

English User's Manual





Federal Communication Commission Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions :

- This device may not cause harmful interference
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the Federal Communication Commission(FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and , if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/television technician for help.

CAUTION! Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to user's authority to operate the equipment.

A separation between the user's body and the antenna be at least 20cm and a prohibition that it cannot be co-located with other transmitters.



Canadian Department of Communications

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio interference Regulations of the Canadian Department of Communications.

Hereby, NOVATRON CO.,LTD. declares that this NTD38 is in compliance with the essential requirements and other.

Relevant provisions of directive 1999/5/EC.

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Introduction

Multimedia Functions

To playback a recorded digital HD file

As this device supports up to 1920 x 1080 progressive scan, you can enjoy playing back a pre-recorded HDTV program by a digital TV set-top box or person digital video contents taken by a HD camcorder with fantastic displaying quality.

To support various video formats

This device supports various latest video formats such as a pre-recorded HD file(tp, ts), WMV9, WMV9 HD, MPEG1/2, MPG, MPEG4(DivX, Xvid), etc.

DVD JUKE BOX Function

As this device supports ISO file and IFO file, you can store DVD titles in it and playback those files just like DVD Player. You can store various DVD titles into this device and manage them forever and easily.

Auto Playback, Bookmark and Section Repeat Functions

After one file playback is ended, the next file (different in file name only) is play-backed automatically. If you mark a specific position of a movie during playback with “BOOKMARK” button of remote controller, you can start from the marked position again. The function of ‘Section Repeat’ lets you repeat a specific section. Section Repeat function is useful for language study or enjoying sports moving pictures.

Music JUKE BOX Function

As this device supports various music files like MP3, Ogg Vorbis, WMA, M3U and PLS, you can store these files in it and enjoy them with easy. And, in case that you make its own playlist by using ‘JUKE BOX CREATOR’ function, you can enjoy music files (playlisted) as background music(BGM function) with easy and convenient.

Digital Photo Album

You can enjoy photo with this device together with your family through big screen of TV in your living room, as this device has ‘Photo Slide Show’ and ‘BGM(Background Music)’ functions.

Input/Output Functions

Digital Audio Output and 2CH Down Mix

This player can output digital audio signal (high quality audio sound signal like AC3, DTS) So, you can enjoy high quality sound without any loss of sound. And, as this device supports 2CH down mix, users who have 2CH speaker only also can enjoy multi channel audio track..

High Quality HDMI Connector

As this device has HDMI connector which output high quality digital and audio signal, you can enjoy high quality display and sound without any distortion.

Streaming through Wired/Wireless Network

Without the procedure to copy files from PC to this device through USB cable, you can stream various media files in your PC to it and playback them back with TV directly through its Network solution.

Installed Wireless LAN Module and Antenna

As this device has Wired LAN as well as Wireless LAN module which supports turbo function, WEP security function and high sensitive 5dBi antenna, you can connect this device easily with any wireless network environment.

HOST USB2.0 lets you connect with various external USB devices

As this device has two (2) USB2.0 HOST, you can attaché various external USB devices such as external HDD, USB memory, digital camera, etc.

External Mass Storage

As this device works perfectly as an external USB mass-storage for your PC through high speed USB2.0, you can store huge data in it and manage it with easy.

Kinds of format to be supported

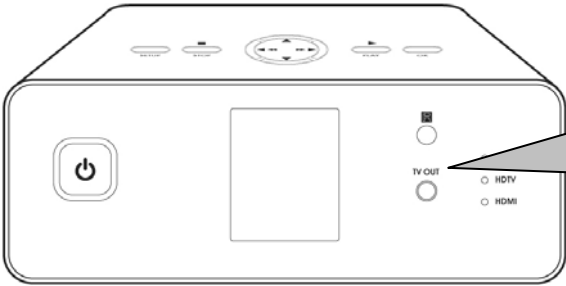
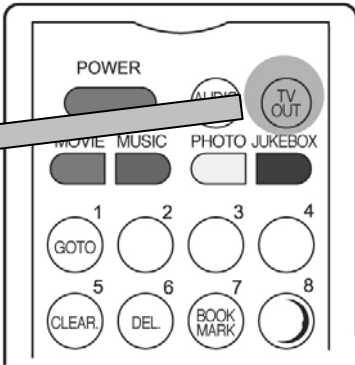
Video	MPEG1/2/4, XviD, DivX, WMV9, WMV9HD, H.264, HD File(.tp, .trp, .ts), .MKV, .WMV, AVI, .ISO, .IFO, .VOB, .MPG, .ASF, .DAT
Subtitle	SMI, .SUB, .SRT
Audio	MP3, WMV, WMA, Ogg Vorbis, AC3, PCM, DTS
Picture	JPEG, BMP, PNG, GIF

Needed minimum transferring rate

Format	Wired, Wireless LAN	USB2.0(HOST)
MPEG1/2	12Mbps	10Mbps
DivX, Xvid	1.5Mbps	1.5Mbps
WMV9	8Mbps	8Mbps

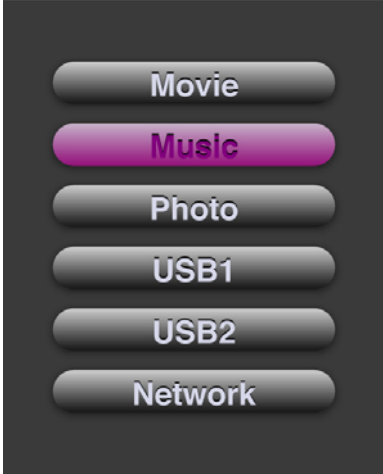
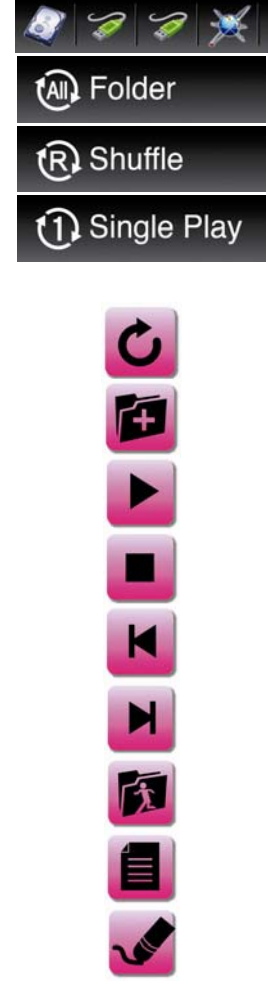


- Even though a video file format is corresponding to the above table, the video file may not be played-back properly in case that the resolution and transferring rate of the video file is over specific value.
- Although a video file format is corresponding to the above table, the video file may not be played-back properly according to the speed(performance) of external USB devices or the speed(performance) of the devices to compose a network environment.
- Even though video file format is one of the above classification, the file is not played if the file is encoded with GMC or QPEL option.
- AVI(Audio Video Interleaved) is a container format. This means that it may contain many different combinations of codec. So, even if this device supports most of AVI files, but, there could be AVI files not played back properly by this device
- Subtitle is supported properly in case only that the file name of subtitle is exactly same as that of the moving picture.
- The audio file encoded with copy protection technology is not played back properly.
- Even if this device can playback 2048 x 1352(JPEG), it may not work properly if the JPEG size is over 1920 x 1080.

