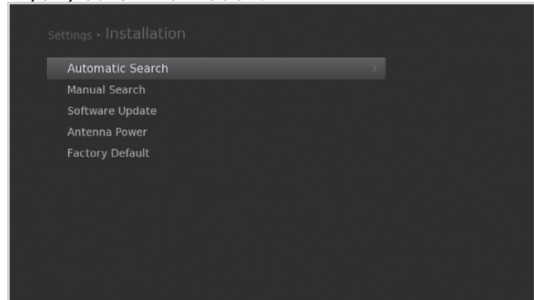
Manual Search

You can search channels manually by searching parameters.

1. Select **Manual Search**.
2. Configure the search options.
   ➤ **Channel:** Select the channel.
   ➤ **Frequency:** Enter the frequency.
   ➤ **Transmission:** Select **DVB-T** or **DVB-T2**.
   ➤ **Bandwidth:** Select the bandwidth.
   ➤ **Network Search:** Select **On** or **Off**.
3. Select **Search** and press the **OK** button.
4. Select **Save** and press the **OK** button to save the results.

Note:
• Select **Stop** and press the **OK** button to stop the channel search.
• For information on the correct channel numbers to use in your area please visit http://www.digitaluk.co.uk. Please select the "I am in the aerial installation trade" option when searching your postcode.

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

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.
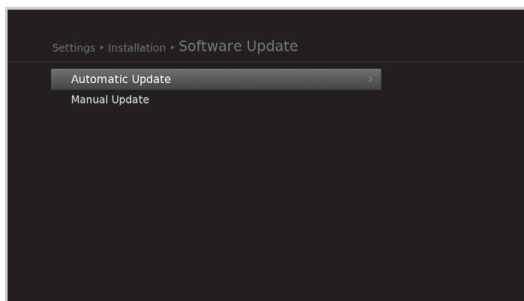
Installation

Manual Update

1. Select **Manual Update** and press the **OK** button.
2. Enter the options manually
   - ➤ **Channel**: Select the channel.
   - ➤ **Frequency** : Enter the frequency. The corresponding frequency value will be automatically displayed.
   - ➤ **Transmission**: Select **DVB-T** or **DVB-T2**.
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.
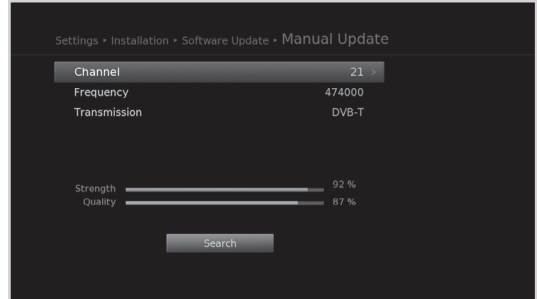
Note:
- It may take 5~10 minutes to update software.
- Other functions such as scheduling programmes will not activate while software update takes place.
- The software updates will only be downloaded over air if you are receiving the HD channels available. If you do not receive the HD channels at the current time please visit http://www.humaxdigital.co.uk/update to upgrade via USB.
- 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.

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.
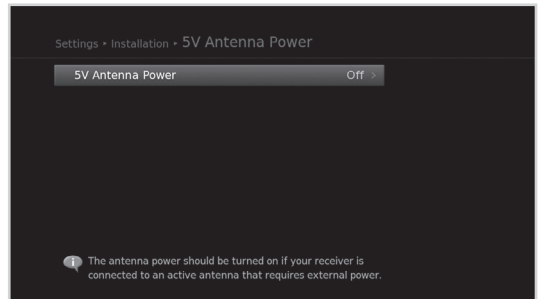
Installation

Antenna Power

MENU → Settings → Installation → Antenna Power

Active antenna is a portable or indoor antenna which needs power supply from the product because it does not have power cord for itself. Connect an active antenna to the **ANTENNA IN** on the rear of the product.

