NOVATRON

The iamm NTD36HD
High Definition Media player

-User's Mannual-

iamm
HD

NOTICE 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 euipment.

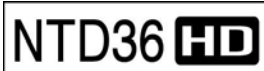## NOTICE Canadian Department of Communications

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, declares that this product is compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

CONTENTS

NTD36 **HD**

1 Introduction

To introduce features and functions of NTD36HD.

NTD36 **HD**   Multimedia Functions

To playback a recorded digital HD file

As NTD36HD 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

NTD36HD 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 NTD36HD supports ISO file and IFO file, you can store DVD titles into NTD36HD and playback those files just like DVD Player. You can store various DVD titles into NTD36HD 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 NTD36HD supports various music files like MP3, Ogg Vorbis, WMA, M3U and PLS, you can store these files into NTD36HD and enjoy them with easy. And, in case that you make NTD36HD's 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 NTD36HD together with your family through big screen of TV in your living room, as NTD36HD has 'Photo Slide Show' and 'BGM(Background Music)' functions.

NTD36 HD   # Input/Output Functions

Analog 5.1CH Audio Output and 2CH Down Mix

NTD36HD can output analog audio signal(decoded signal), as it can decode digital signal(high quality audio sound signal like AC3, DTS) into analog signal internally by itself. So, you can enjoy 5.1CH high quality sound without an expansive additional device like DTS decoder or Receiver. And, as NTD36HD supports 2CH down mix, users who have 2CH speaker only also can enjoy multi channel audio track..

High Quality DVI Connector

As NTD36HD has DVI connector which output high quality digital signal, you can enjoy high quality display without any display distortion.

Streaming through Wired/Wireless Network

Without the procedure to copy files from PC to NTD36HD through USB cable, you can stream various media files in your PC to NTD36HD and playback them back with TV directly through NTD36HD's Network solution.

Installed Wireless LAN Module and Antenna

As NTD36HD has Wired LAN as well as Wireless LAN module which supports turbo function, WEP security function and high sensitive 5dBi antenna, you can connect NTD36HD easily with any wireless network environment.

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

As NTD36HD 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 NTD36HD works perfectly as an external USB mass-storage for your PC through high speed USB2.0, you can store huge data into NTD36HD and manage it with easy.

NTD36 **HD** Kinds of format to be supported

Video	HD file format(tp,ts), Windows Media 9, Windows Media 9 HD
	DivX3.11, DivX4, DivX5, DivX HD, Xvid, MPEG1, MPEG2(IFO, VOB, ISO)
Subtitle	SMI, SUB, SRT
Audio	MP3, Ogg Vorbis, WMA, AC3, DTS
Picture	JPG, JPEG, BMP, PNG

Needed minimum transferring rate

Format	Wired, Wireless LAN	USB2.O(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 NTD36HD supports most of AVI files, but, there could be AVI files not played back properly by NTD36HD.

• 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 NTD36HD can playback 2048 x 1352(JPEG), it may not work properly if the JPEG size is over 1920 x 1080.

NTD36 HD   TV OUT set-up and change

TV Standard for each country	
Korea, North America	**Europe and else**
NTSC	PAL

※ 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 NTD36HD set.

※ LED light of the front side of NTD36HD moves to corresponding position when you press TV OUT button with 2~3sec time interval.

LED of NTD36HD Front	**TV OUT button for changing TV Out mode**
	AUDIO OUT button for changing AUDIO Out mode

Reference

※ Each pressing TV OUT button : PAL(Composite)➔480p(Component)➔576p(Component)➔
    480p DVI-D ➔576p DVI-D ➔ DVI-A VGA 800x600 60Hz ➔NTSC(Composite)

※ 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

※ AUDIO OUT button does not work while movie is playing.

NTD36 HD Precautions

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

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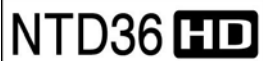

Do not try disassembling. It may cause an electric shock, defect or unexpected problem. For installing or changing HDD, you may open the door on bottom side.