TV OUT set-up and change

TV Standard for each country	
Korea, North America	Europe and else
NTSC	PAL
<ul style="list-style-type: none"> ※ TV out mode is originally set as PAL/Composite ※ If you want to change TV out mode, you can use TV OUT button of remote controller or TV OUT button of the front side of this device ※ LED light of the front side of this device moves to corresponding position when you press TV OUT button with 2~3sec time interval. 	
Front LED	TV OUT button for changing TV Out mode
	
Reference <ul style="list-style-type: none"> ※ Each pressing TV OUT button : PAL(Composite)→480p(Component)→576p(Component)→480p HDMI →576p HDMI. ※ You can change and select more subdivided TV out mode in SET UP menu ※ In case of no display on TV screen, try pressing TV OUT button several times to fit TV OUT mode 	

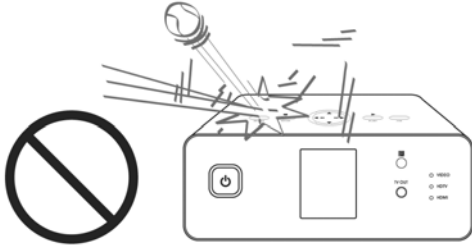
LCD-Display Information

This section allows you to playback the music file without connecting this device to TV.

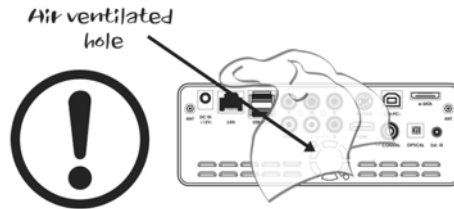
Main Menu		
<p>All the options of this screen may be chosen by pressing the function button of remote controller and please refer to “PART3 – Structure of Remote Controller” on the usage of remote controller.</p>		
<p>This option allows you to see the list of movie or picture file but playback the selected file.</p>		
Sub Menu		
	<p>Select each icon</p> <p>Change the mode of music playback</p> <p>Refresh</p> <p>Create JUKEBOX</p> <p>Playback JUKEBOX music subsequently</p> <p>Stop played JUKEBOX music</p> <p>Playback previous music from played one In JUKEBOX</p> <p>Playback next music from played one in JUKEBOX</p> <p>Exit the mode</p> <p>Edit JUKEBOX</p> <p>Delete the selected file</p>	 

Precautions

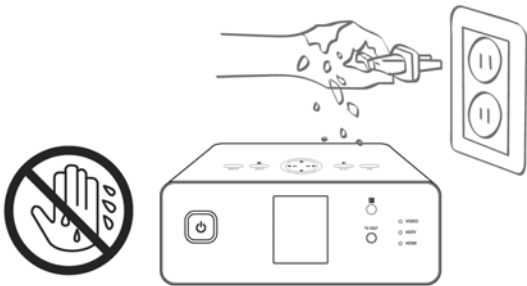
Do not drop or give a shock. It may cause serious damage to internal Hard Disk Drive.



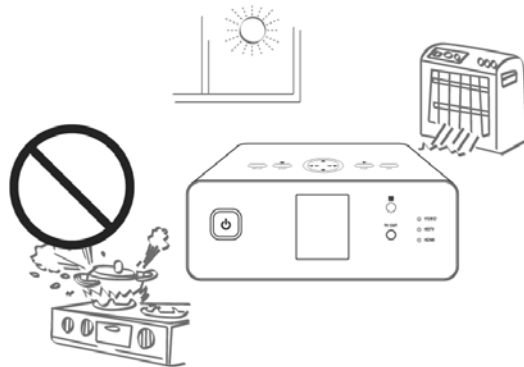
Do not block a ventilation opening



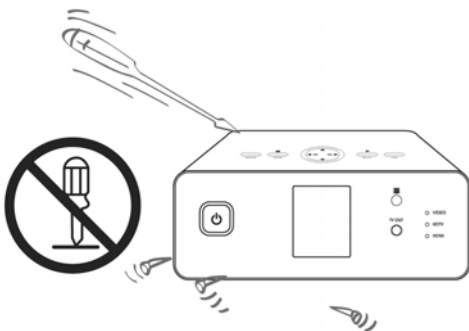
Do not touch the plug of the AC power cord with wet hands



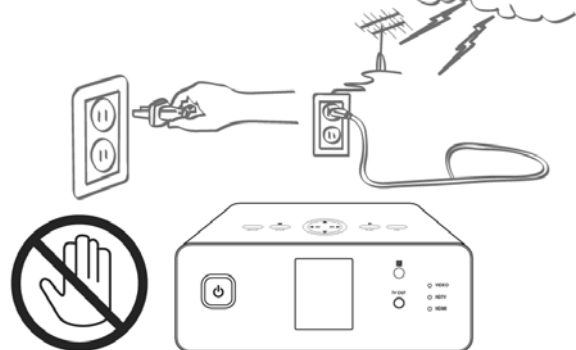
Keep it away from high temperature, high humidity, nearby magnetic field and direct sunlight.



Do not try disassembling. It may cause an electric shock, defect or unexpected problem. For installing or changing HDD, you may open the door on bottom side.



Keep it unplugged during lightning storms or when unused for long period time.

