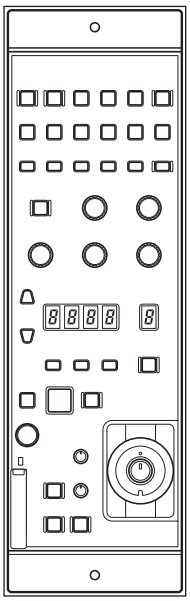
Panasonic

Operating Instructions
<Operations and Settings>

Remote Operation Panel

Model No. AK-HRP200G



- How the operating instructions are organized
  - Basics:
    This manual describes how to connect the unit to the required equipment and set it up.
    Before installing the unit, be sure to read the <Basics> manual to ensure that you know how to install it correctly.
  - Operations and Settings (this manual)
    Operations and Settings describe how to operate and set up the unit.

Before operating this product, please read the instructions carefully and save this manual for future use.

ENGLISH

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VQT4S52A-6 (E)

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■ Abbreviations

The following abbreviations are used in this manual.

- SD memory cards and SDHC memory cards are both referred to as “memory cards”. They are referred to individually in descriptions in which each of them is discussed separately.
- Personal computers are referred to as “computers.”
- A studio handy camera is referred to as a camera in this manual.
- A camera control unit is referred to as a CCU in this manual.
- A remote operation panel is referred to as an ROP in this manual.
- A master setup unit is referred to as an MSU in this manual.
- The memory card camera recorder is referred to as the camera recorder in this manual.

■ Illustrations and screen images in this manual

- Illustrations of the unit and screens may appear different from the actual unit and screens.

Contents

Introduction

■ Overview

This unit is a remote operation panel for controlling a studio handy camera (AK-HC3800/AK-HC3500A) and a camera control unit (AK-HCU200/AK-HCU355A).
Use a dedicated optical fiber cable to connect a studio handy camera to a camera control unit and use an ROP cable or IP connection to connect this unit to the camera control unit. Furthermore, a remote camera or camera recorder can be connected via a serial connection or IP connection.
When IP connections are used, up to 19 studio handy cameras, remote cameras, and camera recorders can be controlled.

■ Memory Cards

Memory cards used with the unit should conform to SD or SDHC standards.
Be sure to use the unit to format memory cards.
Memory cards with the following capacity can be used with the unit.
SDXC memory cards are not supported.

SD memory cards: 8 MB to 2 GB
SDHC memory cards: 4 GB to 32 GB

For the latest information not described in the Operating Instructions, refer to the following website.

http://pro-av.panasonic.net/

Observe the following points when using and storing this unit.
- Avoid high temperature and humidity.
- Avoid water droplets.
- Avoid static electricity.

■ Upgrade software

You can obtain upgrade software from Service and Support on the following website.

http://pro-av.panasonic.net/

For the upgrade procedure, refer to the instructions included with the download file.

■ Software for peripheral equipment

Software upgrades will also become necessary for the peripheral equipment that is connected to this unit (cameras or CCUs).
For details, consult your supplier.

■ Disclaimer of warranty

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(3) UNAUTHORIZED DISASSEMBLE, REPAIR OR MODIFICATION OF THE PRODUCT BY THE USER;
(4) INCONVENIENCE OR ANY LOSS ARISING WHEN IMAGES ARE NOT DISPLAYED, DUE TO ANY REASON OR CAUSE INCLUDING ANY FAILURE OR PROBLEM OF THE PRODUCT;
(5) ANY PROBLEM, CONSEQUENTIAL INCONVENIENCE, OR LOSS OR DAMAGE, ARISING OUT OF THE SYSTEM COMBINED BY THE DEVICES OF THIRD PARTY;
(6) LOSS OF REGISTERED DATA CAUSED BY ANY FAILURE;

■ File types handled by the unit

Scene file	Scene files are mainly used by video engineers (VE) to create the required image characteristics.
Reference file	The term reference file is a generic term for user files and factory files.
User file	A user file is system setting data (reference file) composed of scene files and operation data. The user can record user files.
Factory file	A file that contains camera settings that were stored at the factory.
Lens file	Data for correcting specific lens characteristics that are used by video engineers (VE).
ROP configuration file	ROP specific setting data.
Remote camera configuration file	Remote camera setting data. It is acquired from a remote camera via IP.

Operation modes

Operation modes

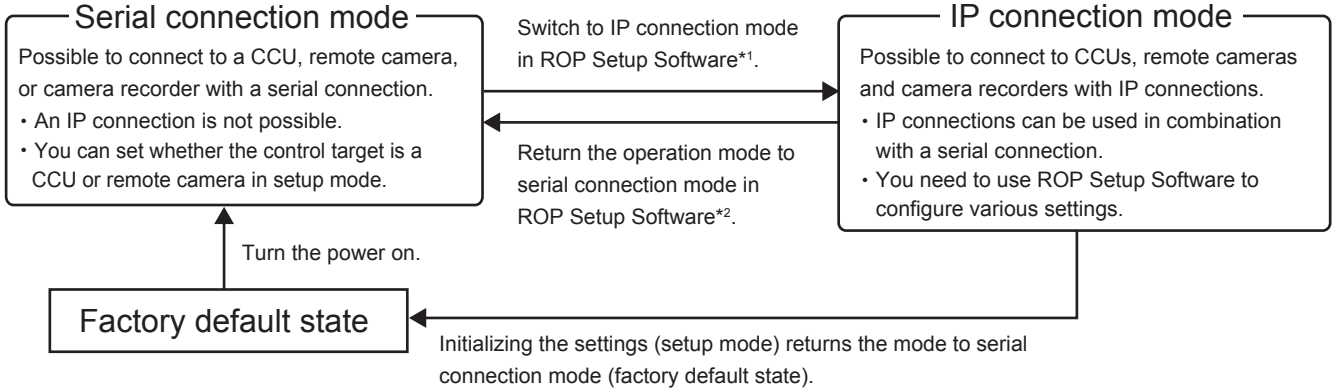
The unit has a serial connection mode and an IP connection mode.

Serial connection mode	The operation mode for use with a single CCU, remote camera, or camera recorder connected via a serial connection. Only one CCU, remote camera, or camera recorder can be controlled. (The camera switching operation is not possible.) The mode set at the time of shipment is serial connection mode.
IP connection mode	The operation mode for use with CCUs, remote cameras and camera recorders used with IP connections. A serial connection to a single CCU, remote camera, or camera recorder can be used at the same time as the IP connections. Up to 19 CCUs, remote cameras or camera recorders can be controlled. (The camera switching operation is possible.) Use ROP Setup Software to configure various settings.

Operation mode	Connection configuration	Serial connection			IP connection	Use of ROP Setup Software
		CCU	Remote camera	Camera recorder		
Serial connection mode	Configuration with CCU connected with a serial connection	✓ (1 device only)	(Connection not possible)	(Connection not possible)	(Do not connect)	Not required
	Configuration with remote camera connected with a serial connection	(Connection not possible)	✓ (1 device only)	(Connection not possible)	(Do not connect)	
	Configuration with camera recorder connected with a serial connection	(Connection not possible)	(Connection not possible)	✓ (1 device only)	(Do not connect)	
IP connection mode	Configuration with IP connections only	(Do not connect)	(Do not connect)	(Do not connect)	✓ (Total of up to 19 devices)	Required
	Configuration with a combination of a CCU connected with a serial connection and CCUs and remote cameras connected with IP connections	✓ (1 device only)	(Connection not possible)	(Connection not possible)	✓ (Total of up to 18 devices)	
	Configuration with a combination of a remote camera connected with a serial connection and CCUs and remote cameras connected with IP connections	(Connection not possible)	✓ (1 device only)	(Connection not possible)	✓ (Total of up to 18 devices)	
	Configuration with camera recorder connected with a combination of a serial connection and IP connection	(Connection not possible)	(Connection not possible)	✓ (1 device only)	✓ (Total of up to 18 devices)	

Switching between serial connection mode and IP connection mode

Switch between serial connection mode and IP connection mode in ROP Setup Software. (→page 35)
When the settings are initialized (setup mode), the mode returns to serial connection mode (factory default state).



In IP connection mode, you can switch control to any of up to 19 CCUs, remote cameras or camera recorders during operation.
In serial connection mode, you can only control one CCU, remote camera, or camera recorder during operation.

*1 When serial connection mode
If an ROP configuration file that was saved to a memory card in IP connection mode is loaded, the operation mode becomes IP connection mode.

*2 When IP connection mode
If an ROP configuration file that was saved to a memory card in serial connection mode is loaded, the operation mode becomes serial connection mode.

Operation mode setting procedure

In the factory default state, connect the CCU, remote camera or camera recorder to the unit and then set the operation mode.

In the factory default state, connect the CCU, remote camera or camera recorder to the unit
(for details, refer to Operating Instructions <Basics>).

Operation in serial connection mode

When connecting to a CCU with a serial connection

1. Select CCU in the serial setting in setup mode (→ page 17).
2. Connect to the CCU in serial connection mode and then start operation.

When connecting to a remote camera with a serial connection

1. Select remote camera in the serial setting in setup mode (→ page 17).
2. Connect to the remote camera in serial connection mode and then start operation.

When connecting to a camera recorder with a serial connection

1. Select camera recorder in the serial setting in setup mode (→ page 17).
2. Connect to the camera recorder in serial connection mode and then start operation.

Operation in IP connection mode

1. In Easy IP Setup Software, set the IP addresses of the CCUs and remote cameras (→ page 33).
   - Set the IP address of the camera recorder from the menu on the unit.
2. In ROP Setup Software, set the remote camera configuration file to assign to each camera number (→ page 35).
3. Connect to the CCU and remote cameras/camera recorders in IP connection mode and then start operation.

<Note>

● **About the IP connection mode settings**

Do not start Easy IP Setup Software and ROP Setup Software during operation.
The ROP will be disconnected, which in turn may cause a problem with operation.

Setup mode

Setup mode allows the user to make a variety of unit settings, and save and load scene files and user files.
Normal operation is unavailable during setup mode operation. ROP menu (REMOTE OPERATION MENU) operation is not available either.

■ Setup mode functions

Setup mode allows you to do any of the following.
The functions for camera recorder (serial connection) are identical to those for camera recorder (IP connection).

Item	Adjustable range	Display	ROP Serial connection mode		ROP IP connection mode				
			CCU (serial connection)	Remote camera (serial connection)	CCU (serial connection)	Remote camera (serial connection)	CCU (IP connection)	Remote camera (IP connection)	Camera recorder (IP connection)
1	Set camera number	Sets a camera number.	✓						
2	Save scene file to/ load scene file from memory card	Saves the currently used scene file to a memory card. It also allows you to load a scene file stored on a memory card.	✓		✓		✓		
3	Save user file to/ load user file from memory card	Saves the currently used user file to a memory card. It also allows you to load a user file stored on a memory card.	✓		✓		✓		
4	Save lens file to/ load lens file from memory card	Saves the currently used lens file to a memory card. It also allows you to load a lens file stored on a memory card.	✓		✓		✓		
5	Save ROP configuration file to/load ROP configuration file from memory card	Save a configuration file for the unit to a memory card. It also allows you to load a configuration file for the unit stored on a memory card.	✓	✓	✓	✓	✓	✓	✓
6	Format memory card	Formats a memory card	✓	✓	✓	✓	✓	✓	✓
7	Select/set flare and pedestal	Selects the flare and pedestal control function	✓	✓	✓	✓	✓	✓	✓
8	Set buzzer (beep/ call tone)	Enables or disables the buzzer or call tone.	✓	✓	✓	✓	✓	✓	✓
9	Set display brightness (LED/7-segment display)	Sets the brightness of the panel LED and 7-segment display.	✓	✓	✓	✓	✓	✓	✓
10	Set IP address	Sets the IP address of the unit	✓	✓	✓	✓	✓	✓	✓
11	Set subnet mask	Sets the subnet mask of the unit.	✓	✓	✓	✓	✓	✓	✓
12	Set default gateway	Sets the default gateway of the unit.	✓	✓	✓	✓	✓	✓	✓
13	Set port	Sets the port of the unit.	✓	✓	✓	✓	✓	✓	✓
14	Save/load remote camera configuration file	Saves the data recorded by the remote camera to a memory card. It also allows you to load a camera file stored on a memory card.						✓	
15	Set serial	Switches between the CCU serial, remote camera serial and camera recorder serial when the unit is in serial connection mode.	✓	✓					
16	Initialize settings	Initializes unit settings.	✓	✓	✓	✓	✓	✓	✓
17	Confirm version	Displays the version of the software used by the unit.	✓	✓	✓	✓	✓	✓	✓
18	Save unit data to memory card	Saves unit data to a memory card.	✓	✓	✓	✓	✓	✓	✓
19	Upgrade software	Upgrades the software used by the unit.	✓	✓	✓	✓	✓	✓	✓
20	Set tally number	Sets the camera number to assign to tally input.		✓		✓		✓	✓
21	Set tally output	Enables or disables tally output.		✓		✓		✓	✓
22	Syncro shutter display setting	When using syncro shutter, switches between SEC and DEG display.							✓
23	Tally control setting	Specifies whether tally control is performed via panel operations or preview terminal inputs.							✓

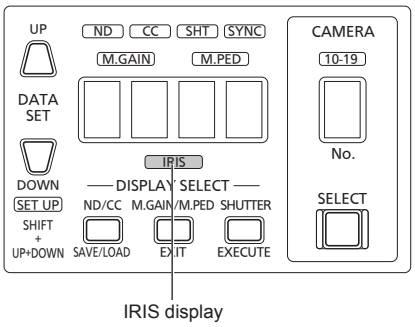
The setup mode menu differs depending on the operation mode and connection configuration.

■ Opening setup mode

Setup mode differs from normal operating modes. Use the steps below to open setup mode.

1. When a camera and CCU are connected, select IRIS (to light the <IRIS> display on the panel).

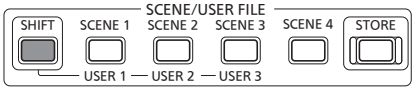
If the IRIS display is not lit, press the selected <DISPLAY SELECT> button to select IRIS.

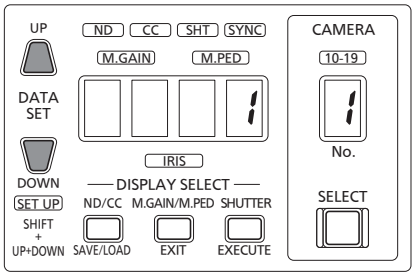


Use the steps below to open setup mode when the power is on, but a camera or CCU is not connected.

2. Simultaneously hold down DATA SET <DATA SET> <UP>, <DOWN> and <SHIFT> for approximately two seconds.

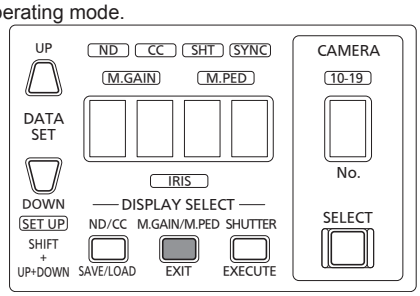
This opens setup mode and Menu No. 1 (camera number setting) is displayed.





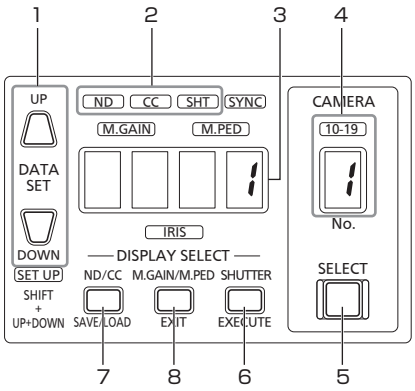
■ Exiting setup mode

To exit setup mode, hold down <EXIT> for two seconds. The unit returns to normal operating mode.



■ Basic operations

The buttons indicated in the figure below are available in setup mode. No other buttons are available. All other LEDs stay off. (Except the alarm display)



1. Selects set values

2. Indicates selected submenu

3. Indicates set values and selected values

4. Indicates menu numbers

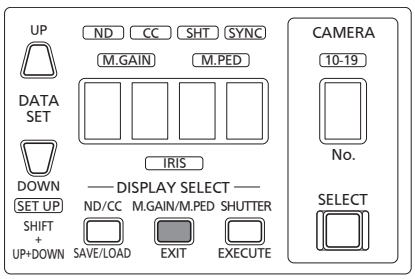
5. Selects a menu number. Each press of the button increments menu numbers.

1→2→3→...→21→1→2→...

6. Confirms a setting

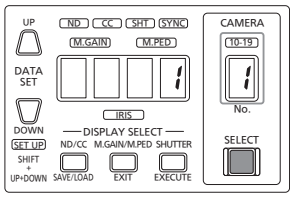
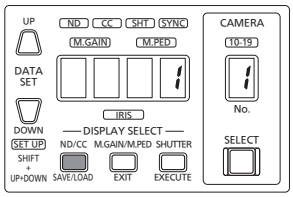
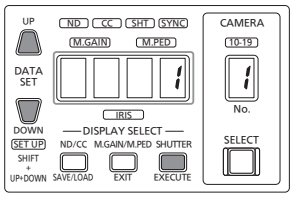
7. Selects a submenu. Each press of the button opens a different submenu.

