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## Chapter 1. Portable Mpeg4 Player

### Introduction

This Mpeg4 Player is 2.5" HDD interface type of MPEG4 player based on USB 2.0 High Speed.

It can be connected to TV in home or a monitor. It is not only an external USB HDD but also the best portable AV device that displays Music, Movie and photo.

### Main Specifications & Functions

- \* an External USB HDD using 2.5" HDD.
- \* supports 480 Mbps High-Speed USB 2.0 data transmission interface.
- \* works on Windows 98/SE/ME/2000/XP, MAC 9.0 higher, Linux 2.4 higher.
- \* supports FAT32 and NTFS file system.
- \* Multi-Codec Digital Data Player that plays various Audio, Video formats and photos through TV or a monitor.
- \* supports various multimedia formats (MPEG 1, 2, 4, DivX, XviD, MP3, OGG, JPG, etc).
- \* supports multi-language.
- \* supports high-resolution data & 5.1 Ch digital sound through Coaxial output.
- \* supports 480p, 720p, 1080i progressive scan.
- \* no additional power required to connect to a PC.
- \* more durable 2.5" HDD compared to 3.5".
- \* Light, compact and fashionable aluminum cover and it is desirable device in a car for entertainment.
- \* Firmware upgradeable for the latest functions and performance.

### Supported Media Formats

Video	Audio	Photo
MPEG 1, 2, 4 (MPG, MPEG, AVI, M2V, DAT, VOB, etc) DivX, XviD (Except GMC & Qpel option applied formats)	MP3, OGG Vorbis, WMA	JPG

### Required System (PC)

- \* Interface : 480Mbps USB 2.0 High-Speed (USB 1.1 compatible)
- \* Power Supply : USB Bus Power or DC Power
- \* Available OS : Windows 98/SE/ME/2000/XP, MAC 9.0 higher, Linux 2.4 higher
- \* Available System : Desktop / Laptop PC that has USB port(s)

## Pre-Cautions

We strongly recommend to read the below "Pre-Cautions..

- \* We strongly recommend you to back up the data to another safe media. We are responsible for the hardware of the Mpeg4 Player only but don't have the responsibility for data damage or loss in a HDD.
- \* In a car, we recommend you to use the supplied cigarette lighter jack (option) and we are not responsible for the damage or loss of data in a HDD by using another cigarette lighter jack.
- \* It's better unplug the power adaptor when you don't use for a long time.
  
- \* Grip the side of the Mpeg4 Player. The top & bottom cover may have heat due to aluminum case.
- \* This Mpeg4 Player does not supports the DivX, XviD codec of video files that has GMC, Qpel option.
- \* This Mpeg4 Player supports only "Pass-Through for DTS Audio codec.
- \* Don't power off while a file is playing.
- \* If the length of USB cable is too long, it may not be connected smoothly (Recommend : up to 3 meters)
- \* We strongly recommend you to use the supplied USB cable that supports more enough power to the Mpeg4 Player (Customized USB Cable).
- \* If you have USB 1.1 Host Adapter, the Mpeg4 Player is working at USB1.1 speed.
- \* On less than 6GB HDD, data damage or loss may be caused. We recommend you to use more than 6GB HDD.
- \* **[Very Important]** : If unformatted HDD is insert into the Mpeg4 Player, a PC can not detect the Mpeg4 Player. Make sure that the HDD is formatted. For "How to format a HDD, contact HDD manufacturer or the seller.
- \* Be careful of dropping or impact or shock. If a HDD is damaged by dropping, impacting, shocking, then contact manufacturer or the seller.
- \* We recommend you to use the all supplied cables or accessories that are customized for the best performance of the Mpeg4 Player. Using other cables or accessories may not support the best performance.
- \* **[Very Important]** : Be away from water, heavy moisture. If the Mpeg4 Player has a liquid, unplug the Mpeg4 Player from a PC right away. If you use the Mpeg4 Player under this condition, the HDD may be fired or you may have electric shock.
- \* Don't touch the Mpeg4 Player by wet hands. It may cause electric shock.
- \* Be away from heat, a direct ray of light.
- \* Be away from devices that transmit strong magnetic signal. It may cause data damage or loss on HDD.
- \* Don't disassemble as the user's own accord. It may cause the Mpeg4 Player damaged or loose the data.

**Product Specifications**

Product Name	Portable Mpeg4 Player	
Power	DC 5V/2A	
Weight	160g (without HDD)	
Dimension	80 x 148 x 24 mm	
Working Temperature	0° C ~ 50° C	
Working Humidity	10% ~ 75%	
Available OS	Windows 98/SE/ME/2000/XP, MAC 9.0 higher, Linux 2.4 higher	
PC Interface	480Mbps USB 2.0 High-Speed(USB 1.1 compatible)	
HDD Type	2.5" IDE HDD	
HDD File System	FAT32, NTFS	
TV Type	PAL, NTSC	
Supported Formats	Movie	MPEG 1, 2, 4 (MPG, MPEG, AVI, M2V, DAT, VOB, etc) DivX, XviD (except GMC, Qpel option applied format)
	Music	MP3, OGG Vorbis, WMA
	Photo	JPG
Video Output	Composite	1Ch. : 1.0Vp-p (75Ω load)
	S-Video	Color Signal : 1.0Vp-p (75Ω load)
		Luminance Signal : 0.286Vp-p (75Ω load)
	Component	Y : 1.0Vp-p (75Ω load)
		Pr : 0.70Vp-p (75Ω load)
Pb : 0.70Vp-p (75Ω load)		
Audio Output	Stereo 2Ch	Left (1/L) Right (2/R)
	Digital Out (Coaxial)	0.5 Vp-p(75Ω)
	Audio Sampling Rate	32, 44.1, 48, 88.2, 96KHz
	S / N (Signal to Noise) Ratio	99dB
	Dynamic Range	92dB
	Harmonic Frequency Distortion	0.01%

