

User's Manual

Portable Moving Picture Player
(Model No.:DDP-1000)

Penurocom Co., Ltd.

FCC NOTICE

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITION:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED,
INCLUDING INTERFERENCE THAT MAY CAUSE UNDERSIRED
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 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 receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer of an experienced radio/TV technician for help.

NOTE : The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Operating Instructions

Please read this manual thoroughly and retain it for future reference before operating your mPAVIO.

Introduction related to Home Page

Address: <http://www.mpavio.com>

- Confirm items related to our company and our products, and reply to customers' questions.
- Receive the supports of on-line A/S related to the goods by a customer registration at our homepage after purchasing mPAVIO.
- Utilize various contents that are downloaded from our homepage.
- Possible to improve continuously the function and the various kinds of setup of machine through our homepage.(Upgrade of firmware)
- The contents that is mentioned in this operating instruction subject to change without previous notice by an improvement of function or a change of specification.

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I . Feature

1. Equipped with 20GB HDD

You can use Mpavio as a portable storage equipment saving the capacity of 25 700MB CDs by connecting to a computer.

2. Storing the files of moving picture

Possibility of storing up to 50 titles based on 1 hour 30 minutes movie of 320MB.

3. Hearing MP3 music

MP3 music should be 4~5 MB in a title, so you can save the music till about 4,500 titles of music that you want, and can freely listen them.

4. Ultra-high speed by USB 2.0 interface

USB 2.0 transmits data with a speed of 480Mbps that is 40 times faster than USB1.1

5. Backing up DivX 4.X, 5X files and Supporting MPEG 1.2

You can enjoy super high-density and natural dynamic sounds.

6. The function of Backing up image files

You can see a picture per each, or you can make electronic albums that agree with your taste.

7. Installing color 2.5" TFT-LCD

TFT-LCD screen can realize the optimum image quality, so can realize vivid, natural colors.

8. Outputting big screen by connecting with TV or Beam Projector
You can watch the mPavio screen on TV or Beam Projector with A/V cable, and you can control mPAVIO with remote controller that is given as a bundle at long distance.
9. Installing Large-capacity Battery
You can continuously watch a movie for an average of 2.5 hours.
10. Up-grade Firmware
It can become the continuous improvement of the function and the various setting up this product through up-grade of firmware.
11. MCP(Mind Control Program) brain-wave learning equipment (option)
It can be helped the activity of our brain with setting up the environment that is suitable at various situations.

The right of the contents that have a copyright like software, sound sources, pictorial images, etc. should be protected by the law related. The users have the legal responsibility in the case of copy and distribute the contents with copyright using this machine illegally.

II. Important safeguards

1. Please correctly insert the plug fully into the outlet. It might be the cause of fire if not.
2. Please keep away from heat resources such as radiators or air ducts, or a place subject to direct sunlight, excessive dust. Also, do not leave this machine in a place subject to too high-temperature, too low-temperature, or so humidity.
3. Please do not fall objects into this product. Please keep away from a place subject to mechanical vibration or shock, equipments with strong magnets.
4. Unplug the unit from the wall outlet if there is a natural disaster like thunder, lightning, or flood.
5. Do not press more than 1 of buttons at the same time.

6. Do not put metal materials like nail, hair pin, etc. into the inside of this product.
7. Do not connect USB cable to MCP port. It might be a cause of a mechanical trouble.
8. Do not drop this machine to the floor. It might be a cause of a mechanical trouble.

III. Unpacking the box

1. Checking all items

mPAVIO, Earphone, Operating Instructions, AC Adaptor, A/V cable, USB cable, Remote Controller, Battery(2200mA), Case

2. Checking the names

Front

Remote Sensor

Right

Brightness

Volume

Left

Power Switch

Back

Battery

Battery holder

Prop

3. Checking the Specifications

GENERAL	
Adaptor	DC +9V +/- 5%, 2A
Current consumption	850mA~1500mA(basic:850mA, Continuous playing of Moving Picture)
Power Supply	Lithium ion 7.2V 2200mAh(rechargeable, discrete type)
Audio	
Decoding	MPEG - 1,2, MP3, WMA
Audio Sampling rates	32KHz, 44.1KHz, 48KHz, 88.2KHz, 96KHz
Voice output	1.2V(RMS)/ 1K 0.5W, 3.5mm earphone jack
Bandwidth of output frequency	20Hz ~ 20KHz
S/N rate	> 90dB
Video	
Video Decoding	MPEG - 1, MPEG - 2, MPEG - 4, AVI files: DviX 4.X, or 5.X files JPEG image files: resolution 1920X 1080 max.
Video output	NTSC/PAL Composite video output 75 Ohm/1.0Vpp
Others	
Monitor	2.5" TFT - LCD
USB	USB 2.0
Remote controller	Infrared type
Volume of Hard disk	20GB
Dimensions	142(L) X 85(W) X 40 (H) mm

This specification should be subjected to change.