1. Select **5V Antenna Power**.
2. Select an option.
   - ➢ **On:** 5V power is supplied from the active antenna cable.
   - ➢ **Off:** No power supplied

Note: Most domestic aerial installation will not require the Antenna Power option to be switched on. Please check with your aerial installer if this is required for your aerial.

Settings • Installation • 5V Antenna Power

5V Antenna Power   Off >

The antenna power should be turned on if your receiver is connected to an active antenna that requires external power.

Factory Default

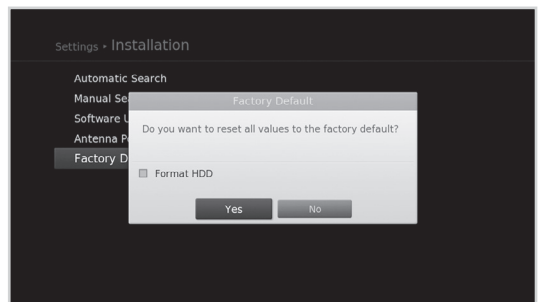**MENU → Settings → Installation → Factory Default**

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 Humax Customer Support.
- To format the HDD, mark **Format HDD**.

Warning:
- Please note that once you perform Factory Default, all user configuration/settings will be reset to the Factory settings. After completing the factory default, the installation wizard will appear automatically in a few seconds.

Settings • Installation

Automatic Search
Manual Se
Software U   Factory Default
Antenna P   Do you want to reset all values to the factory default?
Factory D
                  ☐ Format HDD
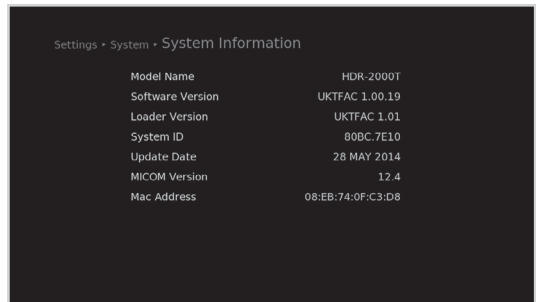
                  Yes   No

System

In **System**, system information, signal detection, power management, data storage and internet setting are available.

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**
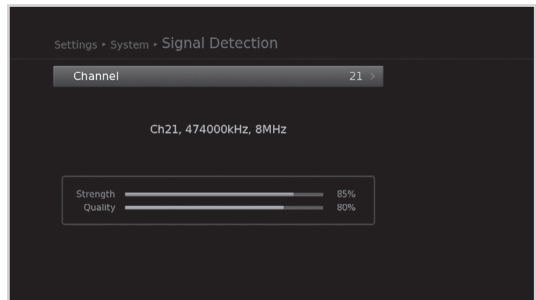
The system information is displayed.

Settings · System · System Information

Model Name	HDR-2000T
Software Version	UKTFAC 1.00.19
Loader Version	UKTFAC 1.01
System ID	80BC.7E10
Update Date	28 MAY 2014
MICOM Version	12.4
Mac Address	08:EB:74:0F:C3:D8

Signal Detection

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

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

Note: We recommend that the Signal Strength is above 30% and the Signal Quality is above 70% in order to receive the channels without picture/sound breakup.

Settings · System · Signal Detection

Channel   21 >

Ch21, 474000kHz, 8MHz

Strength   85%
Quality   80%

MENU Menu On/Off   Select   OK Confirm   Enter 0~9

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.

Setting Automatic Power Down

The receiver automatically enters standby mode for power saving if no user interaction occurs for 3 hours.
1. Select **Automatic Power Down**.
2. Select **On** to enter standby mode automatically if no user interaction occurs for 3 hours.

Settings › System › **Power Management**

Power Saving in Standby   On >
Automatic Power Down   On

When Power Saving in Standby is set to 'On', the power consumption in standby will be under 0.5W.
But the Antenna Out loop-through will not provide any signal to a connected device (such as a TV set).

