HD TV

Digital Recorder
Digitale Recorder

The default password is 0000.
Het standaard wachtwoord is 0000.
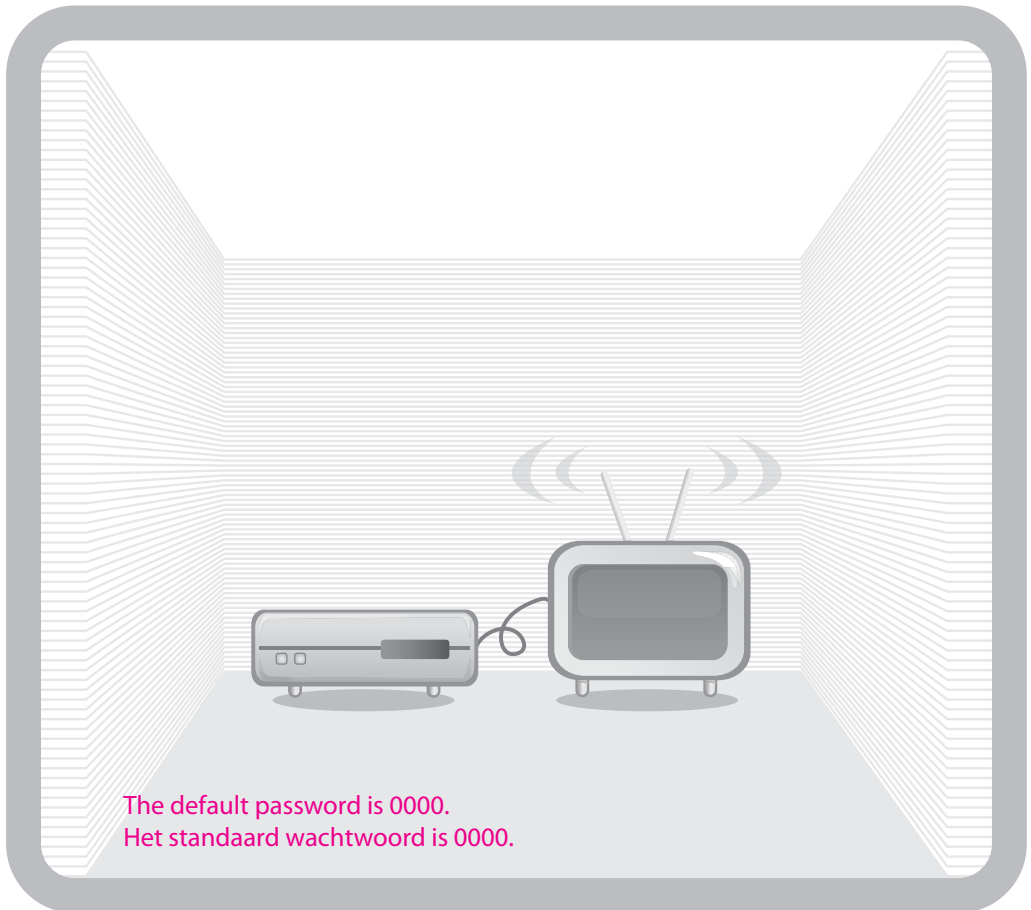
User's Manual
/Gebruikershandleiding

iHDR-5050C

HUMAX
EASY DIGITAL

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.

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Notice

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.

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.

Instruction about the 'WEEE' Symbol

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

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

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

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**
   90-250V a.c., 50/60Hz
   - 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. **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.

8. **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.

9. **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.

Safety Warning

10. 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.

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

12. 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.

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.

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 to it. 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. It may cause damage to the product and reduce its life span.

4. Hard Disk Drive;
- 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 the carelessness or misuse of users.

5. Standby Mode;
- It is recommended to leave the product in Standby mode during long periods when not being used e.g. Over night. The product will record any schedules set while in Standby mode.
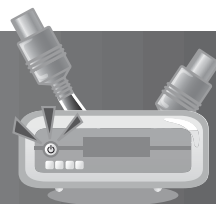
Contents

Contents

1. Before Using the Product

This chapter provides detail instructions on the product and its accessories.

1.1 Package Contents

Please check all package contents before using your product.

Batteries		**CD Manual**	**Quick Guide**
Remote Control	**RF Cable**	**SCART Cable**	**HDMI Cable**
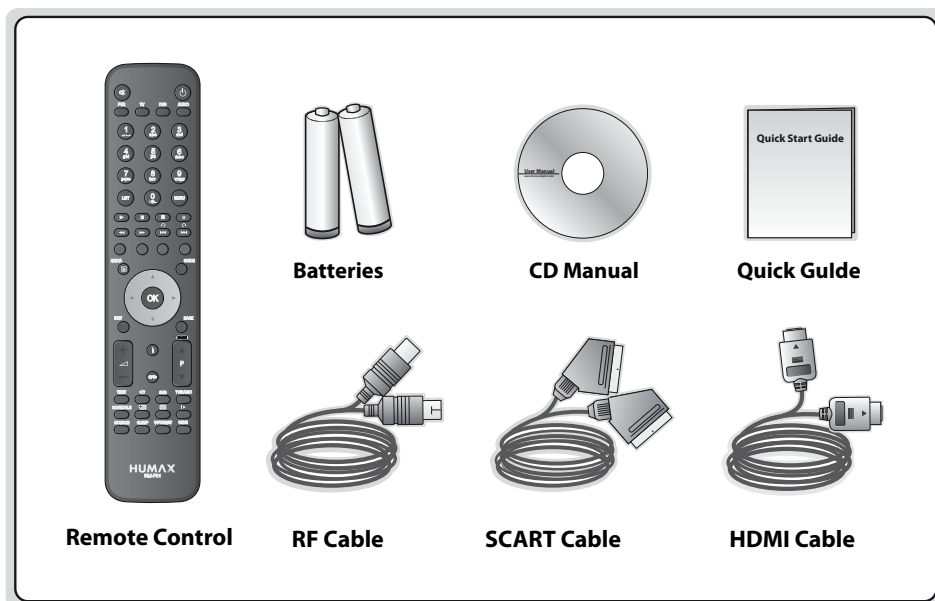
Note:
- Faults may occur if the remote control is left without battery for a long time. Always keep the battery inserted in the remote control.
- Package contents may vary according to area.

Caution:
- The company shall not be liable for problems caused by changing hard disk drive by user.
- The company shall not be liable for problems caused by the installation of hard disks bigger than 320GB.

1. Before Using the Product
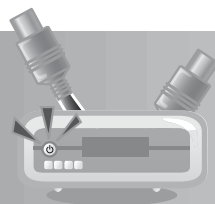
1.2 Front Panel
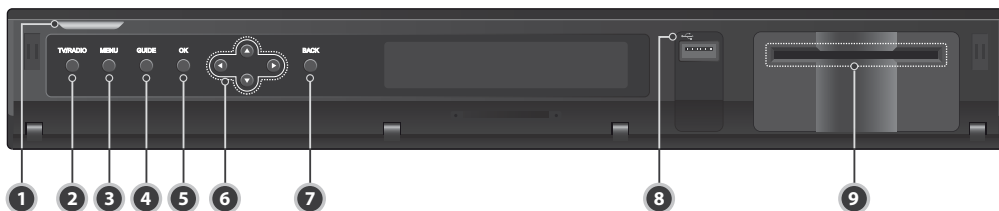
1. **STANDBY BUTTON**
   Switches between operation and standby modes.

2. **TV/RADIO BUTTON**
   Switches between TV and radio modes.

3. **MENU BUTTON**
   Displays the main menu.

4. **GUIDE BUTTON**
   Displays the programme guide.

5. **OK BUTTON**
   Selects a menu or confirms the selected operation. Displays the channel list while watching a programme.

6. **ARROW BUTTONS**
   Changes the channel or moves the cursor up, down, left or right.

7. **BACK BUTTON**
   Closes and returns to the previous menu and screen.

8. **USB Port**
   Connects to the USB memory or external HDD (for archiving recordings, or transfer of MP3 or JPEG files).

9. **SMARTCARD SLOT**
   A slot for a Smartcard

Note: The front of the product is subject to change without notice.

1. Before Using the Product
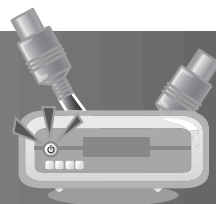
1.3 Conditional Access

Although some TV and radio services are free to air, others are available on a subscription basis and can only be enjoyed via a Conditional Access component.
The Conditional Access component is a removable Smartcard.

Inserting the Smartcard

The Smartcard looks similar to a credit card and is inserted into the slot behind the right-hand front flap of the product. A valid Smartcard entitles you to view and listen to all the channels you choose to subscribe to. The Smartcard slot on the product can be used for Irdeto Smartcard only.

1. Open the flap on the front panel of the product to expose the card slot.
2. Hold the Smartcard horizontally with the electronic chip (small square-shaped, gold in colour) facing downwards.
3. Insert the Smartcard into the slot.

Smartcard
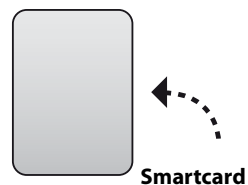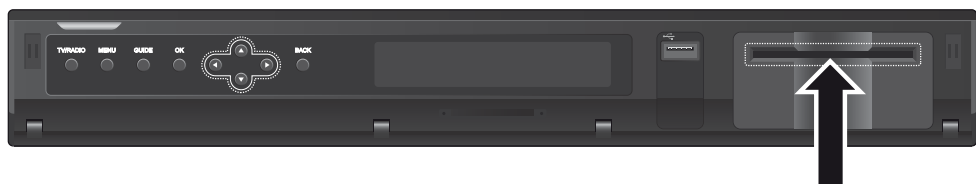
1. Before Using the Product
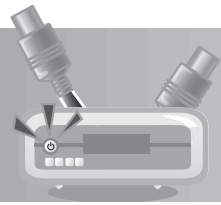
1.4 Rear Panel
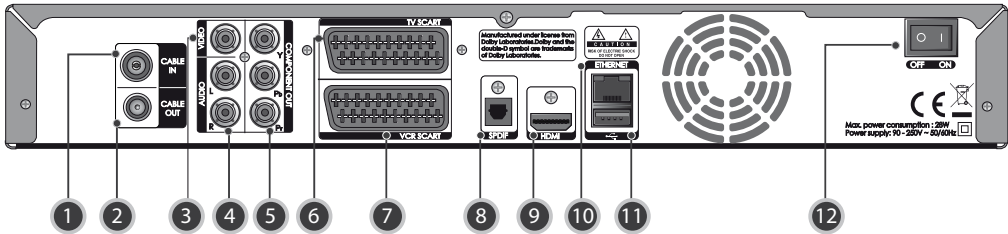
1. CABLE IN
Connects a network cable

2. CABLE OUT
Connects to the RF IN of the TV or VCR

3. VIDEO
Connects to the TV or VCR using an RCA cable.

4. AUDIO
Connects to the TV or VCR using an RCA cable.

5. COMPONENT(YPbPr)
Connets to the TV or VCR using a component cable.

6. TV SCART
Connects to the TV using a TV SCART cable.

7. VCR SCART
Connects to the VCR or DVD using a VCR SCART cable.

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

9. HDMI
Connects to the TV using an HDMI cable.

10. ETHERNET
Ethernet port (for future use).

11. USB
Connects to the USB memory or external HDD.

12. ON/OFF
Powers on/off.

Note: The rear panel of the product is subject to change without notice.

1. Before Using the Product
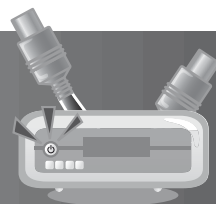
1.5 Remote Control

Note: The remote control of the product is subject to change without notice.
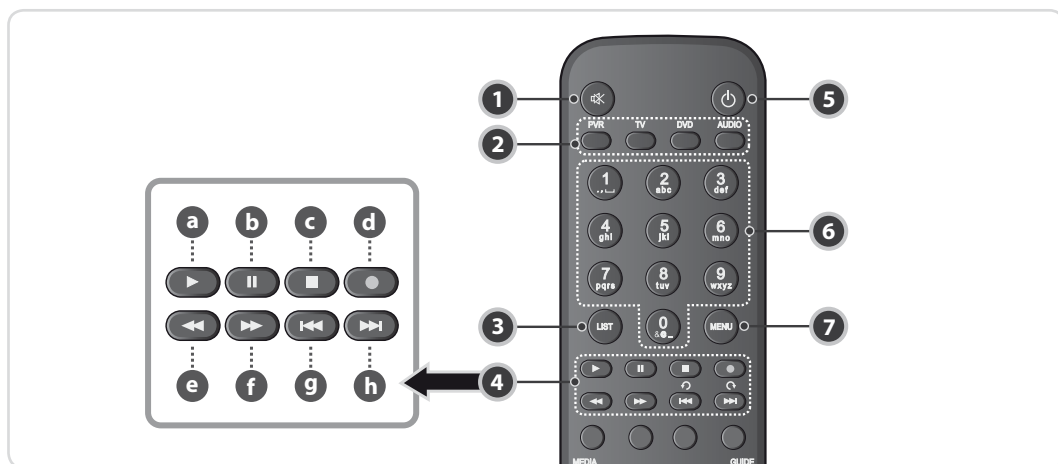
1. **MUTE**
   Mutes or unmutes the audio temporarily.

2. **PVR/TV/DVD/AUDIO**
   Changes the mode.

3. **LIST**
   Display the channel list.

4. **PLAYBACK CONTROL BUTTONS**

   a. **PLAY**
      Plays at normal speed or resumes.

   b. **PAUSE**
      Pauses the live programme or recording.

   c. **STOP**
      Stops a recording or goes to the live programme.

   d. **RECORD**
      Records programme.

   e. **FAST REWIND**
      Rewinds at high speed. Each time you press this button, the rewind speed is increased.

   f. **FAST FORWARD**
      Fast forwards at high speed. Each time you press this button, the fast forward speed is increased.

   g. **PREVIOUS (REPLAY)**
      Goes to the previous scene.

   h. **NEXT (SKIP)**
      Goes to the next scene.

5. **STANDBY**
   Switches between operation and standby modes.

6. **NUMERIC(0-9) BUTTONS**
   Enters a TV/radio channel number or menu option number.

7. **MENU**
   Displays the main menu.