## Package



*This is basic accessories and shall be changed without prior notice (AV 1,2,3 Cable Length : 1M)*

## Explanation of the exterior Appearance

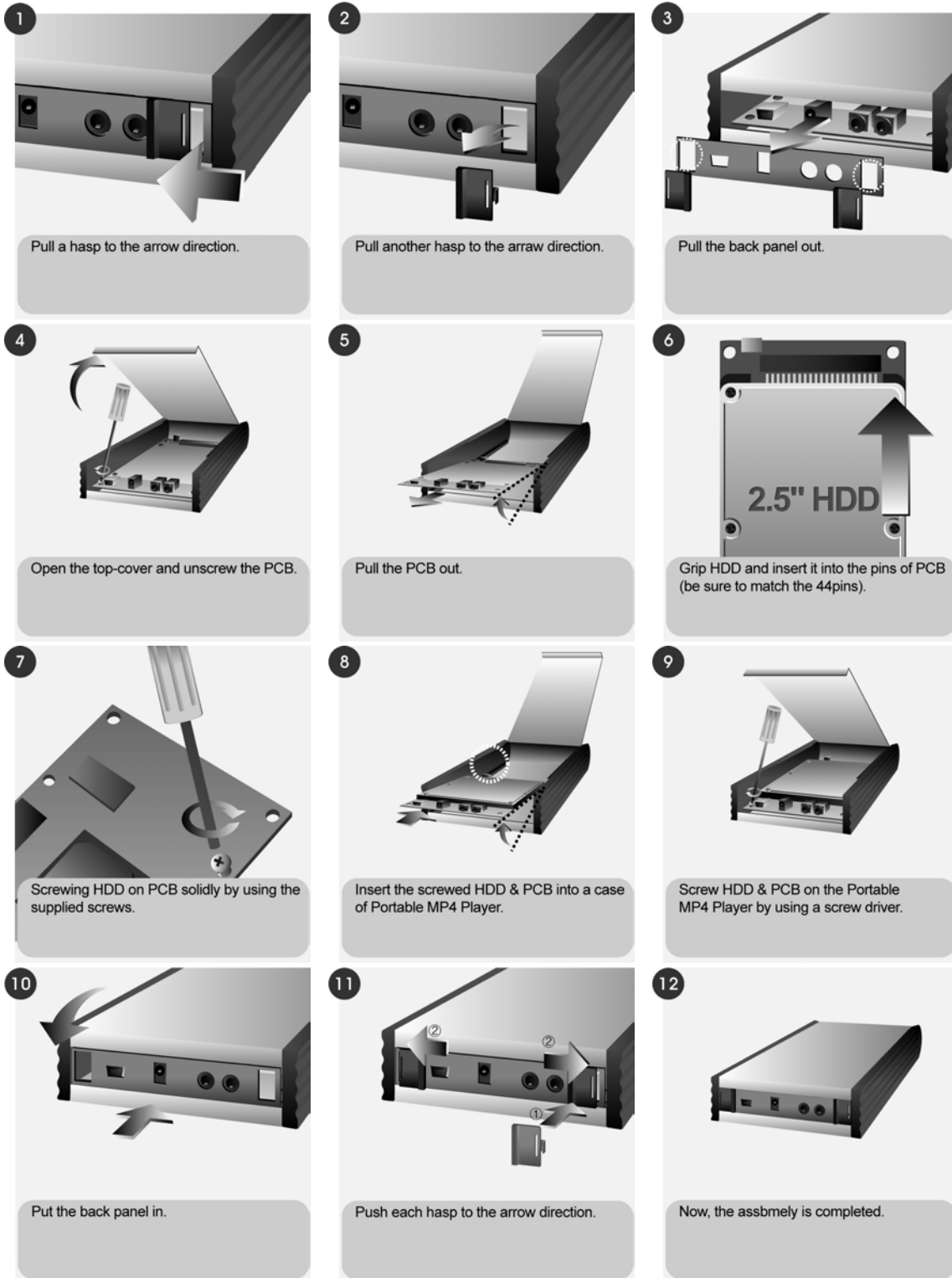


- 1) Power LED : LED for power supply. It's lighting when power is supplied.
- 2) HDD LED : It's lighting when data is transmitting.
- 3) IR LED: It's blinking when the remote control receives a signal.
- 4) IR Receiver : The receipt area of the remote control.
- 5) USB Port : Connect USB Cable to a PC in order to [copy] & [paste] data.
- 6) DC Input : Connect DC Power Adaptor.
- 7) SV/5.1 : Output for S-Video, Coaxial, Component (Y, Pr) signal.
- 8) A/V : Output for Composite, Stereo L-R, Component (Pb) signal.

## Chapter 2. How to Assemble & Insert HDD

This is how to assemble or disassemble HDD to/from the Mpeg4 Player.

※ [Note] : The HDD that is inserted to the Mpeg4 Player should be "Master".



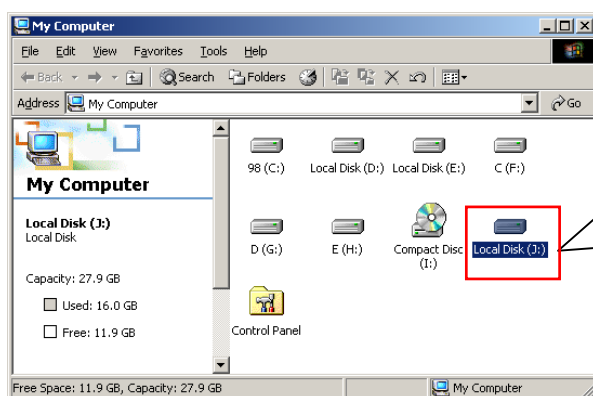
## Chapter 3. How to Connect a PC & the Mpeg4 Player

Connect a PC & the Mpeg4 Player with supplied USB Cable.