8. To exit setup mode, hold down <EXIT> for two seconds. The unit returns to normal operating mode.



■ Setup mode menu configuration

Setup mode is comprised of the menus and submenus listed in the table below.

Menu		Submenu		Set value/Selected operation	Default value
					
Press <SELECT>to select a menu number.		Press <SAVE/LOAD> to select a submenu.		Use <UP> or <DOWN> to select a set value or an operation. Use <EXECUTE> to confirm an entry.	
No.	**Menu item**	**Light indication**	**Settings and operations**	**7-segment display (display and selection)**	
1	Set camera number*1	-	-	Camera number (AK-HC3500A: 1 to 15) (AK-HC3800: 1 to 19)	1
2	Save scene file to/load scene file from memory card	ND	Save to memory card	Scene files (1 to 4)	1
		CC	Load from memory card	Scene files (1 to 4)	1
3	Save user file to/load user file from memory card	ND	Save to memory card	User files (1 to 3)	1
		CC	Load from memory card	User files (1 to 3)	1
4	Save lens file to/load lens file from memory card	ND	Save to memory card	Lens files (1 to 32)	1
		CC	Load from memory card	Lens files (1 to 32)	1
5	Save ROP configuration file to/ load ROP configuration file from memory card	ND	Save to memory card	-	-
		CC	Load from memory card	-	-
6	Format memory card	-	-	-	-
7	Select/set flare and pedestal*1	-	-	FLARE/PED (FL/PE)	FL
8	Set buzzer (beep/Call)*1	-	-	Enable/disable buzzer (on/off)	on
9	Set display brightness (LED/7-segment display)*1	ND	LED	3 levels (bright/intermediate/low)	Bright
		CC	7-segment display	3 levels (bright/intermediate/low)	Bright
10	Set IP address*1 *2	ND	Block 1	Display/set block 1	192.168.0.130
		CC	Block 2	Display/set block 2	
		SHT	Block 3	Display/set block 3	
		SYNC	Block 4	Display/set block 4	
11	Set subnet mask*1 *2	ND	Block 1	Display/set block 1	255.255.255.0
		CC	Block 2	Display/set block 2	
		SHT	Block 3	Display/set block 3	
		SYNC	Block 4	Display/set block 4	
12	Set default gateway*1 *2	ND	Block 1	Display/set block 1	192.168.0.1
		CC	Block 2	Display/set block 2	
		SHT	Block 3	Display/set block 3	
		SYNC	Block 4	Display/set block 4	
13	Set port*1 *2	ND	3 digits	Display/set 3 digits	35200
		CC	2 digits	Display/set 2 digits	
14	Save/load remote camera configuration file	ND	Save to memory card	Camera files (1 to 19)	1
		CC	Load from memory card		
15	Set serial*1	-	-	CCU serial (1) Remote camera serial (2) Camera recorder serial (3)	1
16	Initialize settings	-	-	-	-
17	Confirm version	ND	Display version No (first digits)	Displays the first 3 digits	-
		CC	Version No (middle digits)	Displays the middle 2 digits	-
		SHT	Version No (last digits)	Displays the last 3 digits	-
18	Save unit data to memory card	-	-	-	-
19	Upgrade software	-	-	-	-
20	Set tally number*1	-	-	Tally numbers (1 to 19, --)	1
21	Set tally output*1	-	-	Tally link (on/off)	off
22	Syncro shutter display setting	-	-	SEC/DEG(SEC/dEG)	SEC
23	Tally control setting*3	-	-	1 (panel operation) / 2 (preview terminal)	1

*1 These functions are initialized when you perform settings initialization.
*2 If you change a setting, restart the unit when you exit setup mode.
*3 This setting is enabled when the camera recorder is connected.

■ Files stored on a memory card

In setup mode, the following files are saved to or loaded from a memory card by the unit. The fixed file names assigned by the unit must not be changed on a computer. If the file names are changed, they can no longer be processed by the unit.

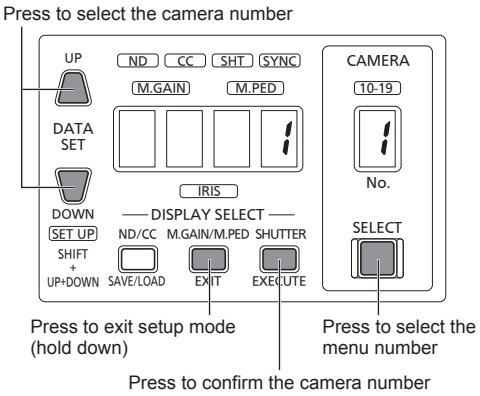
Files stored on a memory card	Filename
Scene file	SCENE1.BIN to SCENE4.BIN
User file	USER1.BIN to USER3.BIN
Lens file	LENS01.BIN to LENS32.BIN
ROP configuration file	ROP_OPE.BIN
Unit data file	ROP_INFO.BIN
Remote camera configuration files	CAM01.BIN to CAM19.BIN

<Note>

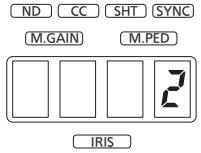
- The scene files, user files, and lens files that can be handled by the unit are the data of AK-HC3800 only. The data of AK-HC3500A and remote cameras cannot be handled.
- Files that have been saved to a memory card with an MSU cannot be loaded by the unit.
  Files that have been saved to a memory card with the unit cannot be loaded by an MSU.
- A Remote camera configuration file can be saved and loaded only when the remote camera and unit are connected with an IP connection.
- The save date and time (time stamp) format of a file saved to a memory card with the unit is fixed to “2099/1/1 00:00.”

1 Set camera number

1. Open setup mode and check that menu number [1] is displayed. If a menu number other than [1] appears, press <SELECT> to select menu number [1].



2. Press <UP> or <DOWN> to select a camera number and press <EXECUTE> to confirm the selection.



To select camera number 2

- Camera numbers become available after exiting setup mode.
- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

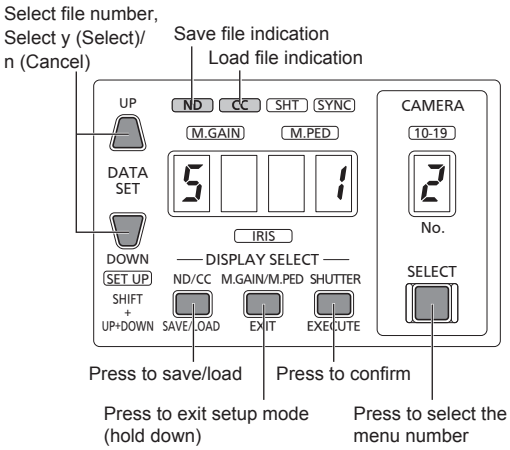
<Note>

For AK-HC3500A, the camera numbers 1 to 15 are valid. When connecting to AK-HC3500A, do not set a camera number to 16 or above.

2 Save scene file to/load scene file from memory card

Current operating status data is saved as a scene file to the memory card.

Press <SELECT>to select menu number [2].

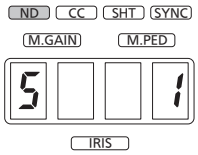


2-1 Save scene file to memory card

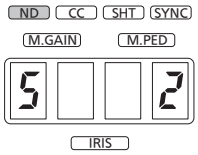
Before switching to setup mode, open the scene file you wish to save with the SCENE/USER FILE select buttons. (For details on how to open a scene file, refer to Operating Instructions <Basics>.)

1. Press <SAVE/LOAD> to select [ND].

- Each press of <SAVE/LOAD> toggles between [ND] (Save) and [CC] (load).



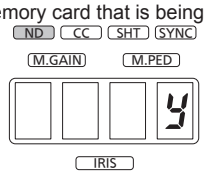
2. Press <UP> or <DOWN> to select a file number on the memory card and press <EXECUTE> to confirm the selection.



To save a file to file no. 2 on the memory card

3. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

- Do not remove a memory card that is being accessed.



- To cancel saving, select [n] and press <EXECUTE>.
- The file is saved to the memory card and [Fin] appears when saving ends.
- [E02] is displayed if the save operation to the memory card fails. (→page 20)
  If this happens, check the memory card and try again or insert another memory card to perform the operation again.
- [E01] is displayed when a scene file with the same name as the one you are attempting to save already exists on the memory card.
  To overwrite the file, press <UP> or <DOWN> to select [y] and press <EXECUTE>.(→page 20)

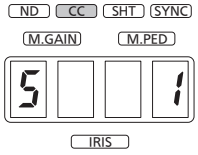
- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

2-2 Load scene file from memory card

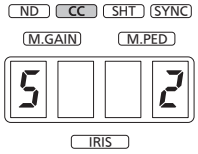
Scene file data loaded from the memory card is returned to the operating status. (It is not returned to scene files 1 to 4. To return the data to scene files 1 to 4, exit setup mode and store the data in one of scene files 1 to 4. For details, refer to <Basics>, the instruction manual.)

1. Press <SAVE/LOAD> to select [CC].

- Each press of <SAVE/LOAD> toggles between [ND] (Save) and [CC] (load).



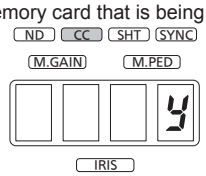
2. Press <UP> or <DOWN> to select a file number on the memory card and press <EXECUTE> to confirm the selection.



To load file no. 2 from the memory card

3. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

- Do not remove a memory card that is being accessed.

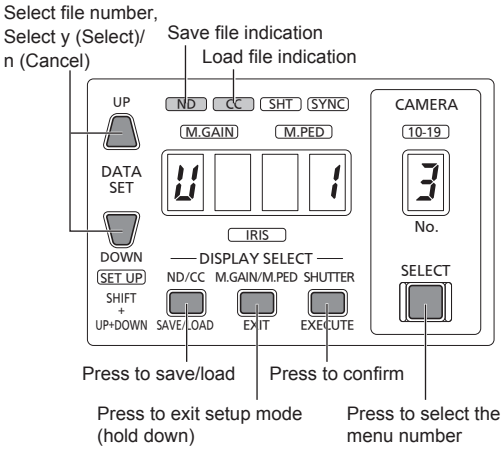


- To cancel loading, select [n] and press <EXECUTE>.
- The file is loaded from the memory card and [Fin] appears when loading ends.
- [E02] is displayed if the load operation from the memory card fails. (→page 20)
  If this happens, check the memory card and see whether the file exists on the memory card. If it does, start over from step 1.

- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

3 Saving user files to/loading user files from memory card

Press <SELECT>to select menu number [3].

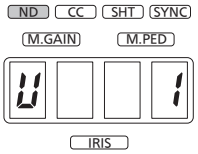


3-1 Save user file to memory card

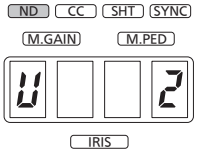
Before switching to setup mode, open the user file you wish to save with the SCENE/USER FILE select buttons. (For details on how to open a user file, refer to Operating Instructions <Basics>.)
Current operating status data is saved as a user file to the memory card.

1. Press <SAVE/LOAD> to select [ND].

- Each press of <SAVE/LOAD> toggles between [ND] (Save) and [CC] (load).



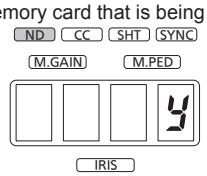
2. Press <UP> or <DOWN> to select a file number on the memory card and press <EXECUTE> to confirm the selection.



To save a file to file no. 2 on the memory card

3. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

- Do not remove a memory card that is being accessed.



- To cancel saving, select [n] and press <EXECUTE>.
- The file is saved to the memory card and [Fin] appears when saving ends.
- [E02] is displayed if the save operation to the memory card fails. (→page 20)
  If this happens, check the memory card and try again or insert another memory card to perform the operation again.
- [E01] is displayed when a user file with the same name as the one you are attempting to save already exists on the memory card. To overwrite the file, press <UP> or <DOWN> to select [y] and press <EXECUTE>.(→page 20)

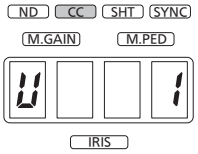
- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

3-2 Load user file from memory card

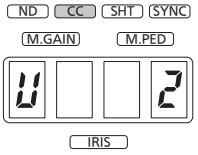
User file data loaded from the memory card is returned to the operating status. (It is not returned to user files 1 to 3. To return the data to user files 1 to 3, exit setup mode and store the data in one of user files 1 to 3. For details, refer to Operating Instructions <Basics>, the instruction manual.)

1. Press <SAVE/LOAD> to select [CC].

- Each press of <SAVE/LOAD> toggles between [ND] (Save) and [CC] (load).



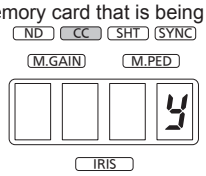
2. Press <UP> or <DOWN> to select a file number on the memory card and press <EXECUTE> to confirm the selection.



To load file no. 2 from the memory card

3. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

• Do not remove a memory card that is being accessed.

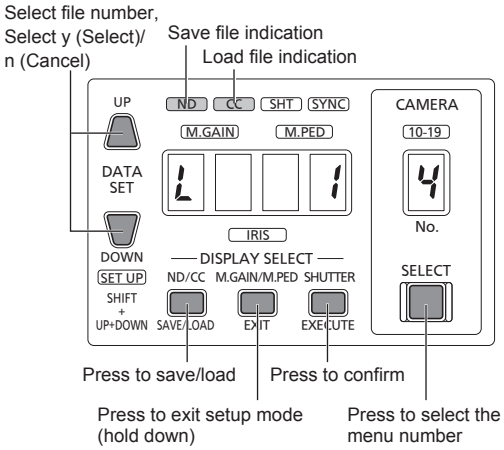


• To cancel loading, select [n] and press <EXECUTE>.
• The file is loaded from the memory card and [Fin] appears when loading ends.
• [E02] is displayed if the load operation from the memory card fails. (→page 20)
If this happens, check the memory card and see whether the file exists on the memory card. If it does, start over from step 1.

• To exit setup mode, hold down <EXIT> for about 2 seconds.
• To make other settings, press <SELECT> to select a menu number.

4 Save lens file to/load lens file from memory card

Press <SELECT>to select menu number [4].

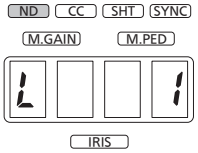


4-1 Save lens file to memory card

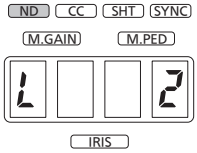
Before switching to setup mode, open the lens file you wish to save with the ROP menu. (→page 31)

1. Press <SAVE/LOAD> to select [ND].

• Each press of <SAVE/LOAD> toggles between [ND] (Save) and [CC] (load).



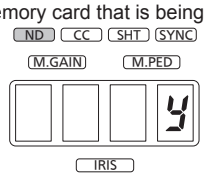
2. Press <UP> or <DOWN> to select a file number on the memory card and press <EXECUTE> to confirm the selection.



To save a file to file no. 2 on the memory card

3. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

• Do not remove a memory card that is being accessed.



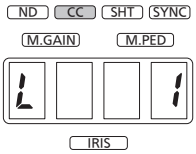
• To cancel saving, select [n] and press <EXECUTE>.
• The file is saved to the memory card and [Fin] appears when saving ends.
• [E02] is displayed if the save operation to the memory card fails. (→page 20)
If this happens, check the memory card and try again or insert another memory card to perform the operation again.
• [E01] is displayed when a lens file with the same name as the one you are attempting to save already exists on the memory card. To overwrite the file, press <UP> or <DOWN> to select [y] and press <EXECUTE>.(→page 20)
• [E04] is displayed when the lens file is off.

• To exit setup mode, hold down <EXIT> for about 2 seconds.
• To make other settings, press <SELECT> to select a menu number.

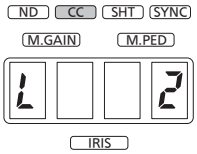
4-2 Load lens file from memory card

1. Press <SAVE/LOAD> to select [CC].

• Each press of <SAVE/LOAD> toggles it between [ND] (Save) and [CC] (Load).



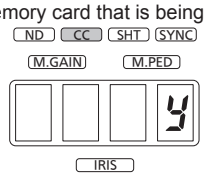
2. Press <UP> or <DOWN> to select a file number on the memory card and press <EXECUTE> to confirm the selection.



To load file no. 2 from the memory card

3. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

• Do not remove a memory card that is being accessed.

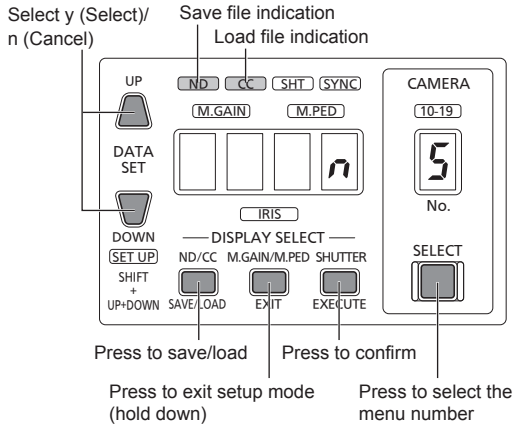


• To cancel loading, select [n] and press <EXECUTE>.
• The file is loaded from the memory card and [Fin] appears when loading ends.
• [E02] is displayed if the load operation from the memory card fails. (→page 20)
If this happens, check the memory card and see whether the file exists on the memory card. If it does, start over from step 1.

