

HD Digital Receiver



# IR-HD1000 User's Manual



The default password is 0000.

**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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# 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 SATELLITE DISH LNB**

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

### **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. EARTHING**

- The LNB cable must be earthed to the system earth for the satellite dish.

# Safety Warning

## 10. LOCATION

- Place the product indoors to avoid exposing it to lightning, rain or sun.
- Do not place it near a radiator or heat register.
- Make sure it has more than 10 cm clearance from any 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.

## 11. 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.

## 12. EXTRANEIOUS OBJECTS

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

## 13. 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.

# Safety Warning

## Warning

The mains plug, as a disconnection device, shall remain readily accessible by the user.

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.

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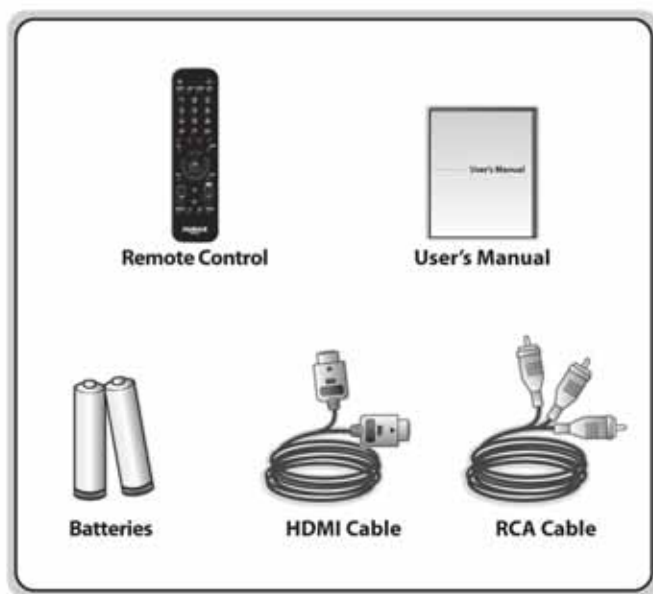
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# 1. Before Using the Product

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

## 1.1 Package Contents

Please check all package contents before using your product.

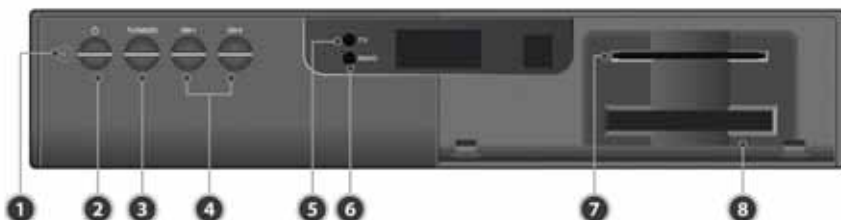


**Note:**

- 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.

# 1. Before Using the Product

## 1.2 Front Panel



**1. STANDBY LED**

Red light is emitted when the product is in standby mode.

**2. STANDBY BUTTON**

Switches between operation and standby modes.

**3. TV/RADIO BUTTON**

Switches between TV and radio modes.

**4. CH-/CH+**

Moves the TV/radio channel up or down.

**5. TV LED**

Green light is emitted when the product is in TV mode.

**6. RADIO LED**

Amber light is emitted when the product is in radio mode.

