

# Panasonic

## User Guide

microP2 Card Compatible



## Contents

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<b>Getting Started</b> .....	<b>3</b>
About this document.....	3
microP2 compatibility.....	3
<b>CPS (Content Protection System)</b> .....	<b>4</b>
Setting password.....	4
Deleting password.....	5
Performing encryption format.....	6
Manual authentication.....	6
Handling of data stored on microP2 card.....	7
<b>Warning display</b> .....	<b>8</b>
Screen display.....	8
Error codes.....	8
Thumbnail operation and messages in USB host mode.....	9
P2 card access LED and microP2 card status.....	9

## Getting Started

### About this document

- Descriptions in this manual are based on the assumption that you read through the Operating Instructions of the product and fully understand how it operates.
- Phrases in [ ] in this manual refer to contents displayed on the menu of the product.
- This document describes reference pages as (page 00).

#### ■ About the illustrations in this document

- Illustrations of the product itself or the menu screen may be different from how they actually are.  
The indications may differ depending on the devices you use.
- The screen images used for the descriptions in this manual are those of AJ-HPX3100G. The menu items may differ depending on the device you use. Refer to the operating instructions of the device for more information.

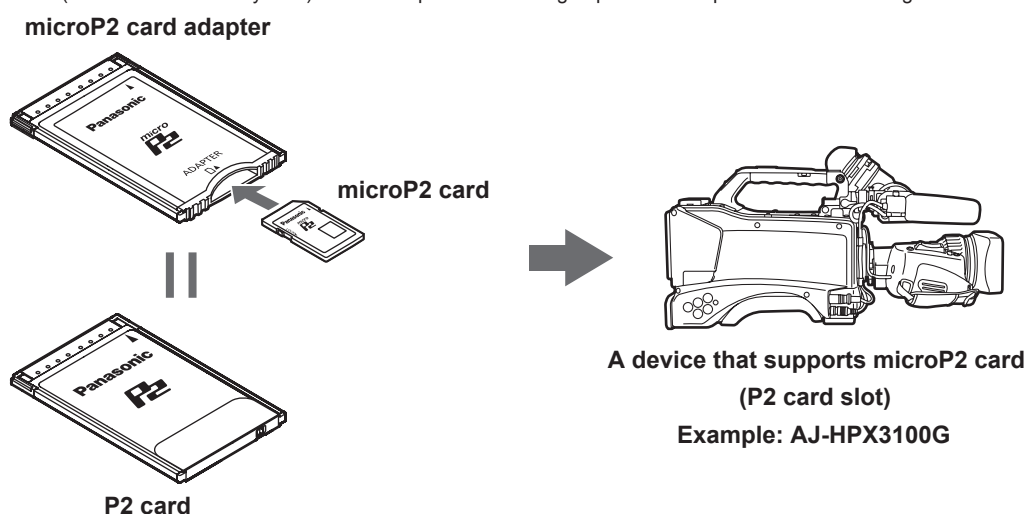
#### ■ About the terms

- Memory cards with the “microP2” logo (such as optional AJ-P2M032AG) are described as “microP2 cards”.
- The optional AJ-P2AD1 is described as “microP2 card adapter”.
- Memory cards with the “P2” logo (such as optional AJ-P2E064FG) are described as “P2 cards”.
- Video data created by one recording operation is called and described as a “clip”.

### microP2 compatibility

You can use a microP2 card in the same way as using a P2 card by inserting the card into the microP2 card adapter.

microP2 card supports CPS (Content Protection System) that allows password setting to prevent third parties from accessing the data.



#### ■ The latest information on microP2

- See the following website for the latest information on the compatibility of microP2 card (supported device and software, conditions of use, etc.).  
- English: <http://pro-av.panasonic.net/>

#### ■ Use of SDHC/SDXC memory card

- The operation is not guaranteed when an SDHC/SDXC memory card is used instead of a microP2 card.