Note: When **Power Saving in Standby** is switched **On** the Time on the front display will not appear when in standby, nor will the Antenna Out loop-through the signal to a connected device.

System

Data Storage

You can check the size of the internal HDD or external USB storage device.

1. Select storage to display the details for the storage.
2. Select **HDD Test** to test your hard disk drive for errors.
3. To format the selected storage, select **Format Storage**. If you select **Yes**, you will be prompted to enter the password.

Note:
- The default password is 0000. If you have forgotten your password, please contact Humax Customer Support.
- 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)
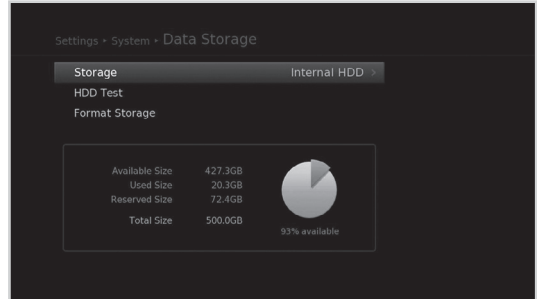
System

Internet Setting

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

Configuring Wi-Fi

The HDR models can be connected wirelessly to your home network with our optional Wi-Fi USB Adapter, all models can be connected directly with the supplied Ethernet Cables.

Make sure that a USB Wi-Fi dongle is connected first.
1. Select **Configure Wi-Fi**.
2. The Wi-Fi network list will appear. Select your Wi-Fi network and press the **OK** button.
3. If your Wi-Fi network is not listed, select **Input network name** and enter the name in the keyboard.
4. Configure the Wi-Fi setting options.
    ➤ **Network Name**: The Wi-Fi network name
    ➤ **Security Type**: The Wi-Fi security type
    ➤ **Password**: The Wi-Fi password
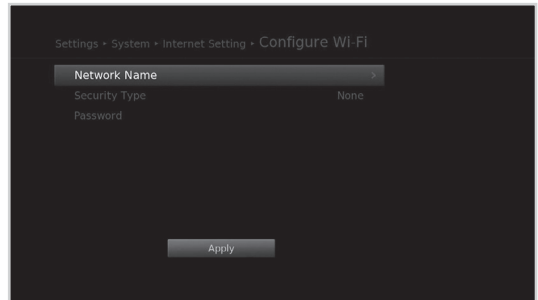
Configuring LAN

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.
*   The network is connected by LAN when both WiFi and LAN are activated.
*   HUMAX recommends the network connection over a direct LAN.
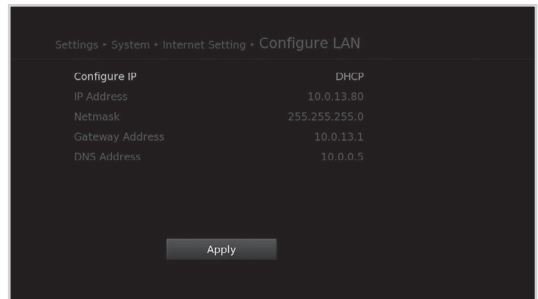
Content Share

You can find video, music and photo files in the HDD and play them on your TV or send those files to other devices. (Make sure the network is connected to both devices.)

1. Select **Content Share**.
2. Select **On** to connect to the HD from other devices.

FTP Server

You can transfer the media files in the internal HDD into your PC with FTP programme.

1. Select **FTP Server**.
2. Select **On** to make the receiver work as FTP server.

Note: To access to the internal HDD, enter the IP address assigned to the receiver on PC.