Do not block a ventilation opening

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

Keep it unplugged during lightning storms or when unused for long period time.
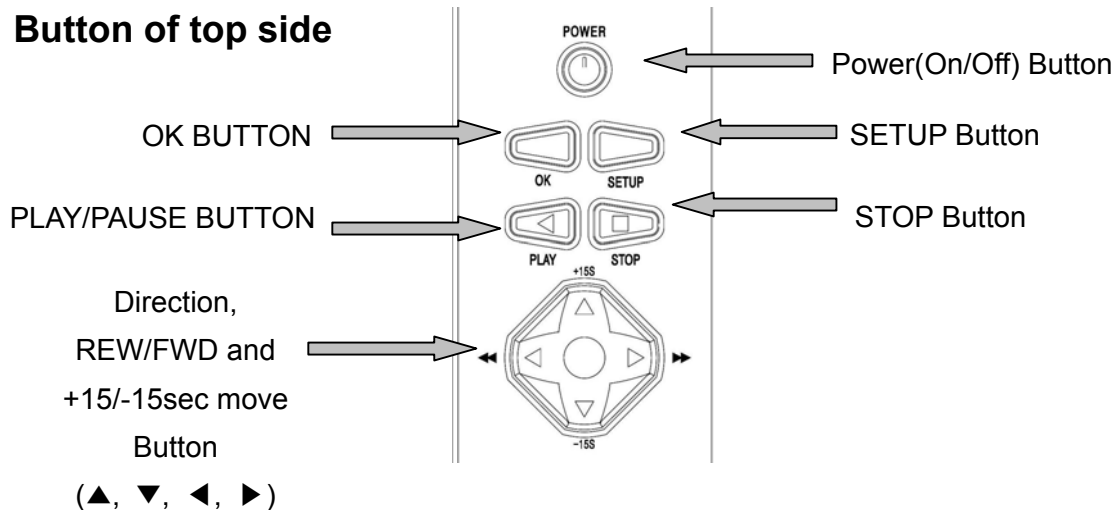
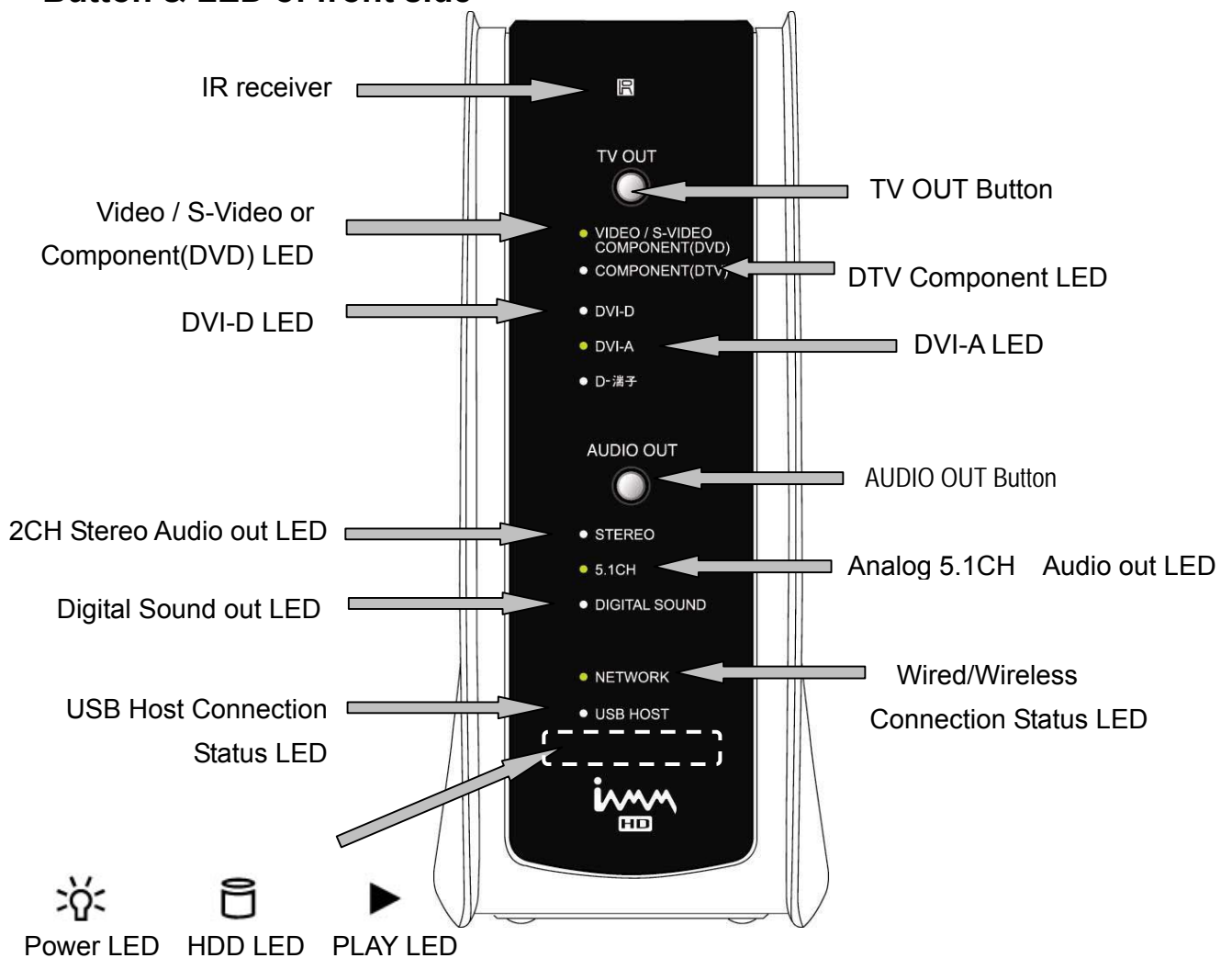# NTD36 **HD**   How to handle and other precautions

- Make sure that you have to use the AC adapter supplied together with NTD36HD. If not, it may cause unexpected problem like breakdown, fire, etc.

- In case that NTD36HD 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 NTD36HD, 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 NTD36HD 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 NTD36HD and your PC system after finishing jobs, make sure to follow 'USB device safety removal' procedure.

- When try connecting HDD to IDE cable, S-Video cable, DVI cable, be careful not to give some damage to pins of each connector.

NTD36 HD — Name of each point – Top & Front

Button of top side

POWER — Power(On/Off) Button

OK BUTTON — OK

SETUP Button — SETUP

PLAY/PAUSE BUTTON — PLAY

STOP Button — STOP

Direction, REW/FWD and +15/-15sec move Button (▲, ▼, ◀, ▶) — +15S / -15S

Button & LED of front side

IR receiver

TV OUT — TV OUT Button

Video / S-Video or Component(DVD) LED — VIDEO / S-VIDEO COMPONENT(DVD)

DTV Component LED — COMPONENT(DTV)

DVI-D LED — DVI-D

DVI-A LED — DVI-A

D-端子

AUDIO OUT — AUDIO OUT Button

2CH Stereo Audio out LED — STEREO

Analog 5.1CH Audio out LED — 5.1CH

Digital Sound out LED — DIGITAL SOUND

Wired/Wireless Connection Status LED — NETWORK

USB Host Connection Status LED — USB HOST

imm HD

Power LED   HDD LED   PLAY LED

NTD36 HD Name of each point – Rear Side

External IR receiver Connector

USB connector for PC

S-Video

Digital Sound Optical Connector

Composite Video Connector

2CH Stereo or 5.1CH Analog Audio Connector

USB Host port

Power12V DC

EXT. IR

USB(PC)

S-VIDEO

DIGITAL SOUND (OPTICAL)

COMPOSITE

DIGITAL SOUND (COAXIAL)

STEREO

FRONT-R   CENTER   REAR-R

FRONT-L   WOOFER   REAR-L

Y   Pb   Pr

ANT

DVI

USB HOST

DC IN(12V)

For Wireless Antenna

DC FAN

DVI Out connector

Digital Sound Coaxial Connector

Component Video Connector

Wired LAN Port(RJ-45)

NTD36 HD   **Contents in package**

Below items are in the package of NTD36HD

☐ NTD36HD   ☐ Remote Controller   ☐ AAA size Batteries

☑ User's Manual   ☐ 12V DC Power Adaptor   ☐ Power cord

☐ A to B USB Cable   ☐ Composite A/V Cable   ☐ Component Video Cable

☐ 5dBi Wireless Antenna
(Wireless model only)

Accessories available at shops

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

DVI to RGB Gender

DVI to HDMI Gender

DVI Single Cable

Coaxial Cable

Optical Cable

S-VIDEO Cable

LAN Cable

2 Preparation to use NTD36HD

To introduce preparation before you enjoy NTD36HD.