#### NOTE

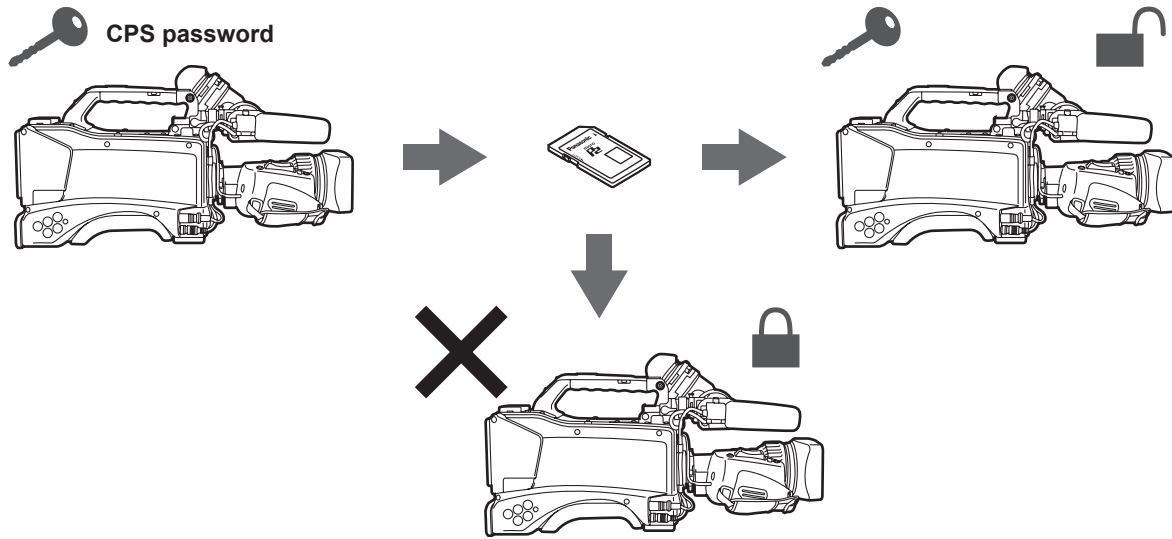
- When a memory card that has capacity larger than 32 GB (such as AJ-P2M064AG) is used, copy operation of the whole card is not available from the USB host function, due to incompatibility in file management.
- When inserting a microP2 card into the microP2 card adapter, push the card until you hear a click sound.
- If you reinsert a microP2 card with the microP2 card adapter inserted, the card may not be recognized. In this case, remove the microP2 card adapter from the card slot of the device, insert the microP2 card into the microP2 card adapter until it clicks, and then insert the microP2 card adapter into the device again.

## CPS (Content Protection System)

microP2 card supports security function "Content Protection System" that allows encryption formatting to prevent data leak to third parties.

To use the CPS function, set a CPS password to the product, and enable the microP2 card authentication and encryption formatting functions.

An encryption formatted microP2 card will be automatically recognized on a device where the same CPS password is set, and recording and playback of the microP2 card are enabled.



### Setting password

CPS password can be set by importing from an SD/SDHC card or by entering with software keyboard.

Only one CPS password can be imported or entered for a product. If you import or enter another CPS password, the password is rewritten.

### Importing CPS password from SD/SDHC card

#### 1 Download the latest P2 Viewer Plus on your computer and install it.

P2 Viewer Plus is stored on the website.

For the installation procedure, refer to the P2 Viewer Plus installation manual.

#### 2 Create a CPS password on P2 Viewer Plus and write it to an SD/SDHC memory card.

For the operation of P2 Viewer Plus, refer to the help document for P2 Viewer Plus.

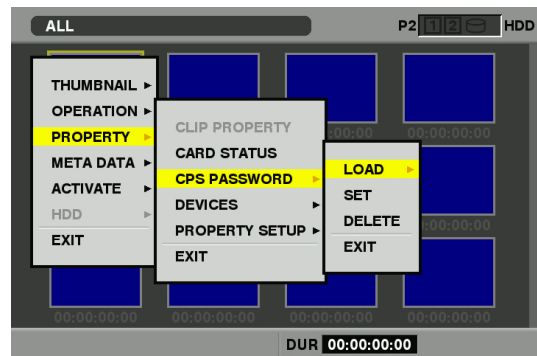
#### NOTE

- The CPS password is created as a file with the extension ".p2p" added to the private/meigroup/pavcn/sbg/p2sd/ of the SD/SDHC memory card. Do not delete this file until it is read on a device.
- Created CPS password file is encrypted. However, when the password is not necessary any more, take appropriate measures for security risk management, by such an action as formatting the SD/SDHC card.