• To exit setup mode, hold down <EXIT> for about 2 seconds.
• To make other settings, press <SELECT> to select a menu number.

5 Save ROP configuration file to/load ROP configuration file from memory card

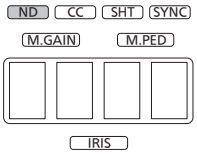
Press <SELECT>to select menu number [5].



5-1 Save ROP configuration file to memory card

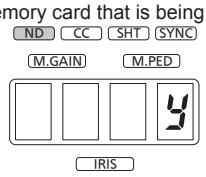
1. Press <SAVE/LOAD> to select [ND].

- Each press of <SAVE/LOAD> toggles between [ND] (Save) and [CC] (load).



2. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

- Do not remove a memory card that is being accessed.



- To cancel saving, select [n] and press <EXECUTE>.
- The file is saved to the memory card and [Fin] appears when saving ends.
- [E02] is displayed if the save operation to the memory card fails. (→page 20)
  If this happens, check the memory card and try again or insert another memory card to perform the operation again.
- [E01] is displayed when an ROP configuration file with the same name as the one you are attempting to save already exists on the memory card.
  To overwrite the file, press <UP> or <DOWN> to select [y] and press <EXECUTE>.(→page 20)

<Note>

- The data set in setup mode and ROP Setup Software is saved to the memory card.
- The following data is not saved.
  - IP address of the unit
  - Subnet mask of the unit
  - Default gateway of the unit
  - Port setting of the unit

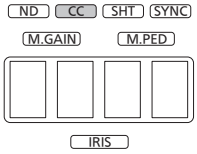
- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

5-2 Load ROP configuration file from memory card

When the ROP configuration file is loaded, the setting data stored on the memory card is loaded. If the operation mode of the unit and the operation mode in the memory card differ, the operation mode changes to the operation mode saved in the memory card.

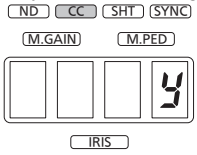
1. Press <SAVE/LOAD> to select [CC].

- Each press of <SAVE/LOAD> toggles between [ND] (Save) and [CC] (load).



2. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

- The file is loaded from the memory card and [Fin] appears when loading ends. A few seconds later, the unit is restarted.
- Do not remove a memory card that is being accessed.

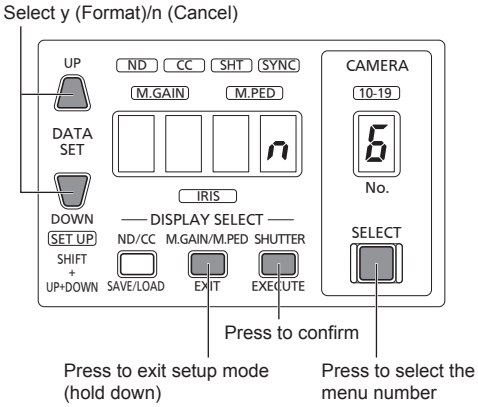


- To cancel loading, select [n] and press <EXECUTE>.
- [E02] is displayed if the load operation from the memory card fails. (→page 20)
  If this happens, check the memory card and see whether the file exists on the memory card. If it does, start over from step 1.

- To exit setup mode, hold down <EXIT> for about 2 seconds.

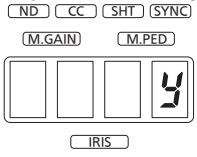
6 Format memory card

1. Press <SELECT>to select menu number [6].



2. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

- Card formatting starts.
- Do not remove a memory card that is being accessed.



- To cancel formatting, select [n] and press <EXECUTE>.
- When the formatting ends, [Fin] appears.

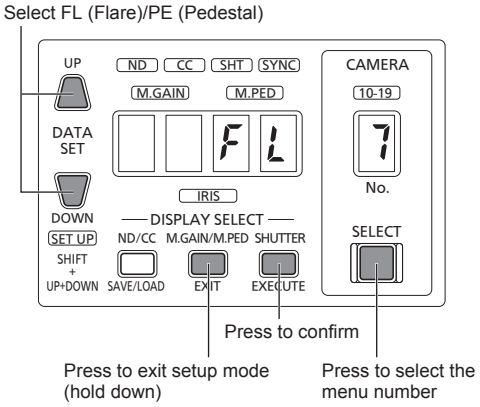
- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

<Note>

Be sure to execute a format after confirming the data because any data that is deleted by the format cannot be recovered.

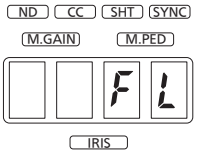
7 Select/set flare and pedestal

Press <SELECT>to select menu number [7].



7-1 Set flare

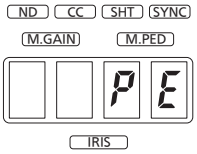
Press <UP> or <DOWN> to select [FL] and press <EXECUTE> to confirm the selection.



- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

7-2 Set pedestal

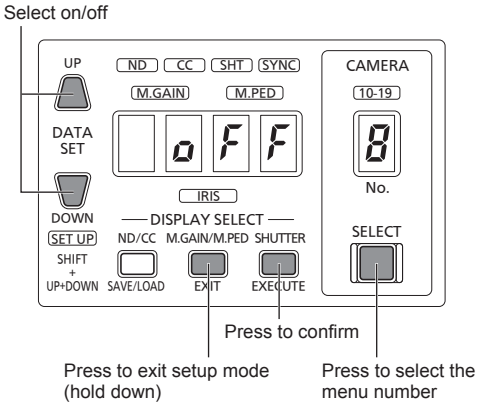
Press <UP> or <DOWN> to select [PE] and press <EXECUTE> to confirm the selection.



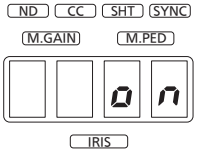
- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

8 Set buzzer (beep/call tone)

1. Press <SELECT>to select menu number [8].



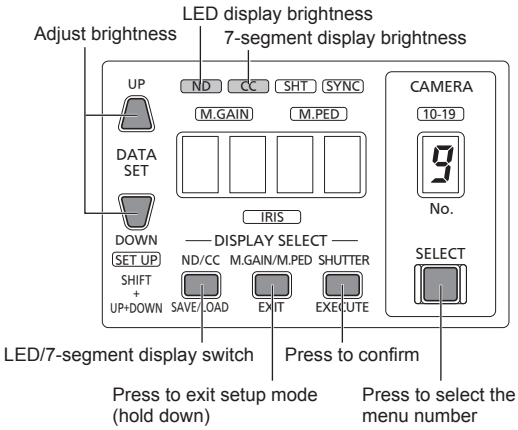
2. Press <UP> or <DOWN> to select [on] and press <EXECUTE> to confirm the selection.



- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

9 Display brightness setting (LED/7-segment display)

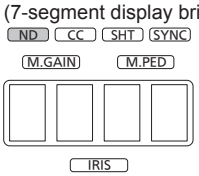
Press <SELECT>to select menu number [9].



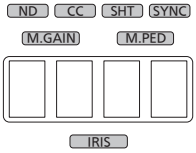
9-1 Set LED brightness

1. Press <SAVE/LOAD> to select [ND] and press <EXECUTE> to confirm the selection.

- Each press of <SAVE/LOAD> toggles between [ND] (LED display brightness) and [CC] (7-segment display brightness).



2. Press <UP> or <DOWN> to select LED display brightness and press <EXECUTE> to confirm the selection.

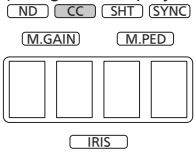


- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

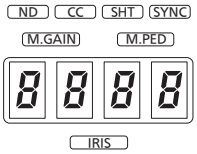
9-2 Set 7-segment display brightness

1. Press <SAVE/LOAD> to select [CC] and press <EXECUTE> to confirm the selection.

- Each press of <SAVE/LOAD> toggles between [ND] (LED display brightness) and [CC] (7-segment display brightness).



2. Press <UP> or <DOWN> to select 7-segment display brightness and press <EXECUTE> to confirm the selection.

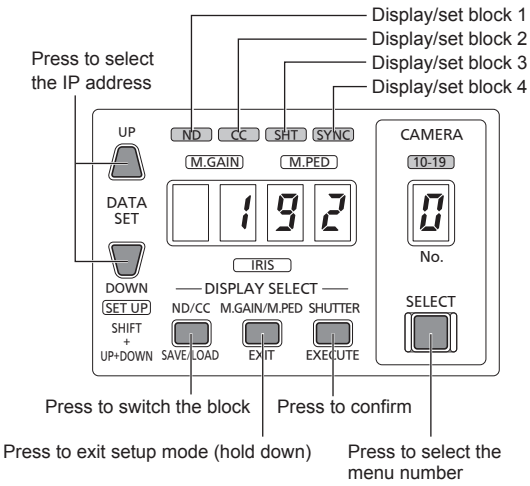


- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

10 Set IP address

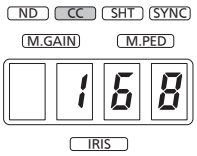
1. Press <SELECT> to select menu number [10].

- Block 1 of the IP address appears.



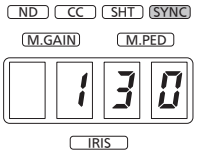
2. Press <SAVE/LOAD> to select [CC], [SHT], and [SYNC].

- The display changes in the order of block 1, block 2, block 3, and block 4.
- When changing the IP address, press <UP> or <DOWN> to change the setting for each block.



3. Press <SHUTTER> to confirm the IP address setting.

- Pressing <SHUTTER> while block 4 is displayed confirms the setting.

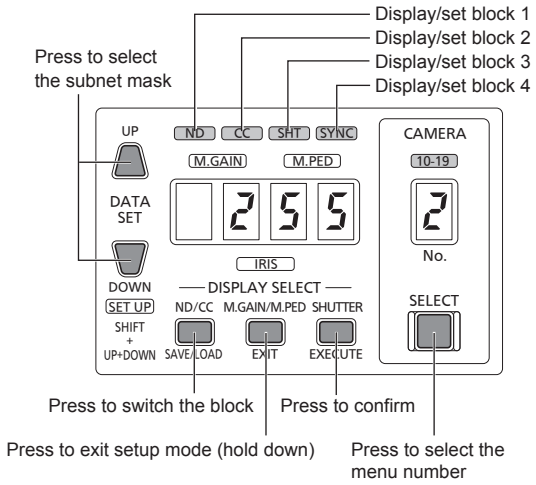


- To exit setup mode, hold down <EXIT> for about 2 seconds.
- If the IP address setting value has been changed, the unit will restart automatically when you exit setup mode. If the setting value has not been changed, the unit will not restart.
- To make other settings, press <SELECT> to select a menu number.

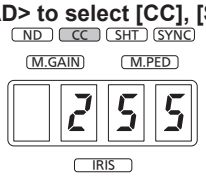
11 Set subnet mask

1. Press <SELECT> to select menu number [11].

- Block 1 of the subnet mask appears.

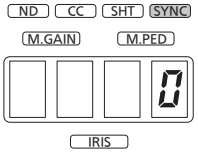


2. Press <SAVE/LOAD> to select [CC], [SHT], and [SYNC].



- The display changes in the order of block 1, block 2, block 3, and block 4.
- When changing the subnet mask, press <UP> or <DOWN> to change the setting for each block.

3. Press <SHUTTER> to confirm the subnet mask setting.



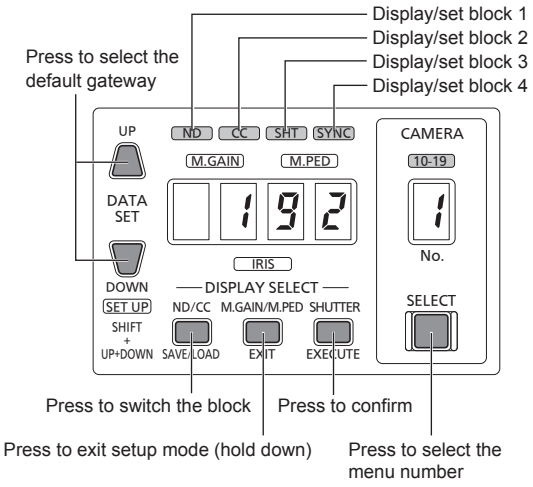
- Pressing <SHUTTER> while block 4 is displayed confirms the setting.

- To exit setup mode, hold down <EXIT> for about 2 seconds.
- If the subnet mask setting value has been changed, the unit will restart automatically when you exit setup mode. If the setting value has not been changed, the unit will not restart.
- To make other settings, press <SELECT> to select a menu number.

12 Set default gateway

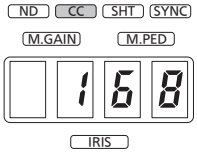
1. Press <SELECT> to select menu number [12].

- Block 1 of the default gateway appears.



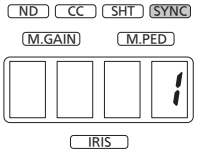
2. Press <SAVE/LOAD> to select [CC], [SHT], and [SYNC].

- The display changes in the order of block 1, block 2, block 3, and block 4.
- When changing the default gateway, press <UP> or <DOWN> to change the setting for each block.



3. Press <SHUTTER> to confirm the default gateway setting.

- Pressing <SHUTTER> while block 4 is displayed confirms the setting.



- To exit setup mode, hold down <EXIT> for about 2 seconds.
- If the default gateway setting value has been changed, the unit will restart automatically when you exit setup mode. If the setting value has not been changed, the unit will not restart.
- To make other settings, press <SELECT> to select a menu number.

■ Settable addresses

192.	168.	0.	130
Block 1	Block 2	Block 3	Block 4

For the IP address, you can set a value within the following ranges.

Block 1	1 to 223
Block 2	0 to 255
Block 3	0 to 255
Block 4	1 to 254

However, “127.0.0.1” cannot be set even though it is within the above ranges.

For the subnet mask, you can set a value within the following ranges.

Block 1	0 to 255
Block 2	0 to 255
Block 3	0 to 255
Block 4	0 to 255

However, “0.0.0.0” and “127.0.0.1” cannot be set even though it is within the above ranges.

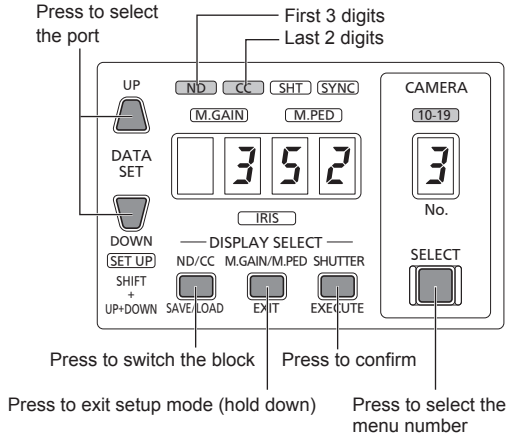
For the default gateway, you can set a value within the following ranges.

Block 1	0 to 255
Block 2	0 to 255
Block 3	0 to 255
Block 4	0 to 255

13 Set port

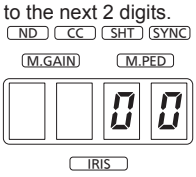
1. Press <SELECT> to select menu number [13].

- The 3 digits of the port number appear.



2. Press <SAVE/LOAD> to select [CC].

- The display changes to the next 2 digits.



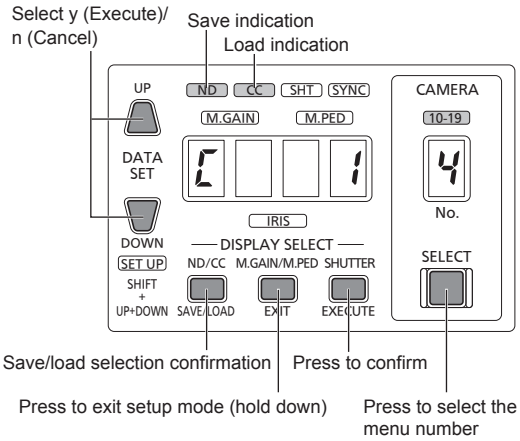
- Press <UP> or <DOWN> to change the setting for each block.
- Press <SHUTTER> to confirm the setting.
- A value within the range of 35200 to 35599 can be set for the port number.

- To exit setup mode, hold down <EXIT> for about 2 seconds.
- If the port number setting value has been changed, the unit will restart automatically when you exit setup mode. If the setting value has not been changed, the unit will not restart.
- To make other settings, press <SELECT> to select a menu number.

14 Save/load remote camera configuration file

The data recorded by the remote camera can be saved to a memory card.

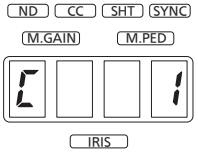
Press <SELECT> to select menu number [14].



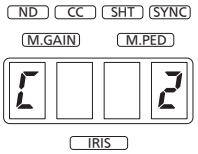
Save remote camera configuration file to memory card

1. Press <SAVE/LOAD> to select [ND].

- Each press of <SAVE/LOAD> toggles between [ND] (Save) and [CC] (Load).