1. Before Using the Product
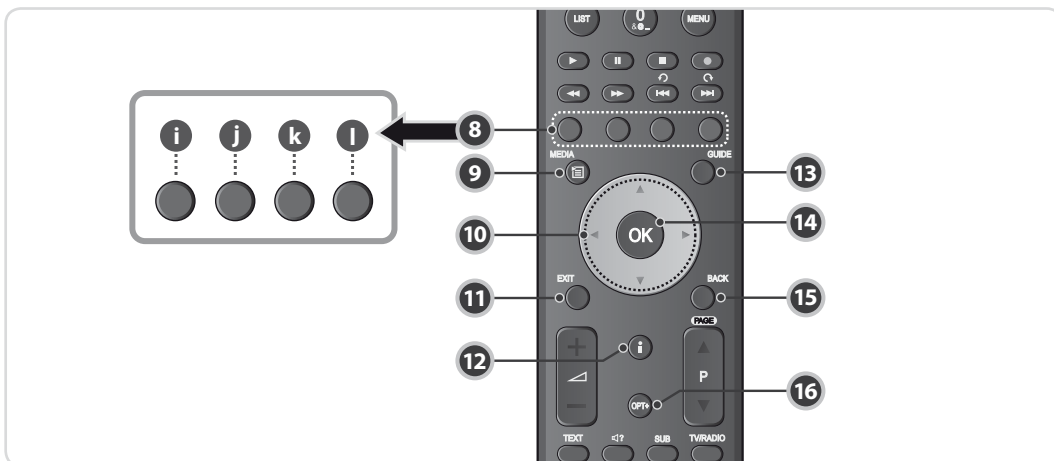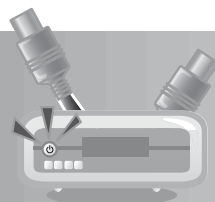
8. **COLOUR BUTTONS(R/G/Y/B)**
   Select the colour keys for interactive
   applications.

   i.   **RED**
        Displays the channel list in normal viewing mode.

   j.   **GREEN**
        Displays the favourite channel list in normal
        viewing mode.

   k.   **YELLOW**
        Displays the HD TV channel list in normal viewing
        mode.

   l.   **BLUE**
        Displays the history channel list in normal viewing
        mode.

9. **MEDIA**
   Displays the media list.

10. **ARROW BUTTONS**
    Changes the channel or moves the cursor up,
    down, left or right.

11. **EXIT**
    Exits all On-Screen Display (OSD) screens.

12. **i (INFORMATION)**
    Displays the channel and programme
    information.

13. **GUIDE**
    Displays the programme guide.

14. **OK**
    Selects a menu or confirms the selected
    operation.

15. **BACK**
    Returns to the previous channel.

16. **OPT+**
    Displays the channels attributes while watching
    a programme.
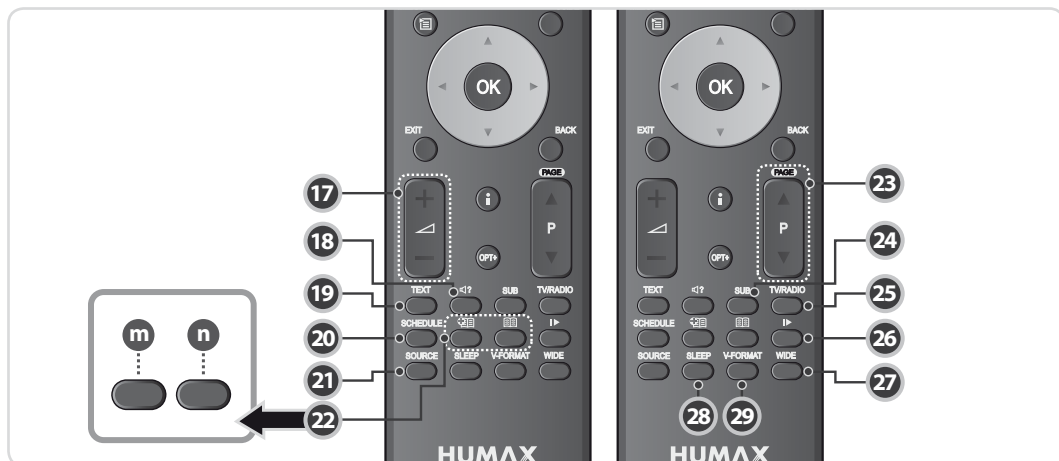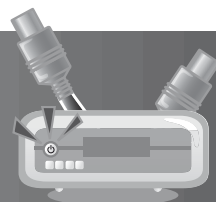
17. VOLUME
Adjusts the audio volume.

18. AUDIO
Displays the audio list.

19. TEXT
Enters the digital text service.

20. SCHEDULE
Displays the schedule in programme guide.

21. SOURCE
Controls the output of TV SCART.

22. BOOKMARK

    m. ADD BOOKMARK
    Saves the current viewing position as a bookmark during playback.

    n. BOOKMARK LIST
    Displays the list of saved viewing positions during playback.

23. P▲/▼
Changes the channel or page.

24. SUB
Displays the subtitle language list.

25. TV/RADIO
Switches between TV and radio modes.

26. SLOW
Plays the programme in slow motion.

27. WIDE
Sets the display format.

28. SLEEP
Sets the sleep time.

29. V-FORMAT
Changes the resolution of video.

GB13
User's Manual

1. Before Using the Product
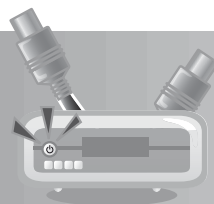
1.6 Remote Control Batteries

1. Press the hook upword and lift the battery cover off.
2. Insert the new batteries. Make sure the plus (+) ends meet the plus markings on the battery case.
3. Close the cover.
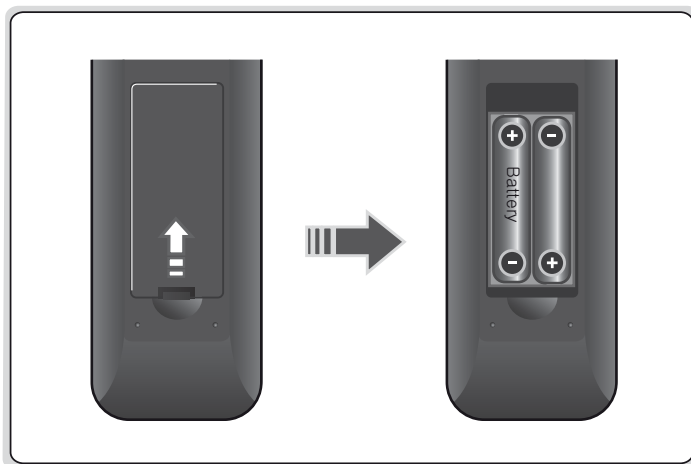
2. Setup

This chapter describes how to connect your product to the TV with the particular equipments for gaining 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 equipment you have.

Note:
- If you encounter any problems setting up your product, please contact your local product distributor.
- The rear image of the TV and VCR may differ depending on the manufacturer and model.

2.1 Using HDMI Cable

The HDMI connection, a special all-digital interface that provides the highest picture quality, is suitable for Digital TV. If the TV has a HDMI input, connect the product & TV using a HDMI cable as follows.

1. Connect your CATV line to the CABLE IN.
2. Connect the product and TV using an HDMI cable.

Important:
- When connecting the product to a TV with a HDMI cable no other connection is required.
- If you connect using a HDMI cable please switch your TV set to the correct channel/input for HDMI. (Refer to your TVs manual for details.)

GB15
User's Manual
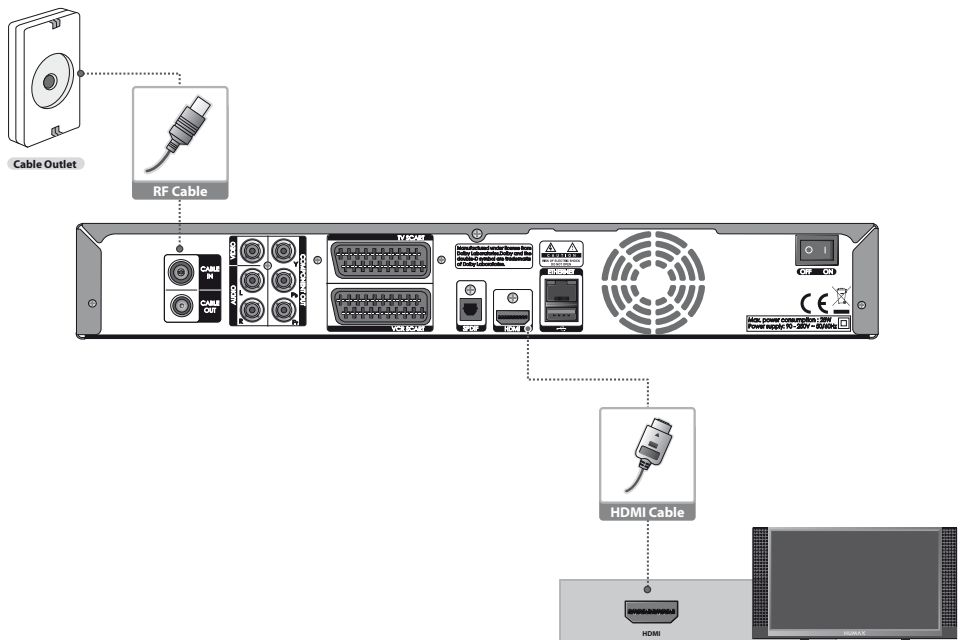
2. Setup
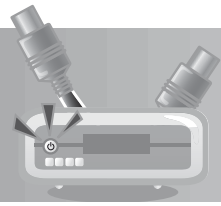
2.2 Using an HDMI-to-DVI Converter

The HDMI-to-DVI connection with converter is suitable for Digital TV. If the TV has the DVI input connector only, connect the product to the TV with an HDMI cable and an HDMI-to-DVI converter(not supplied) as follows.

1. Connect your CATV line to the CABLE IN.
2. Connect one end of the HDMI cable to the HDMI input on the product and the other end to the HDMI-to-DVI converter.
3. Connect the HDMI-to-DVI converter to the DVI input on the TV.
4. 1) **When using the digital audio system**, connect the product and the digital audio system using an S/PDIF cable.
   2) **Otherwise**, connect the product and the TV using an RCA cable (Audio L/R).

Important: If you connect using an HDMI-to-DVI converter, please switch your TV to the correct channel/input for the DVI. (Refer to your TVs manual for details.)

Note: You can also connect the product to the TV using the Y Cable (3.5 Stereo-to-2 RCA).

Caution: DO NOT CONNECT TO HEAD PHONE CONNECTOR ON TV!

GB16
User's Manual
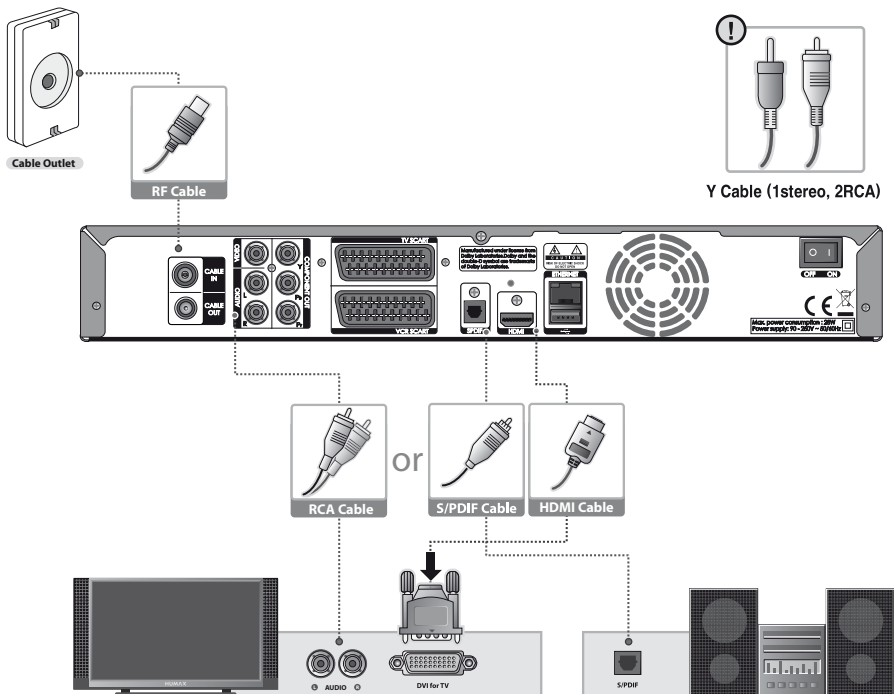
2. Setup

2.3 Using Component Cable

The component connection is recommended for Digital TV. Connect the product and the TV using a component cable as follows.

1. Connect your CATV line to the CABLE IN.
2. Connect the product and the TV using a component cable.
3. 1) **When using the digital audio system**, connect the product and the digital audio system using an S/PDIF cable.
   2) **Otherwise**, connect the product and the TV using an RCA cable (Audio L/R).

Important: If you connect using the component cable, please switch your TV to the correct channel/input for the component. (Refer to your TVs manual for details.)

Note: The *Component Selection* menu should be set to *YPbPr* when using the component cable. (Refer to p.40.)
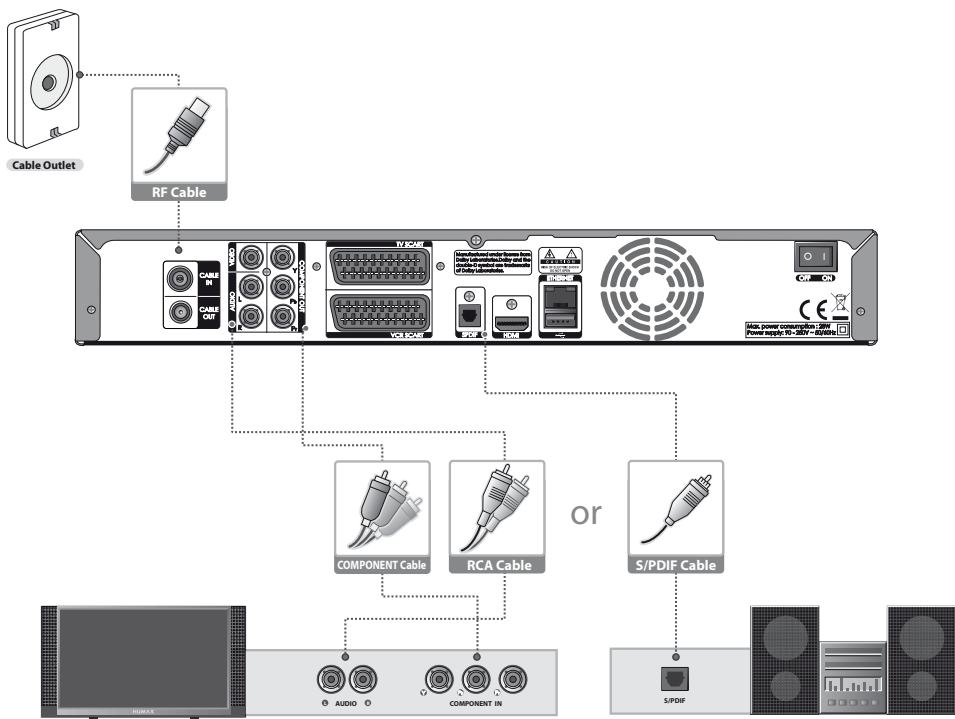
2. Setup
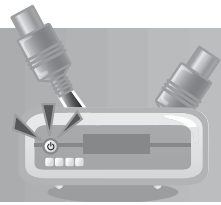
2.4 Using SCART Cable

A SCART cable connection is recommended for analogue TV or VCR. Connect the product and the TV using a SCART cable as follows.