NTD36 HD Procedure

1. Check whether all accessories are supplied properly.

2. Install HDD(Hard Disk Drive) into NTD36HD according to the procedure of HDD installation(※ note : HDD jumper should be set as Master)

3. Connect AC adapter into NTD36HD, and connect NTD36HD with PC through USB cable

4. Power on NTD36HD(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 NTD36HD

7. After finishing copying files, disconnect NTD36HD from your PC system

8. Connect NTD36HD to TV set and(or) to audio system

9. Power on NTD36HD and change set-up value in SET-UP menu if needed. It is recommended that NTD36HD should be rebooted if you set up Network newly

10. Now, you are ready to enjoy NTD36HD freely
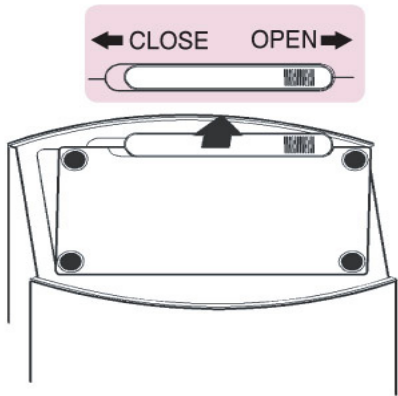
NTD36 HD Kinds of HDD to be installed

HDD Size	HDD Type	HDD Capacity	HDD RPM	HDD buffer Memory
3.5" IDE HDD	IDE 40 pin	Any capacity available in market	Over 4200 RPM	Over 2M

※ NTD36HD does not support S-ATA Type

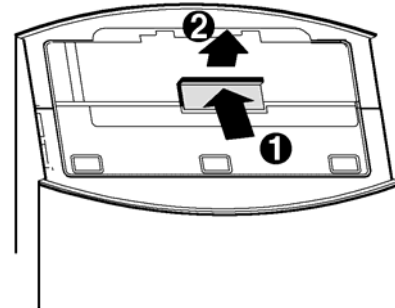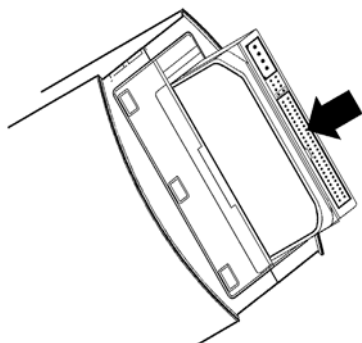# NTD36 HD   HDD Installation

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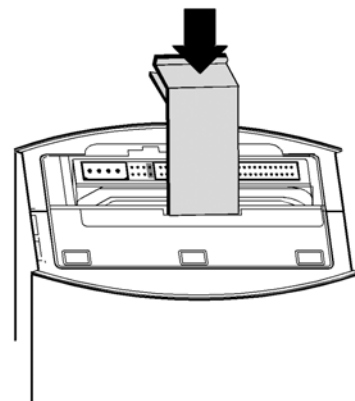   Open up the HDD door slowly.

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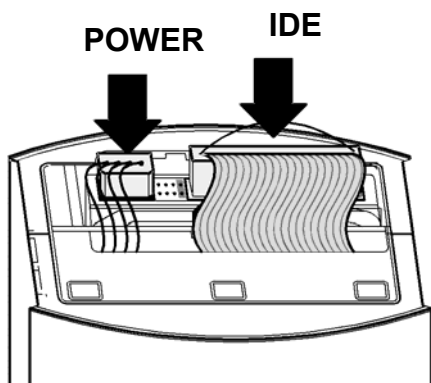   forward(#1) slightly and pull it up(#2).

3. . Insert HDD carefully inside with NTD36HD
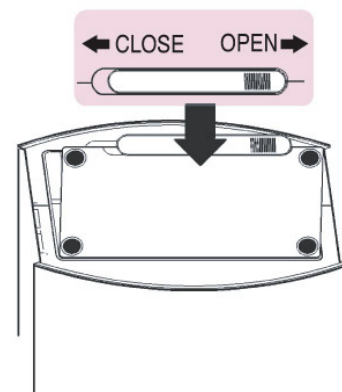   laid down slightly to minimize impact to HDD.

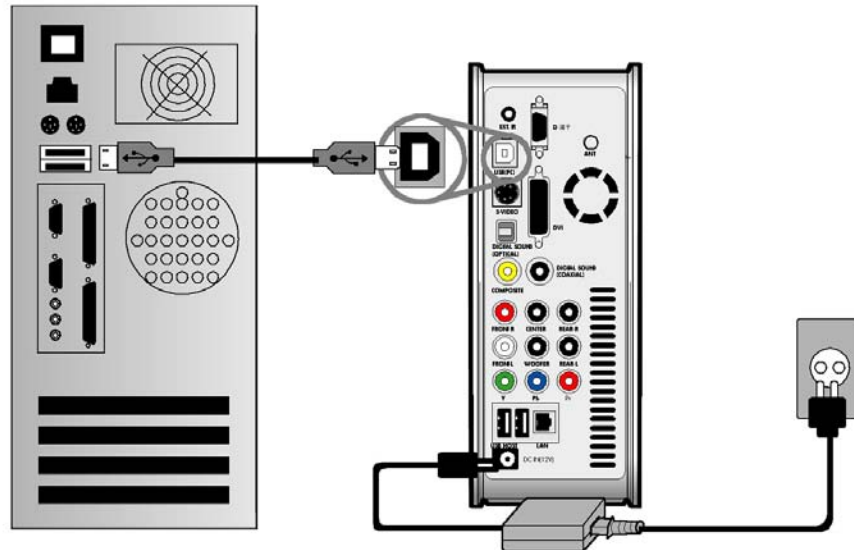4. Fix HDD with HDD fixture like below picture.

5. Connect IDE cable and power cable
   like picture.

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

NTD36 HD   **Connecting with PC**

To copy files in your PC to NTD36HD, follow below procedure.


For Windows ME/ 2000/XP Users

1. Power on your PC system.

2. Connect NTD36HD to your PC with USB Cable. Connect AC adapter to NTD36HD. And power it on.

3. Wait until your PC recognizes NTD36HD as USB mass storage.

4. Check whether NTD36HD is properly recognized as USB mass storage by clicking and opening "My Computer" on Windows.

For Windows 98SE Users

1. Before connecting NTD36HD 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(www.iamm.co.kr)

2. After downloading it, unzip it and run the file(NTD36HD_98setup)

3. Connect NTD36HD to your PC with USB cable. And connect AC adapter to NTD36HD and power it on. Wait until your PC recognizes NTD36HD as USB mass storage.