**7. SMARTCARD SLOT**

A slot for a Smartcard

**8. CI-MODULE SLOT**

A slot for a CI-Module

**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.

### 1. 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.

1. Open the right-hand 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 top slot.

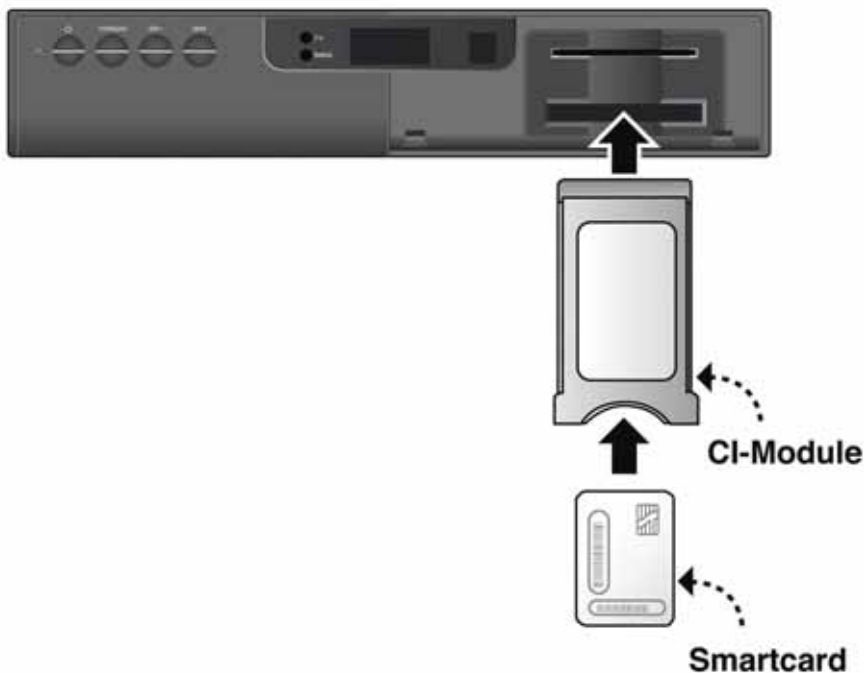


# 1. Before Using the Product

## 2. Inserting a CI (with Smartcard)

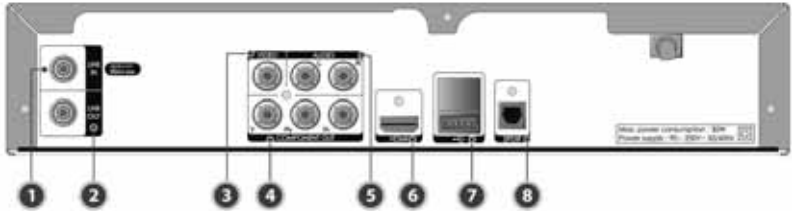
A CI-Module looks like a PC map (PCMCIA) for laptops. There are different kinds of CI-Modules, suitable for different coding systems; Irdeto, Conax and more. Additionally to the CI-Module, a Smartcard is needed to decode the channels.

1. Open the right-hand flap on the front panel of the product.
2. Follow the instructions of the module and insert the Smartcard into the CI-Module.
3. Keep the CI-Module (with the Smartcard) horizontal.
4. Insert the CI-Module into the slot.



# 1. Before Using the Product

## 1.4 Rear Panel



- 1. LNB IN**  
Connects a satellite antenna cable.
- 2. LNB OUT**  
Connects another digital satellite receiver.
- 3. VIDEO**  
Connects to the TV or VCR using an RCA cable.
- 4. COMPONENT OUT (YPbPr)**  
Connects to the TV or VCR using a component cable.
- 5. AUDIO L/R**  
Connects to the TV or VCR using an RCA cable.
- 6. HDMI**  
Connects to the TV using an HDMI cable.
- 7. USB**  
Connects to an USB cable.
- 8. S/PDIF**  
Connects to the audio system using an S/PDIF cable. (digital audio)

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

# 1. Before Using the Product

## 1.5 Remote Control



- 1. MUTE**  
Mutes or unmutes the audio temporarily.
- 2. SLEEP**  
Sets the sleep time.
- 3. SOURCE**  
(currently not supported)
- 4. NUMERIC(0-9) BUTTONS**  
Enters a TV/radio channel number.
- 5. TEXT**  
Switches between the teletext and TV modes.
- 6. LIST**  
Displays the channel list.
- 7. ARROW BUTTONS**  
Changes the channel or moves the cursor up, down, left or right.
- 8. EXIT**  
Exits all On-Screen Display (OSD) screens.
- 9. i (Information)**  
Displays the channel and programme information.
- 10. +/-**  
Adjusts the audio volume.
- 11. SCHEDULE**  
Displays the schedule in programme guide.
- 12. AUDIO**  
Displays the audio list.

**Note:** The remote control of the product is subject to change without notice.

# 1. Before Using the Product



- 13. STANDBY**  
Switches between operation and standby modes.
- 14. V-FORMAT**  
Changes the resolution of video.
- 15. WIDE**  
Sets the display format.
- 16. MENU**  
Displays the main menu.
- 17. COLOUR BUTTONS (R/G/Y/B)**  
Select the colour keys for interactive applications.
- 18. GUIDE**  
Displays the programme guide.
- 19. OK**  
Selects a menu or confirms the selected operation. Displays the channel list while watching a programme.
- 20. BACK**  
Closes and returns to the previous menu and screen.
- 21. P (PAGE) ▲/▼**  
Changes the channel or page.
- 22. TV/RADIO**  
Switches between TV and radio modes.
- 23. SUBTITLE**  
Displays the subtitle language list.
- 24. OPT+**  
Displays the channels attributes while watching a programme.