[Note] : Installation Driver should be installed on a PC first for Windows 98/SE users. Refer to the below instructions.

### 1. Instructions for Windows Users

When a PC and the Mpeg4 Player is connected, a new Volume will be appeared on [My Computer]. You can save any data on this volume. See the instructions below for a various Window versions.

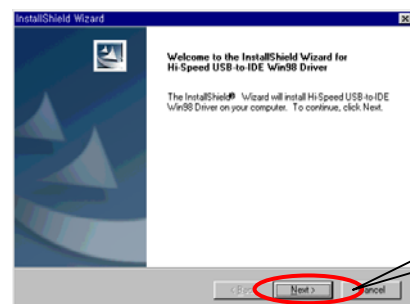


#### (1) Windows 98/SE Users

[Note] : Installation Driver for Windows 98/SE should be installed first in order a PC can detect the Mpeg4 Player.

The Installation Drive (Win98\_Mpeg4 Player.exe) is at a supplied CD and you can find the driver at the "Win98Driver" folder. Win98Driver file name is "Win98\_Mpeg4 Player.exe".

After installing the driver and when you connect the Mpeg4 Player to a PC then the PC can detect the Mpeg4 Player as a new volume.



[Note] : Check the Driver Installation

You can check whether the driver is installed correctly or not at [Appendix. Check the Driver Installation for the Mpeg4 Player at Windows].

[Note] : Check whether a HDD is formatted or not

If a HDD is not formatted, a PC can not detect the HDD. Refer to the manufacturer's information of the HDD or contact the seller where you purchased.

[Note] : Refer to how to remove the Mpeg4 Player safely from a PC



Remove the Mpeg4 Player with using the right icon at Windows 98/SE. If you don't follow this procedure, data and the Mpeg4 Player may have damage.

## (2) Windows ME/2000/XP Users

[Note] : No need to installation any Installation Driver.

Connect the Mpeg4 Player and a PC by using supplied USB Cable then the PC detect the Mpeg4 Player as a [USB Mass Storage Device] at [My Computer].

[Note] : Check the Driver Installation

You can check whether the driver is installed correctly or not at [Appendix. Check the Driver Installation for Mpeg4 Player at Windows].

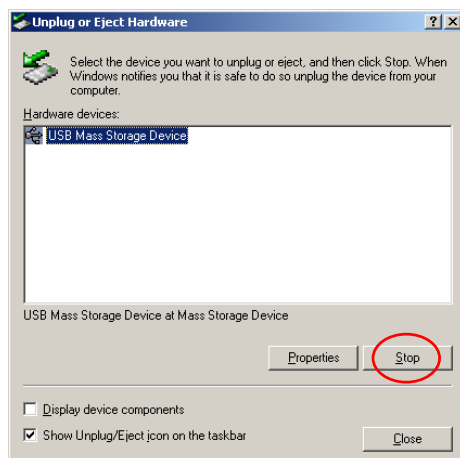
[Note] : Check whether a HDD is formatted or not


If a HDD is not formatted, a PC can not detect the HDD. Refer to the manufacturer's information of the HDD or contact the seller where you purchased.

[Note] : When USBntmap.sys file is asked at Windows ME

When you are asked <USBntmap.sys> file, find at [Windows ME CD] -> [Win9X] folder -> [base2.cab].

[Note] : Refer to how to remove the Mpeg4 Player safely from a PC



Remove the Mpeg4 Player with using the right icon  at Windows ME/2000/XP. If you don't follow this procedure, data and the Mpeg4 Player may have damage.

## 2. MAC Users

No need to install the installation driver at MAC OS 9.x version and the Mpeg4 Player will be detected automatically. If the Mpeg4 Player is detected correctly, an icon is appeared at a monitor. When remove the Mpeg4 Player safely, drag the icon to a trash and unplug the Mpeg4 Player.

## 3. Linux Users

It can be available at Linux 2.4 higher.

[Automatic Mount]

After booting, do log-in.

Connect the Mpeg4 Player -> Power On the Mpeg4 Player -> Check the detection with [fdisk] -> make Mount Pointer (ex. mediatest) at Folder Mount(/mnt) -> Edit [/etc/fstab] -> add the following;

```
/dev/sda /mnt/mediatest vfat noauto, user 0 0 (in case of FAT32 HDD)
```

```
/dev/sda /mnt/mediatest ntfs noauto, user 0 0 (in case of NTFS HDD)
```

Do Log-in again.

[Note]

above example "sda" is assumed that the Mpeg4 Player will be detected as "sda" on your system. If not, you have to write the drive name which is detected as "USB Mass Storage", not "sda"

[Manual Mount]

Connect the Mpeg4 Player -> Power On Mpeg4 Player -> Check the detection with [fdisk] -> make Mount Pointer (ex. mediatest) at Folder Mount(/mnt) -> Edit [/etc/fstab] -> add the following;

```
mount -t vfat /dev/sda /mnt/mediatest (in case of FAT32 HDD)
```

```
mount -t ntfs /dev/sda /mnt/mediatest (in case of FAT32 HDD)
```

[Note]

above example "sda" is assumed that the Mpeg4 Player will be detected as "sda" on your system. If not, you have to write the drive name which is detected as "USB Mass Storage", not "sda"

[How to stop using]

Do [unmount] at Device Control.