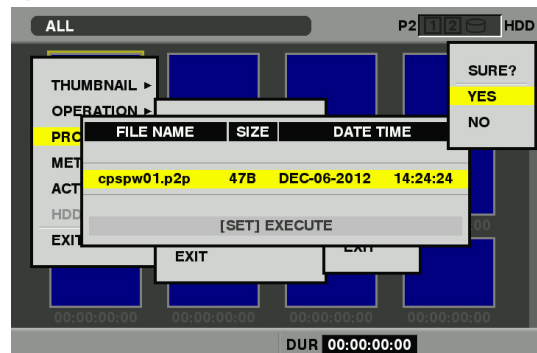
#### 3 Import the CPS password to the product.

Start up the product and insert the SD/SDHC memory card to the SD card slot.

Open the thumbnail screen and select [PROPERTY] - [CPS PASSWORD] - [LOAD]. The screen to select the CPS password file stored in the SD/SDHC card will be available to select.



When selecting the CPS password and pressing the <SET> button, a confirmation display appears. On the confirmation display, select [YES].

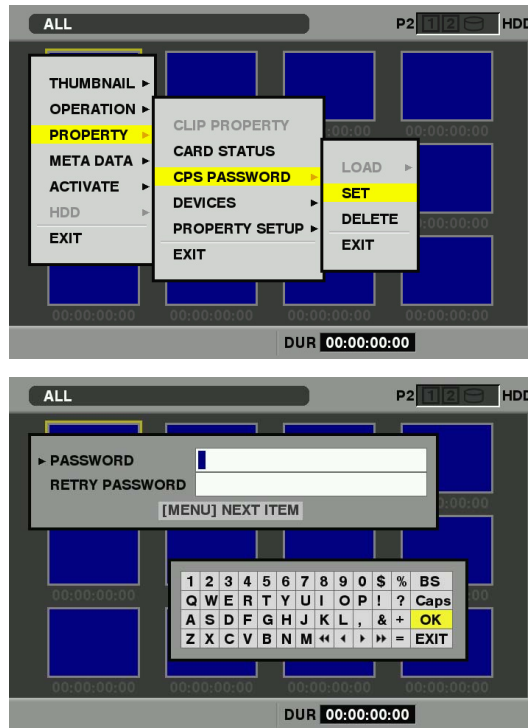


If CPS password import has succeeded, the message [LOADING PASSWORD COMPLETED!] will be displayed.

If CPS password import has failed, a warning message (page 9) will be displayed. If a warning message is displayed, check the insertion of the SD/SDHC memory card and the storage location of the CPS password file (file name: xxxxxx.p2p) created in step 2.

**Entering CPS password with software keyboard**

Start up the product, open the thumbnail screen, and select [PROPERTY] - [CPS PASSWORD] - [SET]. The software keyboard to enter a CPS password will be displayed.



Enter [PASSWORD] and [RETRY PASSWORD] for confirmation, and select [OK] to enter the CPS password. If CPS password entry has succeeded, the message [SETTING PASSWORD COMPLETED!] will be displayed. If CPS password entry has failed, a warning message (page 9) will be displayed.

**NOTE**

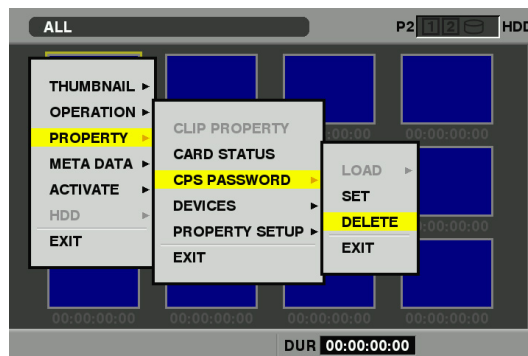
- A maximum of 16 characters can be entered for a password.
- The entered password cannot be displayed on the device. Do not lose your password.