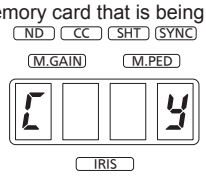
2. Press <UP> or <DOWN> to select a file number on the memory card and press <EXECUTE> to confirm the selection.



When saving to file number 2 on the memory card

3. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

- Do not remove a memory card that is being accessed.



- To cancel saving, select [n] and press <EXECUTE>.
- The file is saved to the memory card and [Fin] appears when saving ends.
- [E02] is displayed if the save operation to the memory card fails. If this happens, check the memory card and try again or insert another memory card to perform the operation again.
- [E01] is displayed when a remote camera configuration file with the same name as the one you are attempting to save already exists on the memory card. To overwrite the file, press <UP> or <DOWN> to select [y] and press <EXECUTE>.

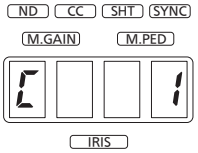
- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

Load remote camera configuration file from memory card

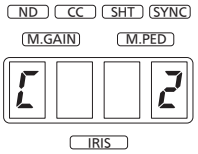
Remote camera configuration file data loaded from the memory card is returned to the operating status.

1. Press <SAVE/LOAD> to select [CC].

Each press of <SAVE/LOAD> toggles between [ND] (Save) and [CC] (Load).



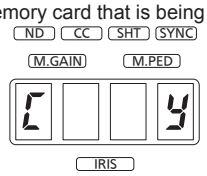
2. Press <UP> or <DOWN> to select a file number on the memory card and press <EXECUTE> to confirm the selection.



When loading file number 2 on the memory card

3. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

- Do not remove a memory card that is being accessed.



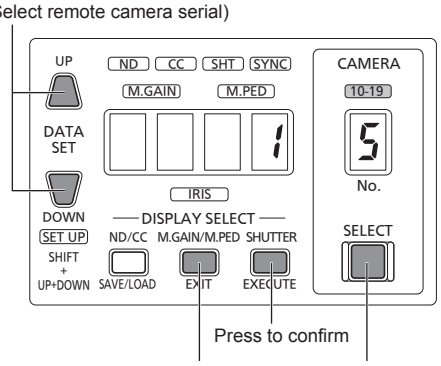
- To cancel loading, select [n] and press <EXECUTE>.
- The file is loaded from the memory card and [Fin] appears when loading ends.
- [E02] is displayed if the load operation from the memory card fails. If this happens, check the memory card and see whether the file exists on the memory card. If it does, start over from step 1.

- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

15 Set serial

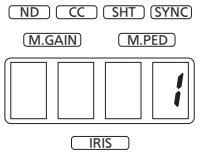
Press <SELECT> to select menu number [15].

1 (Select CCU serial)/
2 (Select remote camera serial)



Setting CCU serial

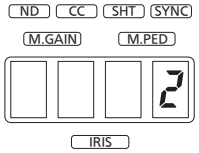
Press <UP> or <DOWN> to select [1] and press <EXECUTE> to confirm the selection.



- After the selection is confirmed, the unit restarts automatically.

Setting remote camera serial

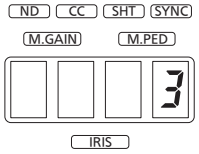
Press <UP> or <DOWN> to select [2] and press <EXECUTE> to confirm the selection.



- After the selection is confirmed, the unit restarts automatically.

Setting for camera recorder serial

Press <UP> or <DOWN> to select [3] and press <EXECUTE> to confirm the selection.

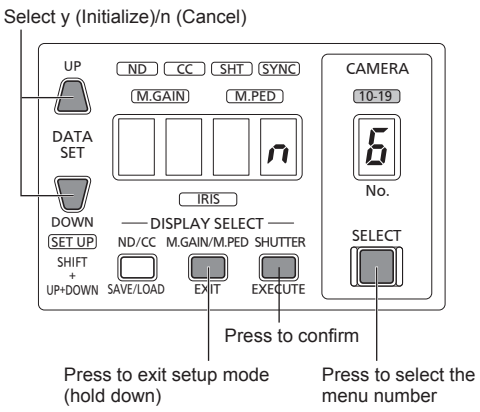


- After the selection is confirmed, the unit restarts automatically.

16 Initialize settings

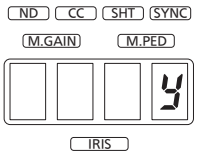
<Note>
When settings are initialized, the unit is automatically restarted.For details on what settings are initialized, refer to page 8

1. Press <SELECT>to select menu number [16].



2. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

- After confirmation, unit settings are initialized and it is automatically restarted.

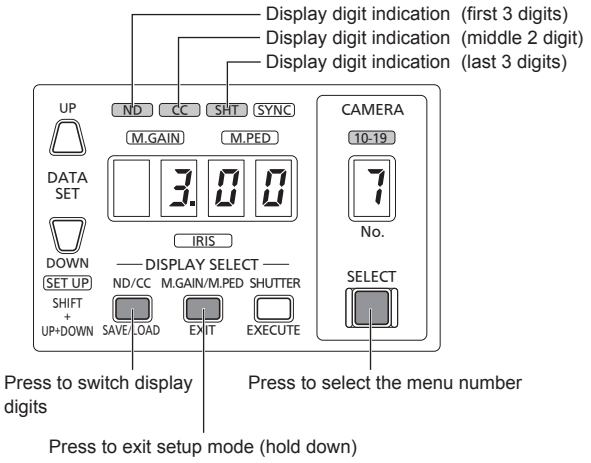


- To cancel initializing, select [n] and press <EXECUTE>.

17 Confirm version

Press <SELECT>to select menu number [17].

- The version information is displayed.
- Press <SAVE/LOAD> to show the 8-digit version number split up in 3, 2 and 3 digits.

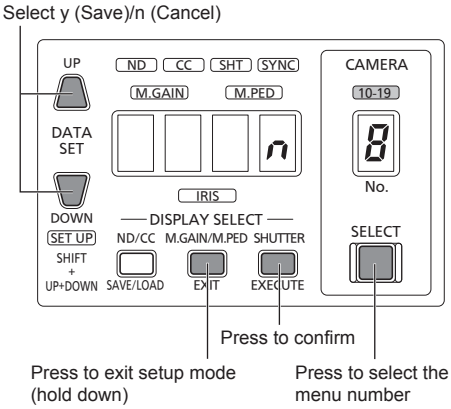


- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

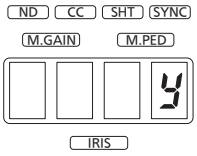
18 Save unit data to memory card

This function is used by the manufacturer during maintenance.

1. Press <SELECT>to select menu number [18].



2. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.



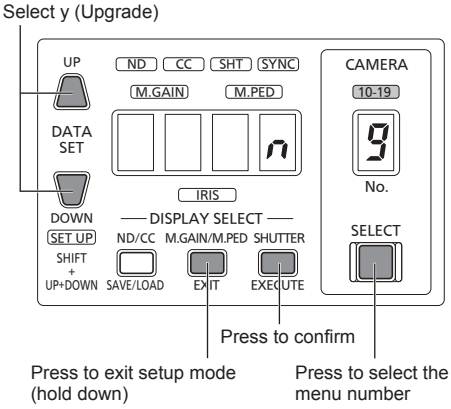
- The file is saved to the memory card and [Fin] appears when saving ends.
- [E02] is displayed if the save operation to the memory card fails. (→page 20)
  If this happens, check the memory card and try again or insert another memory card to perform the operation again.
- [E01] is displayed when a unit data file with the same name as the one you are attempting to save already exists on the memory card. To overwrite the file, press <UP> or <DOWN> to select [y] and press <EXECUTE>. (→page 20)

- To exit setup mode, hold down <EXIT> for about 2 seconds.
- To make other settings, press <SELECT> to select a menu number.

19 Software upgrade

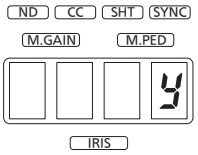
For details on software upgrades, refer to “Software upgrades” (→page 3).

1. Press <SELECT>to select menu number [19].



2. Press <UP> or <DOWN> to select [y] and press <EXECUTE> to confirm the selection.

• Upgrading starts.



• When the upgrade ends, [Fin] appears and the unit restarts automatically.

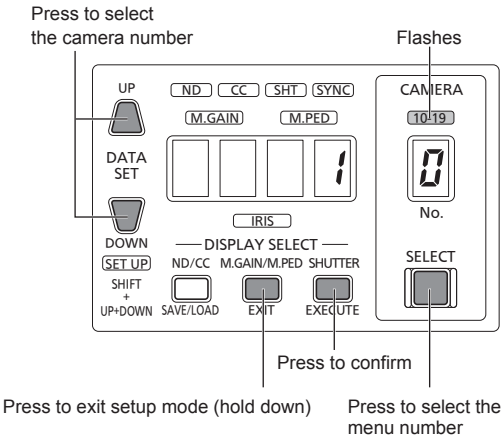
<Note>

If the upgrade fails for some reason, <SHIFT> may start to flash after the restart. If this happens, perform the upgrade process again.

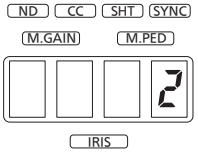
20 Set tally number

Set the camera number to assign to tally input.

1. Press <SELECT> to select menu number [20].



2. Press <UP> or <DOWN> to select a camera number and press <EXECUTE> to confirm the selection.

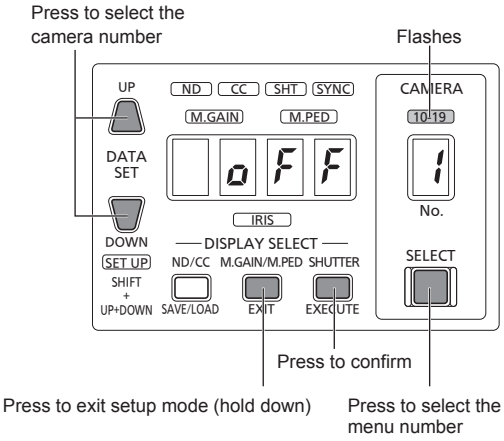


• To exit setup mode, hold down <EXIT> for about 2 seconds.
• To make other settings, press <SELECT> to select a menu number.

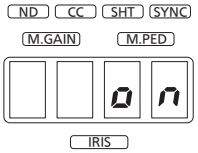
21 Set tally output

Set the sending of tally information from the unit to remote cameras.

1. Press <SELECT> to select menu number [21].



2. Press <UP> or <DOWN> to select [on] and press <EXECUTE> to confirm the selection.

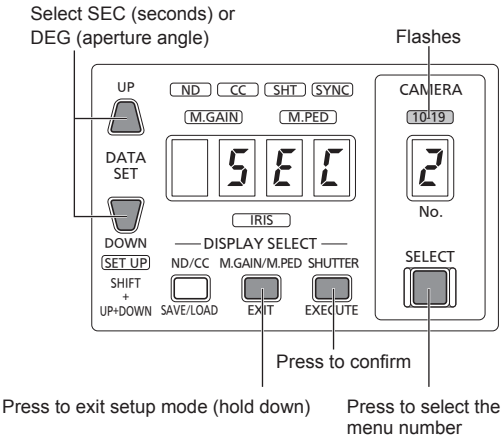


• To exit setup mode, hold down <EXIT> for about 2 seconds.
• To make other settings, press <SELECT> to select a menu number.

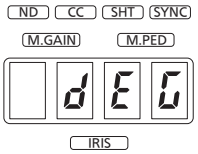
22 Syncro shutter display setting

Sets whether a camera recorder's syncro shutter speed is displayed in seconds (SEC) or in iris degrees (DEG).

1. Press <SELECT> to select menu number 22.



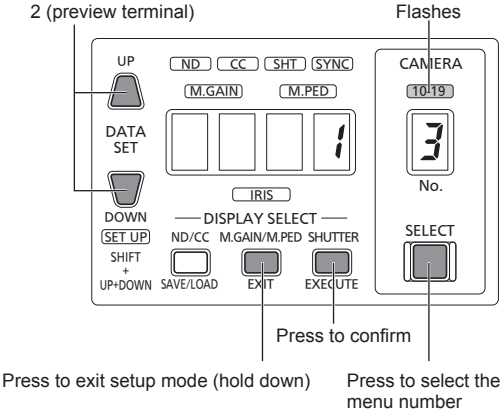
2. Press <UP> or <DOWN> to select [SEC] or [dEG], and press <EXECUTE> to confirm the selection.



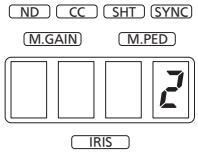
23 Tally control setting (for camera recorder only)

Specifies whether tally control is performed via panel operations or preview terminal inputs.

1. Press <SELECT> to select menu number [23].



2. Press <UP> or <DOWN> to select the setting number, and press <EXECUTE> to confirm the selection.



• To make other settings, press <SELECT> to select a menu number.

Error messages in setup mode

Error No.	Error data
E01	A file with the same name already exists. Select [y] to overwrite.
E02	An error occurred on the memory card. • Check if a file exists. • Check if the memory card is write protected. • Check if there is any free space left on the memory card. • Check if an SDXC card is being used. • The file format of the memory card may not be correct. • There may be a memory card format abnormality.
E03	A memory card has not been inserted.
E04	• A communication error occurred. Check the connected equipment. • The lens file is off. • There are not connections with cameras and CCUs and the control privileges are disabled. (For details on control privileges, refer to Operating Instructions <Basics>.)
E05	An error occurred. Start over from the beginning.

■ When a file with the same name exists on the memory card

[E01] is displayed when a file with the same name as the one you are attempting to save already exists on the memory card.
To overwrite the file, press <UP> or <DOWN> to select [y] and press <EXECUTE>.

■ When E02 to E05 are displayed

Press <EXECUTE> to close the error message. Then perform the operation again.

ROP menu operations

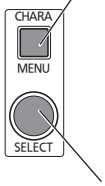
ROP menus that can be operated on the unit

The unit can access the picture monitor on a CCU to control the ROP menu (REMOTE OPERATION MENU).

<Note>

ROP menu operation is a function that is enabled when the unit is connected to AK-HCU200.

■ Opening menus and menu configuration



Hold down <CHARA/MENU> for about 2 seconds to open [REMOTE OPERATION MENU]. To close [REMOTE OPERATION MENU], hold down <CHARA/MENU> for about 2 seconds.

Use <SELECT> to select the menu.

- REMOTE OPERATION MENU
  - SHADING(WHITE)
  - PEDESTAL/FLARE/GAIN
  - GAMMA/BLACK. GAMMA
  - CINEMA GAMMA
  - KNEE/WHITE CLIP
  - COLOR CONTROL
  - MATRIX
  - HD DTL/SKIN DTL
  - SD DETAIL
  - SYSTEM
  - FUNCTION
  - LENS FILE/EDIT
  - ROP SD CARD

Menus cannot be displayed when any of the following messages appear on the picture monitor.

- WARNING message
- AUTO message
- STATUS message

If any of these messages appear, you can hold down <CHARA/MENU> to delete them and resume operation.

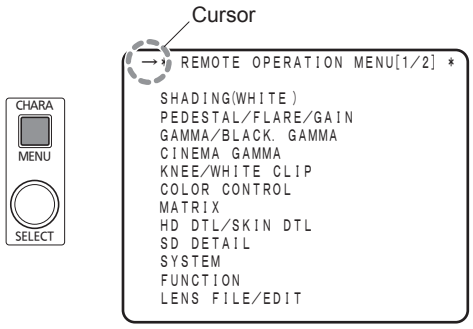
When camera power <HEAD POWER> is Off, only [SYSTEM] can be selected.

Operating ROP menus

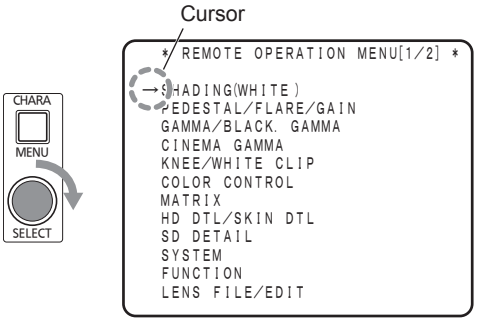
■ Basic menu operations

1. Hold down <CHARA/MENU> for 2 seconds.

The [REMOTE OPERATION MENU] appears. (The cursor appears at the beginning of the first line.)



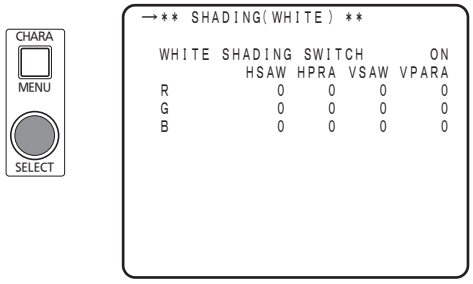
2. Turn <SELECT> one click clockwise to move the cursor.