## Chapter 4. Connect the Mpeg4 Player to external AV Devices by Cables

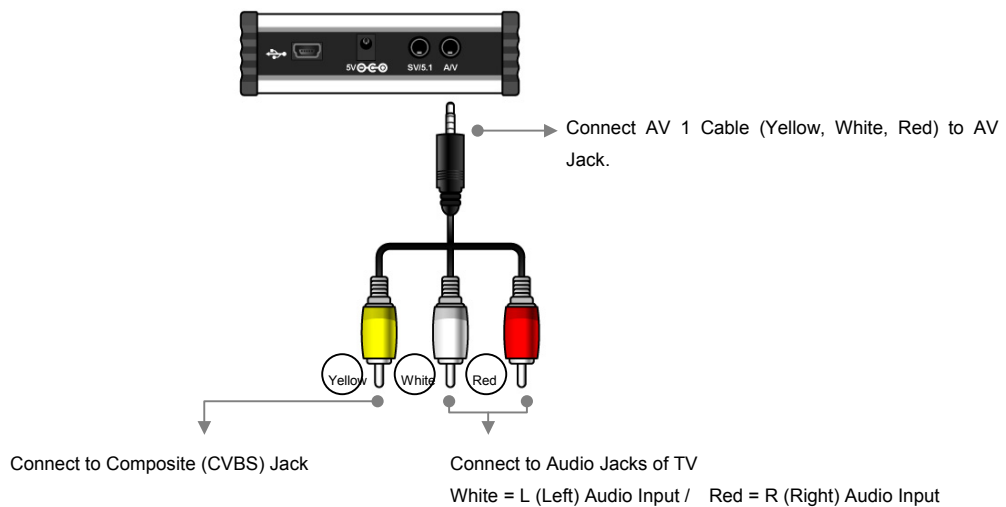
This Mpeg4 Player supports Composite, S-Video, and Component for Video and Stereo & 5.1Ch sound by Digital Output (Coaxial).

Refer to the below examples.

### 1. Connect by Composite for Video & Stereo for Audio

It's for normal TV connection.

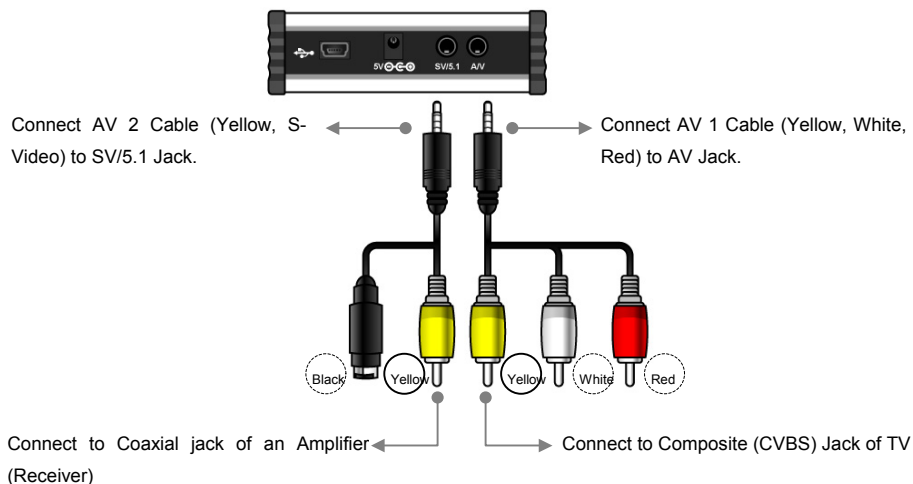
Connection for Video through Composite and for Audio through Stereo.



### 2. Connect by Composite for Video & 5.1Ch for Audio

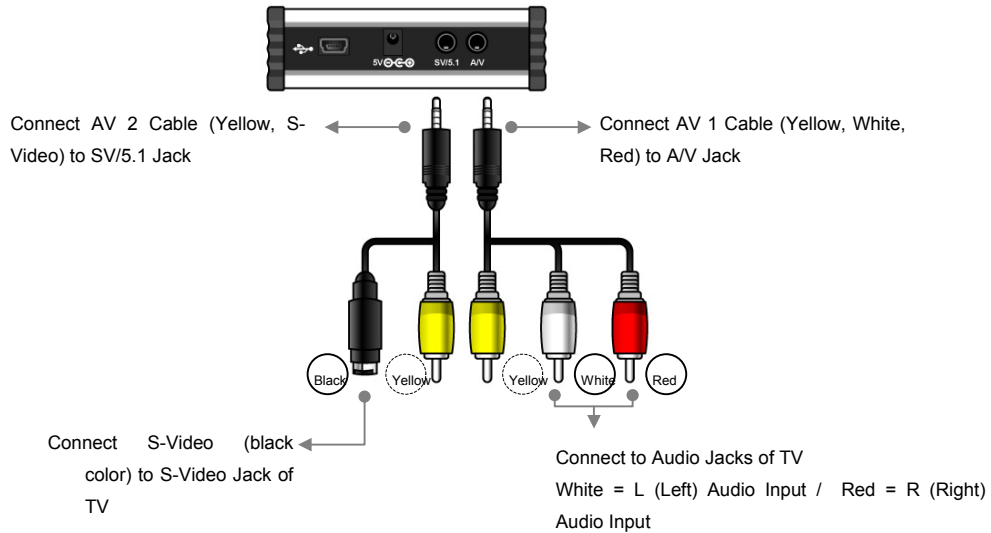
Connection for Video through Composite and for Audio through 5.1Ch (Coaxial)

After cable connection, set the Audio as 5.1Ch at Setup page of the Mpeg4 Player.