| | MENU Menu On/Off | | Select | OK | Confirm | | Enter 0~9 |

Appendix

Specification

Tuner & Channel	
Input Connector	IEC 169-2 Female
Frequency Range	470 MHz to 862 MHz
Signal Level	-70 to -10 dBmV
Demodulation	OFDM
Mode	DVB-T : 2K, 8K DVB-T2 : 1K, 2K, 4K, 8K, 16K, 32K
FEC Mode	DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
Guard Intervals	DVB-T : 1/4, 1/8, 1/16, 1/32 DVB-T2 : 1/4, 1/8, 1/16, 1/32, 1/128, 19/128, 19/256
Audio/Video Decoding	
Audio Decoding	Dolby Digital Plus
Audio Mode	Single channel/Dual channel/Joint stereo/Stereo
Video Decoding	HD MPEG2 /SD MPEG2 / MPEG4(H.264/AVC)
Video Format	4:3, 16:9, Letter Box, Pillar Box
Video Resolution	1080p, 1080i, 720p, 576p, 576i
Memory	
Flash Memory	128 MB
RAM	512MB (HDR-1800T) 1GB (HDR-2000T)
Audio/Video In/Out	
Video	TV-SCART, RCA, HDMI/HDCP
Audio	TV-SCART, Audio L/R, S/PDIF (Digital Audio Output)
Data In/Out	
USB	USB 2.0 Host (5 V ⎓ 500mA Max.)
RJ-45	Ethernet 10/100 Mbps
Hard Disk	
HDD	320GB (HDR-1800T) 500GB/1TB (HDR-2000T)

Appendix

Power Supply	
Input Voltage	100-240 V a.c., 50/60 Hz
Power Type	AC Adapter
Power Consumption	2V d.c. / 1.5A Max. 18W (HDR-1800T) 12V d.c. / 2.5A Max. 30W (HDR-2000T) Standby: Under 0.5W (HDR-1800T, HDR-2000T)
Protection	Separate internal fuse. The input should be protected against lightning.
Physical Specification	
Size (w/h/d)	320 mm x 50 mm x 245 mm
Weight	1.4 Kg (HDR-1800T) 1.9 Kg (HDR-2000T)
Operating Temperature	0 ℃ to +40 ℃

Note: The specifications are subject to change without notice.

Service and Support

Information concerning troubleshooting, software upgrade and product support is provided in the following websites and call centers. Should your product require warranty service, please contact HUMAX to obtain the appropriate authorization.

Customer Support

UK	Tel: Opening Hours: E-mail: Website: Language:	0344 318 8800 Mon - Fri 09:00 – 17:30 (excluding Bank Holidays) uksupport@humax-digital.co.uk www.humax-digital.co.uk English

Appendix

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 cleaning.
   - Use a light damp cloth (no solvents) to dust the product.

5. **VENTILATION**
   - The slots on top of the product must be left uncovered to allow proper airflow into the unit.
   - Do not stand the product on soft furnishings or carpets.
   - Do not stack electronic equipments on top of the product.

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. **EXTRANEOUS 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. 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.

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 mains plug, 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.
   - Unplug the power cable before you install the antenna cable.

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.

Appendix

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 / no lights appear 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.
   - Make sure that you have selected the correct AV Channel / Input on your TV set (refer to your TV user manual for more information)
   - 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
   - Install the antenna in an obstacle-free place.
   - Make sure there is no mobile phone or microwave oven near the product.
   - Keep the power and the antenna cables apart from each other.
   - Check the signal levels and adjust your antenna if the level is too low. The signal level may be affected by weather conditions.

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.
   - **[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 in the AV menu. (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)

Appendix

6. **Cannot make reservations.**
   - Check that no previous reservations are conflicting with the new reservation.
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.
   - **Terrestrial:** Make sure that the antenna 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. **The product makes a humming noise. (PVR only)**
    - The noise is from the fan; the hard disk is operating normally. This kind of noise is inevitable but seldom noticeable.
11. **Cannot record progammes. (PVR only)**
    - The hard disk is full. Delete unnecessary programmes and make space for new recording.
    - Check if recording is overlapped with another channel. Stop the current recording or wait until the recording is finished.
    - Check that the product is switched on when recording starts.
12. **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.
13. **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.
14. **Cannot change channels while recording. (PVR only)**
    - Certain channels may not be changed due to restriction of the tuner or connection type.

Appendix

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.