4. Check whether NTD36HD is properly recognized as USB mass storage by clicking and opening "My Computer" on Windows.
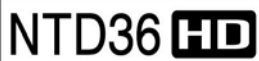
NTD36 HD To create folder and to copy files

Follow below procedure to copy folder and file from PC to NTD36HD.

• **If the HDD has no partition or the HDD is not formatted, you need to do it first.**
- We recommend NTFS instead of FAT32. NTD36HD 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 NTD36HD, 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'.
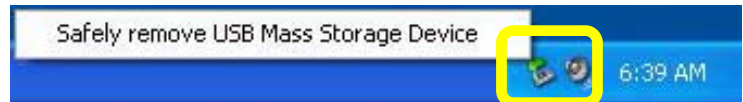
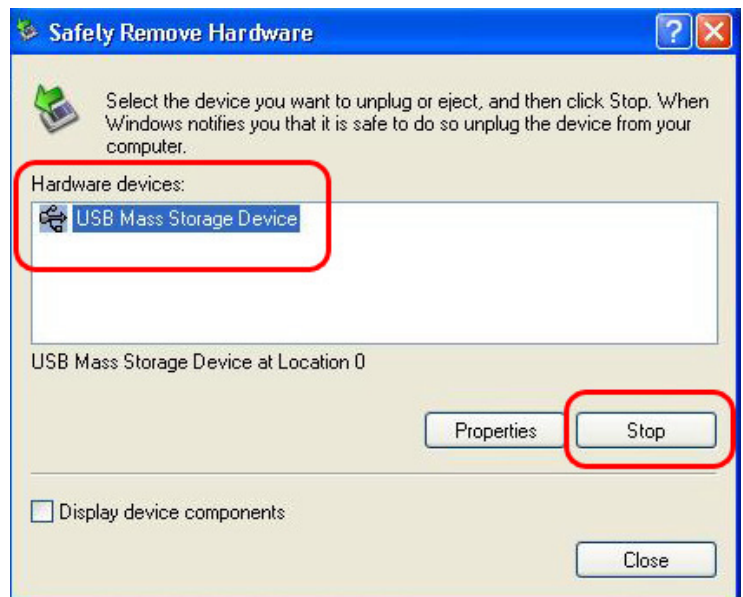| ⚲ TIP	Disconnecting NTD36HD from PC after finishing file copy
After finishing file copy, make sure that you need to next page procedure for disconnecting NTD36HD from PC. Otherwise, copied files may have some damage.	

NTD36 HD Disconnecting from PC

When try disconnecting USB cable between NTD36HD and PC,
Make sure to follow below procedure.

1. Do double-click the icon of "**Safely remove USB……**".

Safely remove USB Mass Storage Device

6:39 AM

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

Safely Remove Hardware

Select the device you want to unplug or eject, and then click Stop. When Windows notifies you that it is safe to do so unplug the device from your computer.

Hardware devices:

USB Mass Storage Device

USB Mass Storage Device at Location 0

Properties   Stop

Display device components

Close

3. When the message like picture is shown, disconnect USB cable between NTD36HD and PC.

Safe To Remove Hardware

The 'USB Mass Storage Device' device can now be safely removed from the system.

9:28 PM

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NTD36 HD Connecting to TV with Composite(AV) cable

**After power off NTD36HD and TV, connect them like below procedure..**
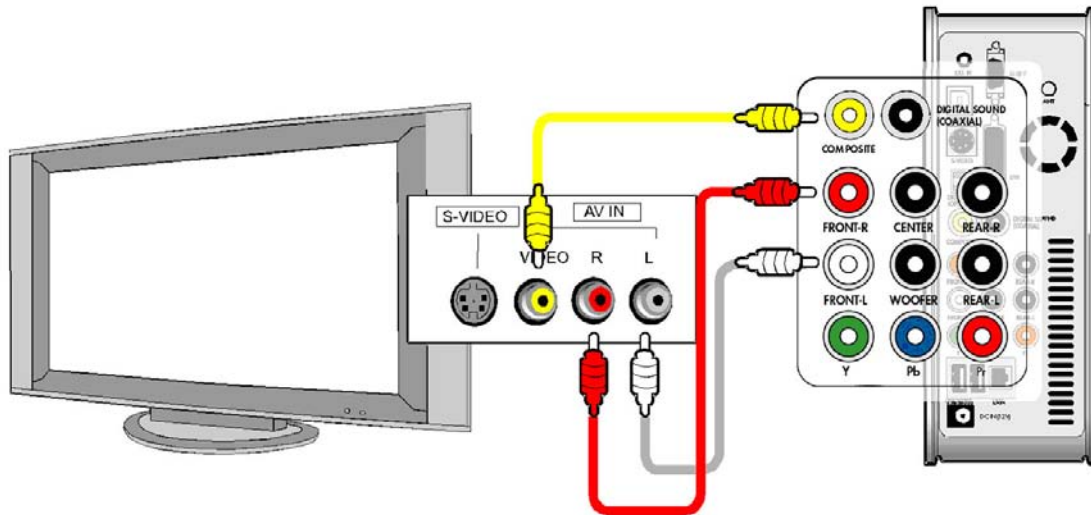
- The Composite AV cable is needed to connect with normal TV or Video and is for connecting Composite video signal and 2CH audio signal simultaneously.

- Connect yellow cable to the Composite connector of NTD36HD and to the VIDEO connector of TV set.

- Connect red cable to the FRONT-R connector of NTD36HD and to the Sound Input(Right) of TV or Audio system.

- Connect white cable to the FRONT-L connector of NTD36HD 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 the bottom line of NTD36HD rear side.