### 3. Connect by S-Video for Video & Stereo for Audio

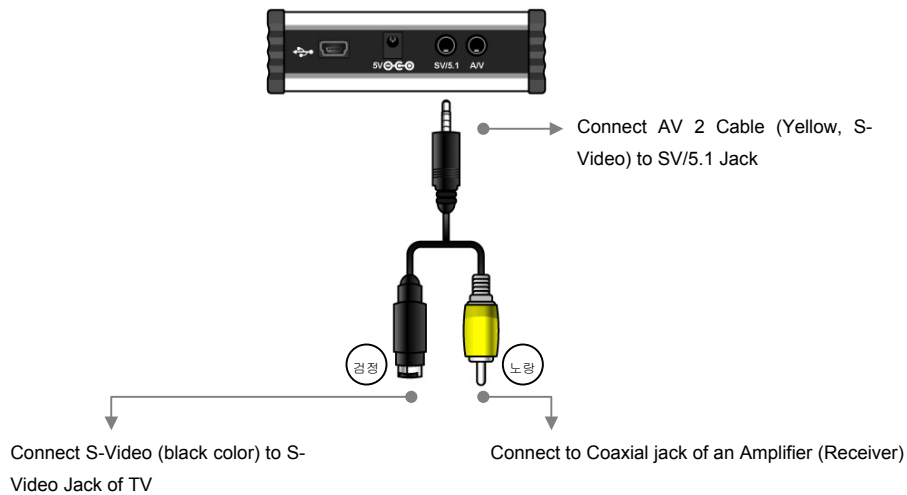
Connection for Video through S-Video and for Audio through Stereo



### 4. Connect by S-Video for Video & 5.1Ch for Audio

Connection for Video through S-Video and for Audio through 5.1Ch (Coaxial)

After cable connection, set the Audio as 5.1Ch at Setup page of the Mpeg4 Player.



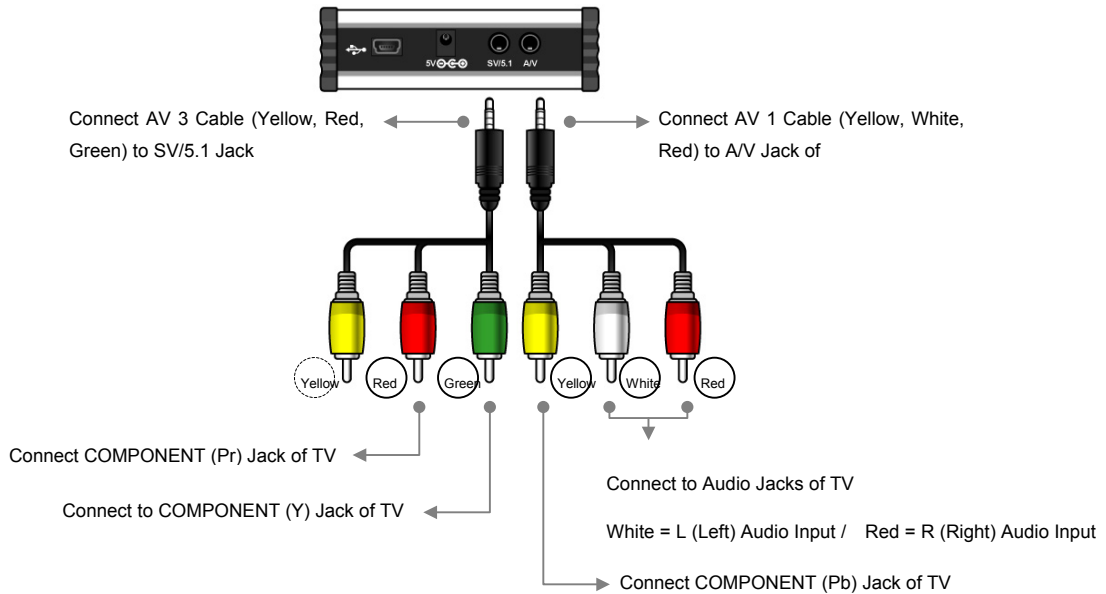
### 5. Connect by Component for Video & Stereo for Audio

Connection for Video through Component and for Audio through Stereo

[Note] : In case, the main page is not appeared

In case, the main page is not appeared after connecting the proper cables, press [F1] button until

you see the main page (Mpeg4 Player LOGO PAGE) and then press [Setup] button in order to match [Video] setup with TV.

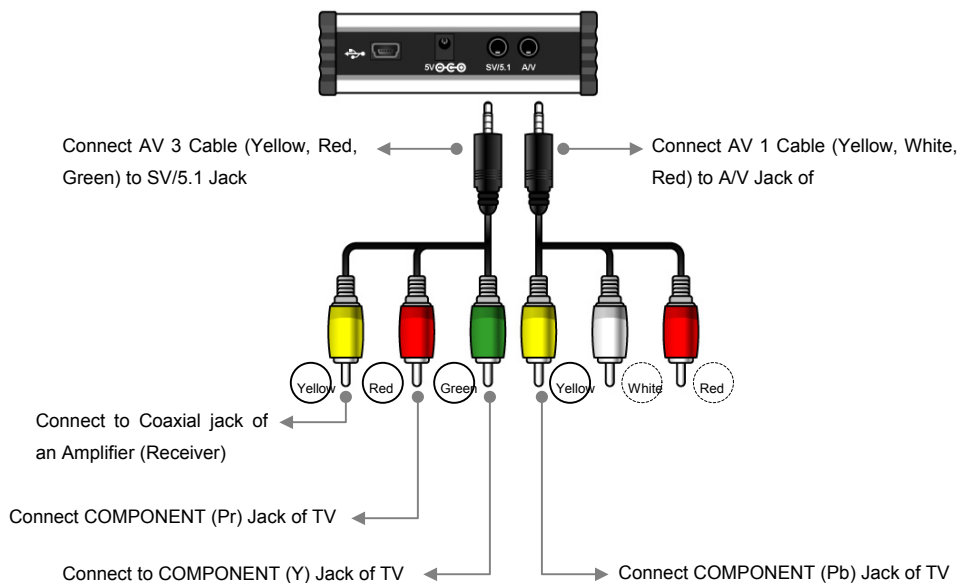


## 6. Connect by Component for Video & 5.1Ch for Audio

Connection for Video through Component and for Audio through 5.1Ch (Coaxial)  
After cable connection, set the Audio as 5.1Ch at Setup page of the Mpeg4 Player.