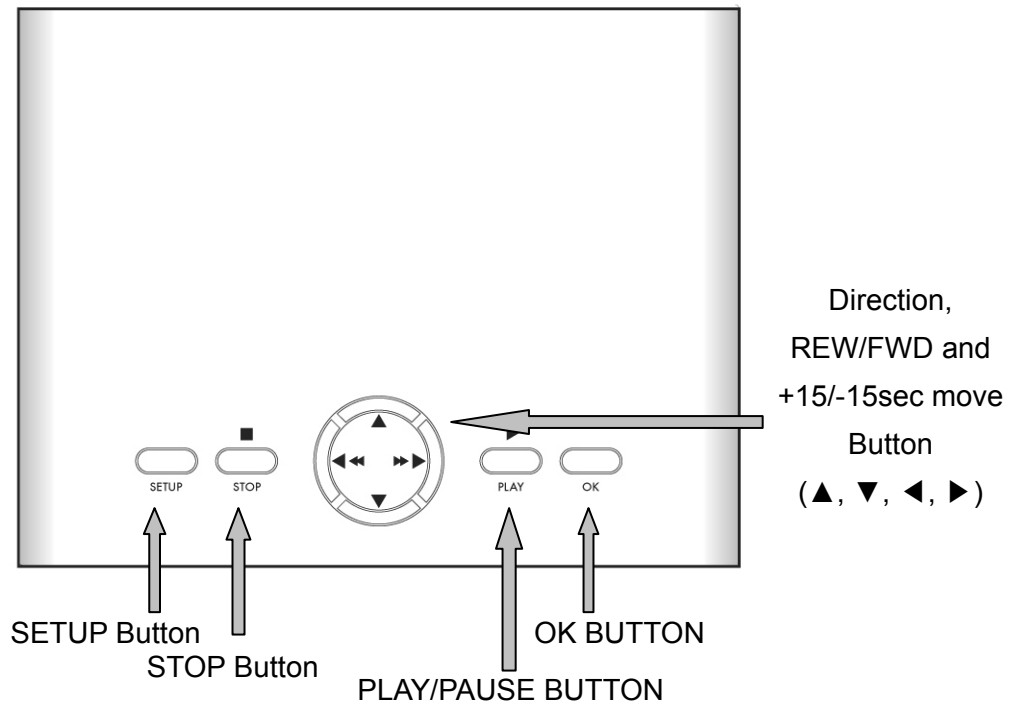


How to handle and other precautions

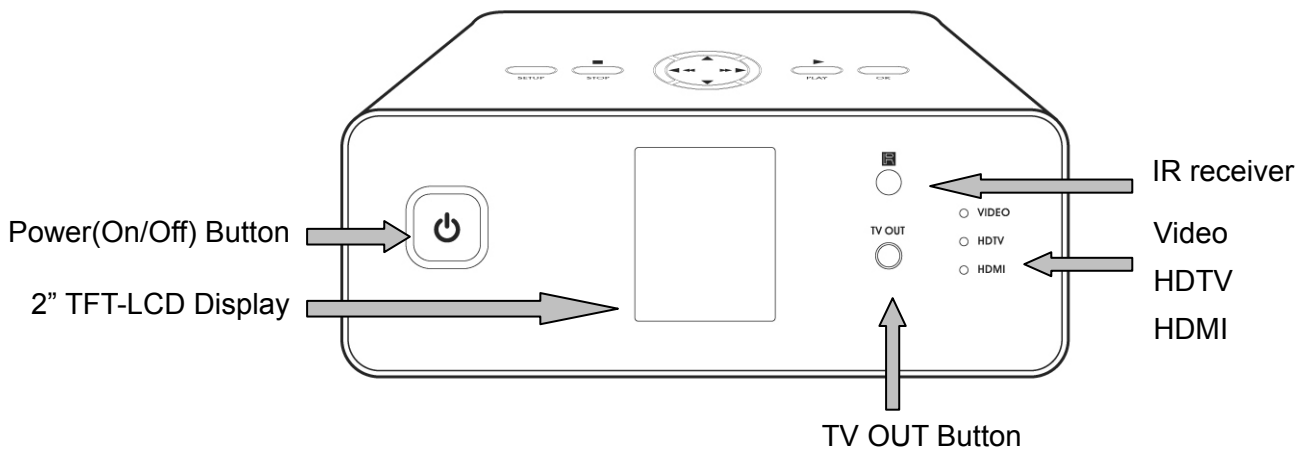
- Make sure that you have to use the AC adapter supplied together with this device. If not, it may cause unexpected problem like breakdown, fire, etc.
- In case that this device is used or left in a completely covered and high temperature space(like in a car) for long time, it may cause unexpected problem.
- Do not see the light of OPTICAL connector directly. It may have a bad effect on your eyes.
- In case of no use for long time, get rid of battery from remote controller.
- To clean the exterior of this device, soak a soft cloth in a mild detergent solution diluted with water, tightly squeeze the cloth to remove the excess liquid, wipe the affected area of the exterior, and finish by wiping with a dry cloth.
- Make sure that this device is not powered off suddenly during its working (playing-back, file transferring, firmware upgrading, etc). In case of sudden power-off during working, you need to check HDD with Windows utility (Scan Disk) after connecting with your PC system.
- When you try disconnecting the USB cable between this device and your PC system after finishing jobs, make sure to follow 'USB device safety removal' procedure.
- When try connecting HDD to SATA cable, S-Video cable, HDMI cable, be careful not to give some damage to pins of each connector.

