HDMI ▶▶ DOLBY DIGITAL DVB Digital Video Broadcasting

Satellite(DVB-S2) or Terrestrial(DVB-T) HDTV FTA with smartcard reader

OPERATIONAL MANUAL

Cube Revo 250HD/200HD
High Definition Digital Receiver

HDMI ▶▶ DOLBY DIGITAL DVB Digital Video Broadcasting

High Definition Digital Receiver

CONNECTING PEOPLE TO DIGITAL HOME ENTERTAINMENT

High Definition Digital Receiver

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0. INTRODUCTION

Welcome to the world of new **High Definition Digital Receiver** that will make your life richer and closer to your dream. Before using your new receiver, we recommend you to read this Operational manual carefully for your own safety and appropriate operation. This product is fully compliant with the DVB standards and transmits digital broadcasting service directly to your TV The STB is easy to use and adaptable for future upgrade.
The software is to be upgraded continuously to improve the function.

1. SAFETY INFORMATION

Please read the following recommended safety caution carefully for your safety
"DANGER OF THE HIGH VOLTAGE AND RISK OF ELECTRIC SHOCK!"

» Power Supply: 110-220V AC 50/60Hz
» The socket-outlet shall be installed near the equipment and shall be easily accessible.
» Allow clear space around the STB for sufficient ventilation.
» Never place the STB on soft furnishing or carpet.
» Do not stack other electronic equipment on top of the STB.
» Use a soft/dry cloth and a mild solution to clean the exterior of the STB.
» Never allow liquids. The inside of the STB shall not be exposed to dripping, spray or other objects filled with liquids.
» Do not use any attachments that are not recommended.
» Do not allow the unit to be exposed hot, cold or humid conditions.
» Service should be carried out only at a qualified service agent.
» Do not connect or modify cables when the STB is plugged in.
» Do not remove the cover.
» ONLY SATA-I (1.5Gbps) supported, not SATA-II supported.

2. HOW TO USE THIS MANUAL

This manual provides complete instructions for installing and using the STB.
The following symbols will be served as follows.

Symbol	Explanation
1. MENU (Capital & Bold)	Represents Main Menu category.
1.1. Menu(Bold)	Represents a sub-category of the main menu.
1.1.1. Menu	Indicates a selectable option in a sub-category.

Press the MENU key on the RCU (Remote Control Unit) to enter into the main menu.
In some menus, you are asked to put the PIN (Personal Identification Number) code as a password.

Factory default password is '0000'.

2.1. How to move the cursor

Use the Navigation Buttons.

UP and Down Direction button : Navigate the cursor Upwards and Downwards.
Left and Right Direction button : Navigate the cursor Left and Right

2.2. How to select an option

OSD(On Screen Display)- menus are to navigate the functions or options with these
buttons.

Use these buttons to reach the targeting option or function.
To select the desired option or function, press OK button.

2.3. How to use the virtual keyboard

In some menus, you are asked to put alphabetical characters on the virtual keyboard.
Select each alphabet character by pressing OK button. and then move the cursor on
"Save" (Save key) on the virtual keyboard, and press OK button to save it.

In case of input mode "a", the numeric buttons of RCU works alphabetically with Small letters
In case of input mode "A", the numeric buttons of RCU works alphabetically with Capital letters
In case of input mode "@", the numeric buttons of RCU works numerically

3. BEFORE YOU BEGIN

3.1. Advanced Features

- LINUX OS (some parts under the terms of GPL, accordingly expandable)
- DVB compliant
- MPEG-2 MP@HL Video Decoder
- MPEG-4 AVC/H.264 HP@L4 Video Decoder
- Format resolution: 1080i, 720p, 576i
- DivX supported
- MP3 decoder
- Dolby Digital decoder
- HDMI with HDCP supported
- Multi-format Audio Decoder
- High Definition and Standard Definition
- Smartcard Reader (1slot) - *Not supported with CubeRevo200HD*
- USB 2.0(Host) for memory stick reader
- USB HDD for PVR function - *Not supported with CubeRevo200HD*
- Network Interface Supported(high speed Ethernet)
- SCPC and MCPC receivable from C/Ku-band satellites
- Channel list editing
- Favorite channel list editing
- True-color On-Screen Display (OSD)
- Full Picture In Graphic (PIG) function
- Electronic Program Guide (EPG) for on screen channel information
- Subtitle & Teletext supported
- Parental lock facility by channel and program event

4. THE CONTENTS OF THE BOX

Please make sure that the following items are included in the Package.

» STB main unit
» Remote Control Unit
» 2 Batteries (size AAA **ALKALINE**)
» Operation Manual

Switch On / Off

TV or Radio option

Subtitle

Audio Mute

Info banner

Teletext

Electronic Program Guide

OSD Menu or Previous menu

Recall / previous channel

Favorite

To exit from OSD MENU

TV/Radio channel list

Navigation buttons, Channel, Volume +/-

Volume +/-

Multifeed

Fast reverse or Random play

Record

TV/Radio channel list

Channel UP/DOWN

Alternate audio

Book or check mark

Fast forward or Random play

Pause

Stop

High Definition Digital Receiver

Not supported with CubeRevo200HD

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Main Menu

| Service Searching |
| System Settings |
| Advanced Setup |
| Parental Control |
| Common Interface |
| Multimedia |
| Plug-in |
| Information |

Sub Menu

**Satellite Configuration
**DiSEqC 1.2
**USALS
TP& Channel Edit
Channel Scan
Fast Scan

*** Only satellite system use*

Local Time Settings
A/V Settings
OSD Settings
Language Settings
Sleep & Wake up time
STB Power Control

IP Setup
HDD Setup *-Not Supported with 200HD.*
Mount Manager
Network Update
Factory Reset

Recorded Files *-Not Supported with 200HD.*
Photo Album
Music Files
Video Player
Recording Schedule

System Information
Network Information
HDD Information *-Not Supported with 200HD.*
Tuner Information

» One Smart card reader - *Not supported with CubeRevo200HD*
» LED Display, displays channel number, error messages,
  current time and status and remote control commands.
» Power button
» Menu button
» OK button
» ▶ button(Vol +)
» ◀ button(Vol -)
» ▲ button(CH +)
» ▼ button(CH -)

Note
- Cold-off (Shutdown): completely power off state. All previous data and information would be forgotten such as EPG data.
- Warm off (Standby): Sleep mode of connectors on the rear and HDD, but CPU is running and keeps previous all data and information.
*To set the power control, Main Menu ❯ System Settings ❯ Power Control ❯ Power Mode ❯ Shutdown or Standby.