1. Connect your CATV line to the CABLE IN.
2. Connect the product and the TV using a SCART cable.
3. Connect the product and the VCR using a SCART cable.

Important: If you connect using the SCART cable, please switch your TV to the correct channel input for the SCART. (Refer to your TVs manual for details.)

Note: The *Component Selection* menu should be set to *RGB* when using the SCART cable. (Refer to p40.)
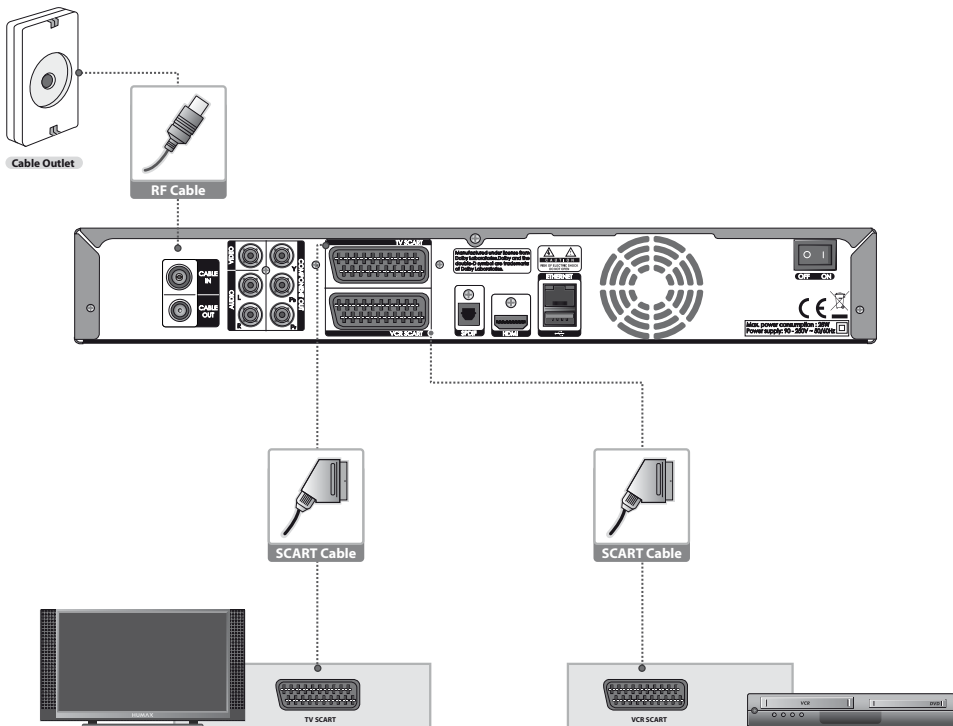
2. Setup

2.5 Powering On

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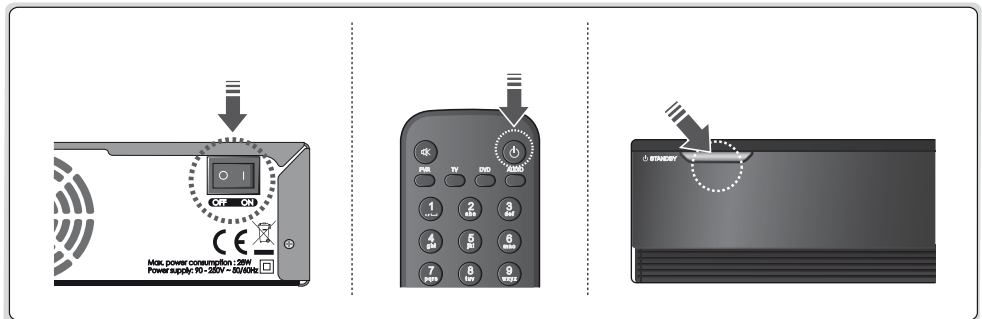
3. Installation Wizard

When powering on your product for the first time after purchase, the installation wizard will operate automatically.

> **Tip:**
> • The default password is **0000**.
> • If you have forgotten your password, please contact your local product distributor.

3.1 Language

Language allows you to select the main language.

Select the appropriate language from the list. Press the **OK** button to save.

3.2 Search Channels

Search Channels will activate and the results will appear.

1. Enter *Frequency/Network ID/ Symbol Rate* using the **NUMERIC (0-9)** buttons.
2. Select *Search* and press the **OK** button.
3. Please wait for finishing the channel search. If you want to stop the channel search, press the **OK** button.
4. Select *Save* and press the **OK** button to go to the next step.

3. Installation Wizard

3.3 Display

Display enables you to set the screen ratio, display format and resolution of the screen.

Select the value for *Screen Ratio*, *Display Format* and *Resolution*.

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

3.4 HDD Partition

HDD Partition enables you to view the current status of the Hard Disc Drive (HDD) storage and also format the HDD. View the HDD storage status and select *Next*.

To format the HDD, select *Format HDD* and press the **OK** button. A popup will appear.

Select *Yes* and press the **OK** button. You will be prompted to enter your password. Enter the password and assign the partition size. Select *OK* and press the **OK** button. Select *Next* and press the **OK** button.
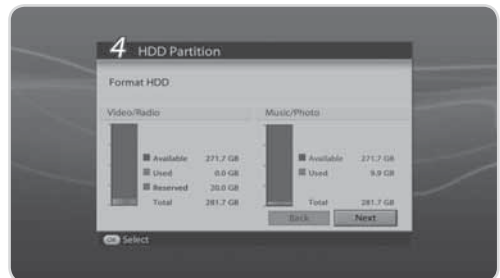
3.5 Result

After all setting is complete, you can view the result screen.

Select *Finish* and press the **OK** button to complete the installation wizard.
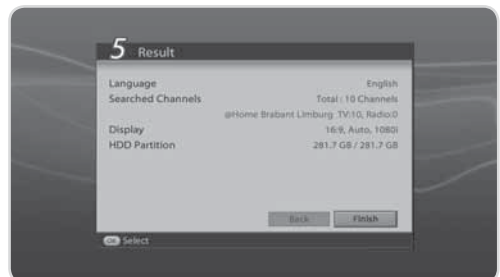
3. Installation Wizard

3.6 Installation Checklist

Before using the product, please make sure that you have completed the following steps.

Step	Page	Done?
Is the CATV line connected correctly?	GB15~18	
Is the product connected to your TV?	GB15~18	
Is the power cord plugged in the wall outlet?	GB19	
Is the power switch located at the back of the product switched on?	GB19	
Is the product in operation mode (not Standby mode)?	GB19	
Have you performed channel search in the installation wizard?	GB20	

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 installation menu to search for more channels.

4. Basic Operation

This chapter describes the basic functions the product provides such as switching channel, volume control and other common features.

4.1 Switching Channel

You can switch the current channel by pressing the **P▲/▼** button or entering the channel number directly using the **NUMERIC(0-9)** buttons. Press the **TV/RADIO** button to switch between TV channels and radio channels.

Note: You can switch channels using the channel list or TV guide. To return to the previous channel, press the **BACK** button.

4.2 Volume Control

You can adjust the audio volume. Press the **VOLUME** button to adjust the audio volume. Press the **MUTE** button to stop the audio temporarily.

Note: The mute function remains set while you switch channels.

4.3 Resolution

You can set the resolution of the screen. Press the **V-FORMAT** button while watching a programme. The current resolution will be displayed.
Each time you press the **V-FORMAT** button, the resolution changes in the following sequence:
576i→576p→720p→1080i→Original

4. Basic Operation

4.4 Sleep

You can set the automatic turn off time.

Press the **SLEEP** button while watching a programme to set the sleep time. Each time you press the **SLEEP** button, the sleep time changes in the following sequence: 10, 20, 30, 60, 90, 120 minutes.

4.5 Wide

You can set the display format.

Press the **WIDE** button while watching a programme to change the display format.
Each time you press the **WIDE** button, the display format changes.

Note: For more information about display format, refer to *7.5.8 Display Format*.

4.6 Audio

You can select the language you prefer in *Audio* if the current programme is available in multiple audio languages.

1. Press the **AUDIO** button.
2. Select the audio language you prefer.
3. Select audio direction (left, right, stereo) using the ◄/► button.
4. Press the **EXIT** button to close.

Note: If the programme is broadcast in Dolby Digital, you cannot set the audio direction.

4.7 Subtitle

can select the language for the subtitle if the programme provides subtitle information.

1. Press the **SUBTITLE** button.
2. Select the required subtitle language and press the **OK** button. The subtitle will be displayed in the selected language at the bottom of the screen.
3. Select *Off* from the subtitle language list to hide the subtitle from the screen.

Note: When there is no subtitle available, *Off* does not appear.

4.8 TEXT

All teletext supporting channels have the teletext icon on the i-plate.

1. Press the **TEXT** button.
2. To display the teletext menu, press the **MENU** button in teletext mode.
3. Select the teletext function you want and press the **OK** button. To view the teletext page, use the **NUMERIC(0-9)** buttons.

4. Basic Operation

4.9 Programme Information (i-plate)

The i-plate is always displayed for a certain period of time whenever you switch channels. You can view the programme information by pressing the **i** button while watching a programme. Press the **EXIT** button to hide the i-plate.

After switching to a channel, press the ◄/► button to display navigation mode.
Press the ◄/► button to view the previous/next programme information.
Press the ▲/▼ button to view the programme information of other channels.

1. General Information

The general information is displayed on the screen as the following.
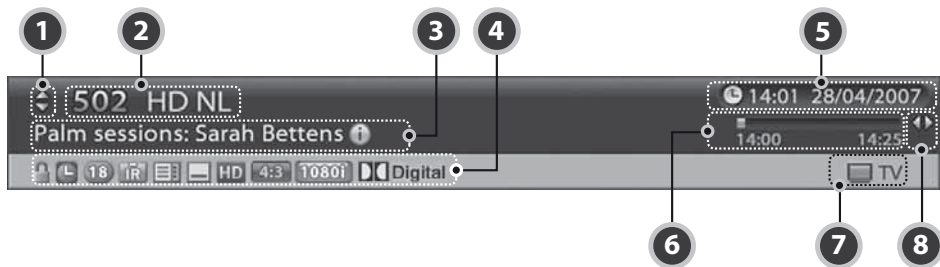
1. Next/previous channel
2. Channel number and name
3. Programme name
4. Icons

🔒	Displayed only when the channel is a locked channel.
🕒	Displayed only if the programme is reserved for watching.
18	Represents parental level. Indicates the minimum level of age for viewing the programme.
iR	Displayed only when the channel is a scrambled channel.
▤	Displayed only when there is any teletext information.
▭	Displayed only when subtitle information is available.
HD	Displayed only when the channel provides HD programmes.
4:3	Displayed the screen ratio of the current programme.
1080i	Displays the resolution of the current programme.
◼◼ Digital	Displayed only when the programme is broadcast in Dolby Digital.

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5. Current time & date
6. Programme broadcasting time and progress bar: Displays programme playing time and progress bar.
7. Group name: Displays the group the channel belongs to.
8. Previous/Next programme information: Displayed if previous/next programme information is provided. Press the ◄/► button to display previous/next programme information.

Note: If there is no programme information available, programme information is not displayed.

2. Detailed Programme Information

You can see the detailed information about the current programme.

Press the **i** button when the i-plate is displayed to view detailed information. Press the **i** button once more to hide the i-plate.

Note:
•   If the detailed programme information is over one page, use the ▲/▼ button to move to the previous or next page.
•   Press the ◄/► button to display previous/next programme information.

5. Channel List

This chapter will help you manipulate the channel list. You can display the channel list by pressing the **LIST** or **OK** button while watching a programme.

Four types of channel lists are provided for quick and easy channel search.

All (RED)	**TV:** The list of all TV channels. **Radio:** The list of all radio channels.
Favourite (GREEN)	The list of the favourite channels in five groups.
HD (YELLOW)	The list of all HD TV channels.
History (BLUE)	**Most Viewed:** The list of the most viewed channels. **Recently Viewed:** The list of the recently viewed channels.

Note:
- Press the **EXIT** button to exit the channel list.
- The sub-groups of favourite channel list exist only after configuration.

5.1 All Channels List

All Channels List is the list of all channels available including both TV and radio channels.

1. Press the **OK** button while watching a programme to display the channel list.
2. Press the **RED** button while the channel list is displayed.
3. Select the channel you wish to view and press the **OK** button. You can also enter the channel number using the **NUMERIC(0-9)** buttons.
4. Press the **RED** button again and select a sub group using the ◄/► button.

Note: You can switch between TV and radio by simply pressing the **TV/RADIO** button.

5. Channel List

1. Option

1. Select a channel and press the **OPT+** button.
2. To add the channel to the favourite group, select
   Favourite. Select the group using the ◄/► button
   and press the **OK** button.
3. To lock the channel, select *Lock* and press the **OK**
   button.

2. Configuration

1. Press the **MENU** button.
2. To display the icon, enable *Show Icon* using the
   OK button.
3. To display the channel number, enable *Show
   Channel Number* using the **OK** button.
4. To change the list type, select *List Type* and select
   among *Simple, One Column* and *Two Column*
   using the ◄/► button.
5. To select how to sort the favourite channel list,
   select *Favourite CH Numbering*. And select *Added
   Order* or *Original* using the **OK** button.

5.2 Favourite List

Favourite List is the list of the favourite channels you can select yourself from the entire channel list. There
are five favourite groups in total.

1. Press the **OK** button while watching a programme.
2. Press the **GREEN** button to display the list of
   favourite groups.
3. Press the **GREEN** button again and select a sub
   group using the ◄/► button.

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5. Channel List

5.3 HD List

HD List is the list of HD TV channels.

1. Press the **OK** button while watching a programme.
2. Press the **YELLOW** button to display the HD TV list.

5.4 History List

History List is the list of the most or recently viewed channels.

1. Press the **OK** button while watching a programme.
2. Press the **BLUE** button to display the history list.
3. Press the **BLUE** button again and select **Most Viewed** or **Recently Viewed** using the ◄/► button.

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6. TV Guide

The *TV Guide* displays the programme information of each channel, in time and date order. You can customize your own programme guide to list the channels or programmes of interest to you and schedule your viewing using the programme information.

Note: Press the **GUIDE** or **EXIT** button to exit the TV guide screen.

6.1 Using TV Guide

You can view the programme information of all channels in time and date order.