Name of each point – Top & Front

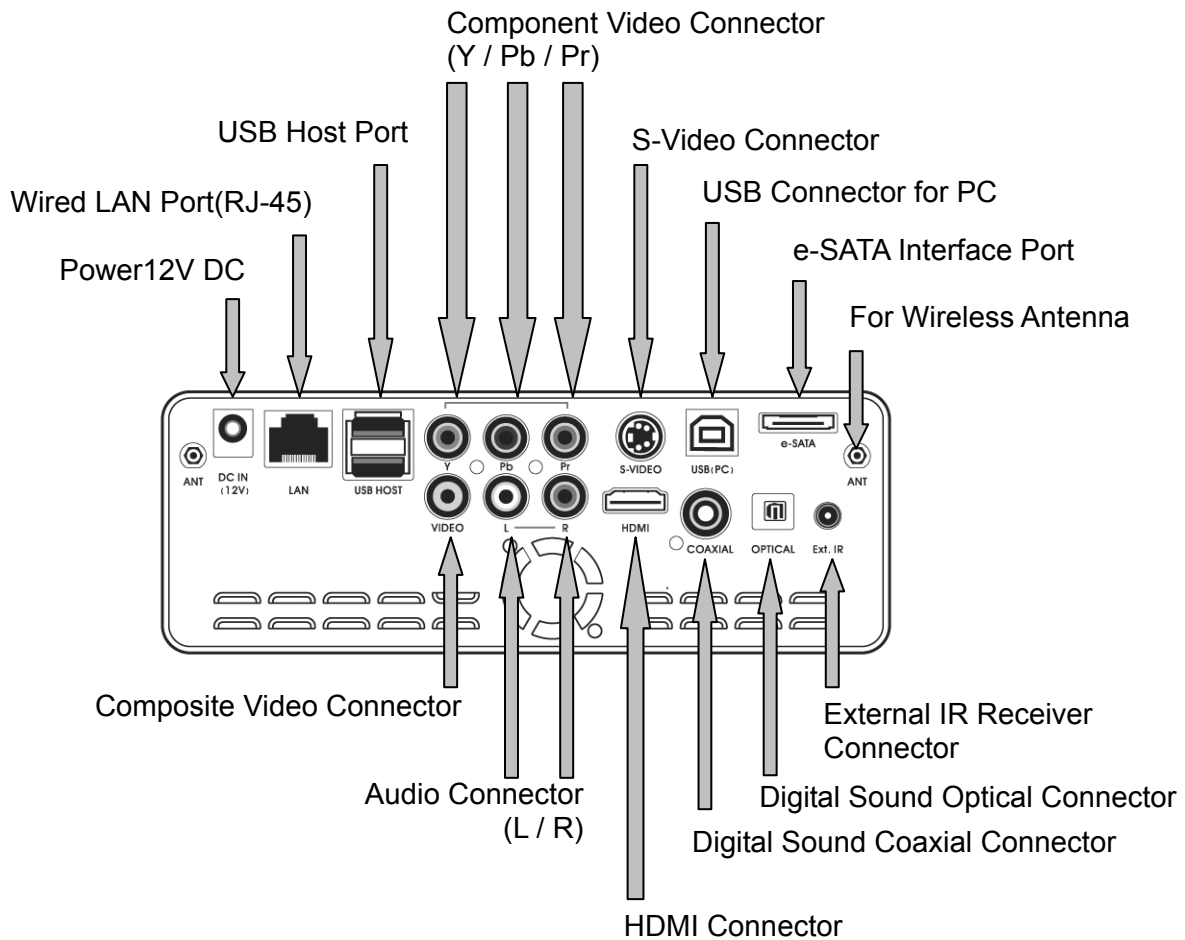
Button of top side



Button & LED of front side



Name of each point – Rear Side



Contents in package

Below items are in the package of this product



□ Unit



□ Remote Controller



□ AAA size Batteries



□ User's Manual



□ 12V DC Power Adaptor



□ Power Cord



□ A to B USB Cable



□ Composite AV Cable



□ Component Video



□ 5dBi Wireless Antenna
(Wireless Model Only)

Accessories available at shops

If below accessories is needed, you can buy them at shops by yourself.



□ HDMI Cable



□ HDMI to DVI Converter



□ LAN Cable



□ Coaxial Cable



□ Optical Cable



□ S-Video Cable

2

Preparation for Usage

To introduce preparation before you enjoy this device.

Procedure

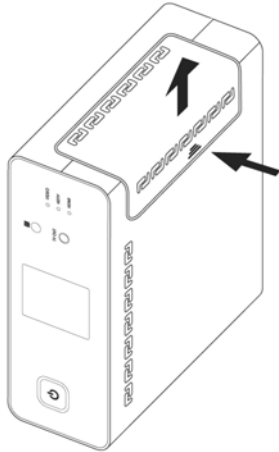
1. Check whether all accessories are supplied properly.
2. Install HDD(Hard Disk Drive) into this device according to the procedure of HDD installation(※ note : HDD jumper should be set as Master)
3. Connect AC adapter into this device, and connect it with PC through USB cable
4. Power on this device (with power button of top side, or with power button of remote controller)
5. In case that the installed HDD is not formatted, please format it first according to normal HDD format procedure
6. Copy media files in your PC to the HDD of this device.
7. After finishing copying files, disconnect this device from your PC system
8. Connect this device to TV set and(or) to audio system
9. Power on this device and change set-up value in SET-UP menu if needed. It is recommended that it should be rebooted if you set up Network newly
10. Now, you are ready to enjoy this device freely

Kinds of HDD to be installed

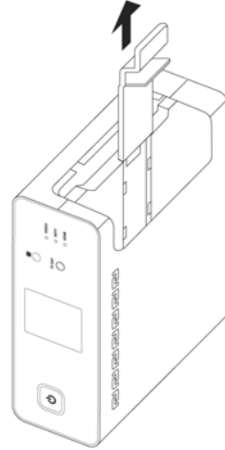
HDD Size	HDD Type	HDD Capacity	HDD RPM	HDD buffer Memory
3.5" SATA HDD	SATA I or II	Any capacity available in market	Over 7200 RPM	Over 8M

HDD Installation

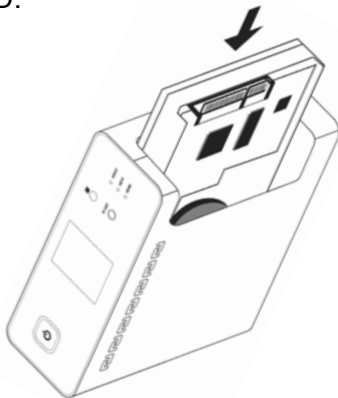
1. Push the locker to the direction("OPEN→").
Open up the HDD door slowly.



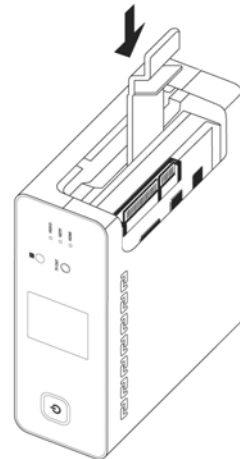
2. There is HDD fixture inside. Push it forward(#1) slightly and pull it up(#2).



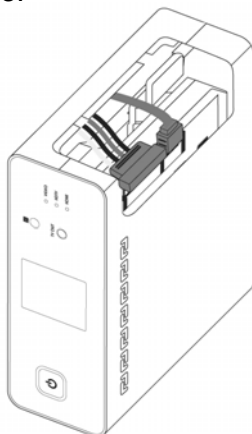
3. Insert HDD carefully inside this device
laid down slightly to minimize
impact to HDD.



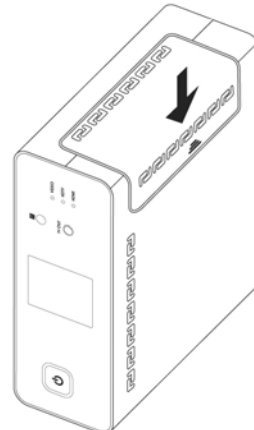
4. Fix HDD with HDD fixture like below picture.



5. Connect SATA cable and power cable
like picture.

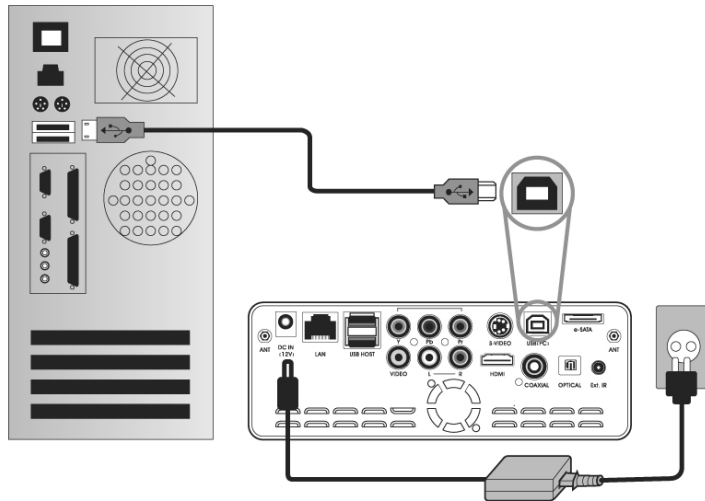


6 Close HDD door and push the locker to the
direction("←CLOSE").



Connecting with PC

To copy files in your PC to this device, follow below procedure.