IV. After checking all items

1. Charging a storage battery with electricity

A. In the case of charging a battery from the mPAVIO

- First, switch off, and fasten the battery to mPAVIO. Next, insert the battery jack to DC IN of mPAVIO, and insert the plug of the adaptor into outlet. Then, it should be charged the battery with electricity automatically.

B. In the case of charging a battery from a charger (option)

- Fasten the battery to the portable charger. The indicator lamp should be changed to green color if the battery is full. (Charging time: about 3 hours (at the situation of fully discharge of electricity))

C. Removing the battery from mPAVIO

- Move the battery holder of the back side until the left end, and push the battery up with continuing situation, and then, the battery should easily be removed from mPAVIO.

D. Cautions

(1) About the battery

- Use certainly the right battery
- Do not short, disassemble, or heat or put it into the fire.
- Do not leave the battery at the place of getting sun.
- The disassembled battery is kept out of reach of children.
- Do not rub by hand, wash the part with clean water, and immediately give medical treatment when your body is stained with the electrolytic solution.
- Immediately charge the battery with electricity if the capacity of the battery is short. There are the risk that data may be lost if you did not deal with the short of the battery.
- Clean up the terminals with tissue or fabric as it may be given the connecting deficit between the terminals and battery due to pollutants.
- Remove battery in case of not using for a long time.

(2) About the adapter

- Certainly use the adaptor attached for safety. It may be given a serious damage to mPAVIO in case of using other adaptor.
- This adaptor is for a 220 volt, 60Hz only however we will support the different adapter that is agreed with the electric environment for each country.
- It should be caused of receiving an electric shock if you insert the plug into the outlet with the wet hand.
- Use at the place where is well ventilated when you supply the electricity to mPAVIO.
- Do not covered mPAVIO with a cushion or blanket. It may be caused of fire or other disasters due to overheating, battery liquid, etc.
- Do not put heavy materials on near adaptor code, or cut the cord. An electric danger should be caused by.

2. Connecting with computer

- A. Push switch on right side of the machine if the machine is off.
- B. USB port is on the upper side of the machine. The small port of the cable will be connected with mPAVIO and the bigger one will be for computer as the following drawings.

Caution

1. The power of this machine must be turned on before you connect to computer.
2. Although this machine has USB 2.0 interface, the transmit speed should be the same as USB 1.1 if customer's computer has USB 1.1 interface. The customer has to install USB 2.0 card in the computer if the customer wants to transmit files by USB 2.0. (Confirm the details at www.mpavio.com)
3. You can think to use one more portable hard disk if this machine connects to the computer.

3. Downloading files from computer

- A. Connect between PC and mPAVIO with USB cable.
- B. Then, a new hard drive will be created in the computer, and it

will be named one of the D, E, F, G according to user's environment.

C. Choose the files or fold that you want by using EXPLORER, copy, and save them to the drive added by mPAVIO.

D. Processing download

E. Complete the download into mPAVIO.

Caution:

Please use the adaptor if you have to connect mPAVIO with computer for a long time. It may not complete the transmission if the battery volume is not enough on the way to transmit data.

4. Connecting with apparatus

- **Output to TV**

The contents displayed on the LCD screen of mPAVIO will be output through TV by connecting A/V cable between mPAVIO and TV.

A. Insert the right side of A/V cable into A/V OUT of mPAVIO.

B. Insert 3 out jack of A/V cable into IN jack of TV correctly.

Caution

The power consumption of battery will be reduced if you press the LCD MODE button and switch off the screen of mPAVIO during displaying through TV.

It is possible to connect to other apparatus like a beam projector with the same method as TV.

V. Operating Manual

- Pull down the power switch on the left of the machine. Then, the LED with green color is on and the machine should be worked.
- The initial loading time will be required about 5 seconds. The initial screen of mPAVIO will be appeared as follow.