- 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
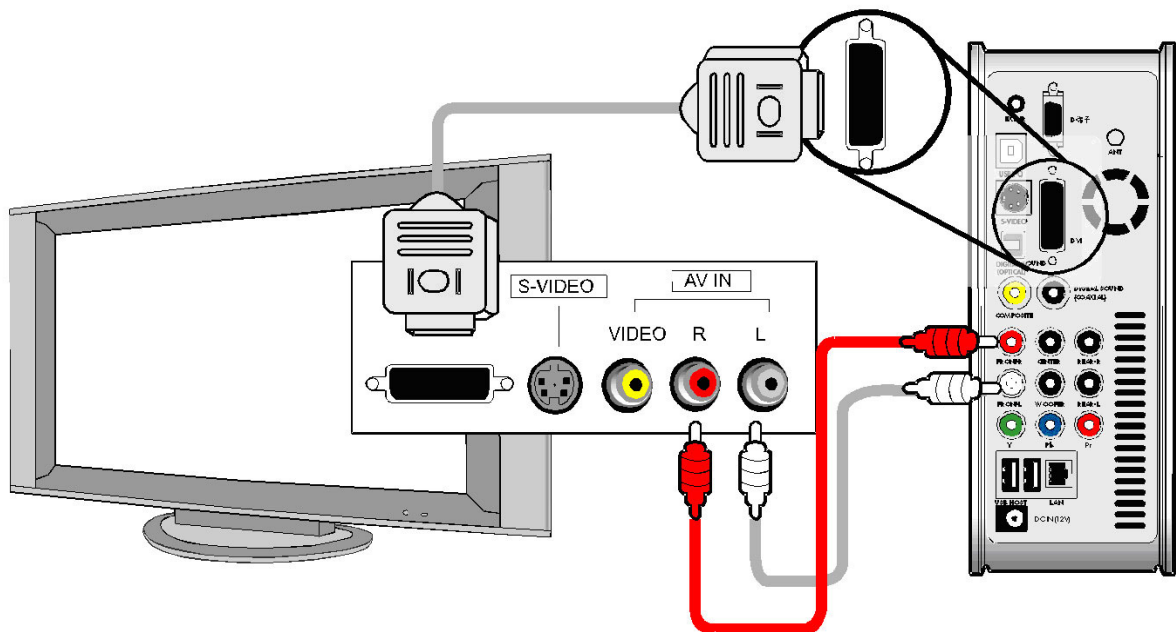
NTD36 HD   Connecting with Component cable or DVI connector

When connecting HDTV or other high quality displaying devices,

connect like below picture..
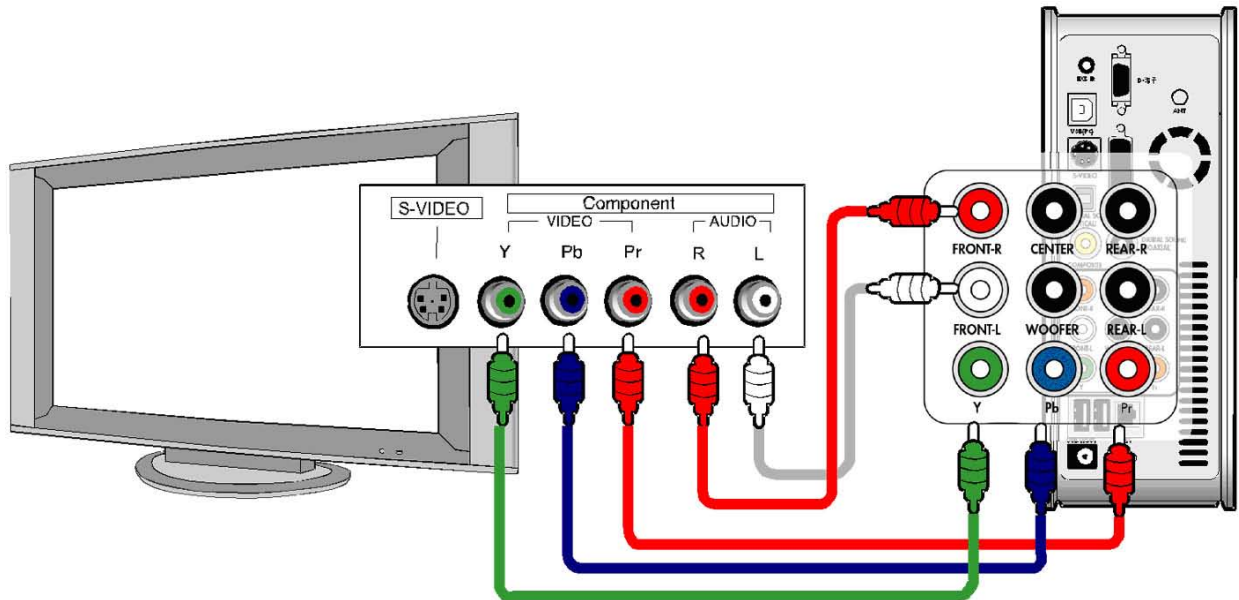
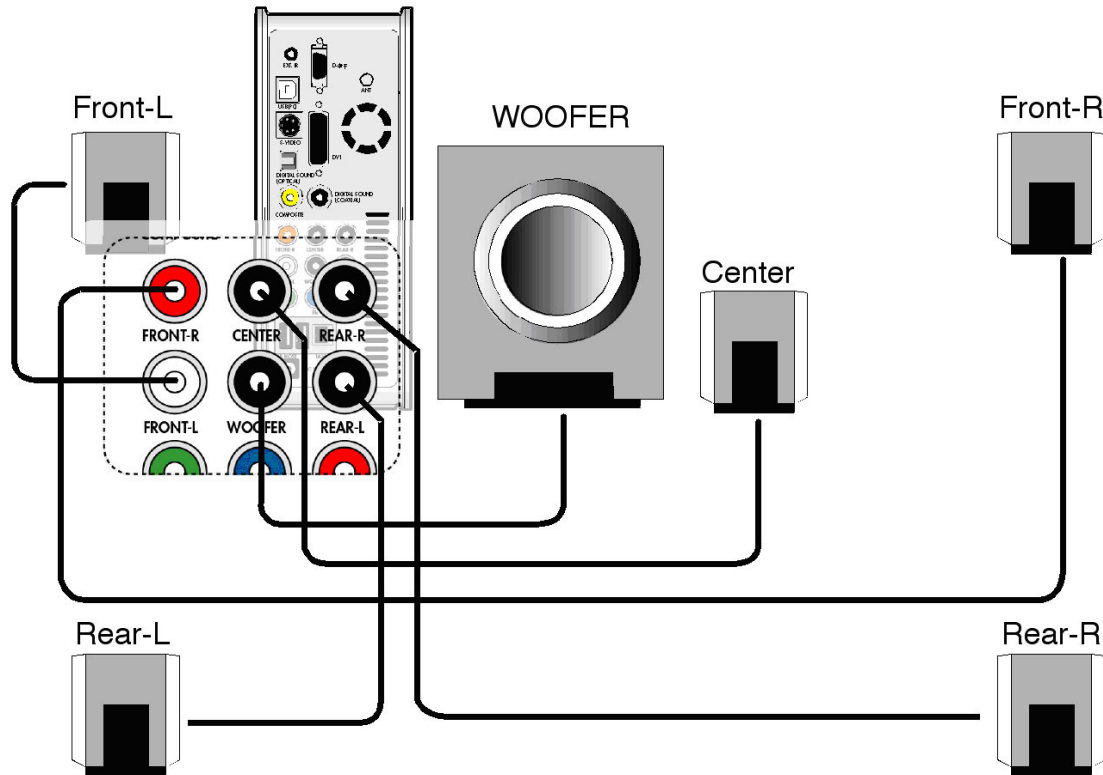**Connecting with Component cable**

Connecting with DVI cable

- For safety, connect cables after power off NTD36HD, TV and audio system.