**Deleting password**

When the CPS function is not necessary any more, delete the CPS password.

Start up the product, open the thumbnail screen, and select [PROPERTY] - [CPS PASSWORD] - [DELETE]. [DELETING PASSWORD COMPLETED!] will be displayed and the CPS password is deleted.

If the CPS password is deleted and a new password is not set, an encryption formatted microP2 card cannot be recognized automatically, and the encryption formatting function of microP2 card will be disabled.



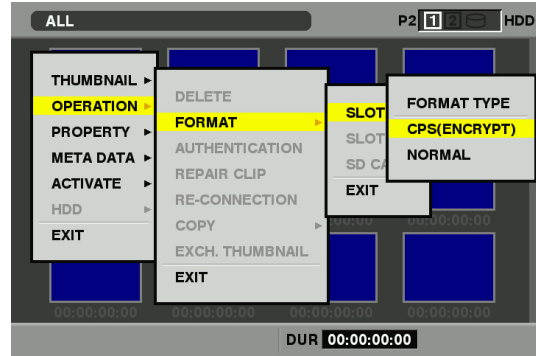
**Performing encryption format**

A microP2 card is encrypted by performing encryption format.

**1** Insert the microP2 card adapter to which a microP2 card is inserted into the P2 card slot.

**2** Perform encryption format.

Start up the product, open the thumbnail screen, and select - [OPERATION] - [FORMAT]. The slot to be formatted will be displayed.



After selecting the slot, a screen to select either one of the encryption format [CPS(ENCRYPT)] and normal format [NORMAL] appears. Select the encryption format to perform encryption format.

**NOTE**

- When formatting a P2 card or SD/SDHC memory card in the SD card slot of the product, or when a CPS password is not set, the normal format will be performed instead of encryption format.
- Data stored in a microP2 card on which a CPS password authentication error has occurred cannot be viewed. Be careful when you perform format.

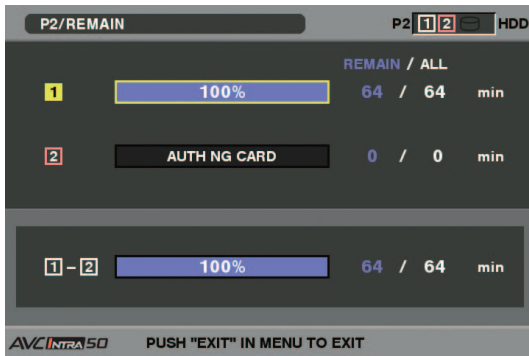
**Manual authentication**

An encryption formatted microP2 card is recognized by the product automatically, and the microP2 card can be used if authentication succeeds. Inserting an encryption formatted microP2 card to the card slot of a device where a different CPS password is set causes an authentication error. To temporarily use the card on which an authentication error has occurred, manually enter the authentication password of the microP2 card by the following steps 1 and 2. If the password matches, the card can be used.

**1** Confirm authentication error.

Open the thumbnail screen and select [PROPERTY] - [CARD STATUS], to confirm the authentication error.

The card on which an authentication error has occurred is notified by a red frame around the slot number on the upper right of the screen and [AUTH NG CARD] indication on the remaining capacity bar. Use the up and down cursor buttons to select the card.



**2** Perform manual authentication.

Select [OPERATION] - [AUTHENTICATION] on the card status screen. The software keyboard to enter CPS password will be displayed.



Enter the password, and select [OK]. The CPS password is entered. If CPS password entry has succeeded, the message [AUTHENTICATED SUCCESSFULLY!] will be displayed. If CPS password entry has failed, a warning message (page 9) will be displayed.