**[Note] :** In case, the main page is not appeared

In case, the main page is not appeared after connecting the proper cables, press [F1] button until you see the main page (Mpeg4 Player LOGO PAGE) and then press [Setup] button in order to match [Video] setup with TV.



## Chapter 5. Basic Setup of the Mpeg4 Player

### 1. Video Setup

The default Video Setup is Composite Connection for general TV.

If a general cable (Yellow) is connected, no need to change.

If you want to connect by other cables, select a proper TV system (NTSC / PAL) for a TV to receive a correct video signal.

For Video Setup, press [Setup] button on a remote controller.

**[Note]** : In case, the main page is not appeared

In case, the main page is not appeared after connecting the proper cables, press [F1] button until you see the main page (Mpeg4 Player LOGO PAGE) and then press [Setup] button in order to match [Video] setup with TV and also refer to TV manual.

#### (1) Setup of TV System (NTSC / PAL)

- 1) Select [Setup] -> [Video Setup] -> Press [Enter] or [▶] button.
- 2) Select [TV Output] by using [▲] or [▼] button.
- 3) Select a menu by using [▶] and [▲▼] key and press [Enter] for setup.
- 4) Now, the new configuration is applying. Be sure to press [Enter] button to save the new setup.
- 5) Set other configurations by using arrow buttons or go to other setup pages by pressing [Setup] button.



**[Note]**

\* NTSC, PAL : Standard of TV Output. Select a proper one for using in your country.

\* C(Composite) : If a general cable (Yellow) is connected, no need to change.

\* S-Video : In case, connect by S-Video cable (Black) and the color is white-black, need to change the configuration.

\* Y,PB,PR : In case of Component Video Output

#### (2) Setup of HD Component (Progressive)

In order to use Components connection, the TV MUST support [Progressive].

- 1) Select [Setup] button on a remote controller.
- 2) Select [Video Setup] -> Press [Enter] or [▼] button.
- 3) Select [HD Component] output by using [▲▼] keys.
- 4) By using [▶] and [▲ or ▼] button, select a proper one (480p, 720p, 1080i, off) and then press [Enter] button.

- 5) Now, the new configuration is applying.
- 6) Be sure to press [Enter] button to change the new setup. Finally, press [Setup] button for saving configurations.



**[Note]**

If you see an abnormal screen, the TV does not support [Progressive].

In this case, press [Video] button on a remote controller until you have a normal screen.

*Some TVs may not support [720P].*

## 2. Audio Setup

- 1) Select [Setup] button on a remote controller.
- 2) Select [Audio Setup] by using [▲ or ▼] button.
- 3) Select a proper one (Stereo or Digital 5.1Ch) by using [▶] button and press [Enter] button.
- 4) Set other configurations by using arrow buttons or go to other setup pages by pressing [Setup] button.



**[Note]**

\* Analogue : Select when you connect Audio Cables (Red, White) to TV directly.

\* Digital : Select when you want to listen through 5.1Ch / DTS Dolby by connecting receiver (or amplifier) with AV2 or AV3 Cable .

## 3. Other Setup

- 1) Select [Setup] button on a remote controller.
- 2) Select [Other Setup] by using [▲ or ▼] button.
- 3) Select a proper menu and press [Enter] button.
- 4) Set other configurations by using arrow buttons or go to other setup pages by pressing [Setup] button.

button.



[Note]

- \* Setup of TV Type (Screen Ratio Configuration) : Select one (4:3 Letter Box, 4:3 Pan Scan, 16:9).
- \* JPEG File Preview : If enable "JPEG File Preview ON", a small picture will be shown at the left side of a screen.
- \* Firmware Version : You can check the current firmware version of the Mpeg4 Player

## Chapter 6. Play Video, Audio and Photo

### 1. Play Video Files

Select [Video] -> Press [Enter] button then you will see video files you saved into the Mpeg4 Player. Select a file you would prefer and press [Enter] or [Play] button then the file will be played.



#### [Menu Description]

- \* Display : Current all video files will be played in order.
- \* Return : You can move to other menu like Audio, Photo, Play list without returning to the main page while you are in [Video] menu.

#### [Note] Various functions of the buttons on the remote control

You can use the following buttons when you are playing a video file.

- \* [Audio] button : You can select Audio 01, Audio 02 if the audio format is multi-audio.
- \* [Caption] button : Supports the following three functions.
  - 1) Screen Location & Size : Control Screen Location & Size.
  - 2) Select Caption : The files that have caption will be displayed. Select a preferable caption.
  - 3) Select Caption Language : Select a preferable language that is multi-language file.
- \* Control Lightness of caption : Number 4 (make it dark), Number 6 (make it bright)
- \* [Scr. Size] button: Supports the following three functions.
  - 1) Upper & Lower Enlargement : By using  $\blacktriangledown$  /  $\blacktriangle$  keys, the screen can be enlarged or reduced.
  - 2) Enlarge overall : Enlarge the overall screen
  - 3) Make a screen by using  $\blacktriangledown$  /  $\blacktriangle$  /  $\blacktriangleleft$  /  $\blacktriangleright$  keys manually.
- \* [Time Search] button : Move to a selected time of a file.
- \* [Brt. Cont] button. : Control luminosity / color depth / brightness of a screen.
- \* [File Info.] button : Check the information of the file played now.
- \* Screen Reset function: If a frame of a video file is broken, green color runs on a overall screen. Press number [0 "Zero"] for screen reset.