- You have to purchase DVI cable and other genders by yourselves from shop

NTD36 HD   Connecting with 5.1CH audio system

If you want to connect analog 5.1Ch sound output to your speaker, please connect audio cables like below picture.

- You need to prepare below cables or gender by yourself as those are not supplied together with NTD36HD. (audio cable for analog 5.1Ch, 3.5 pie gender cable, etc)

- Connect with analog 5.1Ch cables like upper picture.

- If the input connector of speaker or audio system is the stereo jack(3.5 pie) type, you need 3.5 pie gender cable. According to below picture, connect it to each speaker properly..

CENTER
FRONT-R (Front-Right)
FRONT-R (Front-Left)
REAR-R (Rear-Right)
REAR-L (Rear-Left)
WOOFER

NTD36 **HD**   Connecting with Optical, Coaxial connector

If you want to enjoy high quality digital audio, connect with Optical or Coaxial connector.
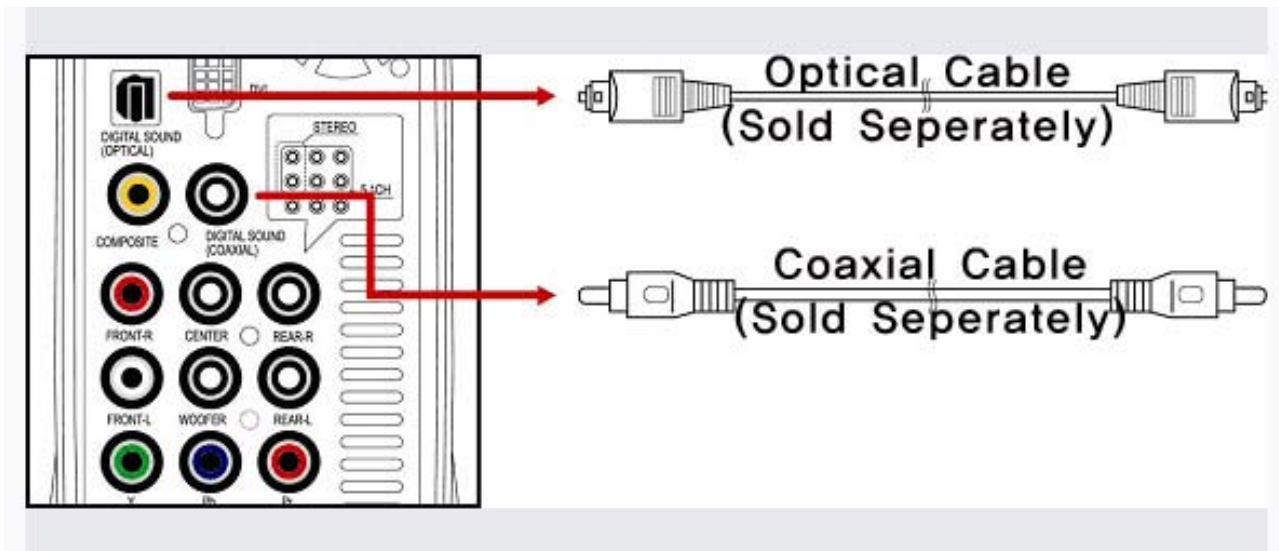
- As the audio output through Optical or Coaxial is digital signal, separate devices like DTS Decoder(or Receiver) is needed additionally.
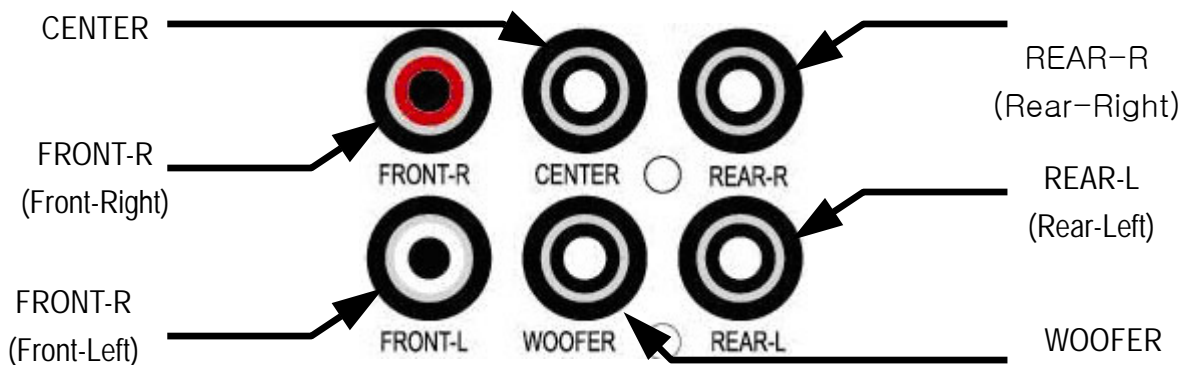
- For safety, connect cables after power off NTD36HD and audio system.

- 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.

NTD36 **HD**   Connecting to Network

To connect NTD36HD to a network, some equipment is required.

Ethernet Network using a direct connection to a PC(IP Address setup : 36 page)

Cross LAN Cable
(Sold separately)
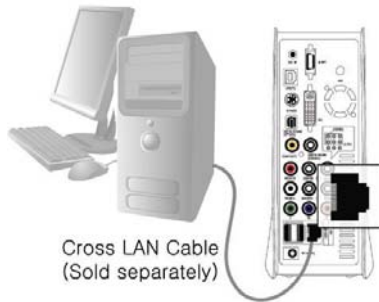
Connect the NTD36HD to a PC with a crossed cable.