3. Press <SELECT>to select a menu.

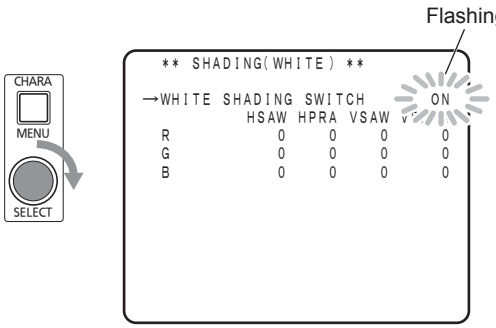
The [SHADING(WHITE)] menu appears.

In this state (when the cursor is in the menu title), press <SELECT> to return to the next higher menu ([ROP MENU]).



4. Turn <SELECT> to move the cursor to a setting and press <SELECT>.

The selected setting flashes allowing you to change the set value.

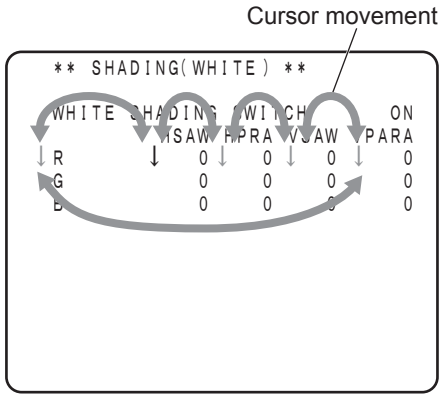


<Note>

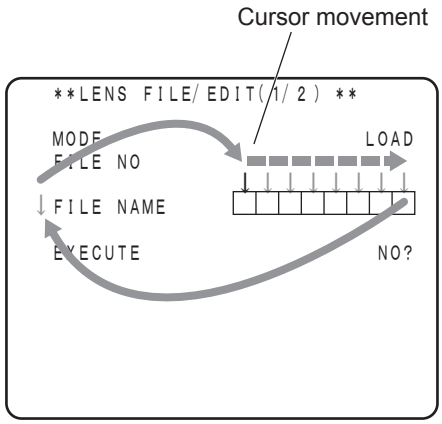
Turn <SELECT> quickly to change the hundreds place of a set value.

■ Operating other menus

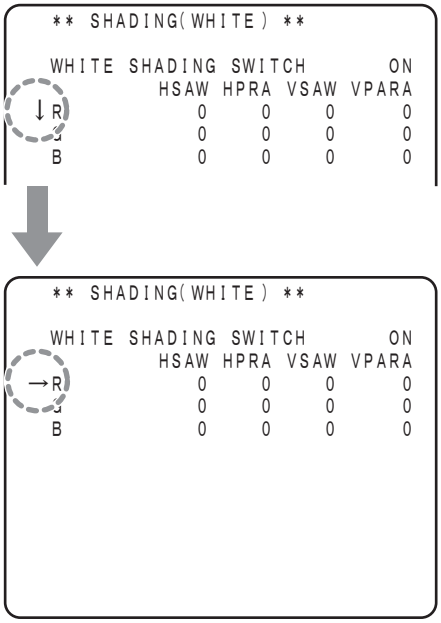
When a menu has more than one setting on a line, press <SELECT> (to confirm) and the cursor [↓] appears.
Turn <SELECT> right or left to move the cursor to the input area.



In a character entry menu, the [↓] cursor will also appear.



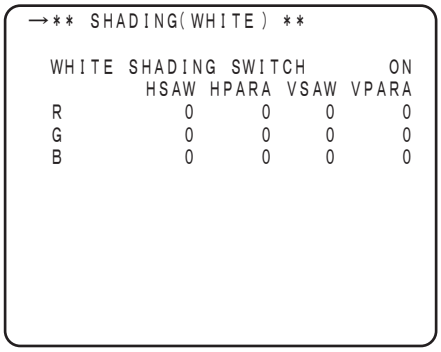
When the cursor is at the beginning of a menu, press <SELECT> to confirm to turn the cursor into [→] to continue selecting menu items.



ROP menu setting

The following describes [ROP MENU] settings.

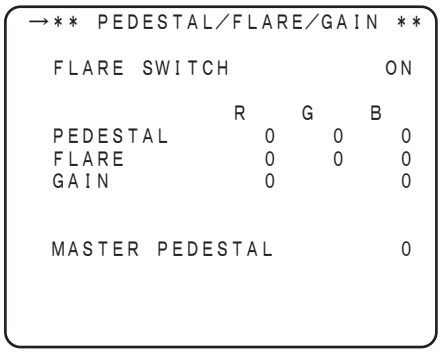
SHADING(WHITE)



(__ indicates factory default settings.)

Item	Display	Function
WHITE SHADING SWITCH	**OFF** **ON**	Enables/disables white shading.
H SAW R	**-100** **I** **0** **I** **100**	Performs sawtooth wave correction of white screen images in the horizontal direction.
H SAW G		
H SAW B		
H PARA R	**-100** **I** **0** **I** **100**	Performs parabola correction of white screen images in the horizontal direction.
H PARA G		
H PARA B		
V SAW R	**-100** **I** **0** **I** **100**	Performs sawtooth wave correction of white screen images in the vertical direction.
V SAW G		
V SAW B		
V PARA R	**-100** **I** **0** **I** **100**	Performs parabola correction of white screen images in the vertical direction.
V PARA G		
V PARA B		

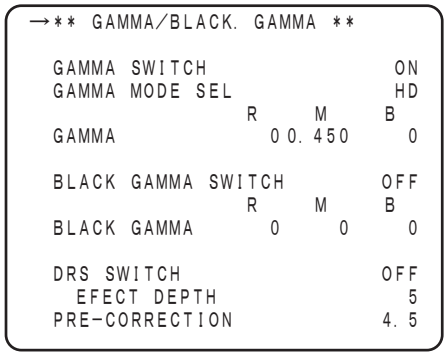
PEDESTAL/FLARE/GAIN



(__ indicates factory default settings.)

Item	Display	Function
FLARE SWITCH	**OFF** **ON**	Set to On to adjust flare correction amount. Flare correction controls the increase in pedestal level in proportion to light intensity.
MASTER PEDESTAL	**-99** **I** **0** **I** **99**	Indicates set master pedestal value. (Settings cannot be made.)
PEDESTAL R	**-800** **I** **0** **I** **800**	Amount by which the level is increased or decreased relative to the G pedestal to adjust the black balance. When the auto black balance is achieved, 0 is set as the adjustment value.
PEDESTAL G	**-800** **I** **0** **I** **800**	Adjusts the amount of G pedestal offset from master pedestal.
PEDESTAL B	**-800** **I** **0** **I** **800**	Amount by which the level is increased or decreased relative to the G pedestal to adjust the black balance. When the auto black balance is achieved, 0 is set as the adjustment value.
FLARE R	**-100** **I** **0** **I** **100**	Adjusts the amount of R FLARE correction.
FLARE G	**-100** **I** **0** **I** **100**	Adjusts the amount of G FLARE correction
FLARE B	**-100** **I** **0** **I** **100**	Adjusts the amount of B FLARE correction
GAIN R	**-800** **I** **0** **I** **800**	Adjusts the white balance. Amount by which the R gain has to be increased or decreased relative to the G gain level. When the auto white balance is achieved, 0 is set as the adjustment value.
GAIN B	**-800** **I** **0** **I** **800**	Adjusts the white balance. Amount by which the B gain has to be increased or decreased relative to the G gain level. When auto white balance is achieved, 0 is set as the adjustment value.

GAMMA/BLACK. GAMMA



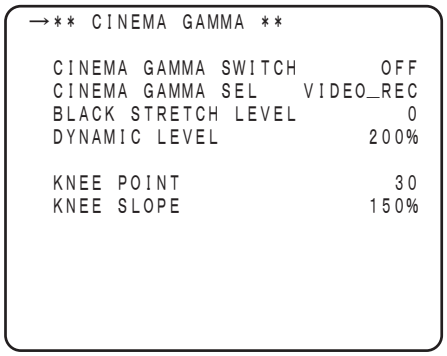
(__ indicates factory default settings.)

Item	Display	Function
GAMMA SWITCH	**OFF** **ON**	Turn on to correct the gamma. Gamma provides the signal level of the TV video signal with characteristics that are the reverse of those for video signal input and light intensity level.
GAMMA MODE SEL	**HD** **FILMLIKE1** **FILMLIKE2** **FILMLIKE3**	Sets the gamma characteristic type.
GAMMA R	●When [GAMMA MODE SEL] is [HD] and [CINEMA GAMMA SWITCH] is [ON] **-75** **|** **0** **|** **75** ●When [GAMMA MODE SEL] is [FILMLIKE1] to [FILMLIKE3] **-60** **|** **0** **|** **60**	Adjusts R gamma correction relative to M gamma.
GAMMA M	●When [GAMMA MODE SEL] is [HD] **0.30** **|** **0.45** **|** **0.60** ●When [CINEMA GAMMA SWITCH] is [ON] **0.15** **|** **0.45** **|** **0.75** ●When [GAMMA MODE SEL] is [FILMLIKE1] to [FILMLIKE3] **0.300** **|** **0.450** **|** **0.750**	Adjusts the master gamma.
GAMMA B	●When [GAMMA MODE SEL] is [HD] and [CINEMA GAMMA SWITCH] is [ON] **-75** **|** **0** **|** **75** ●When [GAMMA MODE SEL] is [FILMLIKE1] to [FILMLIKE3] **-60** **|** **0** **|** **60**	Adjusts B gamma correction relative to M gamma.
BLACK GAMMA SWITCH	**OFF** **ON**	Turn this switch on to correct the black gamma. It changes the amplification rate of the video signal in low light intensity areas.
BLACK GAMMA R	**-20 (black compression)** **|** **0** **|** **20 (black expansion)**	Corrects the black gamma curve R.
BLACK GAMMA M	**-32 (black compression)** **|** **0** **|** **32 (black expansion)**	Corrects the black gamma.
BLACK GAMMA B	**-20 (black compression)** **|** **0** **|** **20 (black expansion)**	Corrects the black gamma curve B.
DRS SWITCH	**OFF** **ON**	Turn on for automatic contrast adjustment. This adaptive-type gamma correction adjusts the gamma correction to the optimal setting.
EFFECT DEPTH	**1** **|** **5**	Turn on for contrast adjustment. Higher numbers mean greater effect.
PRE-CORRECTION	**4.0** **4.5** **5.0**	Turn on to adjust the rising slope in low-light areas.

CINEMA GAMMA

<Note>

- The settings in this menu are not available when the [CINEMA GAMMA SWITCH] is set to [OFF].



(__ indicates factory default settings.)

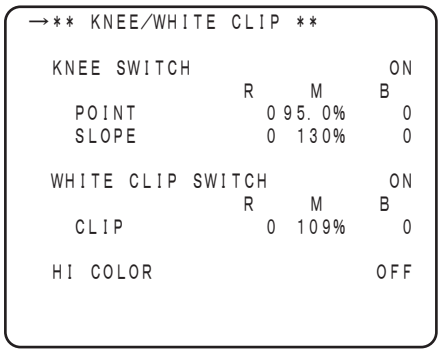
Item	Display	Function
CINEMA GAMMA SWITCH	**OFF** **ON**	Enables or disables cinema gamma mode.
CINEMA GAMMA SEL	**FILM_REC** **VIDEO_REC**	Switches the cinema gamma characteristics.
BLACK STRETCH LEVEL	**0** **I** **30**	This function is available only when the [CINEMA GAMMA SWITCH] is set to [ON] and [CINEMA TYPE] is set to [FILM].
DYNAMIC LEVEL	**200%/300%/** **400%/500%**	Sets the dynamic range This function is available only when [CINEMA TYPE] is set to [FILM].
KNEE POINT*1	**30** **I** **90**	Sets the master knee point.
KNEE SLOPE*1	**150%/200%/** **250%/300%/** **350%/400%/** **450%/500%/** **550%/600%**	Sets the master knee slope.

*1 When the Knee OFF button <KNEE OFF> is On or when [KNEE SWITCH] is set to [OFF] in the [KNEE/WHITE CLIP] menu, settings cannot be changed.

KNEE/WHITE CLIP

<Note>

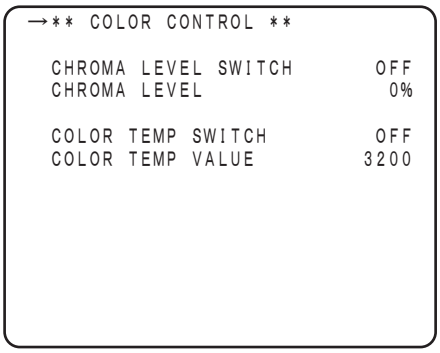
- Some settings in this menu are not available when the [CINEMA GAMMA SWITCH] is set to [ON].



(__ indicates factory default settings.)

Item	Display	Function
KNEE SWITCH	**OFF/ON**	Turn on to adjust the knee slope and knee point.
POINT R	**-20** **I** **0** **I** **20**	Sets the R knee point.
POINT M	**80.0%** **I** **95.0%** **I** **110.0%**	Sets the master knee point.
POINT B	**-20** **I** **0** **I** **20**	Sets the B knee point.
SLOPE R	**-31** **I** **0** **I** **31**	Sets the R knee slope.
SLOPE M	**0** **I** **130** **I** **199**	Sets the master knee slope.
SLOPE B	**-31** **I** **0** **I** **31**	Sets the B knee slope.
WHITE CLIP SWITCH	**OFF** **ON**	Enables or disables the white clip function.
CLIP R	**-15** **I** **0** **I** **15**	Sets the R white clip function.
CLIP M	**80%** **I** **109%**	Sets the master white clip function.
CLIP B	**-15** **I** **0** **I** **15**	Sets the B white clip function.
HI COLOR	**OFF** **ON**	Turn on to improve the color reproducibility in the high-brightness areas.

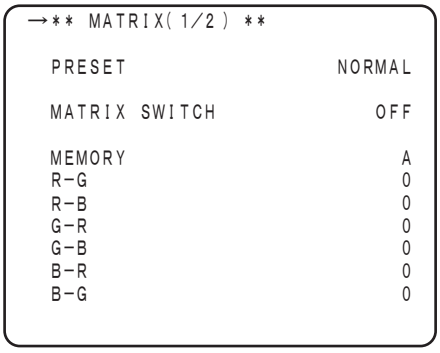
COLOR CONTROL



(__ indicates factory default settings.)

Item	Display	Function
CHROMA LEVEL SWITCH	**OFF** **ON**	Turn on when adjusting the chroma gain.
CHROMA LEVEL	**-100%** **I** **0%** **I** **40%**	Adjust the chroma gain.
COLOR TEMP SWITCH	**OFF** **ON**	Turn on when adjusting the color temperature manually.
COLOR TEMP VALUE	**2300** **I** **3200** **I** **15000**	Adjusts the color temperature when [COLOR TEMP SWITCH] is set to [ON]. • When under or over, "↓" or "↑" is displayed highlighted on the right side.

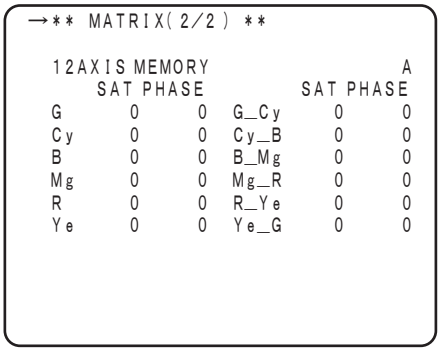
MATRIX (1/2)



(__ indicates factory default settings.)

Item	Display	Function
PRESET	**NORMAL** **EBU** **NTSC**	Switches matrix presets.
MATRIX SWITCH	**OFF** **ON**	Enables or disables saturation and color phase correction.
MEMORY	**OFF** **A** **B**	Select matrix memory to adjust.
R-G	**-63** **I** **0** **I** **63**	Adjusts the saturation and color phase of R and G components in matrix memory.
R-B	**-63** **I** **0** **I** **63**	Adjusts the saturation and color phase of R and B components in matrix memory.
G-R	**-63** **I** **0** **I** **63**	Adjusts the saturation and color phase of G and R components in matrix memory.
G-B	**-63** **I** **0** **I** **63**	Adjusts the saturation and color phase of G and B components in matrix memory.
B-R	**-63** **I** **0** **I** **63**	Adjusts the saturation and color phase of B and R components in matrix memory.
B-G	**-63** **I** **0** **I** **63**	Adjusts the saturation and color phase of B and G components in matrix memory.

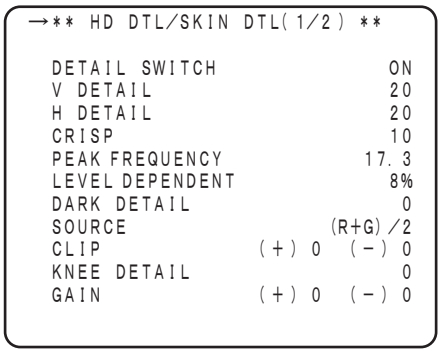
MATRIX (2/2)



(__ indicates factory default settings.)