DVB-S2

LNB IN for Satellite

USB Host

AC power code

Optical Digital Audio for Digital external AMP

Ethernet   HDMI   TV SCART   Cooling Fan

IF out for satellite

DVB-T

ANT IN for terrestrial

USB Host

AC power code

Optical Digital Audio for Digital external AMP

Ethernet   HDMI   TV SCART   Cooling Fan

TV out for terrestrial
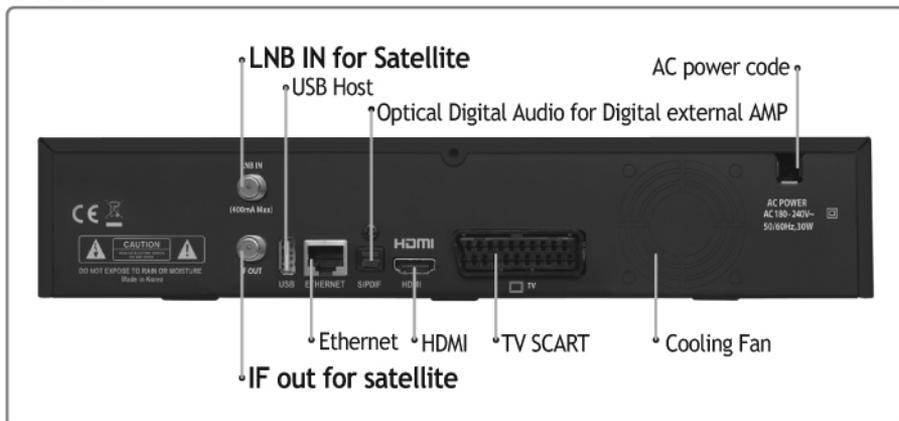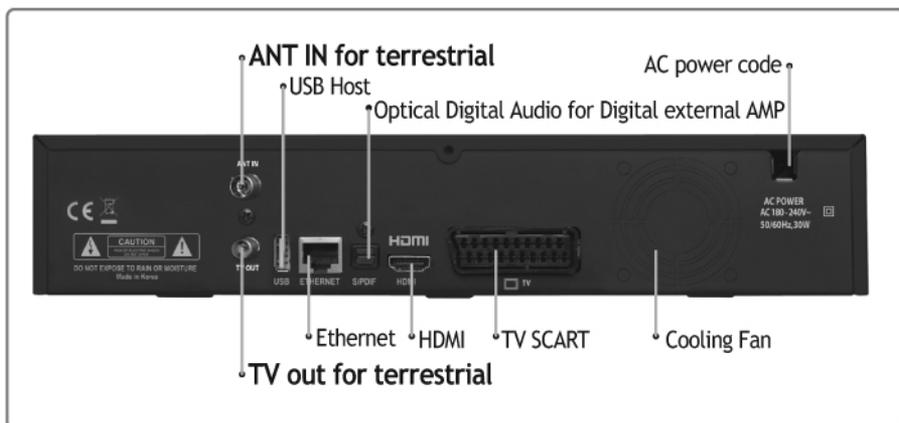
Most effective and common setting methods are suggested below.
Please follow the instructions carefully.

9.1. Connection with Satellite dish
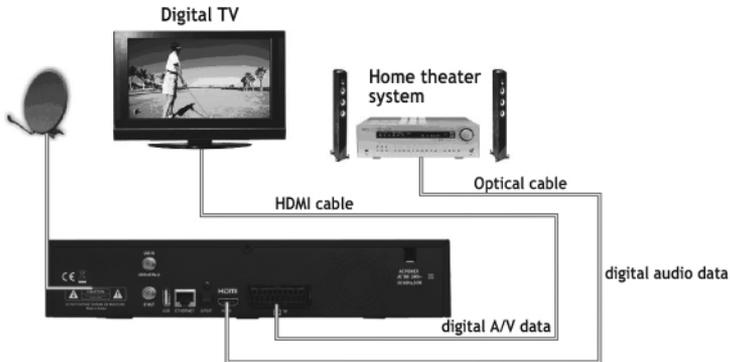
Analog Video : TV SCART(CVBS)
Analog Audio : TV SCART(L,R)
Digital Video : HDMI
Digital Audio : HDMI, S/PDIF

9.2. Connection with Terrestrial Antenna or Cable network
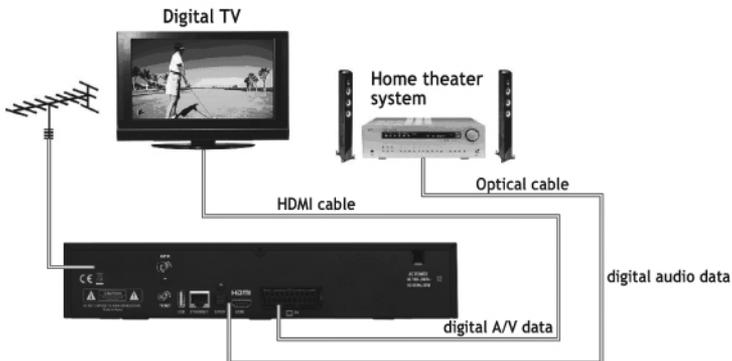
Analog Video : TV SCART(CVBS)
Analog Audio : TV SCART(L,R)
Digital Video : HDMI
Digital Audio : HDMI, S/PDIF

9.3. External USB connection - *Not supported with CubeRevo200HD*

Power consumption of USB host: 5Vdc, 500mA Max.
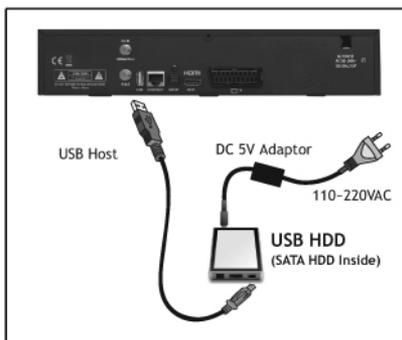
Caution for HDD usage for PVR:

If the HDD was used in Windows or other systems or in an external USB or SATA before, you MUST remove the previous partitions at first to perform the format in the HDD Setup Menu using "format HDD" of the STB.

If the HDD is new or unused one, just perform the format in the HDD Setup Menu using "format HDD" of the STB.

10.1 Menu Information

Selectable lines are generally activated (highlighted). No-activated lines are not selectable. Most of OSD- menu show short information at the bottom of the screen.

10.2 Basic Key Control

With the UP/DOWN direction button you can move the cursor upwards and downwards in the OSD (On Screen Display) menu. When you have reached the desired option or function, press the OK button to confirm your choice.

In case of changing TV channel you can only press UP/DOWN direction button.

In most of menu, you can select menu items with LEFT/RIGHT direction button.

When you want to return to the previous menu with saving the change, press the MENU Button.

When you want to exit from the current menu, press the EXIT button.

If it is the first time using the STB, you should set parameters for system configuration and scan the channels. Follow setup procedure for scanning the channel. When you have finished the procedure, you can start watching TV or listening to the Radio.

11.1 Switch your TV and STB On

The Local Time setting menu will appear automatically.