◈ **Equipment required.**

● A crossed cable.

● A window PC with an Ethernet connection.

Ethernet Network using a router

LAN Cable(Straight-through)
(Sold separately)
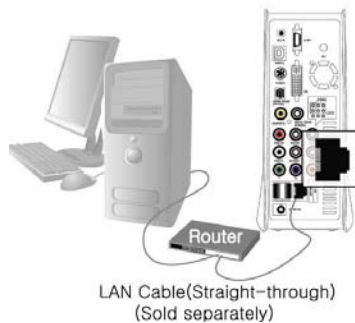
Connect the NTD36HD and a PC to a router or switch HUB with 2 straight cables.

◈ **Equipment required.**

● 2 straight cables.

● A window PC with an Ethernet connection

● A router or Switch HUB

Wireless connection using a wireless router
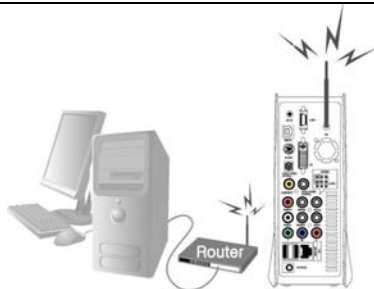
Connect the NTD36HD and a PC to a wireless router with a straight cable for PC.

◈ **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.

NTD36 HD   Structure of Remote Controller

POWER ——————————————— POWER

AUDIO OUT SELECT

MOVIE FODER HOT KEY ———————— MOVIE MUSIC PHOTO JUKE BOX

TV OUT SELECT

MUSIC FOLDER HOT KEY ————————

JUKEBOX CREATOR

GOTO ——————————————— GOTO

PHOTO FODER HOT KEY

CLEAR ALL(JUKEBOX) ————————— CLEAR

BOOKMARK

DELETE FILE(JUKEBOX) ————————— DEL.

SLEEP TIMER

MUTE ——————————————— MUTE   SETUP

RETURN / CANCEL

PLAY & PAUSE ———————————— PLAY / PAUSE

SLOW FOWARDING

SETUP ——————————————— STOP

BGM ON/OFF

STOP   INFO/CURRENT TIME

+15SEC FWD/UP ▲ ——————————— +15S

OK/SELECT

REVERSE /LEFT ◄ ——————————— REW   OK

-15SEC REV/DOWN ▼ ————————— -15S

FORWARD/RIGHT ▶

VOLUME ——————————————— VOLUME   REW   FF

-32~+32X FWD/REV

PREV./NEXT FILE ———————————— PAGE

REPEAT/SHUFFLE

(DVD CHAPTER)

POINT TO POINT

SYNC SUBTITLE ————————————

ZOOM / SCROLL ———————————— ZOOM / SCROLL   SYNC   EJECT   PICTURE

ODD EJECT

COLOR SETTING

DVD TITLE/MENU ——————————— TITLE   ANGLE   S.TITLE   AUDIO

LANGUAGE

DUBBING AUDIO

DVD ANGLE   SUBTITLE

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NTD36 **HD** Booting Message & Main Menu

If power on NTD36HD, it is booted up like below picture.
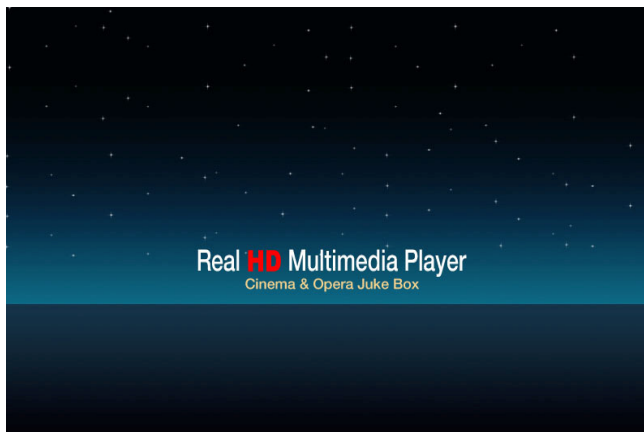
1. Booting Message

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 NTD36HD set 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.

NTD36 HD   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.
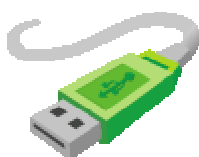
USB 1 or 2 icon

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 NTD36HD 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.

🔍 **TIP**	**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.	

NTD36 HD   SETUP Menu and How to set up

If needed to change setting values before using NTD36HD, you can open SETUP Menu like below picture by pressing SETUP button of remote controller or NTD36HD set.

- SETUP Menu is classified like VIDEO, AUDIO, ETC, NETWORK, WIRELESS, EXIT. You can select each item with Left/Right (◀, ▶) button of remote controller or NTD36HD set.

- 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.

NTD36 **HD**   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.
  - ⇨ DVI (Auto or each Mode) : In case of connecting with TV through DVI connector.
  - ⇨ VGA (each Mode) : In case of connecting with Monitor through DVI to RGB Gender connector.

※ **By pressing TV OUT button of remote controller(or NTD36HD unit) several times, you can change TV standard and Video Out mode in order. Standard modes changeable in order is seven(7) level.**

NTD36 HD　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 NTD36HD, 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.

NTD36 HD   ETC(Other) settings

In SETUP Menu, if selecting ETC icon, sub items are listed up like below picture.

- **Slideshow Interval :** To control time delay for displaying next picture file during slideshow. ⇨ 3sec, 5sec, 10sec ~ 60sec (total 9 levels)
- **OSD Lang. :** To change OSD languages**.**
- **Sub. Color :** To change subtitle color when playing back a moving picture**.**
    ⇨ total nine(9) kinds available.
- **Sub. Size :** To change size of subtitle when playing back a moving picture.
    ⇨ total two(2) kinds(Large/Small) available.
- **User defined background :** To change the background of main menu with other picture file that you want. ⇨ You choose a picture file in the basic HDD or in folder through network.
- **Use default background :** To use original background by canceling the user defined background.
- **Factory reset :** To clear all values set by user and to initialize NTD36HD with values set at factory.
- **Firmware Update:** To select firmware bin file and to update with new firmware.

NTD36 HD   NETWORK setting

The sub option related to network will be displayed by selection of NETWORK icon.