LCD MODE	on/off of LCD screen
MENU	Return to the initial screen
UPGRADE	Upgrade of firmware
NAVIGATION	Search files

OK	Choose the executable file
PLAY	The execution of file
STOP	Stop to act the file
NEXT	Execute the next file
PREVIEW	Execute the previous file
REW	Rewind
FF	Fast Forward
PAUSE	Pause

1. Hearing Music

A. Choose “audio” with the navigation button, next press OK button, and then the titles of music will be listed.

B. Select the title wanted with navigation button, next press OK button, and then, the music will be played back.

C. Press OSD button on the left side of the top of the remote controller in order to confirm the information about the music on playing.

D. Press OSD once more in order to remove the file’s information on the screen.

Reference: This picture may be different from the real screen because the upper picture is made temporarily.

Tip 1 When you hope to manage the music files with the fold

- A. Connect PC and mPAVIO with USB cable.
- B. Make a new fold in the new drive of the computer.
- C. Input a new fold’s name for the new drive.
- D. Select the titles wanted, and save them into the new fold of the new drive.
- E. Separate mPAVIO from PC, and switch off the machine, after then, switch on it.
- F. Select AUDIO with Navigation button, and press OK button.
- G. Confirm the music titles saved into the new fold.

Reference

- a. The files saved to mPAVIO is automatically listed each folds. The files for moving picture like “.avi” are saved to “Video,” the JPEG files are saved to “Photo” with the same method as

- upper.
- b. The file for photo can be saved JPEG type only.

Tip 2 the continuous playing back method of files

- A. Select the fold wanted, next, press OK, and then, the files' list will be appeared.
- B. Press  of navigation button, move to left for "play".
- C. Press OK button or Play button of the right side, then, the files in the fold will play back from the first continuously.

Tip 3 mPAVIO will sort the files automatically and let show the files that is appropriated to each menu if the files of music, moving pictures, and image are mixed in the same fold.

2. Watching Moving Pictures

- A. Choose "VIDEO" with the navigation button, next press OK button, and then the files for moving picture will be listed.
- B. Select the title wanted with navigation button, next press OK button, and then, the files will be played back.
- C. Press OSD button on the left side of the top of the remote controller in order to confirm the information about the file on playing.
- D. Press OSD once more in order to remove the file's information on the screen.

3. Seeing the Image

- A. Choose "PHOTO" with the navigation button, next press OK button, and then the image files will be listed.
- B. Select the image wanted with navigation button, next press OK button, and then, you can enjoy the pictures.
- C. Press OSD button on the left side of the top of the remote controller in order to confirm the information about the image file on seeing.
- D. Press OSD once more in order to remove the file's information on the screen.

4. USING MCP(Mind Control Program, Option)

A. Choose “MCP” with the navigation button, next press OK button, and then the utilizing modes of MCP for various situations will be listed.

B. Select the utilizing modes wanted with navigation button, next press OK button, and then, you can utilize it.

C. Select a utilizing mode, and press START button if you want to start, or STOP.

Reference

As MCP is the abbreviated word of Mind Control Program, the equipment help the act of your brain by setting up the various environments suitable to each situation like preparing study, solving stress etc.

(Confirm the detail on www.mpavio.com.)

VI. Downloading the contents files from Home page

A. Click the contents on the top after connecting to our home page www.mpavio.com and log in.

B. Choose the file wanted and press “download” button.

C. It will be the screen as follow. Press “save” button if you want to save it.

D. Save the file where you want, and use the downloaded file.

Reference: Refer “IV – 3. Downloading files from computer” if you want to move the files saved in your computer to mPAVIO.

VII. Additional Information

1. Upgrading Firmware

Caution

- Must upgrade firmware after connecting Adaptor.
- Must turn on the switch at the state of pressing “upgrade” button of mPAVIO if you want to use the function downloaded.
- Please visit the resource center of www.mpavio.com and upgrade your mPAVIO.