1. Press the **GUIDE** button.
2. Press the **RED** button.

1. Table Guide

1. Move to the previous/next programme within the same channel using the ◄/► button.
2. Move to another channel using the ▲/▼ button. If the contents are more than one page, use the **P▲/▼** button to skip to the next page. Enter the number of the channel you wish to move using the **NUMERIC(0-9)** buttons.
3. Jump back/ahead two hours using the **FAST REWIND/FAST FORWARD** button.
4. Move to the previous/next day using the **PREVIOUS/NEXT** button.
5. Select the programme you want and press the **OK** button to play the programme in the PIG (Picture in Guide). Press the **OK** button again to view the programme.
6. You can reserve it if it is a future programme. Select a future programme and press the **OK** button to see the reservation popup. Select the reservation mode and repeat frequency.
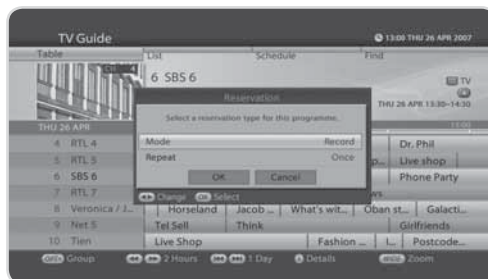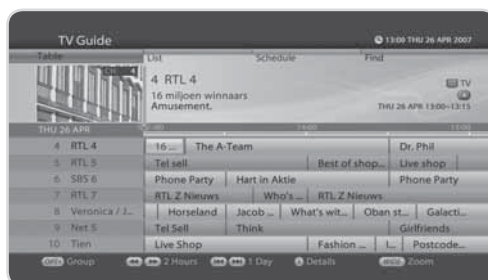
Record	Reserved for recording
Watch	Reserved for watching.

7. Select a reserved programme and press the **OK** button to cancel the reservation.
8. Press the **OPT+** button to change the channel group. Select the channel group using the ◄/► button and select the sub channel group using the ▲/▼ button.
9. Press the **WIDE** button to change the length of the time scale in 30, 60, 90, 120 min order.

6. TV Guide

Note:
- Press the **i** button to view the programme information.
- Press the **TV/RADIO** button to switch to TV or radio.

2. Instant Reservation

1. Select a programme in the EPG table and press the **RECORD** button. The selected programme will become reserved and the recording icon will appear immediately.
2. To cancel the reservation, select the programme and press the **STOP** button. The reservation will be canceled immediately.

Note: You cannot reserve new programmes when the HDD is already full. Please delete another recorded programme.

6.2 List Guide

1. Press the **GUIDE** button.
2. Press the **GREEN** button.
3. You can view the programme information for approximately a week. The features are similar as in table guide.
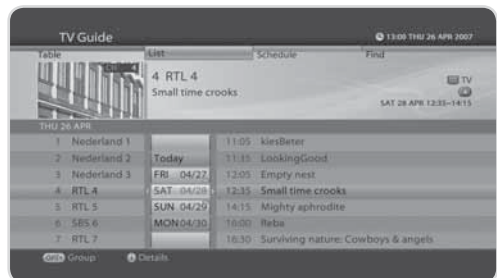
6.3 Schedule

Schedule displays the list of the programmes reserved. You can modify, delete or make new reservations.

1. Press the **GUIDE** button.
2. Press the **YELLOW** button to display the schedule of reservations.
3. Press the **YELLOW** button again to switch from watching list to recording list.
4. Select a reservation and press the **OPT+** button to delete the reservation.

Note: Press the **BACK** button to sort the list in time or alphabetical order.
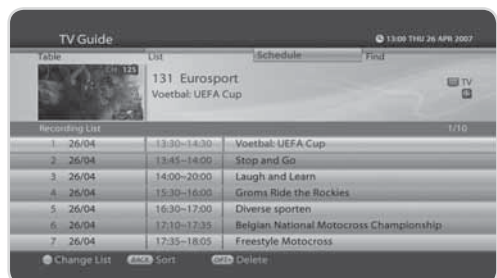
6. TV Guide

1. Editing Reservations

1. Select a reservation you want to edit and press the **OK** button. The reservation popup will appear.
2. Select *Channel* and press the **OK** button to display the channel list. Select the channel.
3. Select *Date* and press the **OK** button to view the calendar. Select the date.
4. Select *Start Time* or *End Time* and enter the time using the **NUMERIC(0-9)** buttons.
5. Select *Repeat* and change the repeat frequency using the ◄/► button.
6. Select *Mode* and switch from *Record* to *watch*.
7. Select *OK* and press the **OK** button.
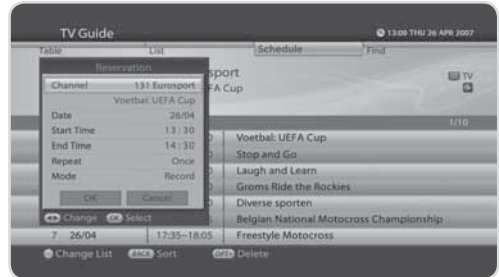
2. Deleting Reservations

1. Select a reservation you want to delete.
2. Press the **OPT+** button to delete the reservation.

3. New Reservation

1. Select a blank space and press the **OK** button.
2. The reservation popup will appear. Enter the channel number, date, start/end time and repeat frequency and then press the **OK** button.

Note:
*   Reservations for deleted channels or past programmes are automatically deleted.
*   In case the channel number has changed, reservation has to be done again.

6. TV Guide

6.4 Find

Find enables you to find the programme you want by entering the keyword, genre, time and day of the programme.

1. Press the **GUIDE** button.
2. Press the **BLUE** button to find programme.
3. Enter the keyword, genre, time & day of the programme and select *Search* and then press the **OK** button.
4. The search result of the entered values will appear.
5. To reserve a programme, select a future programme and press the **OK** button.

Note: Press the **BACK** button to display seven of the most recent values that have been entered.

1. Search by Keyword

1. Press the **OK** button while the cursor is on *Keyword*.
2. A keyboard will appear. Enter the keyword.
3. Select *Language* and choose the language of the keyword.
4. Select *SMS* to switch to SMS keyboard.
5. Press the **YELLOW** button to complete.

2. Search by Genre

1. Press the **OK** button while the cursor is on *Genre*.
2. The list of genres will appear. Select a genre and press the **OK** button.

3. Search by Time and Day

1. Press the **OK** button while the cursor is on *Time & Day*.
2. The time & day popup will appear. Select the time and day using the **OK** or ◄/► button.
3. Select *OK* and press the **OK** button.

7. Preferences

In this chapter you can set parental control, language setting, time setting, media setting, A/V setting and other configuration items to keep limitations where you want them for the viewers.

Note: Press the **EXIT** button to save the changes and return to the previous menu. Press the **MENU** button to exit the menu screen.

7.1 Parental Control

Parental Control allows you to set rating limits for each programme according to the age of the viewer or change your previous password. You can also lock the changes you have made using installation lock.

> **Tip:** The default password is **0000**.

1. Press the **MENU** button.
2. Select *Preferences* using the ▲/▼ button and press the **OK** button.
3. Select *Parental Control* using the ▲/▼ button and press the **OK** button.
4. You will be prompted to enter your password. Enter the password using the **NUMERIC(0-9)** buttons.

1. Age Limit

Age Limit enables you to place certain restrictions on the viewers by setting age limits.

1. Select *Age Limit* and press the **OK** button.
2. Select the age limit you wish to set.

Note: You must enter your password to watch programmes blocked by the age restriction.
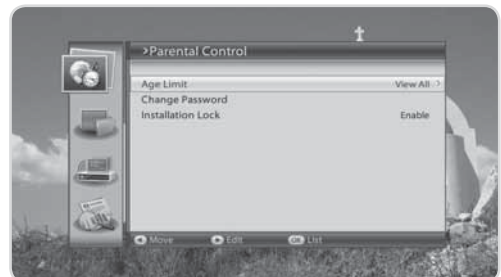
7. Preferences

2. Change Password

Change Password allows you to change the current password.

1. Select *Change Password* and press the **OK** button.
2. Enter the password in *New Password* using the **NUMERIC(0-9)** buttons.
3. Enter the password again in *Verify Password* to confirm.

3. Installation Lock

Installation Lock allows you to block access to the installation menu settings you have previously made.

1. Select *Installation Lock*.
2. Select *Enable* or *Disable* using the **OK** or ◄/► button.

7.2 Language Setting

Language Setting enables you to set the basic language and subtitle options.

1. Press the **MENU** button.
2. Select *Preferences* using the ▲/▼ button and press the **OK** button.
3. Select *Language Setting* using the ▲/▼ button and press the **OK** button.

1. Menu/Audio/Subtitle Language

Menu/Audio/Subtitle Language allows you to choose from the given language options and set the language.

1. Select *Menu/Audio/Subtitle Language* and press the **OK** button.
2. Select the language you want and press the **OK** button.

7. Preferences

2. Subtitle Display

Subtitle Display allows you to display the subtitle automatically. This service is provided when subtitles are available.

1. Select **Subtitle Display**.
2. Select **Auto** or **Manual** using the **OK** or ◀/▶ button.

Auto	Subtitles are displayed automatically in the predefined subtitle language.
Manual	Subtitles are displayed only when you press the **SUBTITLE** button and set subtitle.

3. Subtitle Font

Subtitle Font enables you to select the font of the subtitle.

1. Select **Subtitle Font**.
2. Select **Variable** or **Fixed** using the **OK** or ◀/▶ button.

Variable	Uses the horizontally variable subtitle font of the on-screen display.
Fixed	Uses the fixed subtitle font as in TEXT.

7. Preferences

7.3 Time Setting

Time Setting allows you to set the time you want to turn the product on or off.

1. Press the **MENU** button.
2. Select *Preferences* using the ▲/▼ button and press the **OK** button.
3. Select *Time Setting* using the ▲/▼ button and press the **OK** button.

1. Power ON

You can set the time the product turns on automatically.

1. Select *Power ON* and press the ▶ button.
2. Enter the powering on time using the **NUMERIC(0-9)** buttons or select *Disable* using the ◀/▶ button.

2. Power On Channel

You can select the channel to watch when the product turns on at the preset wakeup time.

1. Select *Power On Channel* and press the **OK** button to display the channel list.
2. Select the channel and press the **OK** button.

3. Power OFF

You can select the time the product turns off automatically.

1. Select *Power OFF* and press the ▶ button.
2. Enter the powering off time using the **NUMERIC(0-9)** buttons or select *Disable* using the ◀/▶ button.

7. Preferences

7.4 Media Setting

Tip:	The default password is 0000.

1. Press the **MENU** button.
2. Select **Preferences** using the ▲/▼ button and press the **OK** button.
3. Select **Media Setting** using the ▲/▼ button and press the **OK** button.
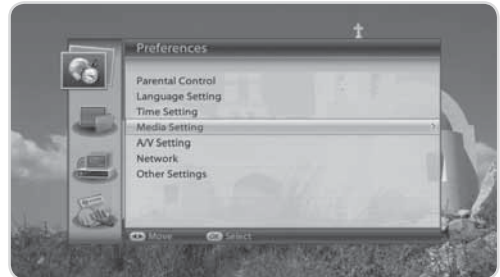
1. HDD Control

You can format the video/radio partition, music/photo partition or the hard disk drive.

1. Select **HDD Control** and press the **OK** button
2. To format the video/radio partition, select **Format Video/Radio Partition** and press the **OK** button. Enter the password to proceed.
3. To format the music/photo partition, select **Format Music/Photo Partition** and press the **OK** button. Enter the password to proceed.
4. To format the hard disk drive, select **Format HDD** and press the **OK** button. Enter the password and assign the partition size using the ◄/► button. Select **OK** and press the **OK** button.
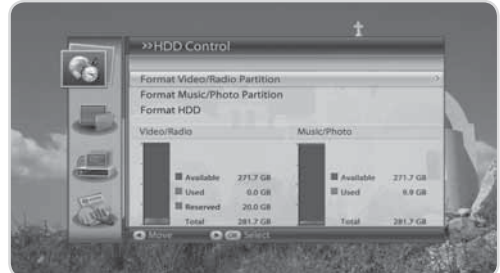
2. USB Control

You can format the USB storage.

1. Select **USB Control** and press the **OK** button.
2. To format the USB storage, select **Delete all files** and press the **OK** button. A popup will appear. Select **Yes** and press the **OK** button. You will be prompted to enter your password. Enter the password using the **NUMERIC(0-9)** buttons.

7. Preferences

3. Recording Options

You can set the recording padding time in case the recording starts earlier or ends later than scheduled. You also can set the instant replay or skip time for the **REPLAY** or **SKIP** button.

1. Select *Recording Options* and press the **OK** button.
2. Select *Start/End Padding* or *Instant Replay/Skip Time* and press the **OK** button.
3. Select the time using the **OK** or ◄/► button.
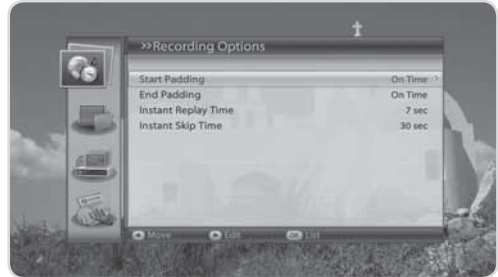
7.5 A/V Setting

You can configure the audio and video output settings.

1. Press the **MENU** button.
2. Select *Preferences* using the ▲/▼ button and press the **OK** button.
3. Select *A/V Setting* using the ▲/▼ button and press the **OK** button.

1. Component Selection

You must choose the video output type between *YPbPr* and *RGB*.
RGB is for SCART connection only. When RGB is selected, you cannot watch video through Component Out (YPbPr).

1. Select *Component Selection* and press the **OK** button.
2. Select *YPbPr* or *RGB* using the **OK** or ◄/► button.

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7. Preferences

2. TV SCART

You can select the TV SCART output option.

1. Select **TV SCART** and press the **OK** button.
2. Select among **CVBS, S-Video** and **RGB** and press the **OK** button.

Note: You can select **RGB** only when the Component Select switch at the rear is on **RGB**.

3. VCR SCART

You can select the VCR SCART output option.

1. Select **VCR SCART**.
2. Select **CVBS** or **S-Video** using the **OK** or ◄/► button.

4. Audio Output

You can select the audio output option.

1. Select **Audio Output**.
2. Select **Stereo** or **Mono** using the **OK** or ◄/► button.

5. Audio Priority

You can set Dolby Digital automatically. If you select **Dolby**, Dolby Digital audio will be output via S/PDIF.

1. Select **Audio Priority**.
2. Select **Dolby** or **PCM** using the **OK** or ◄/► button.

6. Audio Delay

You can adjust the sound difference of audio and video.

Tip:	The default password is **0000**.

1. Select **Audio Delay** and press the **OK** or ► button.
2. Adjust the sync using the ◄/► button.
3. Press the **BACK** button to complete.

Note: Audio Delay is applied to all channels when once adjusted.

7. Preferences

7. Screen Ratio

You can select the screen ratio option.

1. Select **Screen Ratio**.
2. Select **4:3** or **16:9** using the **OK** or ◄/► button.

8. Display Format

You can select the display format according to the screen ratio.