Item	Display	Function
12AXIS MEMORY	**OFF** **A** **B**	Select 12 AXIS memory to adjust.
G SAT **G_Cy SAT** **Cy SAT** **Cy_B SAT** **B SAT** **B_Mg SAT** **Mg SAT** **Mg_R SAT** **R SAT** **R_Ye SAT** **Ye SAT** **Ye_G SAT**	**-63** **I** **0** **I** **63**	Adjusts the saturation of color components in 12 AXIS matrix memory. • Not available when [12 AXIS MEMORY] is set to [OFF].
G PHASE **G_Cy PHASE** **Cy PHASE** **Cy_B PHASE** **B PHASE** **B_Mg PHASE** **Mg PHASE** **Mg_R PHASE** **R PHASE** **R_Ye PHASE** **Ye PHASE** **Ye_G PHASE**	**-63** **I** **0** **I** **63**	Adjusts the color phase of color components in 12 AXIS matrix memory. • Not available when [12 AXIS MEMORY] is set to [OFF].

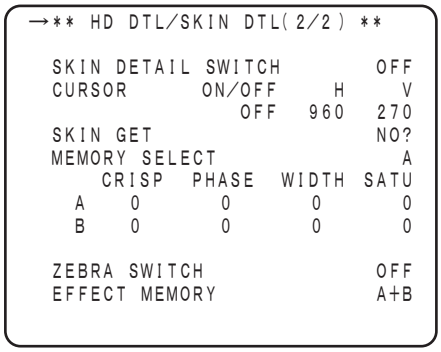
HD DTL/SKIN DTL (1/2)



(__ indicates factory default settings.)

Item	Display	Function
DETAIL SWITCH	**OFF** **ON**	Enables or disables the HD DETAIL effect.
V DETAIL	**0** **I** **20** **I** **63**	Adjusts the level of vertical detail.
H DETAIL	**0** **I** **20** **I** **63**	Adjusts the level of horizontal detail.
CRISP	**0** **I** **10** **I** **63**	Sets the maximum amplitude of the very faint noise components that are removed from detail components.
PEAK FREQUENCY	**12.4/12.5/** **12.7/12.9/** **13.0/13.3/** **13.6/13.9/** **14.2/14.6/** **15.0/15.5/** **16.1/16.7/** **17.3/18.0/** **18.6/18.8/** **19.0/19.2/** **19.5/19.9/** **20.3/20.9/** **21.5/22.4/** **23.6/25.4/** **28.6/37.1**	Selects the contour correction frequency band (boost frequency or peak frequency). It changes the contour width.
LEVEL DEPENDENT	**0%** **I** **8%** **I** **30%**	Lowers the detail in dark areas. It adjusts the level.
DARK DETAIL	**0** **I** **7**	Boosts the detail in dark areas.
SOURCE	**(R+G)/2** **(G+B)/2** **(2G+R+B)/4** **(3G+R)/4** **R** **G**	Selects the source signals for creating the detail components.
+CLIP	**0** **I** **63**	Limits the length of the overshoot areas of the detail edge components.
-CLIP	**0** **I** **63**	Limits the length of the undershoot areas of the detail edge components.
KNEE DETAIL	**0** **I** **39**	Enhances knee detail.
+GAIN	**-31** **I** **0** **I** **31**	Changes the detail gain level in + (up) direction
-GAIN	**-31** **I** **0** **I** **31**	Changes the detail gain level in - (down) direction

HD DTL/SKIN DTL (2/2)



(__ indicates factory default settings.)

Item	Display	Function
SKIN DETAIL SWITCH	**OFF** **ON**	Enables or disables control of skin tone detail in HDTV video output.
CURSOR	**OFF** **ON**	Enables or disables the position cursor that obtains the saturation and color phase information for controlling skin tone detail.
POS H	**1** **I** **960** **I** **1920**	Sets horizontal cursor position.
POS V	**1** **I** **270** **540**	Sets vertical cursor position.
SKIN GET	**NO?** **EXECUTE** **CANCEL**	Automatically obtains the saturation and color phase information from the cursor position. **NO?:** Cancels operation. **EXECUTE:** Automatically obtains saturation and color phase information from the cursor position. **CANCEL:** Discards the saturation and color phase information obtained from the cursor position.
MEMORY SELECT	**A** **B**	Changes memory locations for saving the skin tone detail settings (CRISP, PHASE, WIDTH and SATURATION).
MEM A CRISP	**-63** **I** **0** **I** **63**	Removes very faint noise components from detail components in skin tone areas in memory bank A.
MEM A PHASE	**0** **I** **359**	Changes the color phase of skin tone areas in memory bank A in a range from 0 to 359 on a vector display.

Item	Display	Function
MEM A WIDTH	0 I 255	Expands the width of skin tone areas in memory bank A in a range from 0 to 255.
MEM A SATU	0 I 255	Changes the saturation of skin tone areas in memory bank A in a range of 0 to 255.
MEM B CRISP	-63 I 0 I 63	Removes very faint noise components from detail components in skin tone areas in memory bank B.
MEM B PHASE	0 I 359	Changes the color phase of skin tone areas in memory bank B in a range of 0 to 359 on a vector display.
MEM B WIDTH	0 I 255	Expands the width of skin tone areas in memory bank B in a range from 0 to 255.
MEM B SATU	0 I 255	Changes the saturation of skin tone areas in memory bank B in a range from 0 to 255.
ZEBRA SWITCH	OFF A B A+B	Adds a zebra pattern to the Y signals of the PM output to make areas subject to skin tone detail effects easily visible.
EFFECT MEMORY	A B A+B	Selects the memory bank to which skin tone detail effects will be added.

SD DETAIL

```
→** SD DETAIL **

DETAIL SWITCH                ON
V DETAIL                      3
H DETAIL                      5
CRISP                         0
PEAK1                    3.17M
PEAK2                      OFF
LEVEL DEPENDENT             5%
DARK DETAIL                   1
```

(__ indicates factory default settings.)

Item	Display	Function
DETAIL SWITCH	ON OFF	Enables or disables changes in contour enhancement (hard/soft) level of SDTV video output.
V DETAIL	0 I 3 I 63	Adjusts the amount of vertical detail.
H DETAIL	0 I 5 I 63	Adjusts the amount of horizontal detail.
CRISP	0 I 63	Sets the maximum amplitude of the very faint noise components that are removed from detail components.
PEAK1	1.89M/2.18M/ 2.56M/3.17M/ 4.0M/5.28M/ 6.75M	Selects one of the two contour correction frequency bands (boost frequency or peak frequency). Changes the contour width.
PEAK2	OFF/1.89M/ 2.18M/2.56M/ 3.17M/4.00M/ 5.28M/6.75M	Selects one of the two contour correction frequency bands (boost frequency or peak frequency). Changes the contour width.
LEVEL DEPENDENT	0 I 5 % I 30 %	Lowers the detail in dark areas. It adjusts the level.
DARK DETAIL	0 I 1 I 5	

SYSTEM (1/2)

```
→** SYSTEM (1/2) **

RETURN1                   HD SDI1
RETURN2                   HD SDI2
RETURN3                   HD SDI1
RETURN4                   HD SDI2
RETURN·DELAY               NORMAL
DOWN CONVERT MODE             SC
UP CONVERT MODE               SC
HD COLOR BAR                ARIB
PATH0                        OFF
SDI3-4 OUT                    PM
```

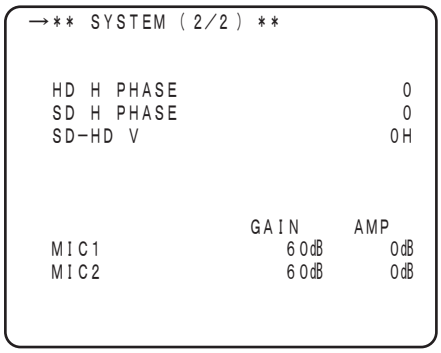
(__ indicates factory default settings.)

Item	Display	Function
RETURN1	HD SDI1 HD SDI2 SD SDI1 SD SDI2 VBS	Sets the input allocations of return signal 1.*1
RETURN2	HD SDI1 HD SDI2 SD SDI1 SD SDI2 VBS	Sets the input allocations of return signal 2.*1
RETURN3	HD SDI1 HD SDI2 SD SDI1 SD SDI2 VBS	Sets the input allocations of return signal 3.*1
RETURN4	HD SDI1 HD SDI2 SD SDI1 SD SDI2 VBS	Sets the input allocations of return signal 4.*1
RETURN · DELAY	NORMAL SHORT	Selects whether a RET display video will be delayed by 1 F (NORMAL) or by the shortest possible period (SHORT).
DOWN CONVERT MODE	SC SQ LB	Selects the down-conversion system for video output from SD SDI and VBS.

*1 The items that can be selected as the display range differ depending on the setting of [OPERATION]-[SETTING1]-[SDI RETURN1]/[SDI RETURN2] of HCU200.
[HD] and [SD] in [SDI RETURN1] of HCU200 are linked to [HD SDI1] and [SD SDI1] of the unit.
[HD] and [SD] in [SDI RETURN2] of HCU200 are linked to [HD SDI2] and [SD SDI2] of the unit.
For example, when [HD] is set in [SDI RETURN1] of HCU200, [HD SDI1] can be selected but [SD SDI1] cannot be selected on the unit.

Item	Display	Function
UP CONVERT MODE	**SC** **SQ** **LB**	Selects the video up-conversion system used for SD SDI and VBS return videos. Select the signal format for input.
HD COLOR BAR	**FULL** **BARS-1** **ARIB** **BARS-2** **BARS-3** **BARS-4** **BARS-5** **BARS-6**	Select the color bar signals to be output from the HD/SD SDI OUT connectors and VBS connector when “BAR” has been selected on the operation panel of the ROP. When they are output in VBS or SD format, color bars in HD format are output in the mode specified with DOWNCONVERT MODE. **FULL:** 75 % full field color bar **BARS-1:** Color bar based on the SMPTE standard **ARIB:** ARIB multi-format color bar **BARS-2:** Color bar based on the EIAJ standard **BARS-3:** Split field color bar **BARS-4:** 75 % full field color bar placed in an area with a 4:3 aspect ratio. (Displayed 40 % gray outside the area.) **BARS-5:** Color bar based on the SMPTE standard that is placed in an area with a 4:3 aspect ratio. (Displayed 40 % gray outside the area.) **BARS-6:** Color bar based on the EIAJ standard that is placed in an area with a 4:3 aspect ratio. (Displayed 40 % gray outside the area.)
PATHO	**OFF** **ON**	Select ON/OFF for the pathological signals.
SDI3-4 OUT	**NORMAL** **PM**	Selects the signals output from the 3rd and 4th HD/SD SDI signal output connectors on a CCU.

SYSTEM (2/2)

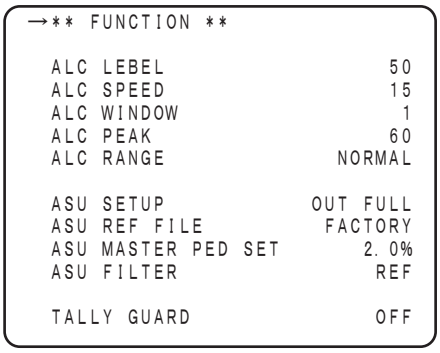


(__ indicates factory default settings.)

Item	Display	Function
HD H PHASE	**-1099** **I** **0** **I** **1099 (59.94 Hz)** **-1319** **I** **0** **I** **1319 (50Hz)**	Adjusts the horizontal phase of HD SDI video for the genlock reference phase.
SD H PHASE	**-857** **I** **0** **I** **857 (59.94Hz)** **-863** **I** **0** **I** **863 (50Hz)**	Adjusts SD horizontal sync phase.
SD-HD V	**0H** **ADVANCE** **0H_SD_DLAY**	Set the vertical phase of the HDTV output in relation to the SDTV output. **0H:** Sets the vertical phase to the same phase. **ADVANCE:** When the field frequency is 59.94 Hz, the phase advance is 90H. When the field frequency is 50 Hz, the phase advance is 75H. **0H_SD_DLAY:** The SDTV signals are delayed and set in-phase with the HDTV signals. • When the setting of this item is set to “0H” or “ADVANCE” while the field frequency is 50 Hz, images in SD format are delayed by 1 frame + 75 lines only when letterbox is selected for DOWNCONVERT MODE. For the relationship with the sync phase, refer to Operating Instructions <Operations and Settings> of AK-HCU200. **ADVANCE:** **59.94Hz→90H** **50Hz→75H**
MIC1 GAIN	**20dB** **40dB** **60dB**	Performs coarse adjustment of MIC1 gain.

Item	Display	Function
MIC1 AMP	**-20dB** **I** **0** **I** **20dB**	Makes fine adjustments of the MIC1 gain. **(in 1 dB increments)**
MIC2 GAIN	**20dB** **40dB** **60dB**	Makes coarse adjustments of MIC2 gain.
MIC2 AMP	**-20dB** **I** **0** **I** **20dB**	Makes fine adjustments of MIC2 gain. **(in 1 dB increments)**

FUNCTION

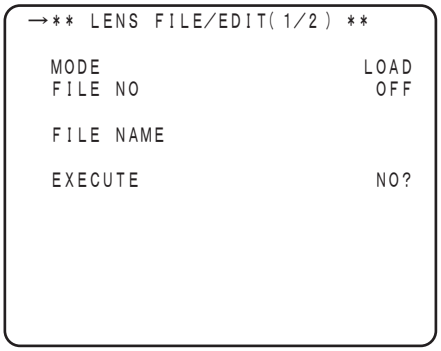


(__ indicates factory default settings.)

Item	Display	Function
ALC LEVEL	**0** **I** **50** **I** **100**	Adjusts the auto iris level of the lens iris.
ALC SPEED	**1** **I** **15** **I** **25**	Sets the feedback speed of the auto iris. Feedback speed increases as the numbers increase.
ALC WINDOW	**1** **I** **4**	Sets the image detection area window for the auto iris.
ALC PEAK	**0** **I** **60** **I** **100**	Sets the ratio between the average and peak values of auto iris image detection.
ALC RANGE	**NORMAL** **3/4** **2/4** **1/4**	Sets the correction range for adjustments of the iris level using the IRIS knob to move the iris lever <IRIS (↑ ↓)> in auto iris mode.
ASU SETUP	**OUT FULL** **OUT EASY**	Selects the auto setup mode setting.
ASU REF FILE	**FACTORY** **USER1** **USER2** **USER3**	Selects the file to be referenced when auto setup has been started.
ASU MASTER PED SET	**0.0%** **I** **2.0%** **I** **7.5%**	Sets the position where the master pedestal is to be converged when auto setup is started.

Item	Display	Function
ASU FILTER	**REF** **CURRENT**	Sets the operation of the ND filter when auto setup is started. **REF:** The filter stored in the reference file is used when operation starts. **CURRENT:** Auto setup starts at the filter position made prior to startup.
TALLY GUARD	**OFF** **ON**	At the ON setting, this function disables automatic ASU, AWB, ABB operation while the tally is ON.

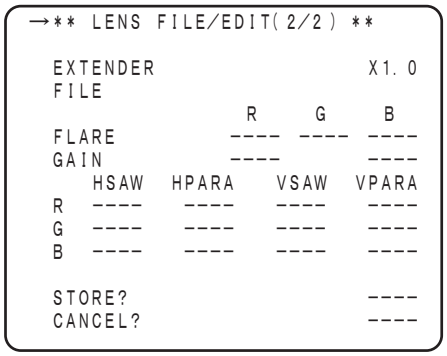
LENS FILE/EDIT (1/2)



(__ indicates factory default settings.)

Item	Display	Function
MODE	**LOAD** **STORE**	Saves current lens files in the camera (STORE) or loads (LOAD) lens files stored in the camera.
FILE NO.	●When [LOAD] is selected as [MODE] **OFF** **1** **I** **32** ●When [STORE] is selected as [MODE] **1** **I** **32**	Selects the lens file number.
FILE NAME	**Up to 8 characters**	Use to enter the file name. • It is disabled when [LOAD] is selected in [MODE]. **Allowable characters** **0 - 9, A - Z, a - z,** **_ (under bar), (space)**
EXECUTE	**YES?** **NO?**	Executes processes selected in MODE.

LENS FILE/EDIT (2/2)

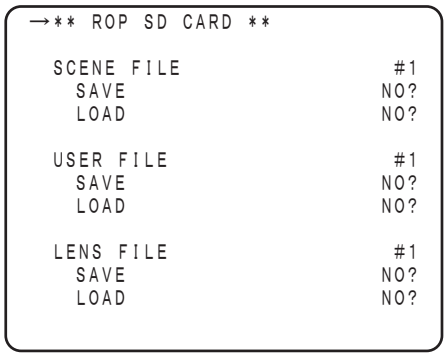


(__ indicates factory default settings.)

Item	Display	Function
EXTENDER	**x 1.0** **x 2.0**	Sets the current magnification of the lens extender.
FILE		Displays the number and name of currently loaded lens files.
FLARE R	**-100** **I** **0** **I** **100**	Sets lens R flare.
FLARE G	**-100** **I** **0** **I** **100**	Sets lens G flare.
FLARE B	**-100** **I** **0** **I** **100**	Sets lens B flare.
GAIN R	**-100** **I** **0** **I** **100**	Sets lens R gain.
GAIN B	**-100** **I** **0** **I** **100**	Sets lens B gain.
R HSAW **R HPARA** **R VSAW** **R VPARA** **G HSAW** **G HPARA** **G VSAW** **G VPARA** **B HSAW** **B HPARA** **B VSAW** **B VPARA**	**-100** **I** **0** **I** **100**	Sets lens white shading.
STORE?	**FILE No.** **#1** **I** **#32** **(Default value: FILE No. when LOAD)**	Saves R/G/B gain, R/G/B flare, and white shading settings to the lens file specified with the file number.
	YES? **NO?**	
CANCEL?	**YES?** **NO?**	Discards R/G/B gain, R/G/B flare and white shading settings and restores the original lens files.