A. Connect PC to mPAVIO with USB cable.(refer page)

- B. Make “romfs” fold on new hard drive.
Caution: Use small letters only for the fold name, “romfs.”
- C. Download the firmware files from a resource center, save them into “romfs”, and turn off the switch.
- D. Turn on mPAVIO on the state of pressing “UPGRADE” button.
- E. Wait for a while until appearing the screen of ‘firmware upgrade’
- F. Press “Play” button if you want to progress, but press “Stop” button if you want to stop. The firmware’s upgrade should be processing if you press “Play” button following massage.
- G. It is preparing to upgrade the firmware.
- H. The upgrade of firmware is in preparing.
- I. The upgrade of firmware is in process.

Caution: Do not turn off mPAVIO, or do not separate an adaptor from mPAVIO until finishing the upgrade job.

- J. The screen of right will be appeared when the upgrade is completed.

Caution: The upgrade of firmware is completed although the massage is “Update (partly) failed!”.

- K. Turn off, and turn on, then you can use the function upgraded

Caution: Must Turn off the switch, and turn on when the upgrade is completed.

2, Trouble Shooting

* Please check the following items if you think mPAVIO may have any trouble.

01 Remote controller is not working. [list↑](#)

- + Please confirm that the battery is inserted in the case with correct polarity.
- + Please confirm to be an obstacle between the main body and the remote controller.

02 The screen is not clean. [list↑](#)

- + Are not you operating mPAVIO under the direct ray of light? Please avoid the direct ray of light, and confirm the bright control.

+ Confirm the connection of battery is right, and try to play after recharging the battery with electricity. The power supply may not be abundant because of the discharge of electricity.

03 The screen is stopped, or the button is not working. [list↑](#)

+ First of all, confirm the operated time of main body. (Generally, the continuous working time for Moving Picture should be 2 hours 30 minutes when the battery is charged fully.

+ Please connect with the adaptor, and this machine work, and then, charge the battery with electricity. Connect with A/S center if the machine is not worked although it is connected with the adaptor.

04. The sound is not heard. [list↑](#)

+ Please try to turn up the volume. If the sound is not heard, try to execute other file because the file may not support any sounds.

05 It need Windows 98 C/D or does not recognize the hardware at the time of connecting mPAVIO and a computer. [list↑](#)

+ It will be happened because Windows 98 set up in the computer is a duplicate, or do not support USB.

Set up it follow the messages after inserting the C/D of Windows 98.

06 Files are not downloaded. [list↑](#)

+ Would you confirm the on/off switch?

+ Confirm to link the USB port of the main body up the cable if the switch is on. Link the cable up USB port if the cable is coupled into MCP. Please confirm two port of upper side. One is USB port, and the other is MCP.

07 Noises are come, or only one side is heard. [list↑](#)

+ May you connect a earphone to A/V port?

+ The noises may be come from the file-self if noises are still come in spite of connecting with the earphone port. You may try to execute other files.

+ Please remove them because the alien substances may be the cause of noises if there are some alien substances in the earphone port.

Provided that use only dry fabric to remove the alien substances, and never use water.

08 The screen is too bright or too dark. [list↑](#)

+ Please control brightness. The file-self is too bright or dark if it is not solved nevertheless this act. You may try to execute other files.

3. Claiming A/S

By Internet

Log-in after connecting with www.mpavio.com

Send e-mail to service@mpavio.com after log-in.

Check Points before sending mail

1. to write buying date, store name
2. to write the cause of mechanical trouble
3. to write the serial no. (refer the back side of mPAVIO)

Mpavio

1. Name: Portable Moving Picture Player
2. Model: DDP-1000
3. Certified no.: E-C900-03-3377(B)
4. Certified Company: Penurocom Co., Ltd.
5. Manufactured date: mmm. dd, yyyy
6. Manufacturer/Country: Penurocom Co., Ltd. /Republic of Korea

Serial no.: 112131000001

By Phone

Please call 080-400-8687(domestic only) or 02-400-8687, then a person in charge will solve your problem earnestly.

Cautions: Although it is the period of free of charge for A/S, you have to pay the repair fee in the case of following.

1. When the customer disassemble this product of his or her own accord
Ex) to disassemble this product of his or her own accord in order to enlarge the volume of HDD
- We install the equipment of a security against copying files, so the hard disk made by other company that you buy will not be worked.
2. When it happened by the customer's fault
Do not have to shock to mPAVIO. Especially, it may invite serious danger if it is shocked during play. We check the machine with the newest diagnostor for hard

disk under support of Tosiba.

Tip The Box packing for A/S

- It is convenient to use the product box at that time of purchasing.
- Fill out the sticker for A/S in the product package.
- Attach the sticker filled out like the right figure.