## 2. Play Audio Files

Select [Audio] -> Press [Enter] button then you will see audio files you saved into the Mpeg4 Player. Select a file you would prefer and press [Enter] or [Play] button then the file will be played.



### [Menu Description]

- \* Display : Current all video files will be played in order.
- \* Return : You can move to other menu like Video, Photo, Play list without returning to the main page while you are in [Video] menu.

## 3. Play Photos

Select [Photo] -> Press [Enter] button then you will see photo files you saved into the Mpeg4 Player.

Select a file you would prefer and press [Enter] or [Play] button then the file will be played.




### [Menu Description]

- \* Display : Current all video files will be played in order.
- \* Return : You can move to other menu like Video, Audio, Play list without returning to the main page while you are in [Video] menu.

### [Note] : Photo Preview

You can do setup [Photo Preview] at [Other Setup]. If it is enabled, a small picture will be shown at the left side of a screen.

### [Note] : Available Buttons when display photos

- \* Volume + : Enlarge photos (Zoom In)
- \* Volume - : Reduce photos (Zoom Out)
- \* F2 Button : Rotate photos (Rotation)
- \*  buttons : Move photos to up, down, left and right (Panning)



[Note] : Slide Show by using [Display]

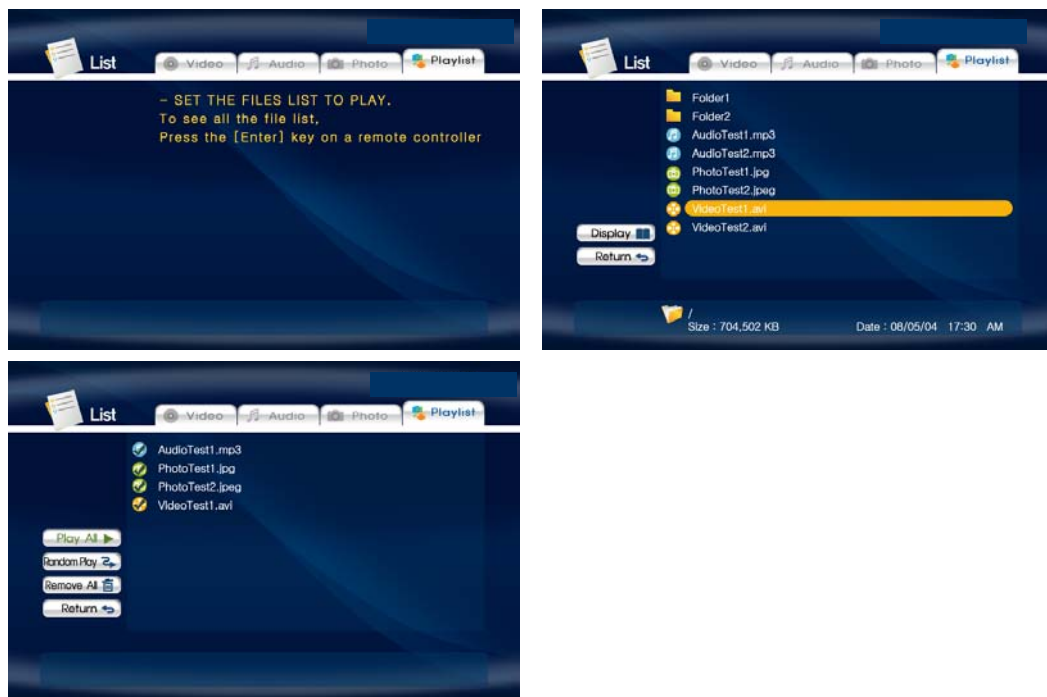
Select [Display] -> press [Enter] then the current all photos will be displayed in order.

#### 4. Make Play-List

You can build [Play-List] in order you prefer.

Select [Play-List] -> Press [Enter] then the files will be shown. Select files you would prefer to play and press [Enter] button then the files you selected has [v] mark.

After making [Play-List] and if press [See Play-List] then the files will be shown you selected.



[Menu Description]

- \* Display : Play-List added files shows.
- \* Return : Move to [Video], [Audio], [Photo] without returning to the main page.
- \* Play all : Play all files in order.
- \* Random Play : Play the files randomly.
- \* Remove All : All the added files in the current Play-List will be deleted.

[Note] : Change the order of [Play-List]

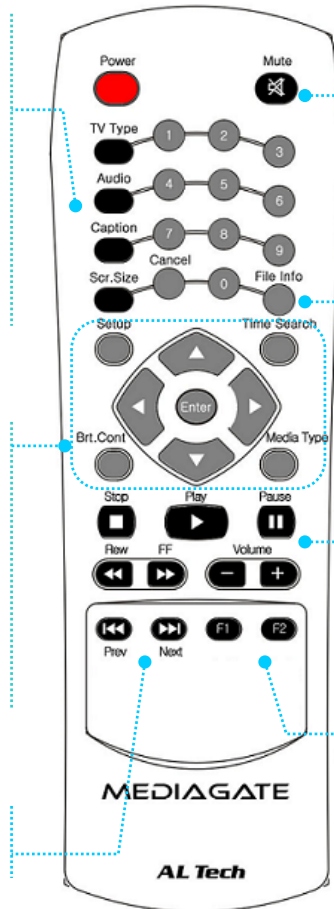
Select [Display] -> Select a file -> scroll the files and select a file you would switch. Then the order of each file will be switched.