1. Select **Display Format** and press the **OK** button.
2. When choosing **4:3** as screen ratio, select among **16:9 Letter Box**, **14:9 Letter Box**, **Center Mode** and **Use TV's feature** and press the **OK** button.
3. When choosing **16:9** as screen ratio, select among **Auto, Full Mode** and **Zoom** and press the **OK** button.

9. Letter and Pillar Box Colour

You can select the colour of the letter box and pillar box.

1. Select **Letter and Pillar Box Colour**.
2. Select **Black** or **Gray** using the **OK** or ◄/► button.

7. Preferences

7.6 Network

You can view the network information.

1. Press the **MENU** button.
2. Select *Preferences* using the ▲/▼ button and press the **OK** button.
3. Select *Network* and press the **OK** button.
4. The network information will be displayed.

1. FTP Server

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

1. Select *FTP Server*.
2. Select *Disable* or *Enable* using the **OK** or ◄/► button.
3. When selecting *Enable*, the product works as FTP server.

Note:
- You can access to HDD by entering the IP address assigned to the product on PC.

- When accessing, enter 'HumaxFTP' for Login ID and your password for Login Password.

2. Ethernet Configuration

You can change the network information for the product.

1. Select *Ethernet Configuration* and press the **OK** button.
2. Select *Configure IP* and press the **OK** or ◄/► button to select *DHCP* or *Manual*.
3. When selecting *Manual*, you can enter the value for the network information. Select *Apply* and press the **OK** button to save the changes.

7. Preferences

7.7 Other Settings

You can configure other settings such as info display time and OSD transparency.

1. Press the **MENU** button.
2. Select *Preferences* using the ▲/▼ button and press the **OK** button.
3. Select *Other Settings* using the ▲/▼ button and press the **OK** button.

1. Info Display Time

You can set the automatic display time of the information box when the channel is switched.

1. Select *Info Display Time* and press the **OK** button.
2. Select a value between *Disable, 1~ 20* seconds and press the **OK** button.

Note: When set to *Disable*, the i-plate will not be displayed when you switch the channel.

2. OSD Transparency

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

1. Select *OSD Transparency* and press the **OK** button.
2. Select among *Disable, 25, 50* and *75* and press the **OK** button.

Disable	Fully opaque screen
25, 50, 75	The bigger the number, the more transparent the screen.

3. Power Saving in Standby

Power Saving in Standby allows you to reduce the power consumption of product in standby mode.

1. Select *Power Saving in Standby*.
2. Select *On* or *Off* using the **OK** or ◄/► button.
3. When selecting *On*, the time is not displayed on VFD in standby mode.

8. Edit Channels

In this chapter you can edit all channels in the channel list or make changes to the favourite lists of the channels you have chosen.

Note:
- Press the **EXIT** button to save the changes and return to the previous menu. Press the **MENU** button to exit the menu screen.
- Press the **TV/RADIO** button to move to TV or radio channel list directly.

8.1 Edit Channel List

Edit Channel List enables you to select or lock/unlock the channels in the channel list conveniently.

Tip:	The default password is **0000**.

1. Press the **MENU** button.
2. Select *Edit Channels* using the ▲/▼ button and press the **OK** button.
3. Select *Edit Channel List* using the ▲/▼ button and press the **OK** button.
4. You will be prompted to enter your password. Enter the password using the **NUMERIC(0-9)** buttons.

1. Locking/Unlocking Channels

1. Select the channel you want to lock and press the **OK** button.
2. Press the **RED** button.

Note:
- When all selected channels are locked, *Lock* is switched into *Unlock*. When you press *Unlock*, the locked channel is switched into an unlocked channel.
- To watch locked channels, you must enter the password using the **NUMERIC(0-9)** buttons.
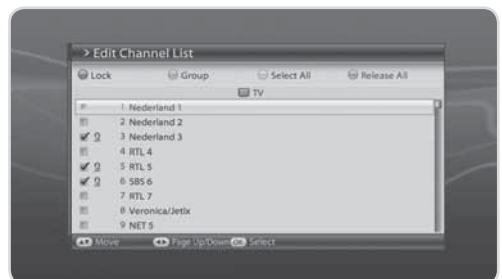
2. Selecting a Channel Group

1. Press the **GREEN** button to display the list of groups.
2. Select the group you want and press the **OK** button.

8. Edit Channels

3. Select All/Release All

1. Press the **YELLOW** button to select all channels.
2. Press the **BLUE** button to release all channels.

8.2 Edit Favourite List

You can add or remove channels from the favourite groups, move favourite channels and rename favourite groups.

1. Press the **MENU** button.
2. Select *Edit Channels* using the ▲/▼ button and press the **OK** button.
3. Select *Edit Favourite List* using the ▲/▼ button and press the **OK** button.

1. Adding/Removing Channels

1. Select the channels you want to add to the favourite channel list and press the **OK** button.
2. Press the **RED** button to add the channels to the favourite list you have chosen.
3. To remove channels from the favourite list, select the channels from the list and press the **RED** button.

Note: When the cursor is on the left column, the red button is marked *Add*; when the cursor moves to the right column, it becomes *Remove*.

2. Selecting Favourite Groups

1. Press the **GREEN** button to display the list of groups.
2. Select the favourite group you want and press the **OK** button.

3. Select All/Release All

1. Press the **YELLOW** button to select all channels in the favourite list.
2. To release all channels, press the **YELLOW** button again.

8. Edit Channels

4. Renaming Favourite Groups

1. Select the favourite group you want to rename and press the **OK** button.
2. Press the **BLUE** button.
3. Select *Rename Group* and press the **OK** button.
4. A keyboard will appear. Enter the name of the favourite group using the keyboard.
5. Press the **YELLOW** button to complete.

Note: The **YELLOW** and **BLUE** buttons become activated only when the cursor is placed on the right column.

5. Moving Favourite Channels

1. Select the favourite channels to move within the favourite channel list and press the **OK** button.
2. Press the **BLUE** button.
3. Select *Move* and press the **OK** button.
4. Move the cursor to the destination using the ▲/▼ button, and press the **OK** button.
5. The selected channel is moved to the new location.

8.3 Display History List

Display History List allows you to set the history list in the channel list to *Enable* or *Disable*.

1. Press the **MENU** button.
2. Select *Edit Channels* using the ▲/▼ button and press the **OK** button.
3. Select *Display History List* using the ▲/▼ button and press the **OK** button.

9. Installation

In this chapter you can configure the installation setting and perform channel search. Menus such as channels search, software update and default setting are included in this section.

Note: Press the **EXIT** button to save the changes and return to the previous menu. Press the **MENU** button to exit the menu screen.

9.1 Channel Search

If your product is connected to the cable and TV, you can search channels manually by searching parameters, if you know the MUX information.

1. Press the **MENU** button.
2. Select *Installation* using the ▲/▼ button and press the **OK** button.
3. Select *Channel Search* using the ▲/▼ button and press the **OK** button.
4. Select *Frequency* and enter the frequency using the **NUMERIC(0-9)** buttons.
5. Select *Network ID* and enter the value using the **NUMERIC(0-9)** buttons.
6. Select *Symbol Rate* and press the **OK** and ◄/► button. Select the symbol rate and press the **OK** button. If the required value is not available, select *User Define* and enter the symbol rate directly.
7. Select *Search* and press the **OK** button to start channel search. Please wait for finishing the channel search. If you want to stop the operation during search, press the **OK** button.
8. Press the **OK** button to save the result.
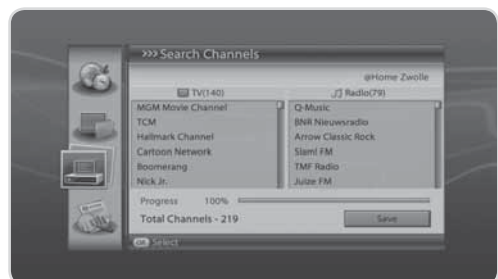
9. Installation

9.2 Software Update

Software Update allows you to update the system software.

1. Press the **MENU** button.
2. Select *Installation* using the ▲/▼ button and press the **OK** button.
3. Select *Software Update* using the ▲/▼ button and press the **OK** button.
4. When new software is detected, you can choose to download the software immediately or save for later.

Note:
- For more information about the software update, refer to *11. Software Update*.
- *Software Update* is activated when a new software is found.

9.3 Default Setting

Default Setting enables you to restore the product to the factory default.

Warning: Please note that once you perform *Default Setting*, all data such as channel list and all user configured data will be deleted.

1. Press the **MENU** button.
2. Select *Installation* using the ▲/▼ button and press the **OK** button.
3. Select *Default Setting* using the ▲/▼ button and press the **OK** button.
4. Select *Yes* and press the **OK** button to restore all setting to factory default. To return to the previous menu, select *No* and press the **OK** button.
5. You will be prompted to enter your password again before starting to load default setting. Enter the password to proceed.
6. When default setting is completed, installation wizard pops up automatically and assists channel search.

Tip:	The default password is **0000**.

Note: For detailed information about the installation wizard, refer to *Chapter 3. Installation Wizard*.

10. System

10.1 Status

You can view system status information.

1. Press the **MENU** button.
2. Select *System* and press the **OK** button.
3. Select *Status* and press the **OK** button.
4. The system status information will be displayed.

10.2 Signal Detection

You can view the signal strength and signal quality of the channel that is currently on AV.

1. Press the **MENU** button.
2. Select *System* and press the **OK** button.
3. Select *Signal Detection* and press the **OK** button.

10.3 Conditional Access

You can view the current status of the Conditional Access.

1. Press the **MENU** button.
2. Select *System* and press the **OK** button.
3. Select *Conditional Access* and press the **OK** button.
4. The current status of the Conditional Access will be displayed.

10.4 Mail Messages

You can view the messages.

1. Press the **MENU** button.
2. Select *System* and press the **OK** button.
3. Select *Mail Messages* and press the **OK** button.
4. Mail messages will be displayed.

Note: *Mail Message* is activated when a new mail arrives.

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11. Media List

The product supports 4 types of Media lists. Press the **MEDIA** button and then the coloured buttons on the remote control to access each list.

Video (RED)	TV programmes that have been recorded
Radio (GREEN)	Radio programmes that have been recorded
Music (YELLOW)	MP3 (Music) files you have transferred
Photo (BLUE)	Jpeg (Photos) files you have transferred

11.1 Video

When the Media List is on screen, press the **RED** button to select *Video* if not already selected. A list of the TV programmes you have recorded will appear.

Note:
- Press the **LIST** button to sort the files in file name, time, channel number order.
- Pres the **i** button to display the programme information of the selected recording.
- The icon (▣) will be displayed when the file is being played.
- When a support USB device is connected via the front or rear USB ports press the **RED** button to change between the HDD and the USB device.

1. Video Setting

Press the **OPT+** button in video list. A popup will appear to display the setting option.

- **File Manager**: Go to File Manager. (Refer to p.54.)
- **Sort:** Select the sorting order.
- **List Type:** Select between *Simple* or *Normal* list types.

2. Play Option

Play Option for a File

Select a file you want to play and press the **OK** button. A popup will appear to display the play option.

- **Play from the last played position**: Play the file from the point it has been stopped.
- **Play from the start**: Play the file from the beginning.
- **Delete a file**: Delete the file. Select *Yes* and press the **OK** button.
- **Rename**: Rename the file. Enter the name using the keyboard displayed. Press the **YELLOW** button to complete.
- **Play at chapter**: Select a still image and press the ◄/► button to select the chapter you wish to view.

Note:
- You can also press the **PLAY** button to play the file from the last played position.
- A chapter is made automatically by dividing a file into eight smaller files and capturing a still image of each smaller file. Chapters are used in play option by pressing the **PREVIOUS** and **NEXT** buttons.

Play Option for Playlist

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

- **Play**: Play all files in the playlist.
- **Delete**: Delete the playlist.
- **Edit**: Edit the playlist.

Note: After making a playlist, you can view the playlist in video list. (Refer to File Manager on p.54.)

3. Playlist

You can playback the chosen files in the order you want.

Making or Adding Playlist

1. Press the **OPT+** button. A popup will appear to display the setting option.
2. Select **File Manager** and press the **OK** button to display File Manager.
3. Select the file(s) you want to play.
4. Press the **BLUE** button and select **Make Playlist** or **Add Playlist** and press the **OK** button. A playlist will appear.

Note:
- After making a playlist, you can view the playlist in video list.
- To select multiple files, go to Edit Mode using the **YELLOW** button.

Editing Playlist

1. Press the **OPT+** button. A popup will appear to display the setting option.
2. Select **File Manager** and press the *OK* button to display File Manager.
3. Press the **BLUE** button and select **Edit Playlist** and press the **OK** button.
4. Press the **RED** button to delete the file and renumber the list.
5. Press the **GREEN** button to move the file within the list. Press the **OK** button to complete.
6. Press the **OK** button to play the selected file in the playlist.

Note: You also can edit the playlist using the play option in video list. (Refer to p.52.)

11. Media List

4. File Manager

You can delete files or copy files to/from external devices.

1. Press the **OPT+** button. A popup will appear to display the setting option.
2. Select *File Manager* and press the **OK** button to display File Manager.

   - **Delete**: Select the file to delete and press the **RED** button.
   - **Copy**: Select the file to copy and press the **GREEN** button. (*Move* appears if there is no USB device.)
   - **Edit Mode**: You can edit multiple files. Press the **YELLOW** button to go to edit mode. Press the **YELLOW** button again to go back to normal mode.
   - **Function**: Press the **BLUE** button.

Select All	Select all or release all.
Make Folder	Make new folder within the current folder. Enter the name of the folder using the keyboard displayed. Press the **YELLOW** button to complete.
Rename	Rename the selected file or folder. Enter the name using the keyboard displayed. Press the **YELLOW** button to complete.
Lock/Unlock	Lock or unlock the selected file. Lock or unlock the selected file.
Make List	Make new playlist within the current folder.
Add Playlist	Add the selected file(s) within the playlist.
Edit Playlist	Edit the playlist.

Note:
- You also can easily operate several functions; delete, copy(or move), rename or lock; by pressing the **OK** button after selecting a file in normal mode.
- You can copy files from HDD to USB, or vice versa, by moving between left and right columns.
- Press the **OPT+** button while the cursor is in the right column to switch the device.

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11. Media List

11.2 Radio

When the Media List is on screen, press the **GREEN** button to select *Radio* if not already selected. A list of the Radio programmes you have recorded will appear.

Note: The features available in the radio list are the same as the video list in section *11.1 Video*.

11.3 Music

When the Media List is on screen, press the **YELLOW** button to select *Music* if not already selected. A list of the MP3 (Music) files you have transferred will appear.

Note:
* Press the **LIST** button to sort the files in file name or time order.
* Press the **i** button while playing a music file to view the file information.