11.2. Selecting language and Adjusting the local time

Press LEFT/RIGHT buttons to find your area on Time Zone. Since the Date and time are not selectable, leave them as they are. When the channel search is complete, the date & time info will be set automatically with the data brought from the Broadcasting Media. To save the settings you made, press MENU/ EXIT button on RCU.

Time Update : Local time setting (Main menu ► System Settings ► Local Time Settings
Time Setting : Auto ► **Time Update**) must be performed in a channel with correct time information. If the time information is different from your local time after the time setting, change into another channel and perform the Time Setting again.
The time information is used in all the channels for mainly **EPG information** and **Reservation record**, which complements the different time information per channel.

11.3. DVB-S/S2 Satellite Configuration (DVB-S2 tuner option only)

The Satellite Configuration menu will appear automatically right after adjusting the Local Time when first installation.

11.3.1 Set each LNB parameter

SAT Name, Tuner ID, LNB Type, Local Freq, DiSEqC, 22 KHz, and TP Freq by pressing LEFT/RIGHT button or OK button as your LNB and dish aimed. You can see whole selectable values of each item by pressing OK button. You will see the Signal indicator as yellow and green if all values are set correctly.
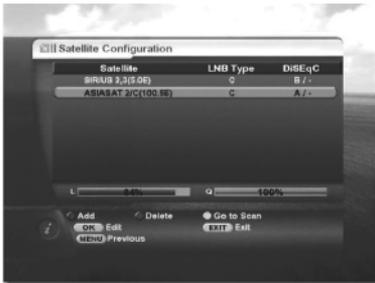
11.3.2 Automatic Scan of the satellites

This is to scan all the channels of the satellites you setup in Satellite Configuration menu. Select tuner ID and Satellite Name, Network Search option and Search Method option by pressing LEFT/RIGHT button and press OK on SEARCH to start scanning.

if the above configurations(both tuners are same satellite) can be applied for both tuner 1 and 2, set the channel scan "ALL", and only a single scanning is enough for Tuner 1 to copy the channels into Tuner 2 automatically. That is, no need to scan the same channels twice to both tuners.

Scan option on Channel Scan Menu

When there is no channel list, all these options create with the same result.

- Default Scan: scan keeping current FAV list, and new channels will be placed at end of the channel list.
- Smart Scan: remove current channel list , and scan, and then update FAV list according to the new channel list.
- Reset Scan: remove all of the current channels and FAV group, then scan with new channel data.

if the above configurations(**both tuners are same satellite**) can be applied for both tuner 1 and 2, set the channel scan "ALL", and only a single scanning is enough for Tuner 1 to copy the channels into Tuner 2 automatically. That is, no need to scan the same channels twice to both tuners.

11.3.3. Manual Scan of a satellite

This is to scan channels on specific TP.
Set Satellite Name, Frequency, Symbol Rate, Polarity values.

You can press OK to check the values on Frequency and Symbol Rate menu or press NUMERIC buttons to input values directly.
Press OK on Manual Search to start scanning.
If you input new TP data in this menu, the new data will be saved in the satellite's data base automatically.
After channel searching, channels are listed.

Advanced Search:

Video PID : Enter the correct VIDEO PID value
              by using numeric buttons on the RCU.
Audio PID : Enter the correct AUDIO PID value
              by using numeric buttons.
PCR PID : Enter the correct PCR PID value
             using numeric Buttons.

11. GET STARTED FOR THE FIRST TIME

11.4. DVB-T Scanning the Terrestrial Channels (DVB-T tuner option only)

11.4.1. Reference frequency table for terrestrial Channels
There are three kinds of region selecting method according to frequency bandwidth.
1. Germany. 2. Australia. 3. Other countries as Western EU(U.K, Italy, France, Spain, China, Finland, Sweden).

DVB-T/H Channel Frequency								
Germany			U.K/Italy/France/Spain/China/Finland/Sweden			Australia		
Ch.	Frequency	BW	Ch.	Frequency	BW	Ch.	Frequency	BW
1	0	7M	1	0	8M	2	0	7M
2	0	7M	2	0	8M	3	0	7M
3	0	7M	3	0	8M	4	0	7M
4	0	7M	4	0	8M	5	0	7M
5	177,500	7M	5	178,750	8M	6(8)	177,500	7M
6	184,500	7M	6	186,750	8M	7(9)	184,500	7M
7	191,500	7M	7	194,750	8M	8(10)	191500(625)	7M
8	198,500	7M	8	202,750	8M	9(11)	198,500	7M
9	205,500	7M	9	210,750	8M	9A(12)	205,500	7M
10	212,500	7M	10	218,750	8M	10(13)	212,500	7M
11	219,500	7M	11	0	8M	11(14)	219,500	7M
12	226,500	7M	12	0	8M	12(15)	226,500	7M
13	0	8M	13	0	8M	13	0	7M
14	0	8M	14	0	8M	14	0	7M
18	0	8M	18	0	8M	18	0	7M
19	0	8M	19	0	8M	19	0	7M
20	0	8M	20	0	8M	20	0	7M
21	474,000	8M	21	474,000	8M	21	0	7M
22	482,000	8M	22	482,000	8M	22	0	7M
23	490,000	8M	23	490,000	8M	23	0	7M
24	498,000	8M	24	498,000	8M	24	0	7M
25	506,000	8M	25	506,000	8M	25	0	7M
26	514,000	8M	26	514,000	8M	26	0	7M
27	522,000	8M	27	522,000	8M	27	522,500	7M
28	530,000	8M	28	530,000	8M	28	529,500	7M
29	538,000	8M	29	538,000	8M	29	536,500(625)	7M
30	546,000	8M	30	546,000	8M	30	543,500	7M
31	554,000	8M	31	554,000	8M	31	550,500	7M
32	562,000	8M	32	562,000	8M	32	557,500	7M
33	570,000	8M	33	570,000	8M	33	564,500	7M
34	578,000	8M	34	578,000	8M	34	571,500	7M
35	586,000	8M	35	586,000	8M	35	578,500	7M
36	594,000	8M	36	594,000	8M	36	585,500	7M
37	602,000	8M	37	602,000	8M	37	592,500	7M
38	610,000	8M	38	610,000	8M	38	599,500	7M
39	618,000	8M	39	618,000	8M	39	606,500	7M
40	626,000	8M	40	626,000	8M	40	613,500	7M
41	634,000	8M	41	634,000	8M	41	620,500	7M
42	642,000	8M	42	642,000	8M	42	627,500	7M
43	650,000	8M	43	650,000	8M	43	634,500	7M
44	658,000	8M	44	658,000	8M	44	641,500	7M
45	666,000	8M	45	666,000	8M	45	648,500	7M
46	674,000	8M	46	674,000	8M	46	655,500	7M
47	682,000	8M	47	682,000	8M	47	662,500	7M
48	690,000	8M	48	690,000	8M	48	669,500	7M
49	698,000	8M	49	698,000	8M	49	676,500	7M
50	706,000	8M	50	706,000	8M	50	683,500	7M
51	714,000	8M	51	714,000	8M	51	690,500	7M
52	722,000	8M	52	722,000	8M	52	697,500	7M
53	730,000	8M	53	730,000	8M	53	704,500	7M
54	738,000	8M	54	738,000	8M	54	711,500	7M
55	746,000	8M	55	746,000	8M	55	718,500	7M
56	754,000	8M	56	754,000	8M	56	725,500	7M
57	762,000	8M	57	762,000	8M	57	732,500	7M
58	770,000	8M	58	770,000	8M	58	739,500	7M
59	778,000	8M	59	778,000	8M	59	746,500	7M
60	786,000	8M	60	786,000	8M	60	753,500	7M
61	794,000	8M	61	794,000	8M	61	760,500	7M
62	802,000	8M	62	802,000	8M	62	767,500	7M
63	810,000	8M	63	810,000	8M	63	774,500	7M
64	818,000	8M	64	818,000	8M	64	781,500	7M
65	826,000	8M	65	826,000	8M	65	788,500	7M
66	834,000	8M	66	834,000	8M	66	795,500	7M
67	842,000	8M	67	842,000	8M	67	802,500	7M
68	850,000	8M	68	850,000	8M	68	809,500	7M
69	858,000	8M	69	858,000	8M	69	816,500	7M