4. Q/A

[10 What can I do if I use WMV in mPAVIO? list↑](#)

+ Encode WMV file to WMV once more with encoding program. Please set up the resolution to “350 x 240” at the time of encoding.

[11 Is the function of CCFE offered? list↑](#)

+ Sorry, the function of CCFE is not available.

Reference: CCFE is the foreign language education dedicated program with various functions designed to do language study by movies or animations.

[12 Can I play games in mPAVIO? list↑](#)

+ The function of game is not supported.

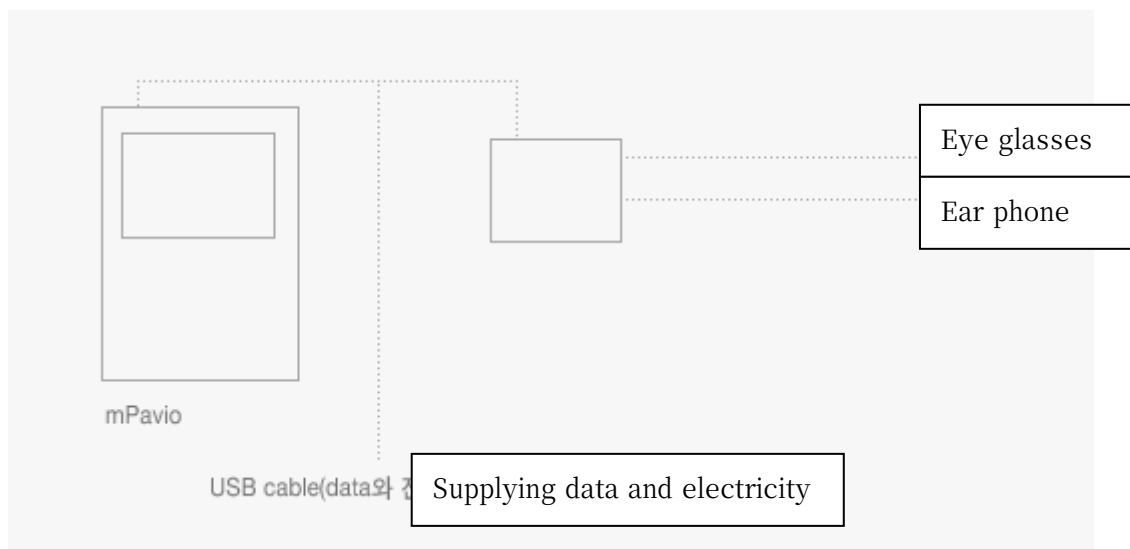
[13. Can I watch TV or hear radio on mPAVIO? list↑](#)

+ The function of seeing and hearing TV is not supported.

[14 Is PVR\(Personal Video Recording\) possible? list↑](#)

+ The function of PVR is not supported.

[15 How do I connect mPAVIO with MCP? list↑](#)



16 What is DviX file?

+ DviX is stand for Digital Video Express, and is a kind of Codec. It means the compression technology with the basis of MPEG-4 that maintains the high quality of digital video at the same time that compresses the files with big volume into very small one that we can send them by internet. You may understand easily if you think that DviX copy DVD. DVD has the excellent image quality and the high-sound power, but it is an obstacle to people who want to share the title because the volume of DVD is so huge. The format type of Dvix codec is avi, and DviX codec must be installed in order to DviX Video.

17 What is Dr. DviX?

As Dr. Dvix is one of the encoding programs, it can makes general moving picture files, compressed one or live one transfer to higher compression rate or other format for moving picture like MPEG, MPG, AVI, WMV, etc. We can only use it during 15 days because Dr. Dvix is shareware, and can down Dr. Dvix from a resource center or the homepage of Dr. Dvix. The homepage address is <http://www.dvix.com/dvix/drdrvix/>.

Why do the differences of image quality between the DviX files come out?

Official Dvix means to be of DVD origin. It is called DVD-Rip Dvix. However, it is called VCD-rip PDvix that is of VCD and makes it as Dvix compressed type. It has lower image quality than VCD. There are converted the camcorder version that is called Screener's version, and spectators take a picture of a movie in the theater directly into the compression of Dvix type. It has much lower image quality.

Therefore, we can say DVD-rip DviX that the image quality is almost similar to DVD is the only official Dvix.