For Windows ME/ 2000/XP/Vista Users

1. Power on your PC system.
2. Connect this device to your PC with USB Cable. Connect AC adapter to this device. And power it on.
3. Wait until your PC recognizes this device as USB mass storage.
4. Check whether this device is properly recognized as USB mass storage by clicking and opening “My Computer” on Windows.

For Windows 98SE Users

1. Before connecting this device to your PC, you need to install Driver for Windows 98SE to your PC. You may download the Driver for Windows 98SE from our website
2. After downloading it, unzip it and run the file
3. Connect this device to your PC with USB cable. And connect AC adapter to this device and power it on. Wait until your PC recognizes this device as USB mass storage.
4. Check whether this device is properly recognized as USB mass storage by clicking and opening “My Computer” on Windows.

To create folder and to copy files

Follow below procedure to copy folder and file from PC to this device.

- **If the HDD has no partition or the HDD is not formatted, you need to do it first.**

- We recommend NTFS instead of FAT32. this device supports multi partitions.
- Note : Primary partition should be over one(1)
- ※ **For HDD partition, refer to Chapter 6.**

- **When you make folder in the HDD of this device, it is recommended that you make folders like 'MOVIE', 'MUSIC', 'PHOTO'. And, you copy files to each folder corresponding to kind of file.**

- 'MOVIE' folder responds to 'MOVIE' button of remote controller and 'MOVIE' icon of main menu.
- 'MUSIC' folder responds to 'MUSIC' button of remote controller and 'MUSIC' icon of main menu. And, 'PHOTO' folder is also same.
- You may make any name of folders freely.

- **Do not store too many files into one folder.**

- It is recommended that you make several sub folders and store files divisionally.
- In case that you did HDD partition with FAT32, it is recommended that you do not store over 3GB files into one folder.

- **In case that file name(folder name) is too long or has so many specific characters, blanks or period marks, the file(folder) may cause some problem.**

- In this case, change or reduce file (folder) name.

- **Moving picture file and subtitle file should be in same folder.**

- Moving picture file and subtitle file should be in same folder. And, both files name should be same except for 'extension name'.



TIP

Disconnecting this device from PC after finishing file copy

After finishing file copy, make sure that you need to next page procedure for disconnecting this device from PC. Otherwise, copied files may have some damage.

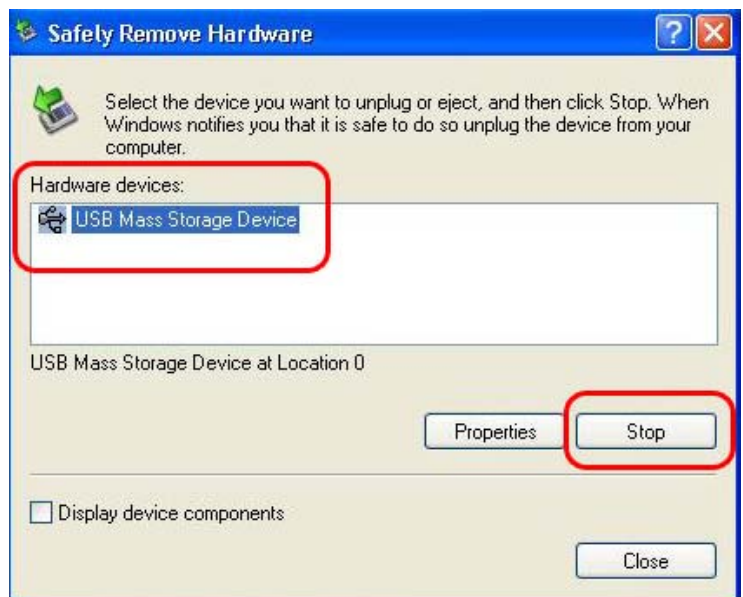
Disconnecting from PC

When try disconnecting USB cable between this device and PC, make sure to follow below procedure.

1. Do double-click the icon of “**Safely remove USB.....**”.



2. Click “**Stop**” button after selecting “USB Mass Storage Device”..

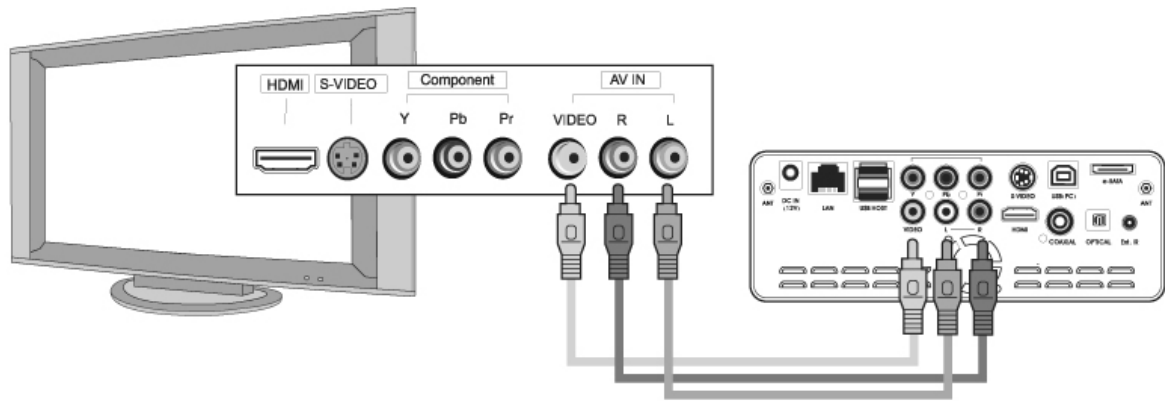


3. When the message like picture is shown, disconnect USB cable between this device and PC.



Connecting to TV with Composite(AV) cable

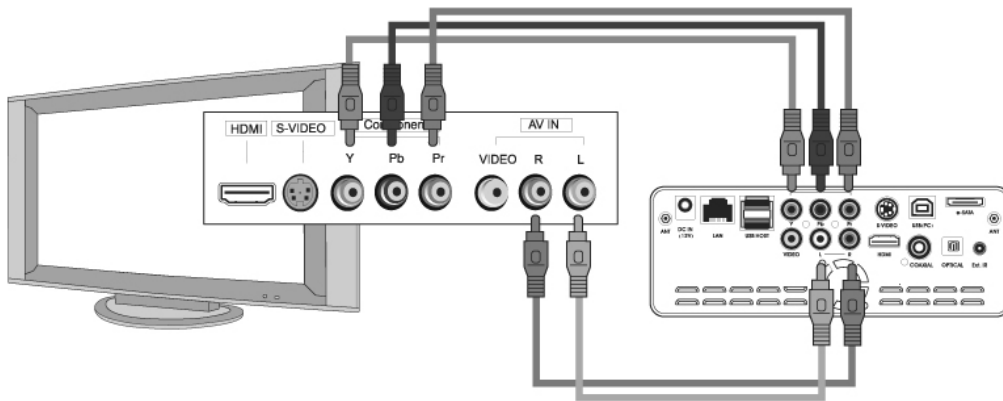
After power off this device and TV, connect them like below procedure..