11.4.2. Automatic Scan of the Terrestrial Channels

This is to scan all the channels of the terrestrial. Select tuner ID, Area, Network Search option and Search Method option by pressing LEFT/RIGHT button and press OK on SEARCH to start scanning.

11.4.3. Manual Scan of the Terrestrial Channels

This is to scan channels on specific channel. Set Frequency, Symbol Rate. You can press OK to check the values on Frequency and Symbol Rate on menu or press NUMERIC buttons to input values directly. Press OK on "Search" to start scanning.
If you input new channel data in this menu, the new data will be saved in the data base automatically.

After channel searching, channels are listed.

This section explains various hot button's function while watching TV or listening to Radio. These buttons enable to reach the desired function or menu directly by pressing them.

12.1 TV or Radio Channel List OK

While watching TV or listening to Radio, you can get the 'TV or Radio a Channel List by pressing OK button on the remote controller. Use to move the highlights up/down and left /right. When you reach a channel that you want to check, press OK button for a view. To move to a channel that you have chosen, press OK button again.

12.1.1 Sort channel list

Sort the channels by A to Z, Z to A, FTA to CAS, Provider and Satellite.

With sort of A to Z, Z to A, Provider and Satellite, the numeric buttons of RCU works alphabetically, With sort of FTA to CAS or default, the buttons works numerically, the cursor moves directly to the specific channel name or channel number.

12.1.2. Jump

The cursor moves according to the sorting condition like numerically or alphabetically.

12.2. Edit in the Channel List

Press [i] button on the RCU in channel list menu (OK button for channel list) for Channel Edit mode.

It supports Delete, Hide, Lock, Rename, Volume level, Move channel or channels

12.3. Favorite Channel List [FAV]

Favorite Channel list is available anytime by pressing the FAV button on RCU.
The default groups are Sports, Drama, News, Movie and Music.
To move into edit mode, Press [i] button on the RCU.
It supports adding New Group, Delete, Rename, Add and Move channels and channel Lock.

12.3.1. New Group

To create a new group, move the cursor to right, choose Add Group and press OK button to bring virtual key board and create new favorite group with the virtual keyboard.
To save the new group, Press ENTER on the virtual keyboard.

12.3.2. Delete

To remove the marked ✓ channel in the favorite group, move the cursor to right, choose Delete and press OK button.

12.3.3. Rename

To change a channel or favorite group name, move the cursor to right, choose Rename and press OK button to bring virtual keyboard and change the selected channel & FAV group, and then press ENTER to save the changed name and press Exit button on RCU to close the virtual keyboard.

12.3.4. Add Channels

To add new channels and/or groups into the Favorite List, move the cursor to the right column, choose Add Channels and press OK button, and the channels are added.
The high-lighted channel will be added by pressing OK button, then you can see added channels in the selected favorite group on the right section.


12.4. Electronic Program Guide EPG

Press the EPG button on the remote control, and TV electronic program guide (EPG) appears. If you press once, **List type** of EPG appears. If you press once more, **Grid type** of EPG appears.

Use buttons up/down and left/right to move the highlights.

To get more detailed EPG on specific channel, move high-lights to the channel and the content then press [i] button.

12.4.1. Search

To search channel's EPG under specific category/genre that you like, press ✓ button
EPG data show dependent on EPG availability of broadcasting media providers.
Category: Select genre of programs.
(Movie/News/ Sports etc)
Sub Category: Select sub-category of programs
(Adult movie / Romance / Comedy etc)
Program name: Put a specific program name in it by using virtual key board.
The Cursor is automatically located at the content in the Grid EPG menu.

*Caution : if there is no EPG data or wrong information in EPG menu, you have to check local time first

12.4.2. Zoom

Press 🔊 button of the RCU, select the time-grid of EPG display by 30 Min, 1 hour, 2 hours.

12.5. Channel Information [i]

Info banner appears by pressing [i] button. If you press twice, channel details are also available. The info bar shows all necessary information about the selected channel. Any highlighted icon in yellow on the info banner indicates the availability of the services.

EPG (now/next)

Channel Number

EPG (now/next)

Channel name

Start Time   Signal level/quality

Channel information
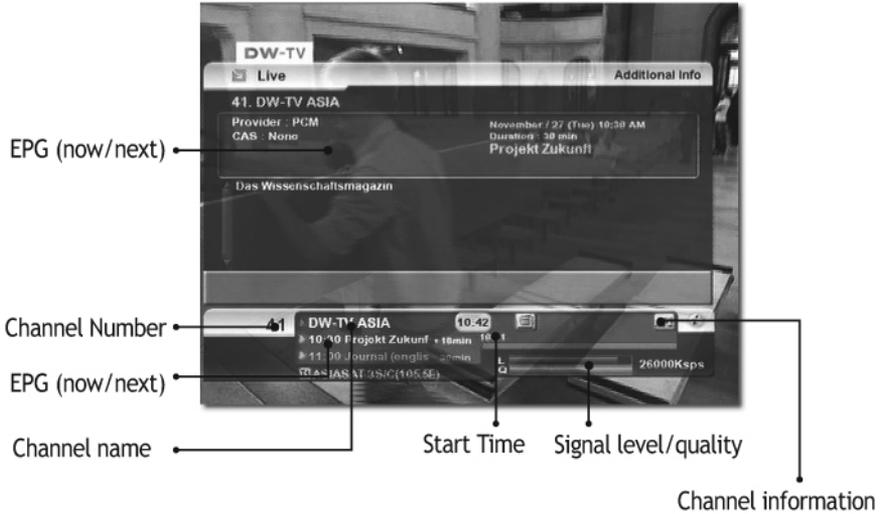
12.6. Recall

To move back to the previous channel, press this button.