1. Music Setting

Press the **OPT+** button in music list. A popup will appear to display the setting option.

* **File Manager:** Go to File Manager. (Refer to p.56.)
* **Sort:** Select the sorting order.
* **Repeat:** Select the repeat option.
* **Shuffle:** Enable or disable shuffle mode.

11. Media List

2. Music Player

1. Select the music file you want and press the **OK** or **PLAY** button to play.
2. Press the **STOP** button to stop playing.
3. Press the **PAUSE** button to pause.
4. Press the ◄/► button to go back or go forward.
5. To play the previous/next music file, us the **FAST FORWARD/FAST REWIND** button.
6. Use the **OPT+** button to repeat or shuffle.
7. Press the **EXIT** button to stop the music player.
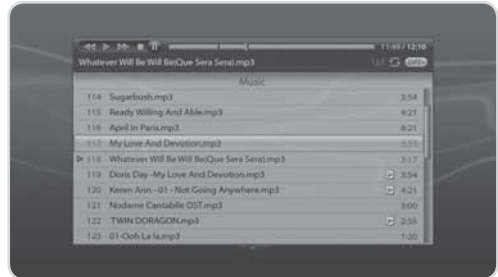
3. Playlist / File Manager

Note: The way to use the playlist and file manager is the same as the video list in section **11.1 Video**.

11.4 Photo

When the Media List is on screen, press the **BLUE** button to select *Photo* if not already selected. A list of the Jpeg (Photo) files you have transferred will appear.

Note:
- Press the **LIST** button to sort the files in file name or time order.
- Press the **i** button in the photo list to view the file information.
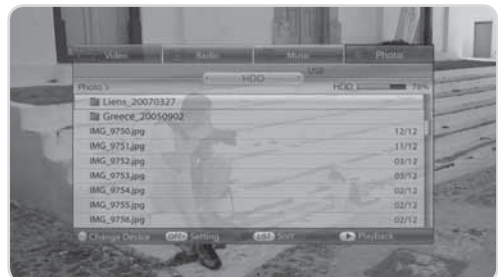
1. Photo Setting

Press the **OPT+** button in photo list. A popup will appear to display the setting option.

- **File Manager:** Go to File Manager. (Refer to p.57.)
- **Sort:** Select the sorting order.
- **Display Time:** Select the display time.
- **Aspect Ratio:** Select *Auto* or *Original*.
- **Music:** Select the music option.

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2. Photo Viewer

1. Press the **OK** or **PLAY** button to view the photos in slideshow.
2. Press the **OK** button to display the photo playbar.
3. Press the ◄/► button to view the previous/next photo.
4. Press the **PAUSE** button to stop the slideshow. Press the **PAUSE** button again or press the **PLAY** button to continue the slideshow.
5. Press the **PREVIOUS/NEXT** button to move back/forward five photos
6. Press the **OPT+** button to display Photo Setting.
7. When music player is playing, press the **FAST REWIND/FAST FORWARD** button to move to the previous/next music file.
8. Press the **EXIT** button to stop the photo viewer.

3. Playlist / File Manager

Note: The way to use the playlist and file manager is the same as the video list in section *11.1 Video*.

12. Personal Video Recorder(PVR)

The product automatically buffers the channel you are viewing to the Hard Drive (2 hour period), this enables you to pause live TV, rewind to the point you changed to the channel, and fast forward.

Note: The buffer will be cleared whenever you change channels.

12.1 Play bar

Press the **PLAY** button while watching a recording to display the play bar. Play bar displays the current operation status, the time gap between the broadcasting point and watching point and the amount of temporarily saved programme.

1. Play status	4. Present time
2. Start time	5. Play pointer
3. Amount of saved programme	6. Total time (present time in TSR)

To move to the specified time point directly, enter the time you want using the **NUMERIC(0-9)** buttons. To move the watching point bar to the time point you want, press the ◄/► button while playing back and then press the **OK** button to play the programme from the specified time point. If you do not press the **OK** button after moving the watching point, it will move automatically. Press the **STOP** button to stop the current file and go to live TV.

12. Personal Video Recorder(PVR)

12.2 Time Shifted Recording (TSR) and Playback.

You can perform Time Shifted Recording (TSR) and other VCR functions within TSR using the playback control buttons while playing a programme.

1. Playback

You can view the recorded files in the *Media List→Video*. Press the **MEDIA** button to access the recorded file list easily.

1. Press the **REPLAY** button to jump back and play from that point. Press the **STOP** button to return to live video.
2. Press the **SKIP** button to jump ahead and play from that point. Press the **STOP** button to return to live point.

Note:
- Enter the **NUMERIC(0-9)** buttons during playback and press the **OK** button to move to that specific time point.
- For more information about playback, refer to *11.1.2 Play Option*.

2. TSR

You can perform fast rewind, fast forward, slow motion and pause while playing back a recorded file from the media list.

Fast Forward

1. Press the **FAST FORWARD** button to fast forward the programme.
2. Each time you press the **FAST FORWARD** button, the speed increases (x2, x4, x16, x32, x64).
3. If you press the **PLAY** button, the fast forward operation stops and the programme is played at normal speed.

Note: The *Fast Forward* operation is only available during playback of a recording or when you are behind live TV (if you have paused live TV, used slow motion, or fast rewind). You are only able to fast forward to the live TV point; when this is reached the programme will play at normal speed automatically.

Fast Rewind

1. Press the **FAST REWIND** button to go back during a recording or the buffer.
2. Each time you press the **FAST REWIND** button, the speed increases (x2, x4, x16, x32, x64).
3. If you press the **PLAY** button, the fast rewind operation stops and the programme is played at normal speed.

Note: You can fast rewind back to the start of a recording or to the start of the buffer. When you reach the start point the programme will play at normal speed automatically.

Slow Motion

1. Press the **SLOW** button to playback in slow motion.

2. Each time you press the **SLOW** button, the playback speed becomes slower.($\times\frac{1}{2}$, $\times\frac{1}{4}$, $\times\frac{1}{8}$)
3. Press the **PLAY** button to play the programme at normal speed.

Pause

1. Press the **PAUSE** button to pause the current programme.
2. If you press the **PAUSE** button once again, the programme is resumed from that point.

Note: Pressing **PAUSE** while watching live TV will increase the delay from the point you have paused to the live broadcast. You will be able to use the **FAST FORWARD** or **SKIP** functions during this time. To go directly to the live broadcast press the **STOP** button.

12.3 Recording

Using the built-in hard disk drive, you can record a programme without external media devices such as a VCR.

Note:
- Ensure that sufficient disk space is available before recording, the recording will either fail or not record fully if there is insufficient disk space.
- A one hour recording may require 2-3 GB of space depending on the broadcast.
- Radio programmes can be recorded.
- Pressing the **STANDBY** button while recording will not stop the recording. The product will go to standby mode after completing recording.
- Press the **i** button to display the the channel currently recording and i-plate.

12. Personal Video Recorder(PVR)

1. General Recording

1. Press the **RECORD** button to record the programme you are currently viewing.
2. Press the **RECORD** button again while recording to adjust the recording end time. You can adjust the recording end time using the ◄/► button.
3. When recording a current programme which has almost reached the end time, the following programme will be recorded and the ending time of that programme will appear on the play bar. Press the **RECORD** button to move from the current programme to the next programme.

2. Multi-Channel Recording

1. To record another channel, change channels while recording and press the **RECORD** button again.
2. You can record two channels simultaneously.
3. If you change to a third channel and press the **RECORD** button you will be prompted to select one of the other two recordings to cancel.

3. Stop Recording

1. Press the **STOP** button to stop recording one of the two channels.
2. You will be prompted to select one among the current recordings. Select the channel you want to stop recording using the ▲/▼ button.
3. Select **OK** and press the **OK** button.

12. Personal Video Recorder(PVR)

12.4 Bookmark

1. Adding Bookmark

You can jump to a position directly using the bookmark feature in recorded file playback. Use bookmarks to search a specific scene quickly and conveniently.

Press the **ADD BOOKMARK** button at the location you want to set a bookmark while playing back a recorded file. The bookmark icon is displayed at the lower right of the screen.

Note: The bookmark function is available for recorded files only.

2. Bookmark List

1. Press the **BOOKMARK LIST** button after adding a bookmark.
2. Select the location you wish to view using the ◄/► button. The bookmark image is displayed at the lower right of the screen.
3. Press the **BOOKMARK LIST** button again to return to the play bar.
4. To delete a location, select the location you want to delete and press the **ADD BOOKMARK** button.
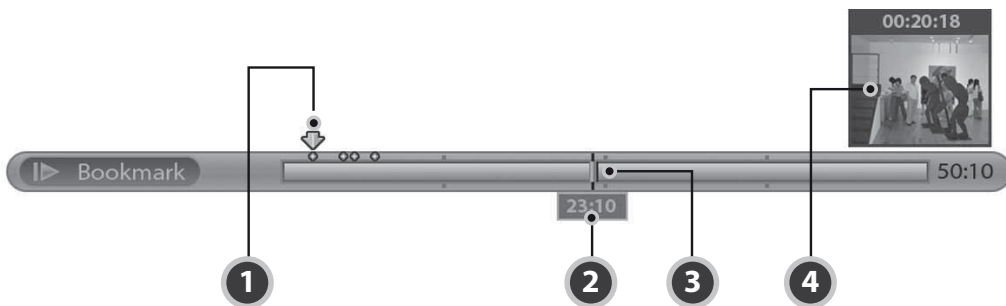
1. Bookmark cursor	3. Watching point
2. Watching point time	4. Bookmark image

13. Software Update

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.

13.1 OTA (Over the Air)

OTA, an abbreviation of ***Over–the-Air***, is a standard for the transmission of software through a broadcast system. The manufacturers reserve the right to decide when and where an update is made available. The new software version is then downloaded via cable. The software update via cable will only occur under the following circumstances.

1. The equipment should have the appropriate loader software.

Caution: Please note that if the normal loader software is not equipped, the product may not be updated or operate properly after software update.

2. The manufacturer transmits the software via cable. The new version of the software is generally detected automatically.

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 (coaxial cable) during software update. Update may be interrupted and the product may not operate.

Note:
*   It may take 5 ~10 minutes to update software.
*   Other functions will not activate while software update takes place.
*   You cannot schedule programmes during software update.

1. Software update while watching a programme

When new software is detected, you can choose to download the software immediately or save for later.

14. Appendix

14.1 Menu Map

Preferences	1. Parental Control 2. Language Setting 3. Time Setting 4. Media Setting 5. A/V Setting 6. Network 7. Other Settings
Edit Channels	1. Edit Channel List 2. Edit Favourite List 3. Display History List
Installation	1. Channel Search 2. Software Update 3. Default Setting
System	1. Status 2. Signal Detection 3. Conditional Access 4. Mail Messages

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14. Appendix

14.2 Trouble Shooting

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

1. **No message displayed on the front panel. (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.
   - Check that the power switch is on at the rear of the product. (where applicable)
   - Connect the power cable to a different power outlet.

2. **No picture on TV set**
   - 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 cable is properly connected to the product.
   - Be sure to activate channel search.
   - Check the brightness level of the TV.
   - Check if the channel is currently on air. Contact the broadcaster to ensure that the channel is running.
   - Press the **SOURCE** button if the product is in external input mode.

3. **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.

4. **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.

5. **Cannot make reservations.**
   - Check that no previous reservations are conflicting with the new reservation.

6. **No password information is given.**
   - The default password is always **0000**.

7. **Channel search does not work.**
   - Check that your cable is connected correctly.

8. **Cannot update new software.**
   - You can get an update. If the product does not show a message requesting update, that means no software is available.

9. **Cannot watch scrambled channels.**
   - Check that you have the appropriate Smartcard. Reinsert the Smartcard and make sure it initializes correctly.
   - Check in the menu that the product is detecting the Smartcard.
   - Check in the menu that you have a valid and working subscription to the channels you wish to view.

- Ensure that the Smartcard is not damaged.

10. Cannot watch pay channels.
- Check in the menu that you have a valid and working subscription to the channels you wish to view.
- Contact your network operator for more information.

11. Cannot record progammes.
- 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 starting recording.

12. Cannot operate the TSR (Time Shifted Recording).
- The TSR may not be available during the recording. Wait until the recording is finished.
- Delete unnecessary programmes and make space for new recording.

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

14. Cannot playback.
- To play back 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 the recording may be weak or the hard disk too full.

15. Cannot change channel while recording.
- Certain channels may not be changed due to restriction of the tuner type.

14. Appendix

14.3 Error Message

Error message	Possible causes	What to do
Please Insert Smartcard	The Smartcard is not present.	Insert the Smartcard.
Smartcard Failure	The current Smartcard may be faulty.	Insert the appropriate Smartcard. Contact the product distributor if the problem persists.
Checking Smartcard	The Smartcard is being verified. It may be inserted up-side down.	
Service is currently scrambled	The Smartcard has expired or the datecode on the card has gone backwards.	Check Smartcard. Contact the product distributor if the problem persists.
Service Unknown	No service is located at the entered channel number.	
Service is currently not running	Operating status of the service is set to Off.	
Parental Control Lock	When the parental rating of the event is greater than the setting made via the Parental Control menu.	Enter the PIN-code or reset the settings.
No Event Information	The information for the current event or service has not been received.	
No Signal	The signal is too weak.	Reset the cable.
No Service available	There are no services available.	Reset the setting and restart channel search.

14. Appendix

14.4 Specification

Tuner & Channel	
Input Connector	IEC 169-2 Female
Frequency Range	51 MHz~862MHz
Signal Level	-15 to +15 dBmV @ 64, 128-QAM, -12 to +15 dBmV @ 256-QAM
Demodulation	DVB-C(16QAM, 32QAM, 64QAM, 128QAM, 256QAM)
Input Symbol Rate	3~7MS/s
MPEG Transport Stream A/V Decoding	
Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification
Profile Level	MPEG-2MP@ML, MPEG-2MP@HL, MPEG-4 AVC/H 264 HP@L4
Input Rate	15MB/s Max
Video Format	4:3, 16:9
Video Resolution	1080i, 720p, 576p, 576i
Audio Decoding	MPEG/MusiCam Layer I & II
Audio Mode	Single channel/Dual channel/Joint stereo/Stereo
Memory	
Flash Memory	16MB
RAM	256MB
EEPROM	8KB
HDD	320GB
Audio/Video/Data In/Out	
Video	TV-SCART(CVBS,S-Video,RGB) VCR-SCART(CVBS, S-Video) RCA-Type(CVBS), YPbPr(RCA), HDMI/HDCP
Audio	TV-SCART, VCR-SCART, Audio L/R, S/PDIF(Digital Audio Output)
File Format	JPEG(jpeg, jpg, jpr, jifif), MP3(mp3, mp2, mp1)

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Data Port	
USB	USB 2.0 Host (5 V⎓100mA Max.)
Power Supply	
Input Voltage	90-250V a.c., 50/60Hz
Type	SMPS
Power Consumption	Max. 28W
Protection	Separate internal fuse. The input should be protected against lightning.
Physical Specification	
Size	380mm × 55mm × 252mm
Weight (Net)	3.1 Kg
Operating Temperature	0 ºC to +45 ºC
Storage Temperature	-10 ºC to +70 ºC

14.5 Glossary

1. **Coaxial Cable**
    A cable designed to conduct RF signals. To connect a two devices cable will usually have one female and one male connector.