ROP SD CARD

Scene files, user files, and lens files can be saved to or loaded from a memory card of the ROP.
Open the scene file and user file you wish to save with the SCENE/USER FILE select buttons. (For details on how to open a scene file or user file, refer to Operating Instructions <Basics>.)
Open the lens file you wish to save. (LENS FILE/EDIT →pages 30 to 31)



(__ indicates factory default settings.)

Item	Display	Function
SCENE FILE	**#1** **I** **#4**	Selects the number to save or the number to load.
SAVE	**NO?** **YES?**	Saves the scene file to the memory card of the ROP.
LOAD	**NO?** **YES?**	Loads a scene file stored on the memory card of the ROP.
USER FILE	**#1** **I** **#3**	Selects the number to save or the number to load.
SAVE	**NO?** **YES?**	Saves the user file to the memory card of the ROP.
LOAD	**NO?** **YES?**	Loads a user file stored on the memory card of the ROP.
LENS FILE	**#1** **I** **#32**	Selects the number to save or the number to load.
SAVE	**NO?** **YES?**	Saves the lens file to the memory card of the ROP.
LOAD	**NO?** **YES?**	Loads a lens file stored on the memory card of the ROP.

IP connection

IP setting procedure

The following describes the setting procedure for IP connection of this unit to CCUs, remote cameras and camera recorders.
For the system configuration when using IP connections, refer to Operating Instructions <Basics>.
For operation using just a serial connection (serial connection mode), the following IP address settings are not necessary.

Installing the software

Install Easy IP Setup Software and ROP Setup Software on a personal computer (→page 33).

Easy IP Setup Software is a tool for setting the IP addresses of the ROP, remote cameras, and CCU. ROP Setup Software is a tool for configuring various settings (camera numbers and system settings) of the ROP.

<Note>

However, Easy IP Setup Software cannot be used with camera recorders. Set the IP address for those devices on the camera recorders. For details, refer to Operating Instructions for the camera recorders.

↓

Connecting the devices

Connect the unit to the CCU, remote cameras and camera recorders via a switching hub (100base-TX) with LAN cables.

Be sure to connect the devices via a switching hub because the personal computer for configuring the IP settings needs to be connected.

↓

Connecting and setting the personal computer

Connect the personal computer to the switching hub (100base-TX) with a LAN cable.
Configure the network settings of the personal computer.

Configure the network settings of the personal computer so that unit, CCU, remote cameras, and camera recorders are all located in the same segment.

↓

Setting the IP addresses of the devices

Use one of the following methods to set IP addresses of devices to be connected.*1
- **Configure the settings in the menus**
  Configure the settings using the menus of each device.
- **Configure the settings using a personal computer**
  Configure the settings using Easy IP Setup Software.

For details on the menu operation of devices, refer to the operating instructions of the corresponding devices.

*1 IP address settings for camera recorders can only be made from the camera recorders.

↓

Configuring various settings of the ROP

Use ROP Setup Software to configure various settings.
- **Create a list of the ROPs in the same system.**
- **Set the ROP system settings.**
- **Set the connection authentication.**
- **Set the camera numbers.**

Various settings of an ROP connected with an IP connection can be configured.

↓

Start operation

<Note>

● **About the IP connection mode settings**

Do not start Easy IP Setup Software and ROP Setup Software during operation.
The ROP will be disconnected, which in turn may cause a problem with operation.

● **About the ROP Setup Software version**

When connecting a camera recorder via a serial connection, use Ver. 5.0.0.1 or later of the Setup Software.

How to Start the Software

Visit the product support desk of the following website to download the software.
http://pro-av.panasonic.net/

■ Installing Easy IP Setup Software

<Note>
Easy IP Setup Software cannot be used with camera recorders.

1. **Download the zip file for Easy IP Setup Software (EasyIPSetup.exe) from the website's product support desk.**
2. **Double-click the downloaded zip file and extract it.**
   Be sure to read "Readme.txt" before installing the software.
3. **Double-click "EasyIPSetup.exe" in the "EasyIPSetup" folder.**
   Easy IP Setup Software starts.

■ Installing ROP Setup Software

1. **Download the zip file for ROP Setup Software (ROPSetup.exe) from the website's product support desk.**
2. **Double-click the downloaded zip file and extract it.**
   Be sure to read "Readme.txt" before installing the software.
3. **Double-click "ROPSetup.exe" in the "ROPSetup" folder.**
   ROP Setup Software starts.

Connecting the devices

Connect the ROP, CCU, remote cameras and camera recorders with IP connections.
Be sure to use a switching hub or similar device and connect the devices with straight LAN cables.
Turn on the power of each device.

Connecting and setting the personal computer

Connect the personal computer with Easy IP Setup Software and ROP Setup Software installed with an IP connection.
Configure the network settings of the personal computer.
Configure the network settings of the personal computer for the same segment as the devices being connected.

The recommended settings are shown below.

IP address:	192.168.0.200 • Change the IP address if it is a duplicate of that of another device.
Subnet mask:	255.255.255.0
Default gateway:	192.168.0.1

Setting the IP addresses of the devices

■ Configuring the settings using the menus

Set the IP address of the unit (ROP) in setup mode.

No.	Item	Reference page
10	IP address	page 15
11	Subnet mask	page 15
12	Default gateway	page 16

For the IP addresses of the CCU, remote cameras and camera recorders, refer to the operating instructions of the corresponding devices.

■ Configuring the settings using Easy IP Setup Software

Use Easy IP Setup Software to set the IP address of each device. (→page 35)

Configuring various settings of the ROP

Use ROP Setup Software to configure various settings. (→page 35)

Setting IP addresses of devices

Use Easy IP Setup Software to set the IP address of each device.

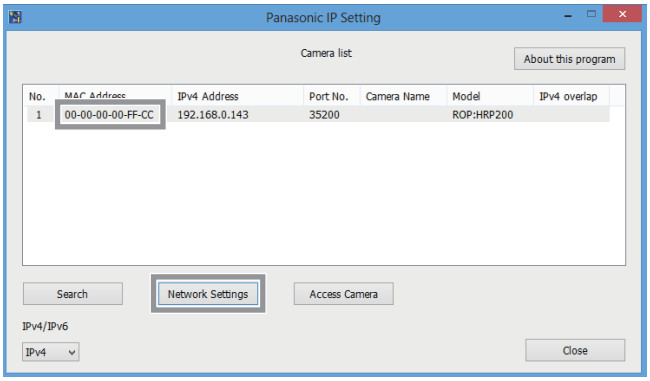
<Note>

With this software, the ROP and CCU are also displayed as cameras.

1. Start Easy IP Setup Software.

A list of the devices connected with IP connections is displayed.

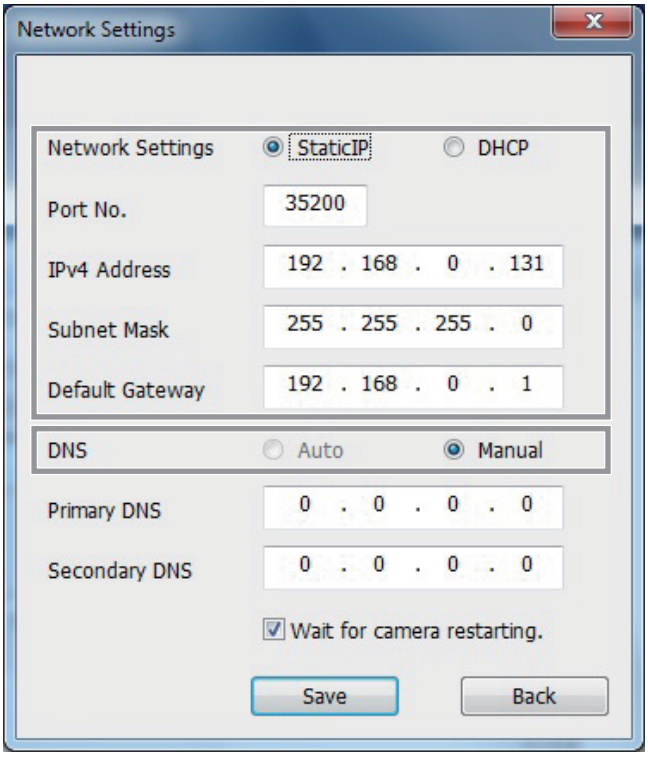
2. Click the MAC address of the remote camera, ROP, or CCU you wish to set, and then click the [Network Settings] button.



<Note>

If there is an IP address conflict, the MAC addresses of the corresponding cameras are displayed with drop shadows.

3. Enter each of the network items and then click [Save].

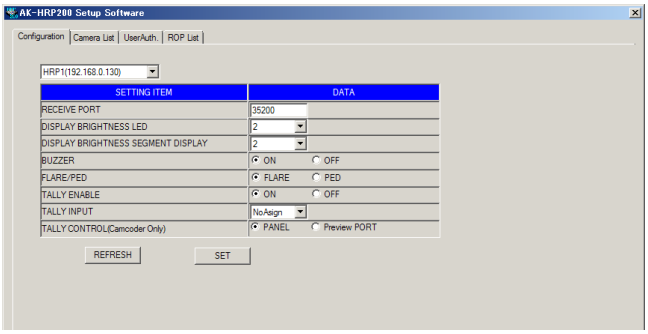


Set [Network Settings] to [Static IP].
Enter the setting information in [IPv4 address], [Subnet mask], and [Default gateway].
Do not change any of the other settings.

<Note>

- If a firewall is activated, set the web browser or Easy IP Setup Software to the “Allow a program through Windows Firewall” setting.
  1. Open the control panel, and click [System and Security].
  2. Click [Allow a program through Windows Firewall] of [Windows Firewall].
  3. Select the [Internet Explorer] or [EasyIpSetup] line, and then click the [Change settings] button.
     Check [Internet Explorer] or [EasyIpSetup].
  4. Click the [OK] button.
- Setting of a CCU, remote camera, or ROP takes about 2 minutes to complete after clicking the [Save] button. If the AC adapter or a LAN cable is removed before the settings are complete, the settings will not be applied. In such a case, configure the settings again.
- Set the network settings for the CCU from the menus of the CCU. For details, refer the operating instructions for the CCU.
- Restart the CCU after changing of the settings is complete.
- If a firewall (including software) exists, allow access to UDP for all ports.
- After the network settings have been configured, correct operation will not be possible if an IP address is a duplicate of that of another device which exists in the same network.
  Set IP addresses that will not be duplicates.
- Do not configure the network settings from multiple instances of Easy IP Setup Software at the same time.
  Also, do not perform the auto IP setting operation of the AW-RP50 and AW-RP120 remote camera controllers at the same time.
  Doing so may result in the IP address settings becoming unknown.
- If you are using Microsoft® Windows® XP Home Edition with SP3, the Windows Security Alert window may be displayed when you start Easy IP Setup Software.
  If that happens, click the [Unblock] button.
- If you are using Microsoft® Windows® Vista, you may be asked to enter the password for the administrator account when you start Easy IP Setup Software.
  If that happens, disable User Account Control from the Control Panel.
- As a security enhancement measure, Easy IP Setup Software stops displaying the MAC address and IP address of a target remote camera after about 20 minutes has elapsed since turning on the power.
  For details on setting the display time, refer to the operating instructions for the remote camera.
- Easy IP Setup Software cannot be used from a different subnet via a router.
- IPv6 is not supported.

First, register the IP address of the ROP on the [ROP List] tab of the ROP Setup Software.
Once the IP address has been registered, configure the settings of devices on the [Configuration] tab, [Camera List] tab, and [UserAuth.] tab.



Upon starting the ROP Setup Software, the [Configuration] tab is displayed first.Configuration Click tabs to select them and register IP addresses and make settings.

<Note>
When making settings from a personal computer using the ROP Setup Software, please pay attention to the following points.

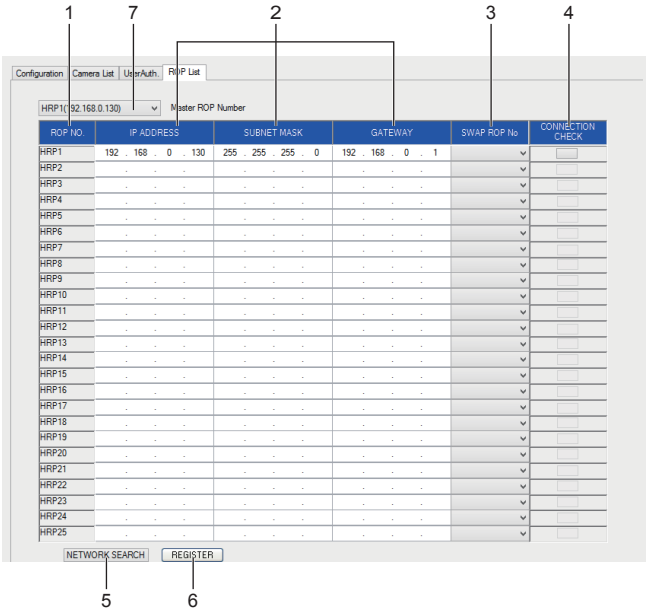
- Do not start up the ROP Setup Software while the unit is in the setup mode.
- Do not start up the ROP Setup Software on another personal computer on the same network.
- After using the setup software to configure connection settings, we recommend backing up the setting data. Save it to a memory card while the unit is in setup mode

No.	Item	Reference page
5	Save ROP configuration file to memory card	page 13

Register the unit in the ROP Setup Software [ROP List].

On the [ROP List] tab, register the IP address of the unit in [HRP1] of the ROP Setup Software.

When connecting multiple ROPs to the network, register one of the units in [HRP1] and then register the other ROPs (AK-HRP200) connected to the network. ROPs registered here can be selected from the list box of the [Camera List] tab. Up to 25 units can be registered.



1. Set IP addresses in [HRP1].

1) On the [HRP1] line under ROP NO, (1) enter the IP address of the unit to be registered
2) Click the [REGISTER] button (6) to confirm the [HRP1] setting.

2. Make settings for multiple units.

Settings can be made by the following two methods.

- **Register IP addresses assigned to devices in the IP address column (2) in the same manner as with [HRP1].**
- **Click the [NETWORK SEARCH] button (5) to acquire information for the HRP200s in the same segment.**
  - A list is displayed in [HRP2] to [HRP25].

Click the [REGISTER] button (6) to confirm the [HRP1] setting.
Registered ROPs are displayed in the Master ROP Number (7) list box.

When you want to change ROP numbers in the list

Swap HRP200s set as connection destinations between two ROP numbers.

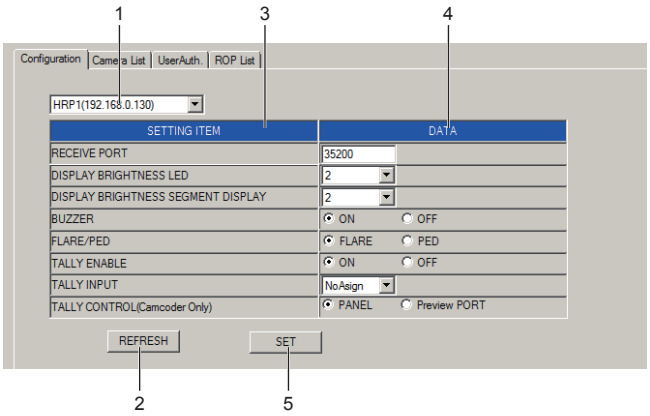
1) Click in the SWAP ROP No. column (3).
   A list of ROP numbers [HRP2] to [HRP25] is displayed.
2) Select the ROP number with which you want to make the swap.
3) Click the [REGISTER] button (6) to confirm the change.
   <Note>
   The length of time required for setting after you click the [REGISTER] button (6) is proportional to the number of ROPs connected. When there are 25 ROPs connected, it takes up to about 10 minutes.

3. Confirm ROP connection on the network.

Click the [CONNECTION CHECK] button (4) on the ROP No. row corresponding to the ROP to be checked.
If communication is performed correctly, the green tally display <TALLY/CALL> of the applicable HRP200 flashes for 3 seconds. If it does not flash, check the settings and connection.

Configuring the Unit Settings [Configuration]

Configure the settings of the unit in the [Configuration] tab.
When you connect the personal computer to the unit for the first time, click the [REFRESH] button (2) to acquire the values set on the unit.



1. Select the unit (ROP) to be set.

Click the ▼ in the setting target selection list box (1) to display the IP addresses of ROP units that can be set. From among these, select the IP address of the ROP you want to set.
Any of the units registered on the [ROP List] tab can be selected.

2. Update the [Configuration] tab display.

Click the [REFRESH] button (2) to acquire connection information set to the unit on the personal computer and update the [Configuration] tab display.

3. Make unit settings.

[SETTING ITEM] (3) is displayed for setting items of the ROP selected in procedure 1.
Make settings for required items in the [DATA] column (4).