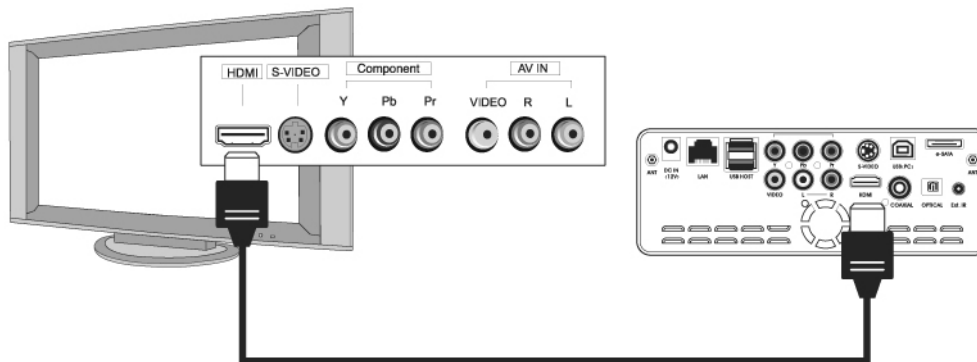
- The Composite AV cable is needed to connect with normal TV or Video and is for connecting Composite video signal and 2CH audio signal simultaneously.
- Connect yellow cable to the Composite connector of this device and to the VIDEO connector of TV set.
- Connect red cable to the FRONT-R connector of this device and to the Sound Input(Right) of TV or Audio system.
- Connect white cable to the FRONT-L connector of this device and to the Sound Input(Left) of TV or Audio system.
- You may refer to cable colors and connector colors.
- Please do not misunderstand Composite connectors and Component(Y, Pb, Pr) connector which is located on rear side of this device as shown here.
- If you want to use digital audio output(Optical, Coaxial), you don't need to connect with red cable and white cable.
- In case that your TV set has S-Video input connector, you may enjoy higher display quality by connecting with S-Video cable.(note : As we do not supply S-Video cable, you need to purchase it by yourself from shop)
- For more information, refer to user's manual supplied by TV maker

Connecting with Component cable or HDMI connector

When connecting HDTV or other high quality displaying devices, connect like below picture..



Connecting with Component cable

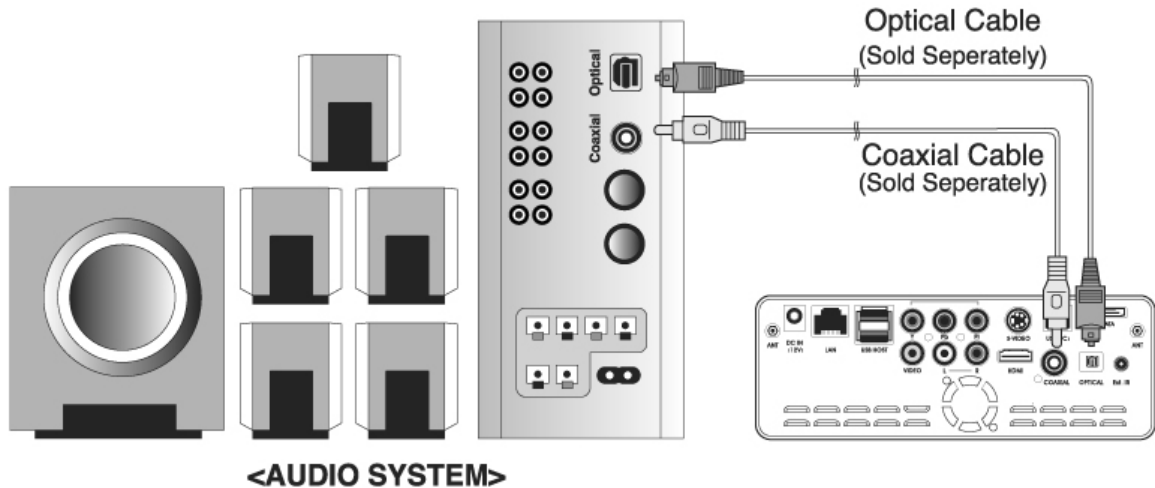


Connecting with HDMI cable

- For safety, connect cables after power off this device, TV and audio system.
- You have to purchase HDMI cable and other accessories by yourselves from shop

Connecting with Optical, Coaxial connector

If you want to enjoy high quality digital audio, connect with Optical or Coaxial connector.

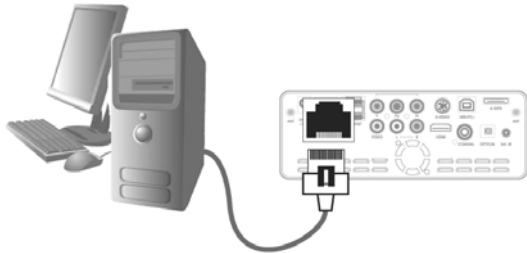


- As the audio output through Optical or Coaxial is digital signal, separate devices like DTS Decoder(or Receiver) is needed additionally.
- For safety, connect cables after power off this device and audio system.
- You have to purchase Optical cable or Coaxial cable by yourselves from shop.
- Make sure that Optical cable is not bent severely.
- Do not see optical light which comes from Optical connector. It may have a bad effect on your eyes.

Connecting to Network

To connect this device to a network, some equipment is required.

Ethernet Network using a direct connection to a PC(IP Address setup : 31 page)

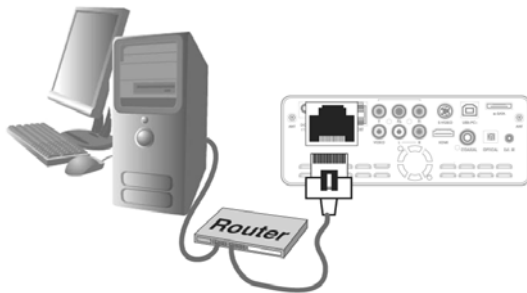


Connect this device to a PC with a crossed cable.

◆ **Equipment required.**

- A crossed cable.
- A window PC with an Ethernet connection.

Ethernet Network using a router

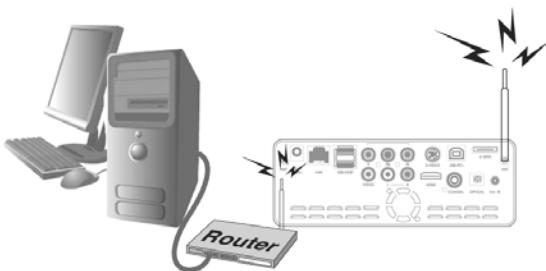


Connect this device and a PC to a router or switch HUB with 2 straight cables.

◆ **Equipment required.**

- 2 straight cables.
- A window PC with an Ethernet connection
- A router or Switch HUB

Wireless connection using a wireless router



Connect this device and a PC to a wireless router with a straight cable for PC.