12.7. Subtitle

If a channel is available for the subtitle service, press the subtitle icon button.
If it services more than two languages, it is selectable in the language settings menu.
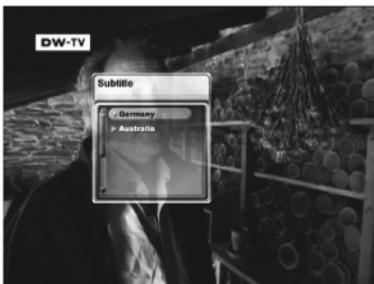
12.8. Alternate audio

To change the audio language and sound mode, press [icon] on the remote controller. Mix / Mono Left / Mono Right, Audio languages are selectable by pressing Left/Right direction button. Press [icon] or EXIT key to save and exit.

12.9. Multifeed function for Premiere channel

When you move to 'main feed', press [icon] button on the remote controller, and Multifeed List (sub-channels) appears.
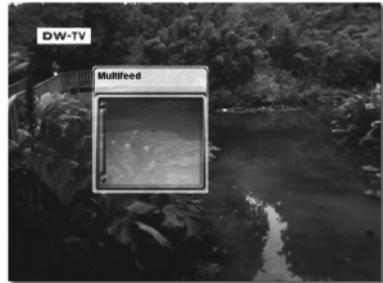
12.10. OSD teletext

OSD Teletext is available if served by the broadcaster. If this [icon] icon on info banner on the right bottom of the screen appears, press this button to see Teletext information.

To run Recorded Files, Photo Album, Music Files, Video Player and to set Recording Schedule.

13.1. Recorded files - *Not supported with CubeRevo200HD*

All the recorded files (by Scheduled Record such as EPG record or Timer Event Record, instant record) are recorded at this file.
Main Menu ➤ Multimedia ➤ Recorded Files to play and/or edit the recorded files.

** If this menu is deactivated, please check if external HDD is connected properly.

You can watch the file in small screen with OK button on the file name, press OK button once more or EXIT button to see the full screen.
■ button makes it back to the live program from file playing.
i button shows play options such as From beginning, Resume, and book mark positions.
Caution : if you erase one or more files, it will be applied (the files will be erased) after rebooting(cold off and on).

13.2. Photo Album

Main Menu MENU ➤ Multimedia ➤ Photo Album to see the Photos after downloading to the HDD from a Server PC through Network after connection to the Server PC using Mount Manager (refer to Chapter 17)

13.2.1. Storage

To move back to the Media List to see the menu of HDD, USB, Network.

13.2.2. New folder

To create a new folder group in the Photo Album of HDD or USB
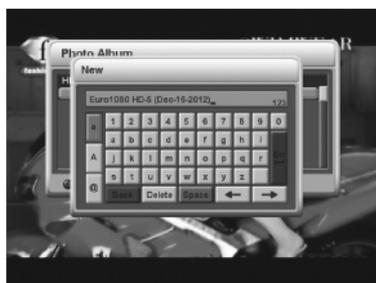
13.2.3. Options

To set the Photo Album options of Slide show, its Interval time and Repeat

13.2.4. Edit

To edit the image files, Copy the files into HDD, Rename to change the file names and Delete the files mark with ✓ button on the files to edit, and press the color button for Copy, Rename or Delete.
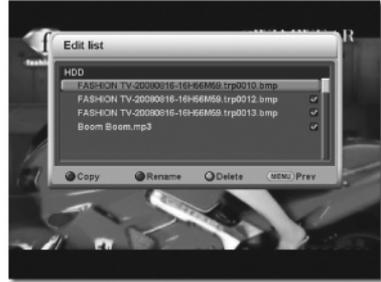
13.3. Music Files

Main Menu `MENU` ➤ Multimedia ➤ Music Files to play MP3 audio files after downloading to the HDD from a Server PC through Network after connection to the Server PC using Mount Manager (refer to Chapter 18), but Photo image files are not displayed on this Music Files

13.3.1. Storage

To move back to the Media List to see the menu of HDD, USB, Network.

13.3.2. New folder

To create a new folder group in the Music Files of HDD or USB

13.3.3. Options

To set the music play options of Shuffle and Repeat of the music files and the Background

13.3.4. Edit

To edit the Music Files, Copy the Music files into HDD, Rename to change the file names and Delete the files Mark with ✓ button on the files to edit, and press the color button for Copy, Rename or Delete.

Caution: The "Network" function of Music Files or Photo Album is only available after being CONNECTED to PC by Mount Manager.

13.4. Video Player

Main Menu **MENU** ➤ Multimedia ➤ Video Player to play the video files.

** Supporting video formats:
MPEG2, MPEG4, Xvid(DivX), avi, vob, etc.

13.4.1. Options

To move back to the Media List to see the menu of HDD, USB, Network.

R (Red)   Storage : To read the files at HDD, USB or via NETWORK
G (Green) New Folder : Create new folders
✓   Edit : Copy, Rename, Delete

R (Red) Storage

G (Green) New Folder

Move the cursor on the title to play and press " **OK** " button.
Press " **OK** " button once more to close the Video Player window.
If press " **OK** " or " **▢** " button again, Video Player window appears.
" **MENU** " : to move to the Multimedia Menu.
" **EXIT** " : to move to the live channel.

✓   Edit
R (Red)   Copy : To copy files between Medias
G (Green) Rename : To change the file names
Y (Yellow) Delete : To delete the files

✓ Edit

13.4.2 Play wizard

To call the Play Wizard, press " [i] ", and to close it, press " [i] " again.

Same buttons of the RCU as PVR functions.

[⏸] : Pause
[⏹] : STOP
[⏮] : Previous file
[▶] : Play
[⏭] : Next file

14. Select your TV Resolution 1080i, 720p, 576i

Caution : When the TV SYSTEM (your TV type) does not match to the STB setting, TV screen and/or audio may not show properly.

In this case, you need to switch off the STB, and **press power button ▸ menu button and hold ▸ up/down direction button ▸ OK** on the front panel until you see your TV type.
If you can open and see the Main menu, you can adjust on the menu.

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15.1. Static IP

Use the Navigation Buttons and directly enter numeric values, and then press SUBMIT.

15.2. AUTO (DHCP)

For the VDSL or ICS client users.
It detects values automatically. No need to enter any values here.
After selecting Auto(DHCP), press submit button to have all settings show up automatically.
If LAN cable is not properly connected, all settings might appear as "0.0.0.0." In this case, check the cable connection and retry it.

15.3. AUTO (PPPoE)

For the ADSL users
ID and Password (which acquired from internet service provider) are required here; enter the values by using virtual Keyboard. Press OK button to bring the Virtual Key board.