Appendix

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.

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.

Appendix

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 TVs 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, Instant Replay, Commercial Skip, Repeat A-B.

TSR (Time Shifted Recording)
A function that records the present programme temporarily to support trick-play.

Appendix

Remote Control Code List (HDR-2000T models only)

1. Using the Universal Remote Control

1. Select the **TV** button on the remote control. The button will blink once.
2. Keep pressing the button for 3 seconds until the button lights on.
3. Enter the 3-digit code. Every time a number is entered, the button will blink.
   When the third digit is entered, the button will blink twice.
4. If a valid 3-digit code is entered, the product will power off.
5. Press the **OK** button and the mode button will blink three times. The setup is complete.
6. If the product does not power off, repeat the instruction from 3 to 5.

Note:
• When no code is entered for one minute the universal setting mode will switch to normal mode.
• Try several setting codes and select the code that has the most functions.

Remote Control Function List

The keys on the remote control function as in the list below.

Note: Some keys may not function depending on the product.

Button	TV	Button	TV
PVR		BACK	LAST
TV		⊿ +	VOLUME UP
STANDBY	POWER	⊿ -	VOLUME DOWN
MUTE	MUTE	i	INFO
TEXT	TEXT	OPT+	
LIST		P ∧	PAGE UP
TV Portal		P v	PAGE DOWN
REC	PIP MOVE	RED	RED
MENU	MENU	GREEN	GREEN
◀◀	PIP OFF	YELLOW	YELLOW
▶/II	TEXT EXPAND	BLUE	BLUE
▶▶	PIP	1	1
↻	TEXT MIX	2	2
■	PIP INPUT	3	3
➡I	TEXT OFF	4	4
MEDIA		5	5
GUIDE	GUIDE	6	6
OK	OK	7	7
UP	UP	8	8
LEFT	LEFT	9	9
RIGHT	RIGHT	0	0
DOWN	DOWN	SUB	SUBTITLE
Exit	EXIT	AD	