◆ **Equipment required.**

- A straight cable for PC.
- A window PC with an Ethernet connection
- A wireless router



TIP

Wireless Range.

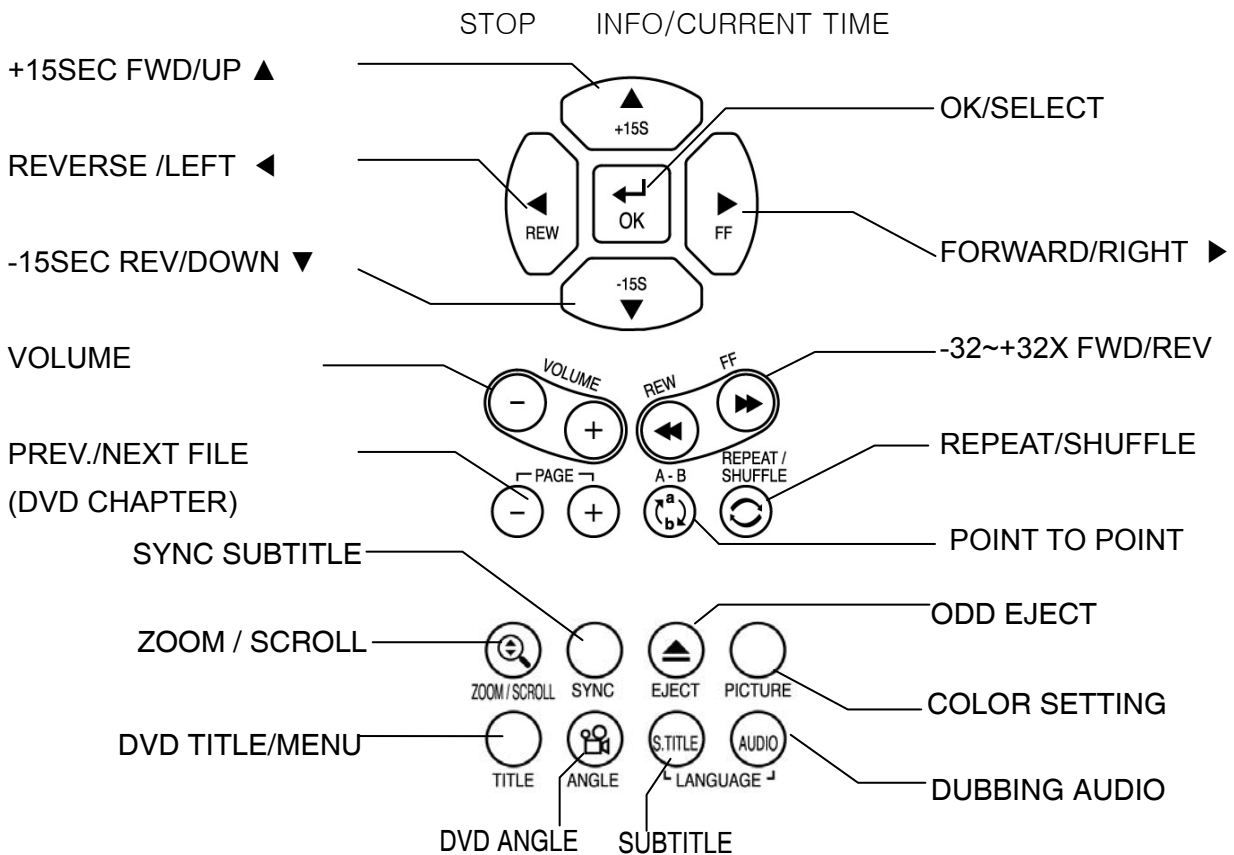
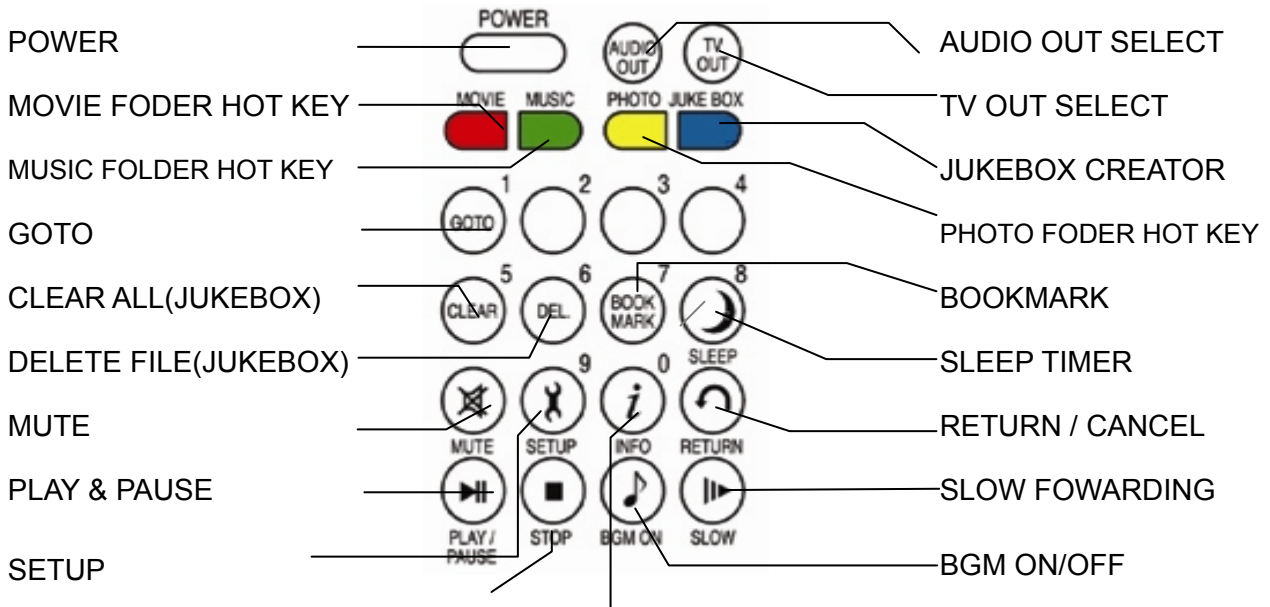
- Radio signals may be reflected by some obstacles or be absorbed by others depends on their construction.
- Heavy or big media file like HD file or DVD file is not streamed properly with wireless connection.

3

Remote Controller & SET-UP Menu

To introduce remote controller structure and set-up.

Structure of Remote Controller




Booting Message & Main Menu

If this device is powered on, it is booted up like below picture.

1. Booting Message

This picture is displayed during booting-up.