# 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.

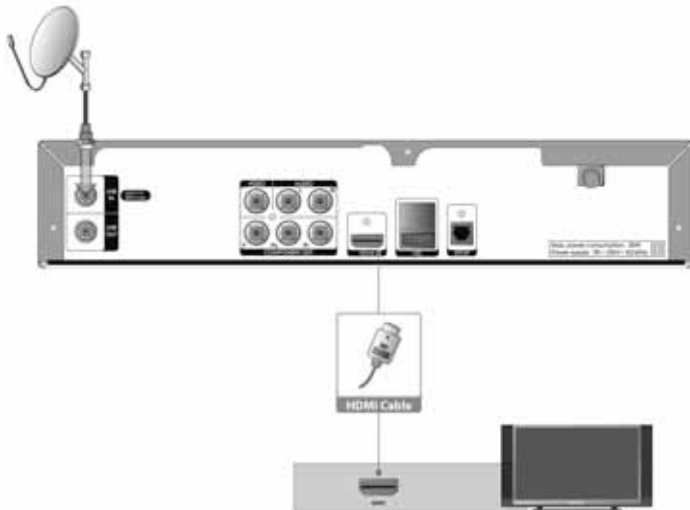
**Note:** If you encounter any problems setting up your product, please contact your local product distributor

## 2.1 Connecting the TV and VCR

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

### 1. Using HDMI Cable

The HDMI connection is recommended for Digital TV. In case the TV has a HDMI input connector, a special all-digital interface that provides the highest picture quality, connect the product and the TV using a HDMI cable as follows.



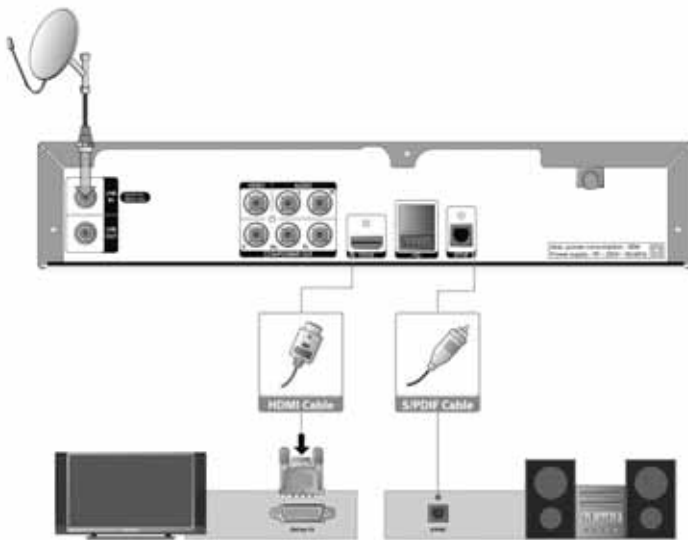
# 2. Setup

## 2. Using DVI Cable

The DVI connection using an HDMI to DVI converter is recommended for Digital TV. In case the TV has the DVI input connector only, connect the product to the TV with an HDMI cable using an HDMI to DVI converter as follows.

### **When equipped with an A/V receiver**

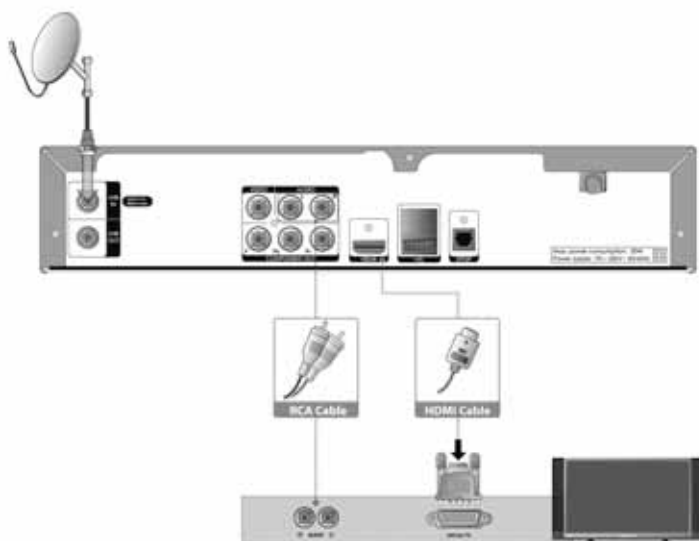
1. Connect one end of the HDMI cable to the HDMI input on the product and the other end to the HDMI to DVI converter.
2. Connect the DVI converter to the TV.
3. Connect the product and the audio receiver that functions as a digital audio decoder using an S/PDIF cable.