Appendix

2. TV Code List

Brand	Code
Acer	261, 278, 305
Acoustic Solutions	210, 312, 324, 370, 386, 428, 477
Akai	102, 006, 098, 144, 145, 111, 061, 043, 074, 148, 232, 280, 128, 122, 461, 109, 462, 489, 094, 084, 083, 065, 035, 034, 033, 028, 023, 011, 004, 002, 154, 321
Alba	006, 144, 134, 204, 087, 064, 036, 005, 108, 473, 455, 447, 388, 099, 084, 077, 072, 065, 059, 034, 023, 002
Bang & Olufsen	014
Beko	006, 144, 086, 145, 111, 064, 072, 172, 361, 405
BenQ	223, 328, 329
Black Diamond	444, 204, 211
Brionvega	006, 014, 062
Bush	102, 006, 144, 134, 204, 138, 087, 061, 043, 036, 005, 108, 376, 373, 370, 361, 355, 352, 327, 388, 430, 431, 432, 440, 448, 451, 473, 476, 477, 478, 002, 033, 035, 044, 045, 056, 059, 065, 066, 095, 133, 164, 210, 213, 229, 232, 250
cello	397, 410, 418, 419, 420
Crown	006, 144, 134, 204, 086, 145, 087, 111, 143, 064, 361, 135, 072, 071, 053, 033, 002
Daewoo	102, 006, 124, 444, 036, 441, 406, 341, 338, 271, 249, 195, 192, 190, 164, 133, 119, 091, 079, 066, 035, 034, 002
Dell	235, 278
DMTech	260, 438, 449, 454, 456
Ferguson	006, 120, 098, 103, 030, 204, 012, 020, 029, 046, 052, 054, 077, 292, 447, 476
Finlux	102, 006, 144, 145, 333, 327, 172, 122, 118, 094, 089, 084, 083, 070, 055, 035, 023, 018, 017, 014, 011, 010
Fujitsu	002, 011, 032, 035, 042, 137, 173, 187
Fujitsu General	002, 032, 035, 137
Fujitsu Siemens	172, 211, 230, 246, 268, 369
Funai	144, 134, 043, 275, 336, 369, 407
GoldStar	006, 144, 145, 111, 061, 001, 007, 020, 023, 027, 034, 035, 047, 067
Gooding	087
Goodmans	102, 006, 120, 144, 103, 134, 124, 444, 204, 087, 043, 036, 005, 478, 211, 232, 477, 250, 476, 271, 445, 355, 370, 373, 440, 376, 382, 383, 386, 002, 004, 011, 035, 047, 052, 054, 065, 066, 084, 091, 094, 119, 121, 133, 172, 195, 210
Graetz	144, 087, 061, 023, 053, 065, 211
Grundig	102, 006, 030, 087, 142, 005, 108, 498, 476, 448, 447, 445, 430, 405, 370, 271, 267, 250, 225, 135, 121, 010, 101, 096, 028, 077
Grunkel	211
Hannspree	262, 263, 264, 342, 401, 402, 463
Hantarex	006, 002, 094, 190, 260, 289
Hinari	006, 043, 036, 005, 002, 033, 059, 077, 443
Hisense	102, 092, 165, 254, 265, 366, 491
Hitachi	006, 098, 124, 204, 208, 005, 019, 037, 146, 152, 153, 163, 169, 193, 197, 007, 206, 210, 217, 227, 295, 296, 330, 377, 399, 424, 483, 020, 021, 023, 027, 035, 054, 056, 060, 076, 081, 083, 084, 085, 089, 091, 094, 018, 106, 107, 011
Humax	505, 299, 506, 507, 245, 319, 322, 411, 433, 479
Hyundai	164, 190, 192, 241, 244, 271, 291, 317, 338, 340, 341, 439
Inno Hit	036, 002, 011, 035, 045, 047, 094, 211
Irradio	006, 036, 002, 047, 065, 147
JVC	111, 036, 005, 129, 130, 015, 029, 065, 072, 137, 149, 207, 264, 362, 408, 496
Keymat	258, 300, 398, 436, 437
Lenoir	002, 214
LG	102, 006, 144, 145, 138, 061, 064, 248, 281, 354, 367, 368, 384, 396, 416, 417, 425, 426, 215, 209, 067, 047, 035, 034, 027, 023, 002, 001, 236, 257
Loewe	006, 064, 014, 048, 093, 094, 123, 131, 167, 414, 434
Logik	204, 001, 003, 029, 162, 195, 224, 292, 376, 464, 465, 466
Logix	134, 095
Luxor	098, 204, 061, 023, 033, 035, 047, 055, 056, 060, 083, 084, 122, 211
Manhattan	006, 134, 204, 164, 192, 237, 293
Marantz	102, 006, 071, 140, 277, 317
Marks and Spencer	420
Matsui	102, 006, 144, 030, 204, 087, 005, 080, 074, 153, 195, 097, 094, 369, 445, 077, 447, 065, 059, 056, 052, 044, 035, 033, 028, 011, 008, 004, 003, 002
Mitsubishi	102, 006, 204, 005, 019, 014, 015, 027, 093, 096, 191, 311
Mivar	034, 035, 047, 048, 094, 112