2. **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.

3. **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.

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

5. **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.

6. **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.

7. **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.

8. **PVR (Personal Video Recorder)**
    Video recorder that can record and playback programmes directly using the embedded hard disk drive(s).

9. **RF (Radio Frequency)**
    Television signals are modulated onto RF signals and are then demodulated by your television's or STB's tuner.

10. **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.

11. **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.

12. **Signal Strength**
    An on-screen graphic menu that displays how strong the digital signal you are receiving is.

13. **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.

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14. 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.

15. 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.

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

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

14.6 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.

Nederland	
Tel:	040-2306250
Opening Hours:	9:00-17:00 u. (ma-vr)
Address:	Copaco-Humax Wekkerstraat 25,
	5652AN Eindhoven Postbus 7905, 5605SH Eindhoven
E-mail:	info@myhumax.nl
Website:	http://www.myhumax.nl
Language:	Nederlands/English

Note: For hardware repair, please visit our website.

14. Appendix

14.7. Using the Universal Remote Control

1. Select the mode (TV, PVR, DVD, AUDIO) you want to set by pressing the corresponding 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 4-digit code. Every time a number is entered, the button will blink. When the fourth digit is entered, the button will blink twice.
4. If a valid 4-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.

Key	TV	DVD	AUDIO
🔇	MUTE	MUTE	MUTE
⏻	STANDBY	POWER	POWER
PVR	PVR	-	-
TV	TV	-	-
DVD	DVD	-	-
AUDIO	AUDIO	-	-
1	1	DIGIT 1	1
2	2	DIGIT 2	2
3	3	DIGIT 3	3
4	4	DIGIT 4	4
5	5	DIGIT 5	5
6	6	DIGIT 6	6
7	7	DIGIT 7	7
8	8	DIGIT 8	8
9	9	DIGIT 9	9
0	0	DIGIT 0,11	0
LIST	LIST	-	LIST
MENU	MENU	MENU	MENU

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Key	TV	DVD	AUDIO
▶	PLAY	TEXT EXPAND	PLAY
⏸	PAUSE	TEXT HOLD	PAUSE
■	STOP	PIP INPUT	STOP
●	RECORD	PIP MOVE	RECORD, OPEN CLOSE
◀◀	FAST BACKWARD	PIP OFF	REWIND, SEARCH REVERSE; SCAN -
▶▶	FAST FORWARD	PIP	FAST FORWARD, SEARCH FORWARD; SCAN +
◀◀◀	PREVIOUS(REPLAY)	TEXT MIX	SKIP -, TRACK -, CHAPTER -
▶▶▶	NEXT(SKIP)	TEXT OFF, TV	SKIP, TRACK +, CHAPTER +
RED	RED	RED	RED
GREEN	GREEN	GREEN	GREEN
YELLOW	YELLOW	YELLOW	YELLOW
BLUE	BLUE	BLUE	PROGRAMME
MEDIA	MEDIA	-	-
GUIDE	GUIDE	GUIDE	GUIDE
OK	OK	OK	OK
UP	UP	UP	UP
LEFT	LEFT	LEFT	LEFT
RIGHT	RIGHT	RIGHT	RIGHT
DOWN	DOWN	DOWN	DOWN
BACK	BACK	LAST, RECALL; PP; LAST CHANNEL	CLEAR
VOL+	VOL+	VOL+	VOL+
VOL-	VOL-	VOL-	VOL-
ℹ	I	INFO, OSD; DISPLAY	INFO, OSD; DISPLAY
OPT+	OPT+	-	-
P+	P+	P+	P+
P-	P-	P-	P-
TEXT	TEXT	TEXT	PVR MENU
🔊?	AUDIO	-	AUDIO, LANGUAGE

14. Appendix

Key	TV	DVD	AUDIO
SUB	SUB	SUBTITLE, LANGUAGE; CC	SUBTITLE
TV/RADIO	TV/RADIO	TV/DTV ATV/DTV; D/A; DTV/TV; DTV; DIGITIAL	HDD, DVD/HDD
SCHEDULE	SCHEDULE	ANALOG TV, ATV	DVD
📖➕	ADD BOOKMARK	TEXT SUBPAGE TEXT TIME	-
📖	BOOKMARK	TEXT INDEX	TITLE
▶	SLOW	TEXT POSITION TEXT CANCEL; TEXT UPDATE	SLOW; STEP
SOURCE	SOURCE	SOURCE, AV, 55INPUT; TV/AV	SOURCE, TV/DVD, TV/DISK
SLEEP	SLEEP	SLEEP	SLEEP
V-FORMAT	V-FORMAT	TEXT SIZE; TEXT EXPAND; FTB	-
WIDE	WIDE	WIDE, FORMAT, 16:9, ASPECT; ZOOM	ZOOM

14. Appendix

1. TV Code List

Brand	Code
A.R. Systems	0556, 0037, 0455, 0352, 0374
Accent	0037
Acer	1339, 1403, 1509
Acoustic Solutions	1149, 1523, 1545, 1667, 1727, 1865, 2055
Acura	0009
ADL	1217
Admiral	0264, 0087, 0093, 0163
Advent	0876, 1613
Adyson	0216, 0217
AEG	1163, 1324, 1556, 2096
Agashi	0264, 0216, 0217
AGB	0516
Agef	0087
Aiko	0037, 0361, 0264, 0433, 0009, 0035, 0072, 0191,0216, 0217, 0371
Aim	0037, 0805
Airis	1531, 1833, 2050
Aiwa	0701, 0705, 1916
Akai	0556, 0037, 0548, 0714, 0715, 0606, 0361, 0264,0433, 0729, 1259, 1413, 0648, 0631, 2021, 0602,2025, 2096, 0516, 0480, 0473, 0371, 0217, 0216,0208, 0191, 0163, 0072, 0035, 0009, 0745, 1537
Akiba	0037, 0218, 0455, 0282
Akito	0037, 0272
Akura	0037, 0714, 0668, 1037, 0264, 0218, 0009, 0171,0282, 0412, 1498, 1556, 1687, 1982
Alaron	0216
Alba	0037, 0714, 0668, 1037, 0487, 0370, 0218, 0036,0587, 2050, 1997, 1935, 1731, 0551, 0480, 0443,0418, 0371, 0355, 0247, 0216, 0163, 0009
AlfaView	1206
All-Tel	0865, 1269
Allorgan	0206, 0217
Allstar	0037
Amitech	0655, 1281

Brand	Code
Amoi	1529
Amplivision	0370, 0217, 0320
Amstrad	0037, 1037, 0264, 0218, 0433, 0009, 0163, 0171,0362, 0371, 0412, 0516, 0648, 1820, 1890, 1982
Anam	0037, 0009
Anam National	0037, 0650
Andersson	1149, 1163
Anglo	0264, 0009
Anitech	0037, 0264, 0009, 0282
Ansonic	0037, 0668, 0370, 0009, 0104, 0163, 0259, 0292,0374, 0411, 1437
AOC	0625, 1365, 1588
Apollo	0473
Apro	1846
Arc En Ciel	0109
Arcam	0216, 0217
Ardem	0037, 0714
Arena	0037
Aristona	0556, 0037
ART	1037
Arthur Martin	0163
ASA	0070, 0087, 0104, 0105, 0346
Asberg	0037
Asora	0009
Asuka	0264, 0218, 0216, 0217, 0282
Atec	1606, 1728
Atlantic	0037, 0206, 0216, 0259, 0320
Atori	0009
Auchan	0163
Audiosonic	0037, 0714, 0486, 0715, 0264, 0370, 0218, 0009,0109, 0217, 0374, 0865, 1308, 1800, 2050
Audioton	0486, 0264, 0370, 0217
Audiovox	0451
Aumark	0060
Autovox	0087, 0206, 0217, 0247, 0349, 0544

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AVC	2044	Blue Star	0282
Avious	1634	BlueH	1745
Awa	0606, 0036, 0108, 0009, 0011, 0217, 0451, 1376	Boca	1652
Axxent	0009	Boman	1324
Baier	0876	Bondstec	0247
Baird	0072, 0073, 0109, 0193, 0208, 0217, 0343, 1196	Boots	0009, 0217, 0272
		Bork	1363
Bang & Olufsen	0087, 0565, 0619, 0620	Bosch	0320
Barco	0163	Boxlight	0736
Basic Line	0556, 0037, 0668, 1037, 0218, 0455, 0009, 0163,0217, 0282, 0339, 0374, 1163	BPL	0037, 0208, 0282, 0896
		Brandt	0625, 0714, 0560, 0109, 0287, 0335
Bastide	0217	Brimax	1709
Bauer	0805, 1615	Brinkmann	0037, 0668, 0486, 0418, 0519
Baur	0037, 0195, 0361, 0191, 0349, 0512, 0535, 0544,0554	Brionvega	0037, 0087, 0362
		Britannia	0216, 0217
Bazin	0217	Brother	0264
Beaumark	0178	Bruns	0087
Beko	0037, 0714, 0486, 0715, 0606, 0370, 0418, 0808,1652, 1800	BSR	0163
		BTC	0218
Belson	0698, 0894, 1191	Bush	0556, 0037, 0714, 0668, 1037, 0698, 0487, 0361,0264, 0218, 0036, 0587, 1687, 1682, 1667, 1652,1645, 1634, 1556, 1731, 1869, 1870, 1871, 1900,1954, 1982, 2050, 2053, 2055, 2056, 0009, 0208,0217, 0272, 0282, 0349, 0355, 0371, 0374, 0519,0614, 0660, 0661, 0778, 1149, 1166, 1243, 1259,1308
Belstar	1037		
BenQ	1212, 1562, 1574		
Bensten	1326, 1890, 1893		
Beon	0037, 0418		
Berthen	0668		
Best	0370		
Bestar	0037, 0370, 0374	Canton	0218
Bestar-Daewoo	0374	Capsonic	0264
Binatone	0217	Carad	0668, 1037, 0610
Black Diamond	1909, 1037, 0614, 1163	Carena	0037, 0455
Black Star	0247	Carrefour	0037, 0036, 0070
Blackway	0218, 0282	Carver	0170
Blaupunkt	0195, 0036, 0455, 0170, 0191, 0200, 0327, 0535,0554	Cascade	0037, 0009
		Casio	0037
Blue Media	1606, 1728	Cat	1682, 2155
Blue Sky	0556, 0037, 0714, 0668, 1037, 0715, 0487, 0218,0455, 0499, 0624, 0282, 1191, 1243, 1314, 1363,1521, 1652, 1709, 1916	Cathay	0037, 1727
		CCE	0037
		cello	1770, 1820, 1844, 1845, 1846

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Centrum	1037
Centurion	0037
Century	0087, 0247
CGE	0370, 0074, 0163, 0247, 0418
Changhong	0821
Chimei	2052, 1837
Cimline	0218, 0009
Cineral	0451
Cinex	0648, 1166, 1556
Citizen	0060
City	0009
Clarivox	0037, 0070, 0418
Classic	0499
Clatronic	0037, 0714, 0264, 0370, 0218, 0009, 0217, 0247,0320, 0371, 1324
Clayton	1037
CMS	0216
CMS Hightec	0217
Concorde	0009
Condor	0037, 0264, 0370, 0009, 0216, 0247, 0282, 0320,0411, 0418
Conia	0820, 0894, 1498, 1687
Conrac	0808
Contec	0037, 0036, 0009, 0216
Continental Edison	0487, 0109, 0287
Cosmel	0037, 0009
Crosley	0074, 0087, 0163, 0247
Crown	0037, 0714, 0668, 1037, 0486, 0715, 0487, 0606,0712, 0370, 1652, 0672, 0418, 0412, 0339, 0208,0009
Crown Mustang	0672
CS Electronics	0218, 0216, 0247
CTC	0247
CTX	1756
Curtis Mathes	0060, 0093, 0145, 0166, 0451
Cybertron	0218
Cytronix	1298
D-Vision	0556, 0037, 1982

Daewoo	0556, 0037, 0634, 1909, 0218, 1902, 1812, 1612,1598, 1376, 1307, 0880, 0876, 0865, 0778, 0661,0624, 0499, 0451, 0374, 0217, 0216, 0009
Dainichi	0218, 0216
Daitsu	1267
Dansai	0037, 0036, 0009, 0035, 0208, 0216, 0217
Dansette	0412
Dantax	0714, 1037, 0486, 0715, 0370, 1652, 1916, 1981
Datsura	0208
Davis	0736
Dawa	0037
Daytek	1207, 1374, 1376
Dayton	0009, 1207, 1374
Daytron	0037, 0009, 0374
De Graaf	0548, 0044, 0163, 0208
DEC	1326
Decca	0037, 0072, 0217, 0272, 0516, 0621
Dell	1264, 1403
Denko	0264
Denon	0145
Denver	0037, 0587, 1189, 1324, 1634, 1820, 1988, 2050,2096
DER	0193
Desmet	0037, 0009, 0087, 0320
DGM	1890
Diamant	0037
Diamond	0825
DiBoss	1474
Digatron	0037
Digihome	1149, 1667
Digiline	0037, 0668, 0105
Digimate	0890
Digital Device	1606
Digitek	1521, 1709
Digitrex	2056
Digix Media	0880