## 2. Setup

### When there is no A/V receiver available

1. Connect the product and the TV using an RCA cable.
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 DVI converter to the TV.



## 2. Setup

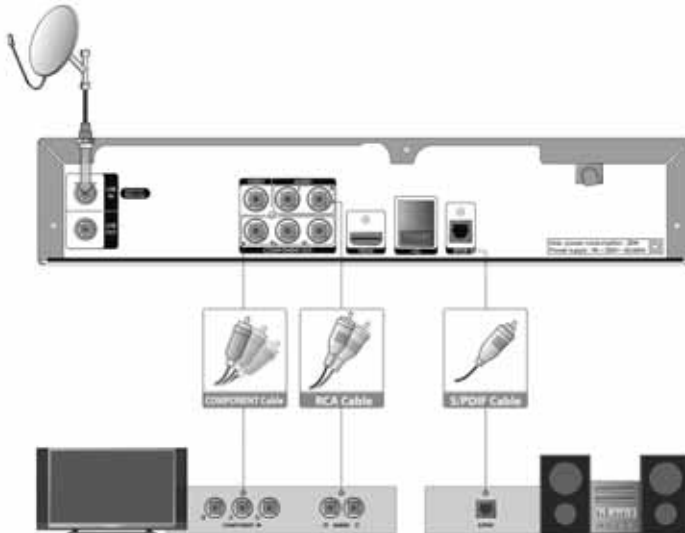
### 3. Using Component Cable

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

**You can either:**

- 1-1 Connect the product and the TV using an RCA cable (Audio L/R).
- 1-2 Connect the product and the audio receiver that functions as a digital audio decoder using an S/PDIF cable.

**Note:** Connecting your TV directly to the audio/video output of the product will assure a more vivid picture and enhance your viewing enjoyment.



# 2. Setup

## 2.2 Powering On

1. Connect the power cord of the product to a wall outlet.
2. Turn on the power switch located at the back left side of the product.
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

Select the appropriate language from the list.



## 3.2 Time Zone

Select the country. If you have selected **Other**, select the appropriate time zone.



## 3.3 Humax Auto Search

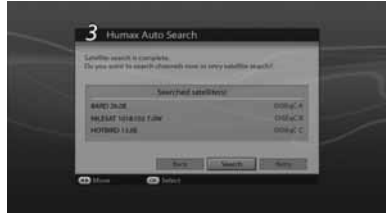
Search satellites and channels using Humax Auto Search. Select **Next** and press the **OK** button.

Satellite search will activate and the results will appear. Select **Retry** to search more satellites. Select **Search** and press the **OK** button to start channel search.



# 3. Installation Wizard

The searched results will appear. Select **Next** and press the **OK** button.



## 3.4 Display

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



## 3.5 Result

After all setting is complete, you can view the result screen. Select **Finish** to complete the installation wizard.



# 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.

## 4.2 Volume Control

Press the **▲ +/-** button to adjust the audio volume. Press the **MUTE** button to stop the audio temporarily.

## 4.3 Resolution

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.

## 4.4 Sleep

Press the **SLEEP** button while watching a programme to set the sleep time. Each time you press the **SLEEP** button, the sleep time changes.

## 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.

## 4.6 Audio

Press the **AUDIO** button and select the audio language you prefer. Select audio direction (left, right, stereo) using the **◀/▶** button.

# 4. Basic Operation

## 4.7 Subtitle

Press the **SUBTITLE** button and 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.

## 4.8 Teletext

Press the **TEXT** button. To display the teletext menu, press the **MENU** button in teletext mode. Select the teletext function you want and press the **OK** button.

## 4.9 Programme Information (i-plate)

The i-plate is always displayed for a certain period of time whenever you switch channels. Press the **i** button while watching a programme. Press the **i** button again to view detailed information.



# 5. Channel List

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

<b>My TV (RED)</b>	<ul style="list-style-type: none"> <li>• <b>TV:</b> The list of all TV channels.</li> <li>• <b>Radio:</b> The list of all radio channels.</li> <li>• <b>HD TV:</b> The list of all HD TV channels.</li> <li>• <b>Recently Viewed:</b> The list of the recently viewed channels.</li> </ul>
<b>Favourite (GREEN)</b>	<p>The lists of favourite channels</p> <ul style="list-style-type: none"> <li>• <b>Most Viewed:</b> The list of the most watched channels.</li> </ul>
<b>Satellite (YELLOW)</b>	The lists of channels classified by satellites.
<b>Scramble (BLUE)</b>	The lists of channels classified by CAS types.