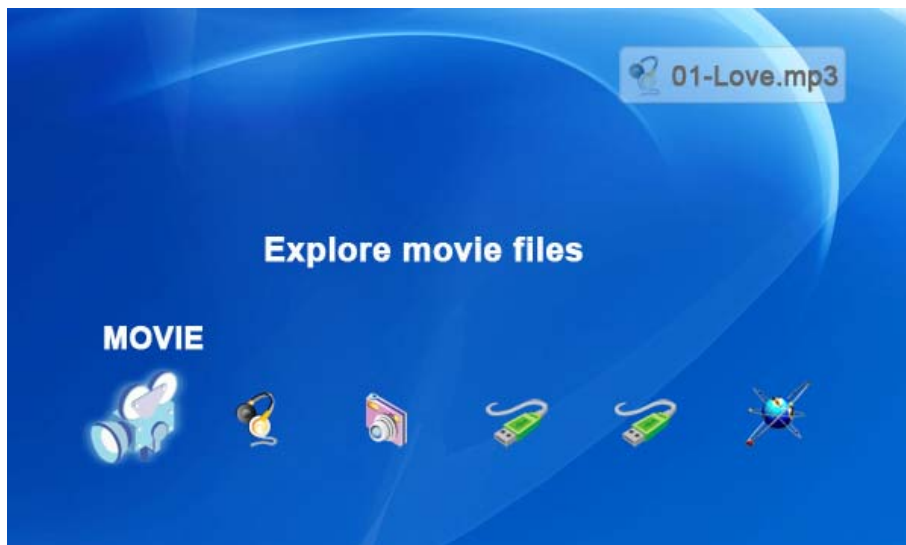


 TIP	In case of no –display.
TV Out mode is originally set as PAL/Composite. If no-display on TV screen after booting up, try changing TV Out mode by pressing TV OUT button of remote controller or on the front side of this device with 2~3seconds time interval.	

2. Screen of Main Menu

Main Menu screen is displayed like below picture after completing booting up.

Main Menu is composed of several icons such as MOVIE, MUSIC, PHOTO, USB HOST, Network and JUKE BOX(BGM). For explanation of each icon, refer to next page.



Review of each icon on Main Menu

Main Menu has several icons like below. If you select each icon, you can see files stored in corresponding folder or storage.



MOVIE icon

If selecting MOVIE icon, it shows all contents in MOVIE folder of the basic HDD. It will be convenient for you to use or manage files if you make "MOVIE" folder in the root directory of HDD in advance.



MUSIC icon

If selecting MUSIC icon, it shows all contents in MUSIC folder of the basic HDD. It will be convenient for you to use or manage files if you make "MUSIC" folder in the root directory of HDD in advance.



PHOTO icon

If selecting PHOTO icon, it shows all contents in PHOTO folder of the basic HDD. It will be convenient for you to use or manage files if you make "PHOTO" folder in the root directory of HDD in advance.



USB 1 or 2 icon

In case that some devices are connected to USB HOST ports, these USB Icons are activated. Once activated, those icons can be selected. Otherwise, you can not click or select it.



NETWORK icon

In case that this device is connected to network properly through Wired or Wireless LAN, this icon is activated and can be selected. Otherwise, you can not select it.

JUKE BOX icon



In case that you made PLAYLIST with "JUKEBOX CREATOR" function, you can enjoy music at any time by pressing BGM button of remote controller. The title of playing music is displayed in the box of JUKE BOX icon.



In case of no folder like MOVIE, MUSIC, PHOTO.

In case of no folder ('MOVIE', 'MUSIC', or 'PHOTO') in HDD, all files and all folders in the root directory of HDD are shown.

SETUP Menu and How to set up

If needed to change setting values before using this device, you can open SETUP Menu like below picture by pressing SETUP button of remote controller.



- SETUP Menu is classified like VIDEO, AUDIO, ETC, NETWORK, WIRELESS, EXIT. You can select each item with Left/Right (◀, ▶) button of remote controller or this device.
- To change setting values, if selecting main item, sub items are listed up. You can select each item with Up/Down(▼, ▲) button.
- After selecting sub item, press OK button. Then, changeable setting values are displayed.
- Once you select one of changeable setting values with Up/Down(▼, ▲) button, press OK button. Then, the value is saved and applied.
- If you want to go out without changing setting values, press RETURN button before you press OK button for confirming any selected value. Pressing RETURN button, it makes you go to previous step.
- After completing new setting, you can go back to main menu by pressing RETURN button several times, by pressing SETUP button or selecting EXIT icon.

VIDEO Setting Change

In SETUP Menu, if selecting VIDEO icon, sub items related to video are listed up like picture.

• TV Standard

- ⇒ NTSC :Korea, North America
- ⇒ PAL : Europe and else

• TV Type

- ⇒ 4:3 (for normal TV)
- ⇒ 16:9(for Wide TV such as HDTV or Plasma TV)

• Display



⇒ Original(Letter Box) :

Select this option in case of playing a wide movie(16:9) with an ordinary 4:3 TV. There will be margins on the upper and lower sides of the screen.



⇒ Pan & Scan :

Select this option if you want a wide movie(16:9) to be adjusted fully to the screen of ordinary 4:3 TV. The left/right of the movie is cut, and the margin of top/bottom is disappeared.



⇒ Full Screen : Select this option if you want to adjust a movie fully to the screen of TV with no consideration of original ratio. In this case, according to the ratio of original movie, displaying size is enlarged upward/downward or to the left/right.

• Video Out

- ⇒ Composite/S-Video : In case of connecting with TV through Composite, S-Video or Component 480i output connector.
- ⇒ Component(each Mode) : In case of connecting with TV through Component(Y, Pb, Pr) output connector.
- ⇒ HDMI (Auto or each Mode) : In case of connecting with TV through HDMI connector.



※ By pressing TV OUT button of remote controller or this device several times, you can change TV standard and Video Out mode in order. Standard modes changeable in order is six(6) level.

AUDIO setting change

In SETUP Menu, if selecting AUDIO icon, sub items related to audio are displayed like picture..

• SPDIF

⇒ **Down mix** : If selecting this option, all kind of digital audio(PCM, MP3, AC3, DTS) are decoded into analog signal. So, you can hear sound without any separate DTS Decoder(or Receiver).

⇒ **Pass through** : If selecting this option, digital signal is outputted directly without decoding process. So, you need a separate Receiver or Decoder to hear sound in case of using digital audio connectors(Optical, Coaxial)

• Audio Channels

⇒ **2 ch** : If selecting this option, it outputs analog audio signal with 2CH. If you use 2CH speaker, please select this option.

⇒ **5.1 ch** : If selecting this option, it outputs analog audio signal with 5.1CH. Without any separate Decoder or Receiver, you can connect with 5.1CH speaker directly

• Sound Effects

⇒ **On** : When power off and on this device, sound effect comes out.

⇒ **Off** : No sound effect in power on/off..

• Music Play Mode

⇒ **Single Play** : It plays only selected music file.

⇒ **Folder** : It plays all music files in same folder

⇒ **Shuffle**: It plays all music file randomly in same folder.

