

New functions and addendum

- This document contains descriptions of how to set the new functions and their restrictions. It is recommended to read them while referring to the Operating Instructions provided with this product together.
- Depending on the model used, the screens shown in the explanations may differ to the actual camera screens.
- The model number is abbreviated in some descriptions in this manual.

About notations

The following notations are used when describing the functions limited for specified models. The functions without the notations are supported by all models.

- SFV631L** : WV-SFV631L, WV-SFV631LT, WV-SFN631L, WV-SFR631L
- SFV611L** : WV-SFV611L, WV-SFN611L, WV-SFR611L
- SPN631** : WV-SPN631
- SPN611** : WV-SPN611
- SPW631L** : WV-SPW631L, WV-SPW631LT
- SPW611L** : WV-SPW611, WV-SPW611L
- SPN531** : WV-SPN531
- SFV311** : WV-SFV311, WV-SFN311, WV-SFR311, WV-SFN311L
- SFV310** : WV-SFV310, WV-SFR310
- SPN311** : WV-SPN311
- SFN310** : WV-SFN310
- SPN310** : WV-SPN310
- SFV531** : WV-SFV531, WV-SFN531, WV-SFR531
- SFV311A** : WV-SFV311A, WV-SFV310A, WV-SFR311A, WV-SFR310A, WV-SFN311A, WV-SFN310A, WV-SPN311A, WV-SPN310A, WV-SPW311AL, WV-SPW312L
- SPN531A** : WV-SPN531A, WV-SPW531AL, WV-SPW532L
- SFV130** : WV-SFV130, WV-SFN130, WV-SFV130M
- SFV110** : WV-SFV110, WV-SFN110, WV-SFV110M
- SBV131** : WV-SBV131M
- SBV111** : WV-SBV111M

Due to software upgrade, the following functions have been added and changed to this product.

- Firmware Ver.1.70 (excluding **SFV531** **SFV311A** **SPN531A** **SFV130** **SFV110** **SBV131** **SBV111**)

No.	Functions	Item (Page)	Page
1	Expansion of "OSD" display settings	Basic (Basic)	3
2	Addition of "Contrast enhancement(RGB:0 to 255)" function	Basic (Basic)	4
3	Addition of "Display type" function (mosaic display) for "Privacy zone"	Privacy zone(Camera)	5
4	Addition of "AGC(audio)" setting	Audio(Image/Audio)	6
5	Addition of "RS485 operation screen" function	Back side(Extension unit) Live	7
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• Firmware Ver.1.80 (excluding **SFV531** **SFV311A** **SPN531A** **SFV130** **SFV110** **SBV131** **SBV111**)

No.	Functions	Item (Page)	Page
7	Warning outputs, usage information, and error information display have been added for SD memory cards.	Alarm (Alarm) Status (Maintenance)	10
8	Addition of "AAC(HIGH QUALITY)" setting	Audio(Image/Audio)	13
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10	Addition of the link to extension software screen	Upgrade(Maintenance)	15

• Firmware Ver.2.00 (excluding **SFV311A** **SPN531A** **SFV130** **SFV110**) / Ver.2.50(**SBV131** **SBV111**)

No.	Functions	Item (Page)	Page
11	Addition of "Audio out" , "Monitor out" function	Basic (Basic)	16
12	Addition of "Smart Coding mode" function	JPEG/H.264 (Camera)	17

• Firmware Ver.2.40

No.	Functions	Item (Page)	Page
13	Expanded selection for "HTTPS"	Network (Network)	18
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15	Addition of administrator registration window for the first time access and change to default user management values	User auth. (User mng.)	22

• Firmware Ver.2.50

No.	Functions	Item (Page)	Page
16	Expansion of [Bandwidth control(bit rate)] selections	Network (network)	23
17	Addition of "On(Mid)" and "On(High)" to [Smart Coding mode]	JPEG/H.264(Image/Audio)	24
18	Addition of "2 mega pixel [16:9] (30fps mode)" to [Image capture mode]	JPEG/H.264(Image/Audio)	25