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NEC	005, 002, 003, 025, 035, 040, 049, 066, 140, 239, 379
Nokia	098, 113, 111, 061, 023, 033, 049, 053, 055, 056, 066, 083, 084, 089, 122
Nordmende	006, 144, 103, 030, 020, 046, 054, 242, 280, 499
Onida	207, 226
Orion	102, 006, 144, 204, 467, 458, 457, 456, 448, 445, 443, 385, 218, 195, 131, 097, 094, 077, 071, 059, 050, 049, 003
Orline	006, 036
Ormond	134, 204
Orsowe	094
Pacific	102, 144, 204, 208, 077, 256
Packard Bell	254, 293
Panasonic	006, 098, 061, 129, 038, 023, 063, 094, 187, 251, 294, 353, 359, 279, 306
Panavision	006, 070
Philco	006, 064, 014, 021, 072
Philips	102, 006, 061, 459, 435, 429, 395, 310, 302, 297, 247, 125, 110, 101, 073, 066, 054, 029, 014, 002
Phonola	102, 006, 014, 029, 034
Pioneer	006, 086, 061, 064, 020, 023, 024, 046, 073, 093, 136, 159, 233, 277, 286, 381
Pionier	086, 064, 327
Radiomarelli	006, 014, 094
Relisys	190, 192, 193, 194, 220, 221, 271, 310, 333, 338, 341, 355, 390
Saba	120, 098, 144, 103, 061, 014, 020, 023, 046, 052, 054, 090, 094, 335
Sagem	113, 080, 182, 253, 337
Samsung	102, 006, 043, 064, 108, 115, 231, 252, 276, 287, 332, 345, 350, 351, 372, 442, 474, 488, 490, 492, 228, 176, 175, 127, 095,047, 035, 034, 033, 027, 023, 011, 009, 002
Sanyo	204, 064, 005, 019, 442, 370, 363, 358, 357, 356, 222, 200, 150, 140, 097, 053, 048, 035, 034, 033, 025, 023, 017, 011, 008, 003, 002, 240
Schaub Lorenz	098, 144, 086, 111, 061, 056, 066, 215, 256, 267
Schneider	102, 006, 144, 134, 204, 061, 208, 036, 451, 450, 293, 128, 097, 095, 065, 056, 054, 042, 035, 023, 010
SEG	006, 134, 204, 087, 043, 036, 005, 285, 211, 210, 119, 062, 056, 035, 034, 002
Sei-Sinudyne	006, 014, 032, 094, 097
Seleco	023, 032, 042, 055, 062, 065, 070, 075, 099

Sharp	005, 130, 216, 015, 029, 088, 094, 177, 274, 334, 365, 409, 166, 288
Siemens	006, 030, 028, 096, 101
SKY	006, 195, 271, 300, 307, 308, 340, 341, 342, 343, 344, 391, 400, 421
Sonoko	006, 043, 002, 035, 045
Sony	006, 301, 005, 446, 412, 393, 375, 360, 325, 255, 203, 185, 174, 058, 003
Strong	210, 211
Technika	422, 428, 465, 468, 480, 493
TechniSat	102, 131, 237
Technisson	144, 242, 361
Technosonic	102, 120, 091, 195, 256, 258, 436, 437, 451, 468
Telefunken	006, 120, 144, 103, 086, 320, 202, 105, 090, 082, 055, 054, 052, 046, 020, 016, 012, 348
Tevion	102, 006, 144, 134, 204, 208, 468, 405, 403, 376, 355, 327, 298, 246, 242, 232, 230, 172, 128
Thomson	006, 120, 103, 020, 046, 052, 054, 056, 082, 335
Toshiba	030, 204, 005, 115, 129, 092, 447, 364, 313, 304, 242, 212, 211, 183, 100, 039, 022, 020, 010, 009, 004, 236, 257
Tosumi	451
Vestel	006, 134, 204, 035, 211, 333, 370
Videocon	092
Viewsonic	307, 308, 323, 335, 349, 391, 394, 259, 331
Wharfedale	102, 006, 095, 189, 256, 327, 370, 452, 453, 477, 502
Yamaha	169, 314, 330, 184
Zanussi	032, 035

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TV/VCR Combo	
Aiwa	445
Amstrad	026
Beko	086
Daewoo	444, 119
GoldStar	006
Grundig	102, 006, 030, 101, 445
Irradio	147
LG	027
Philips	102, 006
Saba	120
Samsung	442
Sanyo	442
Sharp	015
Thomson	120
United	445

TV/VCR/DVD Combo	
Grundig	448
Orion	448

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Appendix

Appendix

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For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

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Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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Appendix

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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