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.

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



# 6. TV Guide

**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.

## 6.1 Table Guide

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



## 6.2 List Guide

**EPG List** displays the programme information for approximately a week.



## 6.3 Schedule

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



# 6. TV Guide

## 6.4 Find

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



# 7. Menu

## 7.1 Preferences

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

### 1. Parental Control

Age Limit, Change Password, Installation Lock



### 2. Language Setting

Menu Language, Subtitle Display, Subtitle Font

### 3. Time Setting

Country, GMT Offset, Daylight Saving Time, Power ON, Power On Channel, Power OFF

### 4. A/V Setting

Audio Output, Digital Audio Output, Lip-Sync, Screen Ratio, Display Format, Letter and Pillar Box Colour

### 5. Other Settings

Info Display Time, OSD Transparency

# 7. Menu

## 7.2 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.

### 1. Edit Channel List

You can delete, move, rename or lock/unlock the channels in the channel list conveniently.



### 2. Edit Favourite List

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



### 3. Import/Export Channels

The channel data can be imported from the USB to the receiver or exported from the receiver to a USB device (such as USB memory stick). The file format of the channel data is .udf format.



# 7. Menu

## 7.3 Installation

In this chapter you can configure the installation setting and perform channel search. Menus such as Humax Auto Search, antenna setting, search channels, IRDETO software update, Humax software update and default setting is included in this section.

### 1. Humax Auto Search

#### MENU -> Installation -> Humax Auto Search

You can automatically search satellites and channels without entering any other information.

Select **Yes** and press the **OK** button to start satellite search. Satellite search will activate and the results will appear. Select **Retry** to search more satellites.

Select **Search** and press the **OK** button to start channel search. The searched results will appear. Select **Next** and press the **OK** button.



## 2. Antenna Setting [Fixed]

### MENU -> Installation -> Antenna Setting [Fixed]

You can set the antenna and LNB information for channel search. If the antenna is not properly set, channel search cannot be activated which means you cannot watch any of the programmes on air.

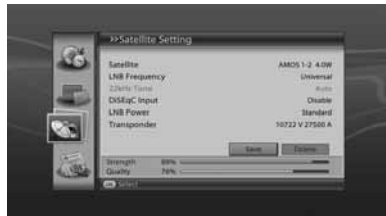
#### 1. Antenna Type

Select **Fixed Antenna**.



#### 2. Satellite Setting

Enter the value for **Satellite, LNB Frequency, 22kHz Tone, DiSEqC Input, LNB Power, Transponder** and save. Select **Search** and press the **OK** button to go to search channels.



#### 3. Transponder

Transponder setting is normally fixed. Change the setting only when necessary.

To change the transponder setting, select **User Define** in **Transponder** and enter the value for **Frequency, Polarization, Symbol Rate, Transmission, Modulation** and **FEC**.



# 7. Menu

## 3. Antenna Setting [SCD Antenna]

MENU -> Installation -> Antenna Setting [SCD Antenna]

### 1. Antenna Type

Select **SCD Antenna**.

### 2. User Band

Select from **User Band 1-8**.

### 3. Band Frequency

When selecting **User Band 1-8** in **SCD Antenna**, the default value is displayed. You can also enter the **Band Frequency** directly.

### 4. Satellite Setting

Enter the value for **Satellite**, **LNB Frequency**, **LNB Power**, **Satellite Position**, **Transponder** and save.

Select **Search** and press the **OK** button to go to search channels.



# 7. Menu

## 4. Antenna Setting [Motor]

MENU -> Installation -> Antenna Setting [Motor]

### 1. Antenna Type

Select **Motor Antenna**.



### 2. Satellite Setting

- **Motor Setting:** Enter the value for **LNB Frequency, LNB Power, Motor Type, My Longitude** and **My Latitude**.
- **Edit Satellite Data:** Enter the value for **Satellite, Activate Satellite** and **Satellite Longitude**.
- **Position Setting:** Enter the value for **Satellite, Transponder, Motor Driving** and **Driving Size**.
- **Limit Setting:** Enter the value for **Motor Limit** and **Limit Position**.