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Dixi	0037, 0009, 0087, 0217, 0247	Emperor	0282
DL	0891, 1326	Envision	1365
DMTech	1338, 1898, 1964, 1994, 2001	Epson	0881, 1290, 0833, 0840
Domeos	0668	Erae	1371
Domland	0394	Erres	0037
Dream Vision	1704	ESC	0037, 0217
DTS	0009	Etron	0009, 0163
Dual	0037, 1037, 1137, 0217, 0259, 0343, 0349, 0352,0394, 0519, 0544, 0778, 1149, 1202, 1267, 2032	Eurofeel	0264, 0217
		Euroman	0037, 0264, 0370, 0216, 0217
Dual Tec	0217	Europa	0037
Dumont	0070, 0072, 0087, 0104, 0217	Europhon	0037, 0217, 0516
Durabrand	1437, 1652, 1988	Evesham	1248, 1606, 1667, 1719, 1728
Dux	0037	Evesham Technology	1728
Dynatech	0217	Evolution	1756
Dynatron	0037	Excors	2031
e-motion	1709	Expert	0163, 0206, 0259
E:max	1324, 1531	Exquisit	0037, 0247
Easy Living	1248, 1553, 1783	FairTec	1373
Ecco	0773	Fenner	0009, 0374
ECE	0037	Ferguson	0037, 0625, 0548, 0560, 0195, 1037, 0073, 0109,0193, 0287, 0335, 0343, 0443, 1471, 1935, 2053
Edison-Minerva	0487		
Eiki	0735	Fidelity	0037, 0361, 0264, 0163, 0171, 0193, 0216, 0371,0412, 0512, 0544
Elba-Sharp	0516		
Elbe	0556, 0037, 0610, 0218, 0191, 0217, 0259, 0292,0362, 0411, 0435, 0516, 0551, 0630	Filsai	0217
		Finlandia	0548, 0361, 0072, 0163, 0208, 0346
Elcit	0087, 0163, 0247, 0516	Finlux	0556, 0037, 0714, 0715, 1585, 1556, 0808, 0631,0621, 0516, 0492, 0480, 0473, 0411, 0346, 0217,0163, 0105, 0104, 0087, 0072, 0070
Elekta	0264, 0282		
Element	1687		
Elfunk	1037, 1208	Firstline	0556, 0037, 0714, 0668, 1037, 0361, 1612, 1371,1363, 1308, 1191, 0808, 0624, 0544, 0411, 0374,0349, 0321, 0247, 0217, 0216, 0208, 0072, 0009
ELG	0037		
Elin	0037, 0548, 0361, 0009, 0104, 0349		
Elite	0037, 0218, 0320	Fisher	0361, 0370, 0036, 0045, 0072, 0087, 0104, 0208,0217, 0349, 0544
Elta	0264, 0009		
Emco	0247	Flint	0037, 0610, 0264, 0218, 0455, 0072
Emerson	0037, 0714, 0668, 1909, 0486, 0361, 0370, 0070,0087, 0178, 0247, 0282, 0320, 0371, 0624	Force	1149
		Forgestone	0193
		Formenti	0037, 0087, 0163, 0216, 0320
		Formenti-Phoenix	0216, 0320

Fortress	0087, 0093		**GPM**	0218
Fraba	0037, 0370		**Gradiente**	0037, 0170, 1053
Friac	0037, 0610, 0370, 0009, 0499		**Graetz**	0714, 0487, 0361, 0163, 0339, 0371, 1163
Frontech	0264, 0009, 0163, 0217, 0247		**Gran Prix**	0648
Fujimaro	0865		**Granada**	0037, 0548, 0560, 0036, 0108, 0226, 0072, 0163,0208, 0217, 0339, 0343, 0356, 0469, 0473, 0516,0045
Fujitsu	0009, 0072, 0206, 0217, 0259, 0683, 0809, 0853			
Fujitsu General	0009, 0206, 0217, 0683		**Grandin**	0556, 0037, 0714, 0668, 1037, 0715, 0610, 0218,0455, 1377, 1375, 1374, 1298, 1206, 1191, 0880,0865, 0624, 0374, 0320, 0282, 0163, 0009
Fujitsu Siemens	0808, 1163, 1248, 1298, 1373, 1666			
Funai	0714, 0668, 0264, 1394, 1595, 1666, 1817			
			Gronic	0217
Galaxi	0037		**Grundig**	0556, 0037, 0195, 0487, 0706, 0036, 0587, 2127,2053, 1954, 1935, 1916, 1869, 1800, 1667, 1376,1371, 1308, 1223, 0672, 0630, 0070, 0554, 0535,0191, 0443
Galaxis	0037, 0370			
Gateway	1755			
GBC	0218, 0009, 0163, 0374			
GE	0093, 0178, 0282, 0335, 0451, 0735, 1907			
			Grunkel	1163
GEC	0037, 0361, 0072, 0163, 0217, 0349, 0516		**H & B**	0808, 2001
			Haier	0698, 1615, 1748, 1604
Geloso	0009, 0163, 0247, 0374		**Halifax**	0264, 0216, 0217
General	0109, 0287, 0471		**Hallmark**	0178
General Technic	0009		**Hampton**	0216, 0217
Genexxa	0037, 0218, 0009, 0163, 0412		**Hanimex**	0218, 1908
Gericom	0808, 0865, 0880, 1206, 1217, 1298, 1606, 1731		**Hanns.G**	1783
			Hannspree	1348, 1351, 1352, 1613, 1776, 1783, 2027
Go Video	0060			
Gold	1770, 1833, 2077, 2081		**Hanseatic**	0556, 0037, 0625, 0714, 0634, 0361, 0370, 0808,0661, 0544, 0519, 0499, 0394, 0377, 0349, 0320,0292, 0282, 0217, 0087, 0009
Goldfunk	0668			
GoldHand	0216			
GoldStar	0037, 0714, 0715, 0606, 0361, 0001, 0044, 0109,0163, 0178, 0216, 0217, 0247, 0290, 0377			
			Hantarex	0037, 0009, 0516, 0865, 1338, 1465
			Hantor	0037
			Harsper	0865
Gooding	0487		**Harwa**	0773, 1196, 1269
Goodmans	0556, 0037, 0625, 0714, 0560, 0668, 0634, 1909,1037, 0487, 0264, 0218, 0036, 2056, 1163, 1259,2055, 1308, 2053, 1376, 1916, 1645, 1667, 1682,1900, 1687, 1719, 1720, 1727, 0009, 0035, 0072,0217, 0290, 0335, 0343, 0371, 0374, 0480, 0499,0516, 0624, 0630, 0661, 0808, 0880, 1149		**Harwood**	0037, 0487, 0009, 0412
			Hauppauge	0037
			Havermy	0093
			HCM	0037, 0264, 0218, 0009, 0217, 0282, 0412, 0418
			Hema	0009, 0217
Gorenje	0370		**Hemmermann**	0349, 0544

Hifivox	0109	**IISonic**	1376, 1513, 1613
Higashi	0216	**Iiyama**	0877, 0890, 1217
Highline	0037, 0264	**Imperial**	0037, 0370, 0074, 0247, 0349, 0418, 0630, 2089
Hikona	0218, 1983		
Hinari	0037, 0264, 0218, 0036, 0009, 0208, 0355, 0443,1908	**Indiana**	0037
		InFocus	0736, 0752, 1164, 1206, 1430, 1516
Hisawa	0714, 0610, 0218, 0455, 0282	**Ingelen**	0714, 0610, 0487, 0163
Hisense	0556, 0508, 0780, 1314, 1363, 1660, 2098	**Ingersol**	0009
		Inno Hit	0218, 0009, 0072, 0217, 0247, 0282, 0290, 0516,1163
Hit	0087		
Hitachi	0037, 0548, 0634, 1037, 1137, 0036, 0108, 0225,0719, 0737, 0744, 0777, 0797, 0877, 0884, 0044,1045, 1149, 1194, 1225, 1481, 1484, 1576, 1691,1772, 1854, 2074, 0109, 0145, 0163, 0178, 0217,0343, 0349, 0356, 0441, 0469, 0473, 0480, 0481,0492, 0499, 0516, 0105, 0576, 0578, 0072	**Innovation**	0519
		Innowert	0865, 1298
		Interbuy	0037, 0264, 0009, 0247
		Interfunk	0037, 0361, 0087, 0109, 0163, 0200, 0247, 0327,0349, 0512
		Internal	0556, 1909, 0624
Hitachi Fujian	0108	**Intervision**	0037, 0486, 0487, 0264, 0218, 0455, 0009, 0217,0247, 0282, 0377, 0394, 0519
Hitsu	0610, 0218, 0455, 0009		
HMV	0087		
Hoeher	0714, 0865, 1163, 1556	**Irradio**	0037, 0218, 0009, 0247, 0290, 0371, 0724
Home Electronics	0606		
Hornyphon	0037	**Isukai**	0037, 0218, 0455, 0282
Hoshai	0218, 0455, 0282	**ITC**	0217, 0320
Huanyu	0216, 0374	**ITS**	0037, 0264, 0218, 0216, 0282, 0371
Hugoson	0890, 1217	**ITT**	0548, 0610, 0361, 0163, 0193, 0208, 0339, 0346,0349, 0473, 0480, 0544
Humax	2181, 1501, 4000, 4001, 1295, 1535, 1539, 1821,1873, 2057,		
		ITT Nokia	0548, 0610, 0606, 0361, 0163, 0208, 0339, 0346,0349, 0473, 0480
HYD	1376		
Hygashi	0216, 0217	**ITV**	0037, 0264, 0247, 0374
Hyper	0009, 0216, 0217, 0247	**JDV**	1982
Hypersonic	0361	**Jean**	0036, 1511, 1513
Hypson	0556, 0037, 0714, 0668, 1037, 0486, 0715, 0264,0455, 0217, 0282, 0621	**JEC**	0035
		JMB	0556, 0634, 0443, 0499
Hyundai	0778, 0865, 0876, 1281, 1294, 1376, 1468, 1532,1598, 1606, 1612, 1899	**JNC**	1702
		Jocel	0712
Iberia	0037	**Jouge**	1435
ICE	0037, 0264, 0218, 0216, 0217, 0371	**Jubilee**	0556
ICeS	0218, 0216	**JVC**	0606, 0218, 0036, 0650, 0653, 0093, 0193, 0371,0418, 0683, 0731, 1053, 1352, 1653, 1818, 2118
iDEAL	1556		
Igo	1224		

Kaisui	0037, 0218, 0455, 0009, 0216, 0217, 0282	**LaSAT**	0486
Kamp	0216	**Lava**	1474
Kapsch	0361, 0104, 0163, 0206, 0259	**Lavis**	1037
Karcher	0714, 0610, 0606, 0264, 0370, 0282, 0778, 1556,1982	**Leader**	0009
		Lecson	0037
Kathrein	0556, 0880	**Lemair**	0411
Kawa	0371	**Lenco**	0037, 0587, 0104, 0374, 1634, 1983
Kawasho	0216	**Lenoir**	0009, 1189
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Windsor	0668, 1037	**GE**	0093, 1907
Windstar	0282	**GoldStar**	0037
Windy Sam	0556	**Goodmans**	1909, 0374, 0624, 1916
World-of-Vision	0865, 0877, 0880, 0890, 1217, 1289, 1298, 1606,1732	**Grandin**	0624
		Grundig	0556, 0037, 0195, 0554, 1916
X-View	1191	**Hanimex**	1908
Xenius	0634, 0661	**Hinari**	0036, 1908
XLogic	0860	**Internal**	1909, 0624
Xomax	1770	**Irradio**	0724
Xoro	1196, 1217, 1243, 1507, 1789, 2146	**LG**	0178
Xrypton	0037	**Magnin**	1907
Yakumo	1613	**Matsui**	1916
Yalos	1771	**MGA**	1907
Yamaha	0797, 1526, 1576, 0833	**Mitsubishi**	0556, 0093
Yamishi	0037, 0218, 0455, 0217, 0282	**Orion**	1908, 1916
Yokan	0037	**Penney**	1907
Yoko	0037, 0264, 0370, 0218, 0009, 0216, 0217, 0247,0339	**Philips**	0556, 0037
		Portland	0624
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Ytawai	1531	**RCA**	0093, 1907
Zanussi	0206, 0217	**Saba**	0625
Zenith	0624, 1265	**Samsung**	1907
Zenor	0339	**Sanyo**	1907
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Aiwa	1916	**SEG**	0624
Amstrad	0171	**Sharp**	0093
Beko	0486	**Siemens**	0037
Black Diamond	1909	**Sony**	1505, 1925
Blue Sky	0624, 1916	**Teac**	0171
Daewoo	1909, 0624	**Technics**	0556
Dantax	1916	**Telefunken**	0074
Emerson	1909, 0624	**Thomson**	0625
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4Kus	1158		Autovox	0713
A-Trend	0714		Auvio	0843
Acoustic Solutions	0730, 0713, 1242, 2082, 2195		Axion	0730
AEG	0770, 0790, 0675, 0788, 1233, 1923		Basic Line	0713, 1994
AFK	1152, 1923		Baze	0898
Airis	0672, 0826, 1224, 1321, 2256		BBK	1224
Aiwa	0533, 1243		Bellagio	1004
Akai	0790, 0788, 0898, 1115, 1233, 1695, 2236		Bellwood	0826
Akira	1620		Belson	1493, 1923
Akura	0898, 1140, 1233, 1493		Belsonic	1493
Alba	0539, 0695, 0730, 0672, 0713, 0717, 1140, 1530,1695, 1994, 2256		Berthen	1643
			Binatone	1923
Alize	1151		Biostek	1601
Altacom	1224		Black Diamond	0713
Amitech	0770, 0122, 0850		Blu:sens	1233, 1321
Amstrad	0770, 0790, 0713, 1151, 1493		Blue Nova International	1321
Amuseer	1351		Blue Sky	0695, 0651, 0790, 0672, 0713, 0843
AMW	0872		BlueTinum	1493
Ansonic	0831, 0759, 1351, 1493		Boghe	1004
Apex Digital	0672, 1004, 1254, 1480		Boman	0898
Arena	1115		Bose	2023
Aristona	0539, 0646, 2241		Brainwave	0770, 1115
ASCOMTEC	1923		Brandt	0503, 0551, 0651
Asono	1224		Broksonic	0695
Atacom	1224		Bush	0730, 0831, 0672, 0713, 0717, 0723, 1140, 1351,1419, 1436, 1530, 1695, 1832, 2256, 2261
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Chili	1492, 1493	**Digihome**	0713
Cinea	0841	**DigiLogic**	0713, 1663
Cinetec	0713, 0872	**Digitech**	1832
CJ Digital	1643, 2173	**Digitek**	0122
Classic	0730, 1730	**Digitrex**	2261
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Clayton	0713	**DiK**	0831
CMX	1643	**Dinamic**	0788
Coby	0730, 1351	**Disney**	0831
Codex	1233	**DiViDo**	0705
Commax	1321, 1492	**DK Digital**	0831, 1254
Compacks	0826, 2235	**Dragon**	0831
Contel	0788	**DreamX**	1151
Continental Edison	0831, 0872	**DSE**	1730
Crown	0770, 0713, 1115	**Dual**	0730, 0831, 0651, 0790, 0665, 0713, 1436, 1530
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Cytron	0651, 0705, 1347	**E:max**	0330, 1233, 1321, 1643, 1670
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Daenyx	0872	**ECC**	0730
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		Elfunk	0713, 0850
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Dayton	0872, 1158	**Eltax**	1233, 1321, 1620
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Decca	0770, 1115	**Enterprise**	0591
Denon	0490, 0634, 1634	**EuroLine**	0675, 0788, 1115, 1233, 1351, 1444, 1643
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Finlux	0741, 0591, 0770, 0672, 0751	**Hiteker**	0672, 1923
Fintec	1530	**Hoeher**	0831, 0651, 0713, 0826, 1004, 1224, 1530
Firstline	0713, 0843, 0869, 1530	**Home Electronics**	0770, 0730
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Gateway	1158	**Humax**	0646, 2338
GE	0717	**HYD**	1233
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uClibc

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