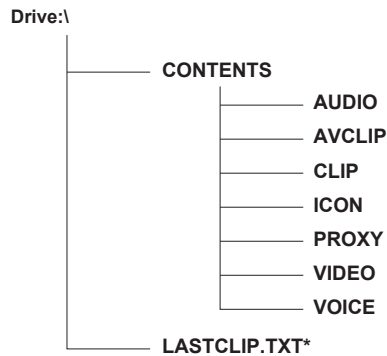
**NOTE**

- A maximum of 16 characters can be entered for a password.
- Manual authentication is temporarily valid. If the microP2 card is removed or the power is turned off, the CPS password that has been manually set will be invalid.
- For conditions where manual authentication is valid, refer to the website (page 3).
- An encrypted microP2 card cannot be recognized in the SD card slot of a computer.
- If an authentication error has occurred, perform authentication again using a correct password, format the card to be used as recording media, or remove the card from the device. Do not perform operations other than manual authentication or format while the card on which authentication error has occurred is inserted.
- To access from a computer to an encrypted card in the USB device mode, perform authentication of the encrypted card by P2 Viewer Plus.

**Handling of data stored on microP2 card**

microP2 card is semiconductor memory card that is used as the memory media for professional video editing or broadcasting DVCPRO P2 series devices.

- DVCPRO P2 format and AVC-Intra recorded data are highly compatible with computers due to the file format. The file structure has a unique format and contains not only video and audio data stored as MXF files but other various critical information, and it requires information for all the folders. Stored data are associated in the following folder structure.



\* A file on which the information of the last clip recorded on a P2 device is written.

**NOTE**

- Before using, format the card to be inserted to the microP2 card adapter on a device that supports microP2 or on the latest P2 Viewer Plus.
- If you insert a microP2 card slowly to the microP2 card adapter that is inserted to a device, [FORMAT ERROR!] or [NOT SUPPORTED!] may be displayed. In this case, reinsert the card again.
- If any part of the information are modified or deleted, the data on the card may not be recognized as P2 data or the card may not be able to be used on a P2 device any more.
- when transferring data on a microP2 card to a computer or writing data saved on the computer to the microP2 card, be sure to use the dedicated software P2 Viewer Plus to avoid information loss. For download and operating environment of P2 Viewer Plus, refer to the website (page 3).

## Warning display

Newly added warning indications are described in this section. For more information, refer to the operating instructions of the product. Displayed items and indications may differ depending on the model you use.

### Screen display

For the location and position of the display, or other items displayed, refer to the operating instructions of the product.

Indication	Detail
AUTH NG CARD	CPS authentication of the microP2 card has failed. Recording and playing back of microP2 cards whose CPS authentication has failed are disabled. See "Manual authentication" (page 6) and change the settings.
PB INTERMITTENT	Intermittence of playback has occurred on the SDHC/SDXC memory card. The playback of the inserted card is not guaranteed. It is recommended that you use a microP2 card or P2 card.
SD CARD	An SDHC/SDXC memory card is inserted into the P2 card slot. Although the operation continues, it is recommended that you use a microP2 card or P2 card for recording data.
REC IMPOSSIBLE	An SDHC/SDXC memory card is inserted into the P2 card slot. Data cannot be recorded on SDHC/SDXC cards. Use a microP2 card or P2 card.

### Error codes

Error codes other than the below listed are the same as when using a P2 card. Refer to the operating instructions of the product.

#### ■ AJ-HPX3100G/AJ-HPX2000P/AJ-HPX2100E/AG-HPX600P/AG-HPX600EJ/AG-HPX600EN

Code number	Detail	Recording operation	Indication on the display window
[E-72]	An SDHC/SDXC memory card is inserted into the P2 card slot. (The viewfinder shows [SD CARD] (slot number).)	Although the operation continues, it is recommended that you use a microP2 card or P2 card for recording data.	(AJ-HPX3100G) The error code flashes once in two seconds on the time code display in the display area. (AG-HPX600P/AG-HPX600EJ/AG-HPX600EN) The error code is displayed on the [HOME] screen of SmartUI.
[E-73]	An SDHC/SDXC memory card is inserted into the P2 card slot. Data cannot be recorded on SDHC/SDXC cards. (The viewfinder shows [REC IMPOSSIBLE] (slot number).)	Use a microP2 card or P2 card for recording data.	
[E-74]	CPS authentication of the microP2 card has failed. (The viewfinder shows [AUTH NG CARD] (slot number).)	Recording and playing back of microP2 cards whose CPS authentication has failed are disabled. See "Manual authentication" (page 6) and change the settings.	