15.4. AUTO (PPP)

For the Dial up MODEM users
ID and Password (which acquired from internet service provider) are required here; enter the values by using virtual Keyboard. Press OK button to bring the Virtual Key board.

Main Menu (MENU) ►Advanced Setup ►Factory Reset to initialize the STB, it requires PIN code, and press "0000" on the Remote Control (Default PIN code: 0000).
It removes Channel List, FAV List and it restores original factory settings.

1. Server Type: Windows, Linux, etc.
2. Index: Server setting from 1 to 9
3. Server : IP address of the Server PC
4. Shared Folder: Folder name in your PC for MP3 or Photo files. The folder must set for sharing in the Server PC.
5. Server ID: If your computer has access ID, type the ID. If not, leave it as a blank or default.
6. Server Password: If your computer has access Password, type the Password. If not, leave it as a blank or default.
7. Status: Shows whether connected to the Server PC or disconnected.

Caution: In case that your computer is switched off or disconnected, click on 'Disconnect' button. Otherwise it can cause some problem such as a long booting time.

18. PVR OPERATION - Not supported with CubeRevo200HD

- USB HDD: 1 channel recording and 1 another channel watching in the same TP or a recorded file playback.

18.1. Instant Recording

* Commercial Skip with bookmark ✓

In a live channel or instant recording channel, you can insert one or more bookmark ✓ on the locations you want to skip (such as commercials on beginning point and the end point), and apply skip function between the specific bookmark and the neighbor bookmark, and then, the recorded file contains the bookmarks and applied skip function automatically when the recorded file playback.

Press [●] button to record the channel that you are currently watching.
In the channel list, a channel in red indicates the currently recording channel.
Press [■] button to stop recording. Select a channel name that you want to stop recording, and press OK button to confirm.
If you need to **adjust the duration** in the record channel, press [✓] button.
The default duration is two hours; The duration can be set up to maximum 23h 59min.
When Time Shift is set ON in the HDD setup menu, the instant recording point depends on the Time Shift setting in HDD setting menu.

Condition 1
 Time Shift – ON & Include Time Shift On Record – YES in HDD Setting menu
With the above setting, when you press record button, it records from the beginning of timeshift buffer on the Time Shift bar on the bottom of the screen.

Condition 2
Time Shift – ON & Include Time Shift On Record – NO in HDD Setting menu
With the above setting, when you press [●] button, it records from the current live point and timeshift buffer disappears automatically.

Condition 3
Time Shift – OFF in HDD setting menu
When you press [●] button, it records from the current live point

18.2. Scheduled Record by EPG or timer event

To see currently recording files and reserved recording list on the Menu.
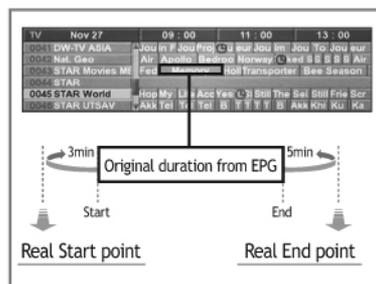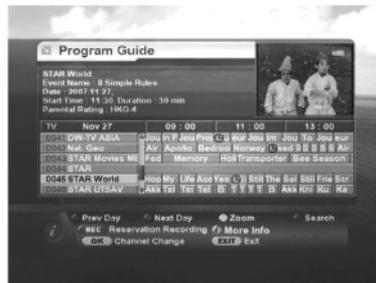
In case of Scheduled EPG recording, you can set the extra recording time by setting the Record Start Offset and Record End Offset as the above pictures to save the full channel data.

If there are other continuous Scheduled EPG recording lists in the same channel, the Record Start Offset and Record End Offset must be set "0 Minutes" to avoid any conflict between the starting point and the ending point of the neighboring programs, otherwise "Duplicated" message appears and it does not work properly.

A recording notice pop-up will appear for 2 minutes before the reservation recording starts. If the STB is in standby mode, the scheduled records automatically begin 2 minutes prior to the scheduled time.
If you press the power button on RCU while recording, a message box appears for your confirmation if you want to stop recording. Press OK button to save the recorded file on HDD.
Reservation recording on the EPG menu by press [ ] on the EPG contents

recording : if press ⬛ button on the EPG contents, it is reservation recording

zapping : if press twice ⬛ button, it is reservation zapping

recording   zapping   disable
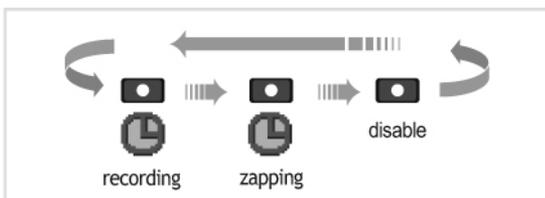
18.3. Timeshifting on live channels

Timeshifting on a live channel is available
when set Time Shift – ON in HDD setting menu.
When a channel is zapped to others,
the recorded file will disappear automatically,
then it starts to record the current live channel.
On live channel, all kinds of the PVR functions
are available such as Pause, Jump back,
Jump forward, Rewind, Fast forward, Slow
motion, Frame by frame play.

18.4 Book mark ✓

Press ✓ button to make a bookmark on the time bar where you want.
If you want to move to the next bookmark, press ▶ button.
Press 🗗 button if you want to "remove" a bookmark after placing the cursor on the
bookmark on the time bar, or press 🔊 button if you want to set "skip" of a specific period.
To release the skip of the period, press G button.
(Green)

18.5. Play ▶

Press ▶ button after placing the cursor on one point to jump to next point, and it starts playback from the point.

18.6. Stop ■

To stop playing the file and back to a live channel.

18.7. Pause ⏸

To pause file playing, press this button once.
To resume playback, press this button once more.
To go back to normal play mode, press ▶ button.

◄◄ ▶▶

18.8. Fast forward/ Fast reverse or random position jump & playback

To move the time bar forward/ backward x2, x3, x4, x5 speed rate by pressing a button shortly, and if you press ▶ button, it comes back to normal speed mode.
If you keep pressing the button, the time bar moves as fast as you desire

19. Information

19.1. System Information

It displays Micom Version, Boot Version, Linux Version, Program Version, etc.

19.2.Network Information

It displays network info such as IP address, Subnet mask, Gateway, etc.

19.3. HDD information

It displays product name of HDD, HDD capacity, Free space.

19.4. Tuner information

It displays which kinds of tuner inserted like as DVB-T, DVB-S, DVB-S2, DVB-C, PLL, model name of the demodulator, part name of the tuner.

20.1. Network Upgrade

Latest S/W can be upgraded via Network Upgrade.
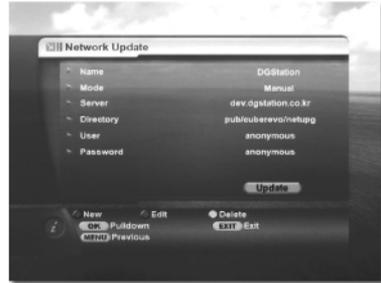
20.2. USB memory stick Upgrade

USB (host) memory stick download mode :

- Change the s/w image file name into "usb_update.img"
- Put the "usb_update.img" file into a usb memory stick
- Connect the usb memory stick into the STB (set top box)
- On Shutdown mode, press and hold power ((⏻)/|) button on the front panel, and press ▲ button at the same time.