- **Network Connection :** Select either "Wired Net." (for the Ethernet connection) or "Wireless Net." depending on the type of network connection you want to set up.
- **Connection Status :** It shows current network connection status.
- **Address Setup:**

⇨ DHCP(Auto IP) : IP address will be assigned automatically with using a router.

⇨ Static IP : IP address should be assigned manually by user with Ethernet networking using a direct connection to the computer. Input the IP address, Netmask and Default gateway.

- **MAC (wired) :** It shows MAC address of wired LAN.

NTD36 HD　WIRELESS(Auto setting)

This section shows how to make wireless network setup automatically to communicate with devices under network environment. You don't need to change any setting value manually.
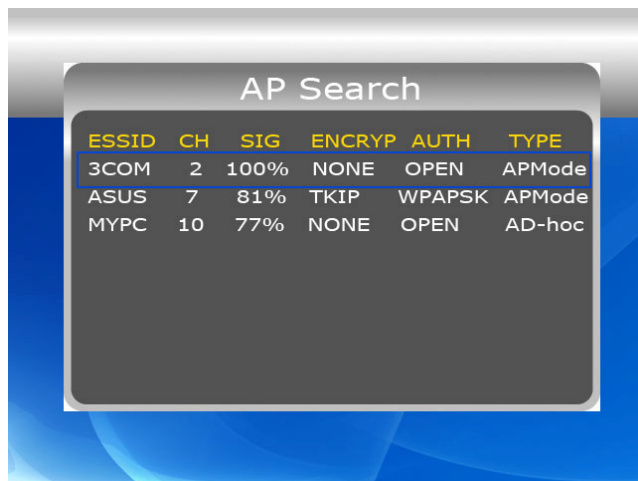
AP SEARCH
Click "AP SEARCH" to look for AP available.

List of AP available
You can select the AP that you want to use and press "OK" button.

TIP	In case that you set ESSID as 'hidden' or you set 'Password' for your AP.
	In case that you set ESSID as 'hidden' or you set 'password' with your AP, you need to enter ESSID name or Password by yourself. For entering ESSID name or Password, NTD36HD will show you the specific window.

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Check "ESSSID"

You can make sure whether the setting value(ESSID, Channel, etc) is right or not. The setting values should be match with your wireless router(or AP) or PC.
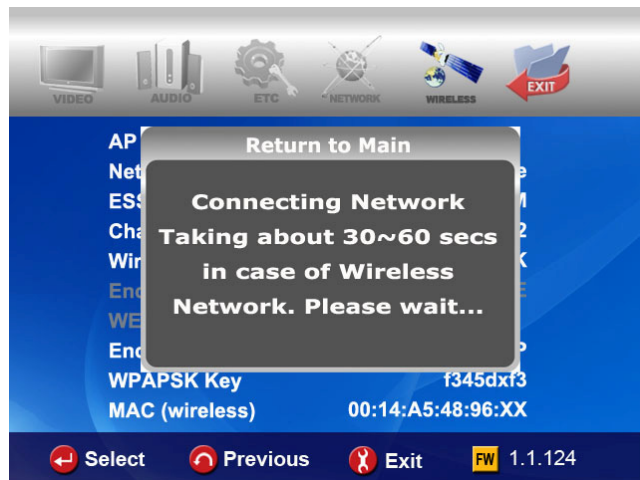
Then, you may press "RETURN" button to store this setting and exit.

Getting IP address

The NTD36HD will try to get new IP address from your router. It takes about 30 ~ 60 seconds.

TIP	With Ad-hoc mode
If you are using Ad-hoc mode, you have to enter IP address manually on "NETWOKR" section.	

Check NETWORK icon activation

NETWORK icon will be activated if the network is connected successfully.

TIP	Network icon activation
According to network security setting, network status, etc, sometimes it will take 5 ~ 10 seconds for the network icon to be activated. So, you need to wait for some time until the network icon is activated.	

NTD36 HD   WIRELESS (Manual setting)

This section shows how to make wireless network setup manually to communicate with devices under network environment.

- **Before setting this section, check that Connection should be set Wireless net. on NETWORK section.**
- **If you are running wireless network, all device on your network need to share the same ESSID, CHANNEL, Wireless security and Encryption key in order for them to communicate each other. If you do not know what method of authentication is enabled in your wireless router/AP, please refer to its manual on how to see or set it up.**

ESSID

The ESSID of NTD36HD should be exactly same as that of the wireless router or the AP(access point) that you use under network environment.

TIP	**WORDING.**
The "SSID" is also referred to as the "ESSID" or "Extended Service Set ID"	

CHANNEL

The 802.11g and b specifications supports up to 14 overlapping channels for radio communication. You can select from AUTO to CH13.
The selected channel of NTD36HD should be as that of the wireless router or the AP(access point) that you use under network environment.

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Wireless Security

(Authentication Method)

You can set different authentication methods which determine different encryption schemes. There are 6 authentication methods(WEP Auto, WEP SHARED, WEP OPEN, WPAPSK, WPANONE, WPA2PSK).

Encryption algorithm

(WEP or WPA)

The encryption algorithm determines the authentication method you select.

![TIP]	Relation.
Authentication Method	**Encryption Algorithm**
WEP Auto WEP SHARED WEP OPEN	NONE WEP
WPAPSK WPA NONE WPA2PSK	TKIP AES

Encryption (WEP)

Encryption(WEP) option should be applied in case that "WEP" encryption algorithm is used.

The encryption setting of NTD36HD should be exactly same as that of the wireless router or the AP(access point) you use under network environment.

Encryption(WPA ,Pre-Shared Key)

Encryption(WPA) option should be applied in case that "TKIP" or "AES" encryption algorithm is used.

The encryption key of NTD36HD should be exactly same as that of the wireless router or AP(access point) that you use under network environment.

MAC (wireless)

It shows MAC address of wireless LAN

![TIP]	**Review of wording related to Wireless, Security.**

Each manufacturer may use different wording when naming each function. Make your reference for below wordings.

- **ESSID : referred to as SSID or Extended Service Set ID**
- **ASCII   when WEP key or WPA key input : referred to as Characters**
- **HEX   when WEP key or WPA key input : referred to as Hexadecimal**
- **Wireless security : referred to as Authentication method or Type.**
- **Encryption : referred to as   Encryption Algorithm or Encryption Type**
- **NONE : referred to as NULL**
- **WPAPSK : referred to as WPA P-Key, WPA Pre-Shared Key or Network Key**
- **Key : referred to as Key Value**