Select **Search** and press the **OK** button to go to search channels.

# 7. Menu

## 5. IRDETO Software Update

MENU -> Installation -> IRDETO Software Update

You can update the IRDETO software. You will be prompted to enter your PIN-Code. Enter the PIN-Code using the **NUMERIC(0-9)** buttons.

**Note:** *IRDETO Software Update* is activated only when OTA is available.



## 6. Humax Software Update

MENU -> Installation -> Humax Software Update

### 1. Automatic Update

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

### 2. Manual Update

Enter the value for *Satellite, Frequency, Polarization, Symbol Rate, Transmission, Modulation* and *FEC*.



## 7. Default Setting

MENU -> Installation -> Default Setting

You can restore the product to the factory default.



# 7. Menu

## 7.4 System

### 1. Status

You can view the model name, software version, update date, system ID, Micom version and MAC address of the product. The Smartcard slot and STB ID are also displayed.



### 2. Signal Detection

You can view the satellite, transponder information, signal strength and quality of the tuner.

### 3. Common Interface

You can view the CI-Module information.

### 4. Conditional Access

You can view the Smartcard information.

### 5. Mail Messages

You can check the mail messages.

# 8. 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.

## 8.1 OTA (Over the Air)

OTA, an abbreviation of **Over-the-Air**, is a standard for the transmission of software through a broadcast system. OTA is simply an alternative method for downloading software versions. However, the manufacturers reserve the right for deciding the release of the software for their products by beaming the latest software versions over the air via satellite. Note that OTA is only limited to certain geographical regions mainly due to different antennas having different footprints (area where the signal can be received). The software update via satellite 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 decides to release the software via a designated satellite.
- 3. The equipment must be tuned properly to the same antenna equivalent to that of the manufacturer.
- 4. Update software when the signal strength and quality is high. If the weather is not favorable, and the signal strength and quality are not recommendable, perform the software update later.

### 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 (LNB 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.

# 9. Appendix

## 9.1 Specification

Tuner & Channel	
No of Tuners	1
Input Connector	F-Type, IEC 169-24, Female
Frequency Range	950MHz to 2150MHz
Signal Level	-25 to -69dBm
LNB Power & Polarisation	Vertical : +13.5V (+14.5V at high voltage) Horizontal : +18V (+18.5V at high voltage) Current : Max. 500mA (Overload protection)
22KHz Tone	Frequency : $22 \pm 4$ KHz Amplitude : $0.7 \pm 0.2$ V
DiSEqC Control	Version 1.0, 1.2, USALS, SCD (Single Cable Distribution)
Demodulation	QPSK, 8PSK
Input Symbol Rate	DVB-S : 2-45Ms/s DVB-S2 : 10-30Ms/s (QPSK), 10-31Ms/s (8PSK)
FEC Mode	DVB-S: Auto, 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2: Auto, 1/2, 3/5, 2/3, 4/5, 5/6, 8/9, 9/10 (QPSK) Auto, 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 (8PSK)
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 HP@L4 .1
Input Rate	15MB/s Max
Video Format	4:3, 16:9
Video Resolution	1080i, 720p, 576p, 576i
Audio Decoding	MPEG/MusiCam Layer I & II, AC3 downmix, DDP
Audio Mode	Single channel/Dual channel/Joint stereo/Stereo

# 9. Appendix

Memory	
Flash Memory	16MB
RAM	128MB
EEPROM	8KB
Audio/Video/Data In/Out	
Video	RCA-Type(CVBS), YPbPr(RCA), HDMI
Audio	Audio L/R, S/PDIF(Digital Audio Output)
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. 30W
Protection	Separate internal fuse. The input should be protected against lightning.
Physical Specification	
Size	310mm × 60mm × 237mm
Weight (Net)	1.8Kg
Operating Temp	0 °C to +45 °C
Storage Humidity	-10 °C to +70 °C

# 9. Appendix

## 9.2 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.

### HUMAX Call Center

#### Middle East (Dubai, UAE)

**Tel:** +971 4 359 2323

**Opening Hours (Closed on Fri)**

- Sat – Wed : 9:00 – 18:00
- Thu : 9:00 – 14:00

**E-mail:** callcenterME@humaxdigital.com  
<http://www.humaxdigital.com/arabia/support>

**Website:** [www.humaxdigital.com](http://www.humaxdigital.com)

**Language:** Arabic / English

**Note:** For hardware repair, please visit our website.

# 9. Appendix

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linux

busybox

### LGPL Software

uClibc

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