## 5. How to use Remote Control

- Power** Power On/Off
- TV Type** Select 4:3 letterbox, panscan, 16:9 wide
- Audio** Select Audio files or dual-audio
- Caption** Setup of location / size / multi-title
- Scr. Size** Control the size of a screen (up / down / enlarge overall / return to the original size)
- Cancel** Cancel the number and make it 0 (zero)
- Number Keys** Input number

- Setup** Move to Setup page
- Direction Keys** Move up / down / left / right
- Enter** Save a new configuration / select or play a selected file
- Time Search** Move to a selected time of a file
- Brt. Cont.** Control luminosity / color depth / brightness of a screen
- Media Type** Select one of Medias (Video / Audio / Play-List)

- Prev.** Move to a previous file or page
- Next.** Move to a next file or page



**Mute** Mute the sound. Disable Mute by pressing again

**File Info.** Show the information of the file played

**Stop** Stop the file display

**Play** Play a file

**Pause** Pause a file played. Press it again to Play

**Rew** Play backward. Press over and over again for faster backward play.

**FF** Play forward. Press over and over again for faster forward play

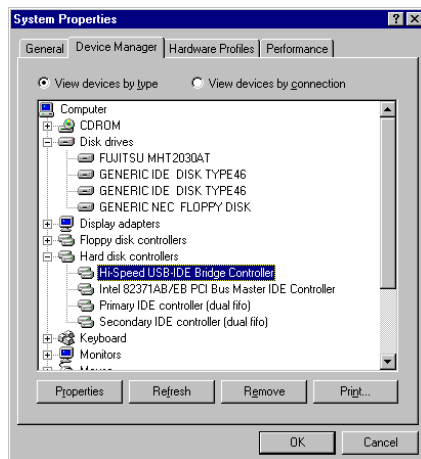
**F1** Change Video Output. If you can not see a normal TV screen, press this button over and over again slowly until you have a normal screen.

**F2** Rotate a photo displayed

## Chapter 7. Appendix

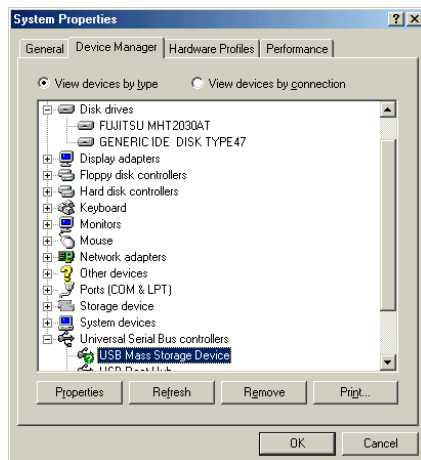
### Appendix. Check the Driver Installation for the Mpeg4 Player at Windows

#### 1. At Windows 98/SE



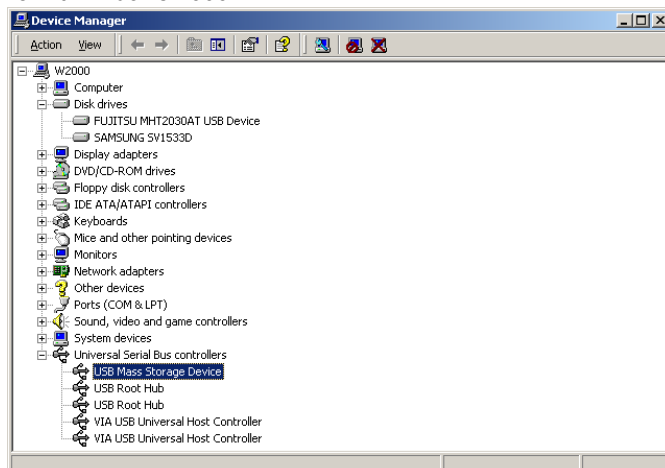
Check at [Start > Settings > Control Panel > System > Device Manager > Hard disk controllers > Hi-Speed USB-IDE Bridge Controller]

#### 2. At Windows ME



Check at [Start > Settings > Control Panel > (view all Control Panel options) > System > Device Manager > Universal Serial Bus controllers > USB Mass Storage Device]

#### 3. At Windows 2000/XP



Check at [Start > Settings > Control panel > (switch to classic View on Windows XP) > system > Hardware > Device manager > Universal Serial Bus controllers > USB Mass Storage Device ]

#### **Appendix. Non High-Speed USB Hub Message**

The message will be displayed On windows XP when you plug the Mpeg4 Player into USB 1.1 spec. Host adapter.

#### **Appendix. Check when new local disk drive not be created.**

- 1) Check HDD's jumper is master.
- 2) Check to match the pin socket of the Mpeg4 Player with the pins of HDD.
- 3) Check the driver installation on your windows system. If the driver displays "!" or "?", delete the driver and re-install it.
- 4) Connect the supplied power adapter. If you connected the Mpeg4 Player to side USB port or no power USB hub, use the supplied power adapter or connect the Mpeg4 Player to rear USB Port of PC and power USB hub.
- 4) In Case of using a USB Hub, you had better use the USB hub with external power.
- 5) USB connect cable's length is recommended upto max 3M.

#### **Appendix. How to upgrade a new firmware**

If you want to get a new firmware, contact to the seller.

Save the upgrade file into Mpeg4 Player -> Connect the Mpeg4 Player to TV or a monitor -> Select [Video] -> Select the upgrade file -> press [Enter] button then the upgrade is applying automatically. After doing upgrade, turn off and on the Mpeg4 Player.

In order to check the firmware version, press [Setup] -> see [Other Setup] then you can see the current firmware version.

## FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) This Device may not cause harmful interference, and  
(2) This device must accept any interference received, including interference that may cause undesired operation.

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

NOTE : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the 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 communications, 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 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/TV technician for help.