  Or Main Menu -> Advanced Setup -> Software Upgrade -> USB Mode

  It displays **USB UPGRADE** ▶ **Loading** ▶ **Erasing** ▶ **Flashing** ▶ **Done** automatically in step by step for s/w upgrading.

Note : usb_noboot.img, usb_kernel_root.img or usb_db.img MUST be renamed into **usb_update**.img for new software update, and copy the renamed file to USB memory stick.

21.1. Direct Buttons on Uboot 1.3.2

1. USB (host) memory stick download mode

- Change the s/w image file name into "usb_update.img".
- Put the "usb_update.img" file into a usb memory stick
- Connect the usb memory stick into the CubeRevo model series
- On Shutdown mode, press and hold power(⏻/|) button on the front panel, and press
  ▲ button at the same time.

  Or Main Menu -> Advanced Setup -> Software Upgrade -> USB Mode
  It displays **USB UPGRADE ➤ Loading ➤ Erasing ➤ Flashing ➤ Done** automatically in step
  by step for s/w upgrading.

  Note : usb_noboot.img, usb_kernel_root.img or usb_db.img should be renamed to usb_update.img
  for new software update, and copy the renamed file to USB memory stick.
  And it should appear "remove hardware safely (memory stick)" icon (🔲) on the right bottom
  of the PC. You can see the icon (🔲) on the right bottom (left of the clock) of the PC monitor
  before extract memory stick from USB socket on PC panel.

2. Shutdown by force: power ⏻/| + OK

3. TV resolution adjustment

On Shutdown mode, press power (⏻/|), and press and hold MENU button. In the TV
Resolution mode, change the TV resolution using ▲▼ buttons.

4. Serial upgrade mode

On Shutdown mode, press and hold power (⏻/|) on the front panel, and press ▶
button at the same time. *(Not supported to CubeRevo200/250HD)*

5. HDD format by force

On Shutdown mode, press and hold power (⏻/|) on the front panel,
and press ▼ button at the same time. *(Not supported to CubeRevo200HD)*

6. Network upgrade for factory

press and hold power(⏻/|) on the front panel, and press ◀ button at the same time on
cold off mode, it is for bulk downloading method in Factory side, not for users.

21.2. Access to STB through Internet

21.2.1. Web interface

- Put Box IP address in the Internet browser of Windows Internet Explorer 7 or Firefox.
- And it requires "VLC 0.8.6.exe" installation in your PC for Web TV function,

http://downloads.videolan.org/pub/videolan/vlc.../vlc-0.8.6-win32.exe

and select ActiveX and Mozilla plugins when installing as below example;

- ☑ Start Menu Shortcut
- ☑ Desktop Shortcut
- ☑ Mozilla plugin
- ☑ **ActiveX plugin**
- ☑ **File type associations**
  - ☑ Audio Files

Cuberevo Web Access

USER (U): relook
PW (P): relook
☑ Store (R)

[OK]   [Cancel]

- Enter Box IP address in the Internet browser of Windows Internet Explorer or Firefox.
- ID: **relook**, PW: **relook**

Channel browser

Detachable RCU

You can send messages to the TV screen as a Pop-up window or to the Front display of the STB.

Power control through network

WebTV needs timeshift ON in the MENU.
(Only supported with PVR models with HDD connected)

Program Guide (EPG)

Scheduled Recording lists

Recorded file status and available to playback through network using Web TV or to download into the PC.

STB Plug-in information

Mount manager adjustment

** CIFS is for Windows System
** NFS is for Linux system

20.2.2. FTP program

Any FTP program is available for CubeRevo series (Samba is also available).
The following instruction is just an example.

http://www.altools.com/Downloads/ALFTP.aspx

- install "ALFTP.exe" in your PC
- run "ALFTP"
- And Select "Connect" icon
- ID : **root**, Password : **relook**
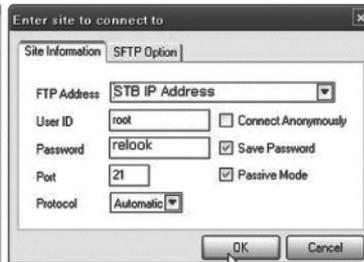
Select a folder (f.e. /var)

Copy specific file into the STB section
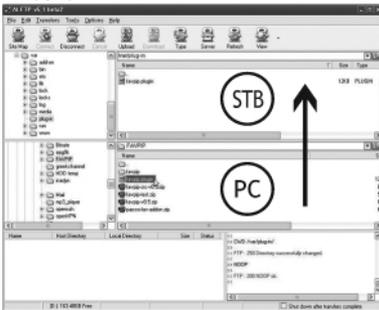
If you want to copy some files from box to the PC, select proper files and copy to PC
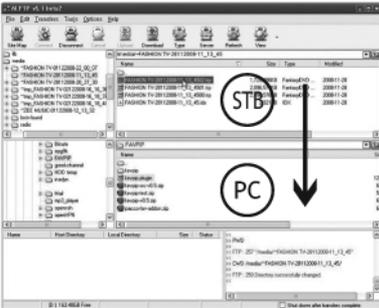
you can copy mp3 files, Xvid files or photo data to the STB directly

** STB folder instructions:

/media : folder for recorded files list - Both ".TRP" and ".IDX" files must be together for
a proper playback in "Recorded Files".
If you playback only *.TRP file without *.IDX, you cannot operate trick play functions
like FF, RW, etc.

/media/photo : folder for bmp or jpg

/media/mp3 : folder for music files

/media/divx : folder for video files

If some video files can not playback with Video player, the file formats are mismatching,
and the file formats should be converted into "Xvid" format for a proper playback.
f.e.: "Total Video Converter", 15days trial version;

http://www.freedownloadscenter.com/Multimedia_and_Graphics/Video_and_Animation_
Tools/Total_Video_Converter_Download.html

CA	RF
Conditional Access. A system to control subscriber access to services/ programs.	Radio frequency (known as HF in some countries).

TS	**SCART**
To Transport stream.	A 21-pin connector used for connection of the STB, VCR and TV. Also known as Euro connector

DVB	**S/PDIF**
The Digital Video Broadcast group was created to establish a technical framework for the introduction of digital video broadcasting systems.	Sony/Philips Digital Interface Format Digital audio output.

EPG	**Symbol Rate**
Electronic Program Guide. The programming information provided By the service provider that enables a viewer to find the much Information of programs.	Speed of the digital transmission

HDMI	**Flash tool**
High-Definition Multimedia Interface. Digital A/V interface format with Digital TV system	To download software into DGStation set top boxes.