#### ■ AG-HPD24P/AG-HPD24E/AJ-HPM200P/AJ-HPM200E/AJ-HPD2500P/AJ-HPD2500E

Code number	Detail	Recording operation
[E-76]	Intermittence of playback has occurred on the SDHC/SDXC memory card. (When switched to the detail display, [PB INTERMITTENT] (slot number) is indicated.)	The playback of the inserted card is not guaranteed. Although the operation continues, it is recommended that you use a microP2 card or P2 card.
[E-72]	An SDHC/SDXC memory card is inserted into the P2 card slot.	Although the operation continues, it is recommended that you use a microP2 card or P2 card for recording data.
[E-73]	An SDHC/SDXC memory card is inserted into the P2 card slot. Data cannot be recorded on SDHC/SDXC cards. (When switched to the detail display, [REC IMPOSSIBLE] (slot number) is indicated.)	Use a microP2 card or P2 card for recording data.
[E-74]	CPS authentication of the microP2 card has failed. (When switched to the detail display, [AUTH NG CARD] (slot number) is indicated.)	Although the operation continues, recording and playing back of microP2 cards whose CPS authentication have failed are disabled. See "Manual authentication" (page 6) and change the settings.



## Warning display

### Thumbnail operation and messages in USB host mode

Error codes other than the below listed are the same as when using a P2 card. Refer to the operating instructions of the product.

#### Thumbnail

Message	Detail	Solution
COPY IMPOSSIBLE. TOO LARGE CLIP CONTAINED! (CLIP NAME: XXXXXX)	A file larger than 4 GB cannot be copied to a memory card with 32 GB or smaller capacity.	Copy the file to the product or to a microP2 card with 64 GB or larger capacity that has been formatted with the latest P2 Viewer Plus.
NO FILE!	The specified file does not exist.	Check the file.

#### Software keyboard

- AJ-HPX3100G/AJ-HPX2000P/AJ-HPX2100E/AG-HPX600P/AG-HPX600EJ/AG-HPX600EN/AG-HPX370P/AG-HPX371E/AG-HPX372EN/AG-HPX374ER/AG-HPX250P/AG-HPX250EJ/AG-HPX250EN/AG-HPX255P/AG-HPX255EJ/AG-HPX255EN/AG-HPG20P/AG-HPG20E

Message	Detail	Solution
CANNOT SET! NO INPUT!	No character is entered with the software keyboard.	Enter the password.
CANNOT SET! RETRY PASSWORD IS DIFFERENT!	The retry password does not match.	Enter the correct password and retry password.
AUTHENTICATION ERROR!	Manual authentication has failed.	Enter the correct password.

- AG-HPD24P/AG-HPD24E/AJ-HPM200P/AJ-HPM200E/AJ-HPD2500P/AJ-HPD2500E

Message	Detail	Solution
RETRY PASSWORD IS DIFFERENT!	The retry password does not match.	Enter the correct password and retry password.
AUTHENTICATION ERROR!	Manual authentication has failed.	Enter the correct password.

#### P2 card access LED and microP2 card status

The LED and card statuses except for the below are the same as when using a P2 card. Refer to the operating instructions of the product.

- AJ-HPX3100G/AJ-HPX2000P/AJ-HPX2100E/AG-HPX600P/AG-HPX600EJ/AG-HPX600EN/AG-HPX370P/AG-HPX371E/AG-HPX372EN/AG-HPX374ER/AG-HPX250P/AG-HPX250EJ/AG-HPX250EN/AG-HPX255P/AG-HPX255EJ/AG-HPX255EN

P2 card access LED	Mode check display	microP2 card status
Off	[AUTH NG]	Authentication has not been performed. Writing/reading is not available. Enter the correct password for authentication setting.