RECEIVE PORT

Set the port number for the unit to receive remote camera configuration file update notifications from remote cameras.

Possible setting range:	35200 to 35599

DISPLAY BRINGHTNESS LED

Set the brightness of the panel LEDs.

DISPLAY BRIGHTNESS SEGMENT DISPLAY

Set the brightness of the panel 7-segment display.

BUZZER

Enable or disable the buzzer (beep/call tone).

FLARE/PED

Select the flare/pedestal control function.

TALLY ENABLE

Enable or disable tally output

TALLY INPUT

Set which camera is selected for input of tally information to tally input.

Possible setting range:	Cam1 to Cam19

TALLY CONTROL(Camcoder only)

Specifies whether tally control is performed via panel operations or preview terminal inputs.

<Note>

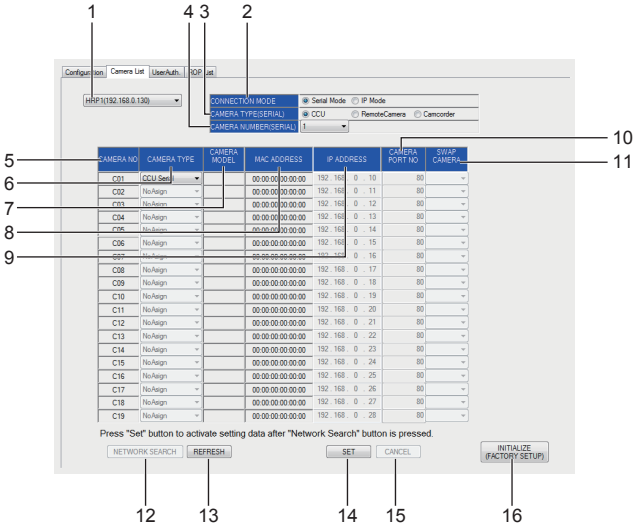
The settings above can also be made on the unit in setup mode.

4. Confirm the settings.

When the settings are complete, click the [SET] button (5) to confirm them.
When the [Do you agree to rebooting after data transfer?] message appears, click the [OK] button.
If you click [CANCEL], the settings are not reflected on the unit.

Making Camera Connection Settings [Camera List]

On the [Camera List] tab, configure settings for connections between the ROP and the cameras. When you connect the personal computer to the unit for the first time, select the ROP to be set in the ROP list box (1) and click the [REFRESH] button. Values set on the ROP selected in the list box (1) are acquired.
Each of the [C01] to [C19] lines displays a list of the connection setting information for the corresponding camera number.



1. Select the ROP for which you want to make connection settings.

Click ▼ in the selection list box (1) to display the IP addresses of ROP units that can be set. From among these, select the ROP whose IP address you want to set
Any of the units registered on the [ROP List] tab can be selected.

2. Update the [Camera List] tab display.

Click the [REFRESH] button (13) to acquire connection information for the ROP set in the selection list box (1) on the personal computer and update the [Camera List] tab display.

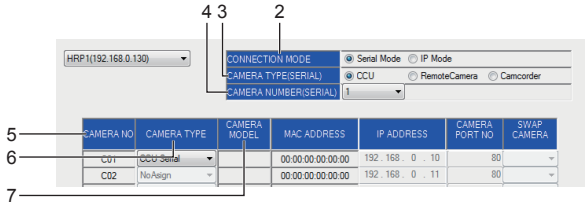
3. Make connection settings.

Connection setting information is displayed for the ROP selected in procedure 1.
Make settings for required items.

<NOTE>

Items that can be set and buttons that are enabled/disabled vary according to the CONNECTION MODE (2) setting.

● **With the serial connection mode**



CONNECTION MODE (2)

Set the connection mode of the selected ROP.
To select the serial connection mode, select the [Serial Mode] button ◎.

Serial Mode:	Make serial mode connection settings.
IP Mode :	Make IP connection mode settings.

CAMERA TYPE (SERIAL) (3)

Set the device to be connected by serial connection. Select the connection device.

CCU :	Serial connection is used with the CCU.
Remote Camera :	Serial connection is used with the remote camera.
Camcoder :	Serial connection is used with the camera recorder.

CAMERA NUMBER (SERIAL) (4)

Set the camera number of the device to be connected by serial connections

<NOTE>

These settings are not possible in IP connection mode.

CAMERA NO (5)
Displays the camera numbers.

<NOTE>

In serial connection mode, only the camera number configured in [CAMERA NUMBER(SERIAL)](4) can be connected.

CAMERA TYPE (SERIAL) (6)
Displays the connection types.

<NOTE>

In serial connection mode, the device selected for CAMERA TYPE (Serial) (3) is displayed.

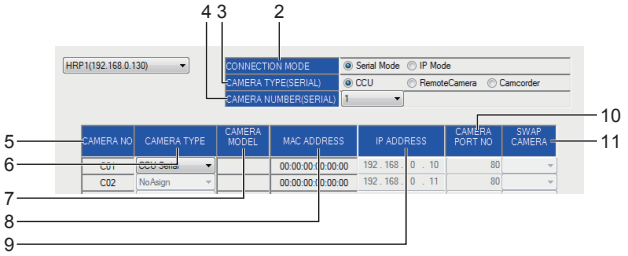
CAMERA MODEL (7)
Clicking the [REFRESH] button (13) displays the connected devices.

<NOTE>

With serial connection, model information is displayed only when a remote camera is selected.

REFRESH button (13)
Acquires connection information set to the unit on the personal computer and updates the [Camera List] tab display.

● **With the IP connection mode**



CONNECTION MODE (2)
Set the connection mode of the selected ROP.

To select the IP connection mode, select the [IP Mode] button ◎.

Serial Mode:	Make serial mode connection settings.
IP Mode :	Make IP connection mode settings.

CAMERA TYPE (SERIAL) (3)
Set the devices to be connected by serial connection. Select the connection devices.

CCU :	Serial connection is used with the CCU.
Remote Camera:	Serial connection is used with the remote camera.
Camcoder:	Serial connection is used with the camera recorder.

<NOTE>

With IP connection, serial connection is possible only for the device selected at CAMERA TYPE (SERIAL) (3).

CAMERA NUMBER (SERIAL) (4)
These settings are not possible in IP connection mode.

CAMERA NO (5)
Displays the camera numbers.

Settings from [C01] to [C19] are possible.

CAMERA TYPE (SERIAL) (6)
Click and select the connection type from among [CCU Serial], [CCU IP], [Remote Serial], [Remote IP], [Camcoder IP], [Camcoder Serial] or [No Asign].

CCU Serial:	Serial connection with CCU.
CCU IP :	IP connection with CCU.
Remote Serial:	Serial connection with remote camera
Remote IP:	IP connection with remote camera
Camcoder IP:	IP connection with camera recorder
Camcoder Serial:	Serial connection with camera recorder
NoAsign:	Not set (default setting)

CAMERA MODEL (7)
The [NETWORK SEARCH] button (12) displays acquired device connections.

<NOTE>

Serially connected remote cameras are displayed, but serially connected CCUs are not displayed.

MAC ADDRESS (8)
Displays the MAC addresses of cameras linked with camera numbers [CAMERA NO] (5) on the unit.

MAC addresses of devices corresponding to camera numbers acquired by the [NETWORK SEARCH] button (12) are displayed.

IP ADDRESS (9)
Set the IP addresses of the cameras being connected.

After input, click the [SET] button (14) to reflect the changes.

CAMERA PORT NO (10)
Set the port numbers of cameras being connected.

After input, click the [SET] button (14) to reflect the changes.

Possible setting range:	1 to 65535 *1

*1 However, the following values cannot be set even though they are within this range.
20, 21, 23, 25, 42, 53, 67, 68, 69, 110, 123, 161, 162, 995, 10669, and 10670

<NOTE>

Ordinarily, the settings are made as follows. However, if any of the settings have been changed on the camera side, the settings made here must match those changes.

CCU IP:	80
Remote IP:	80
Camcoder IP:	49152

SWAP CAMERA (11)
Swap the camera connections set between two camera numbers.

Click to display camera numbers [C01] to [C19].

Select the camera number with which you want to make the swap from this list.

After making a change, click the [SET] button (14) to reflect it.

NETWORK SEARCH button (12)
When you click the [NETWORK SEARCH] button, link settings corresponding to the cameras (CAMERA NO) newly detected by the unit are displayed in yellow.

If you click the [SET] button (14), the settings are confirmed and the IP addresses connected to the unit are updated.

If you click the [CANCEL] button (16), the settings are not reflected.

<NOTE>

- Camera recorders cannot be detected. If no camera recorder was detected by executing NETWORK SEARCH, click the [SET] button once and then set the camera recorder manually. Then click the [SET] button again and confirm the setting.
- If a duplication error occurred during NETWORK SEARCH, change the IP addresses on the screen. A duplication error is displayed if the IP addresses of two or more cameras displayed on the screen are duplicates, or if the IP addresses of a camera displayed on the screen and a camera you are attempting newly add to the network are duplicates. Change the IP addresses for which the error was displayed, register the cameras to the unit, and then execute NETWORK SEARCH.

REFRESH button (13)
Acquires connection information set to the unit on the personal computer and updates the [Camera List] tab display.

SET button (14)
Confirm the changes on the [Camera List] tab and update the settings on the unit.

When the [Do you agree to rebooting after data transfer?] message appears, click the [OK] button. If you click [CANCEL], the settings are not reflected on the unit.

CANCEL button (15)
Cancels changes that were made after executing NETWORK SEARCH (12).

INITIALIZE (FACTORY SETUP) button (16)
Click the [INITIALIZE] button to initialize the unit settings. (This is equivalent to “Initialize settings” of setup menu number 16 of the unit.)

The IP address is also initialized (factory default setting: 192.168.0.130). If a unit with other than the factory default setting (192.168.0.130) is selected, change the IP setting with Easy IP Setup Software. (→page 34)

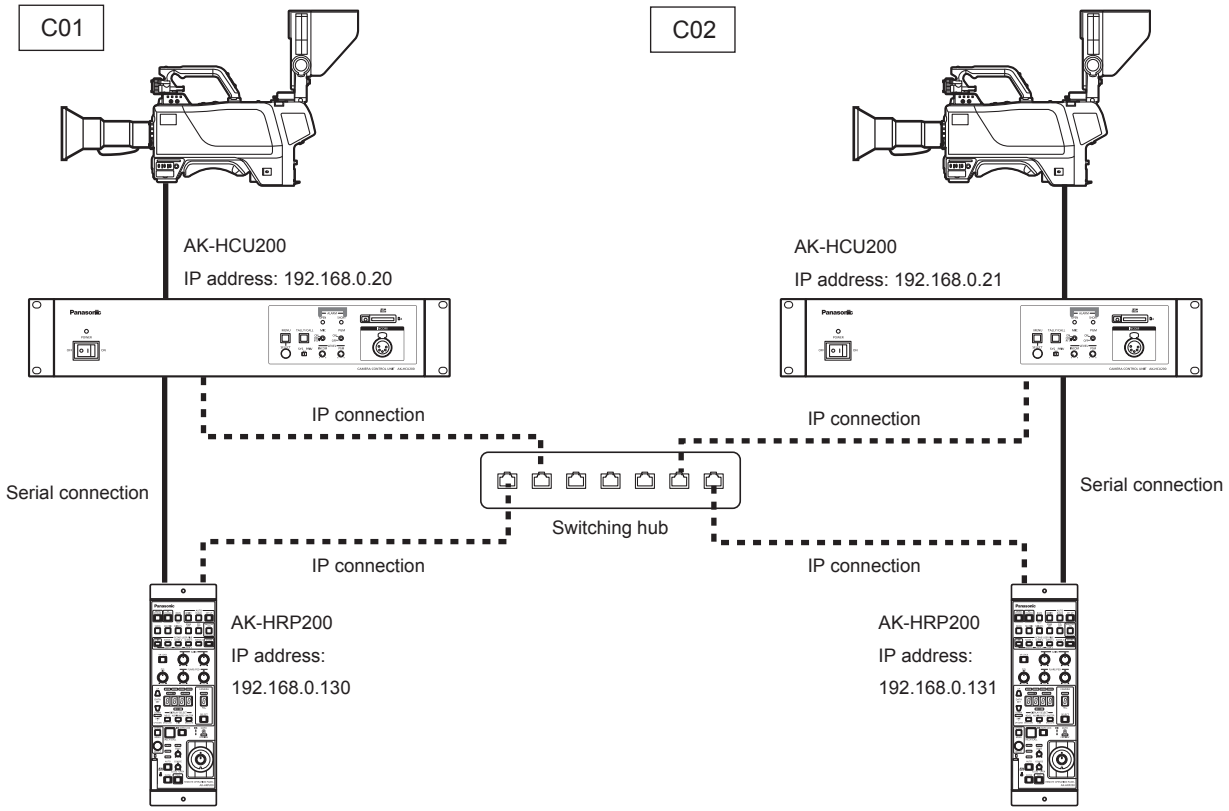
When the [Do you agree to rebooting after data transfer?] message appears, click the [OK] button. The unit restarts and the configured settings are reflected. If you click [CANCEL], the settings are not reflected on the unit.

<Note>

● Caution when setting camera numbers

Be careful with regards to the following points when configuring the settings in [Camera List] for each HRP200.

• Decide the number of each camera beforehand, and set [Camera List] so that each camera number becomes the same as in the settings of all ROPs.



CAMERA NO	CAMERA TYPE	IP ADDRESS
C01	CCU Serial	
C02	CCU IP	192.168.0.21

CAMERA NO	CAMERA TYPE	IP ADDRESS
C01	CCU IP	192.168.0.20
C02	CCU Serial	

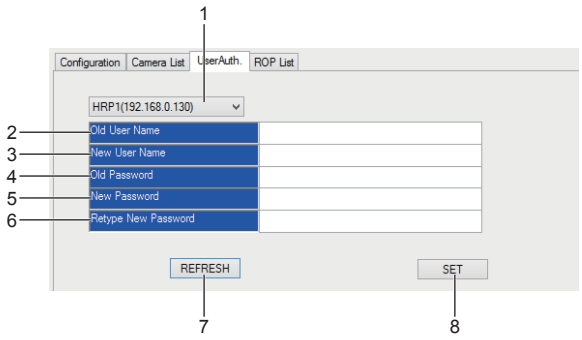
For example, when connecting each of both a CCU and ROP with a serial connection and IP connection as shown in the figure above, set [C01] to a serial connection and [CO2] to an IP connection for [Camera List] of HRP1.

For [Camera List] of HRP2, use [SWAP CAMERA] to set [CO1] to an IP connection and [CO2] to a serial connection.

• When you perform a search with [NETWORK SEARCH], all of the cameras and CCUs (C01 and C02) in the same segment will be found, but change the camera that has already been set with a serial connection to [NoAssign].

Set up user authentication [User Auth.]

To control CCUs, remote cameras or camera recorders that have the user authentication function enabled, you need to set the user name and password on the unit. Configure this setting on the [User Auth.] tab of this software.
The user authentication function is only enabled when the unit is controlling CCUs, remote cameras or camera recorders connected with IP connection. Also refer to the operating instructions for the various devices.



1. In the selection list box (1), select the ROP for which you want to make connection settings.

- Click in the selection list box (1) to display the IP addresses of ROP units that can be set. From among these, select the ROP whose IP address you want to set Any of the units registered on the [ROP List] tab can be selected.

2. Click the [REFRESH] button (7).

- The user name set on the ROP selected in the selection list box (1) is displayed in the [Old User Name] box (2).
- The ROP factory default user name is [admin].

3. In the [New User Name] box (3), enter the new user name to set.

4. In the [Old Password] box (4), enter the password set on the selected ROP.

- Entered characters are displayed as [*].
- The ROP factory default password is [12345].

5. In the [New Password] box (5), enter the new password to set.

- Entered characters are displayed as [*].

6. In the [Retype New Password] box (6), enter the same password entered in step 5.

- Entered characters are displayed as [*].

7. Click the [SET] button (8).

- The user name and password are set on the ROP selected on the list box (1).
- When cameras with the user authentication function enabled are controlled, the user name and password that were set here are used.

<NOTE>

- Even if you have forgotten the new password you set by performing the procedure above, you can still configure the settings again by entering [admin] in the [Old User Name] box and [12345] in the [Old Password] box and then entering a new user name and password in the other boxes.
- Default user authentication settings for connected devices are as follows.
  When user authentication is enabled, all connected devices must have the same [USER NAME] and [PASSWORD].

	User Name	Password
CCU	admin	12345
Remote camera	admin	12345
Camera recorder	guest	p2guest

● **User authentication for camera recorders**
User authentication is always enabled for camera recorders.
In order to use IP connection with camera recorders, set user authentication as follows. (When the camera recorder has the default settings)

1. On the [User Auth] tab, set the user authentication (User Name) and password (Password) as follows.

User Name:	guest
Password:	p2guest

2. On the [Camera List] tab, set the camera type to be connected (CAMERA TYPE), the IP address (IP ADDRESS) and the camera port number (CAMERA PORT No) as follows.

CAMERA TYPE:	Camcoder IP
IP ADDRESS:	192.168.0.1
CAMERA PORT NO. :	49152

For settings and setting procedures applicable to camera recorders, please refer to the camera recorder operating instructions.

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