HDCP	**PC editor**
High-bandwidth Digital Content Protection controls digital audio and video contents.	To edit, download, upload data and software between PC and DGStation set top boxes.

Components Video or Composite Video	**Plug & playable tuner**
is the format of an analog television (picture only) signal before it is combined with a sound signal and modulated onto an RF carrier.	A tuner module to be inserted into a tuner slot on DGStation set top boxes.

USB client	**CI**
Universal Serial Bus 1.1	Common Interface is the slot to communicate with CAM

USB Host	**CAM**
Universal Serial Bus 2.0	Conditional Access Module is an electronic device incorporating a slot for a smart card

Problem	Possible Causes	What To Do
No display appeared on front	Power cord is not plugged in.	Check that power cord
No Sound/ Picture	Wrong Audio/ Video output connection between the Receiver and TV set. Mute Audio	Check Audio/ Video output connection between the Receiver and TV set. Press Mute button to recover.
	TV Power off	Turn TV on
	No Signal	Check the cable connections and other equipment connected between the cable line and the receiver.
	Wrong direction of the dish	Adjust correctly the direction of the dish to the cable
	Wrong Video resolution for TV	Resetting video resolution
Remote controller does not respond	Batteries are not inserted correctly or low.	Check the batteries or replace with new batteries
CA module is not working	CA module is not inserted correctly.	Check if CA module is inserted correctly.
Recording is not working/ Recording is stopped	No HDD space is available.	Check HDD status.
Forgot PIN Code		Contact your local service provider/ dealer.
System Halt	System Halt or Error	Press & Hold OK and Power key on the front panel to return to stand by mode.
No EPG data	Wrong Local time	Press time update in local time setting menu at proper channel
Displays "ERR 80" or "ERR 81" on front panel	Communication fail with main board with CPU	Contact to A/S center
Displays "ERR 82" or "ERR 83" on front panel	Wrong contact to tuner module with mini-PCI socket	AC power off and Adjust tuner module
Displays "ERR 84" on front panel	download fail for DVBS-2 tuner microcode	Contact to A/S center
Displays "PANIC" on front panel	Wrong memory use by program	Press " power button" for restart

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23. TROUBLE SHOOTING

Displays "ERR 79" on front panel	Mismatched DB version	Download proper DB.img
Displays "Er 1" on front panel	CRC error	check the image
Displays "Er 2" on front panel	CRC error	check the image
Displays "Er 3" on front panel	Vendor ID mismatch	check the image
Displays "Er 4" on front panel	Product ID mismatch	check the image
Displays "Er 5" on front panel	Mismatched H/W model name	check the image
Displays "Er 6" on front panel	Mismatched H/W model version	check the image
Displays "Er 8" on front panel	Erasing fail	Contact to A/S center
Displays "Er 9" on front panel	Flashing fail	Contact to A/S center
Displays "Er 10" on front panel	S/W update load fail	Contact to A/S center

24. PRODUCT SPECIFITION

Part	Type	Specifications	
CPU	Type	266MHz ST40-202 32bit RISC CPU	
	Data/Instruction Cache	32KB/16KB	
Satellite QPSK Tuner (DVB-S)	Input Connector	IEC 169-24 Female(F-type)	
	Input Signal Level	-65 to -25dBm	
	Frequency Range	950MHz to 2150MHz	
	LNB Control	Vertical	13V(400mA Max)
		Horizontal	18V(400mA Max)
	Waveform	QPSK(C/KU band compatible)	
	22KHz Tone	Frequency	22±4KHz
		Amplitude	0.6±0.2V
	Symbol Rate	QPSK(up to 45MS/s)	
	DiSEqC Control	Version 1.0/1.1/1.2/USALS Compatible	
Satellite 8PSK Tuner (DVB-S2)	Input Connector	IEC 169-24 Female(F-type)	
	Input Signal Level	-65 to -25dBm	
	Frequency Range	950MHz to 2150MHz	
	LNB Control	Vertical	13V(400mA Max)
		Horizontal	18V(400mA Max)
	Waveform	QPSK, 8PSK(C/KU band compatible)	
	22KHz Tone	Frequency	22±4KHz
		Amplitude	0.6±0.2V
	Symbol Rate	QPSK(up to 45MS/s), DVB-S2 :QPSK(up to 36MS/S), 8PSK(up to 30MS/s)	
	DiSEqC Control	Version 1.0/1.1/1.2/USALS Compatible	

Part	Type	Specifications
Terrestrial OFDM Tuner	Input Connector	IEC169-2 female
	Loop through Connector	IEC169-2 male
	Frequency Range	50MHz to 870MHz
	Loop through Out Impedance	75 ohms nominal
	Band Width	7/8 MHz
	Carrier Mode	2k & 8k hierachical/non-hierachical mode
	Constellation	Auto(QPSK, 16/64 QAM)
	Mode Rate	Auto(1/2, 2/3, 3/4, 5/6 and 7/8)
	Guard Interval	Auto(1/4, 1/8, 1/16 and 1/32)
MPEG Transport Stream & A/V Decoding	Input Stream	ISO/IEC 13818-2 Specification, H.264
	Profile & Level	MPEG-2 MP@ML, MP@HL, MPEG4 AP@HL/H.264 level 4.1
	Input TS Data Rate	138Mbit/S max.
	Aspect Ratio	4:3, 16:9 with pan/scan vector
	Video Resolution	1080i, 720P, 576i
	Audio Decoding	MPEG-1 Audio Layer 1,2, Musicam
	Audio Mode	Stereo, Dual Channel, Joint Stereo, Mono
	Sample Rate	32, 44.1, and 48KHz
Memory	Flash Memory	32MB
	DDR SDRAM	192MB (64MB+128MB)
Storage & Rear connector	HDD	SATA(1.5Gbps) 160/200GB and over (User Selectable)
	Digital interface for HDTV	HDMI with HDCP
	SCART I/F	TV
	Digital Audio	S/PDIF via Optical
Data In/Out	USB Host Interface	USB A-Type Female (USB 2.0)
Network	Ethernet	RJ-45(100BT)

24. PRODUCT SPECIFITION

Part	Type	Specifications
Conditional Access	Smartcard Interface	1 slot - *Not supported with CubeRevo200HD*
Front Display	LED	4 digits 7 segments
Power Supply	Input Voltage	AC180-240V, 50/60Hz
	Type	Linear PWM
	Power Consumption	30W
	Protection	Separate Internal Fuse and Chassis
Physical Specification	Size (W x H x D)	300mm x 60mm x 240 mm
	Weight	2.0Kg
Environment	Operating Temperature	5 ~ 55℃
	Storage Temperature	-40℃ ~ +65℃

NOTICE
Contents of this manual and features/ Specifications of the STB are subjected to change without notice.

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DVB-T : licensed with MPEG LA and ETSI

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