• Firmware Ver.2.60

No.	Functions	Item (Page)	Page
19	Change in restrictions on characters for password	For administrator registration	27
20	[Drawing method], [Decoding Options], [Frame Skip Options (When PC is Heavy Processing Load)] are added to Viewer software	Basic (Basic)	28
21	Change of authentication method default setting	User auth. (User mng.)	30
22	User authentication function for host authentication is added	Host auth. (User mng.)	31
23	Change of default setting of "Bandwidth control(bit rate)"	Network (Network)	32
24	Encryption of the settings	Data (Maintenance)	33
25	"Login failure" indication added to the login-related display	About the displayed system log	34

• Firmware Ver.4.00

No.	Functions	Item (Page)	Page
26	Change in encryption of the settings	Data(Maintenance)	35

1. Expansion of "OSD" display settings

(Operating Instructions Configure the basic settings of the camera [Basic] - Configure the basic settings [Basic])

The position of the time and date and character strings displayed in the screen can now be configured separately. The "Upper center" and "Lower center" positions have been added. A function to change the character size of displayed characters has also been added.

The screenshot shows a web-based configuration interface for a camera. At the top, there are tabs for 'Basic', 'Internet', 'SD memory card', and 'Log'. The 'Basic' tab is selected. Below the tabs, there are several configuration sections. The 'Time & date' section includes settings for Date/time (Dec / 16 / 2014, 08:20:02), Time display format (24h), Date/time display format (Mmm/DD/YYYY), NTP (NTP >>), Time zone ((GMT+09:00) Osaka, Sapporo, Tokyo), Summer time (daylight saving) (Out), Start time & date, and End time & date. The 'Camera title on screen' section has radio buttons for 'On' and 'Off', with 'Off' selected, and a text input field for the camera title. The 'OSD' section, highlighted with a red border, contains three settings: 'Date/time position' (Upper left), 'Camera title position' (Upper left), and 'Character size' (100%). The 'Brightness status display' section at the bottom has radio buttons for 'On' and 'Off', with 'On' selected.

[OSD] – [Date/time position]

Select the position where the time and date is displayed in images on the "Live" page.

Upper left : The time and date will be displayed in the upper left part of the screen.

Lower left : The time and date will be displayed in the lower left part of the screen.

Upper center : The time and date will be displayed in the upper center part of the screen.

Lower center : The time and date will be displayed in the lower center part of the screen.

Upper right : The time and date will be displayed in the upper right part of the screen.

Lower right : The time and date will be displayed in the lower right part of the screen.

Default : Upper left

[OSD] – [Camera title position]

Select the position where the character string is displayed in images on the "Live" page.

Upper left : The character string will be displayed in the upper left part of the screen.

Lower left : The character string will be displayed in the lower left part of the screen.

Upper center : The character string will be displayed in the upper center part of the screen.

Lower center : The character string will be displayed in the lower center part of the screen.

Upper right : The character string will be displayed in the upper right part of the screen.

Lower right : The character string will be displayed in the lower right part of the screen.

Default : Upper left

[OSD] – [Character size]

Select the size of the entered character string to be displayed at the selected OSD position in the image on the "Live" page.

100% : Displays in the standard size.

150% : Displays in 150% of the standard size.

200% : displays in 200% of the standard size.

Default : 100%

IMPORTANT

- If the settings for [Date/time position] and [Camera title position] are different, the frame rate may be lower than the specified value.
- If the settings for [Date/time position] and [Camera title position] are different, characters may be displayed incorrectly or overlapped depending on the [Character size] setting and the number of characters used. After completing the settings, confirm the result on the "Live" page.
- If "150" or "200" is selected for [Character size], the frame rate may be lower than the specified value.

2. Addition of "Contrast enhancement(RGB:0 to 255)" function

(Operating Instructions Configure the basic settings of the camera [Basic] - Configure the basic settings [Basic])

Viewer software (nwc4Ssetup.exe)	Automatic installation	<input checked="" type="radio"/> On	<input type="radio"/> Off
	Smoother live video display on the browser (buffering)	<input checked="" type="radio"/> On	<input type="radio"/> Off
	Contrast enhancement (RGB:0 to 255)	<input type="radio"/> On	<input checked="" type="radio"/> Off

[Contrast enhancement(RGB:0 to 255)]

Select "On" or "Off" to determine whether or not to enhance the contrast of H.264 images on the "Live" page. If "On" is selected, the range of RGB signal on display is extended from 16-235 to 0-255.

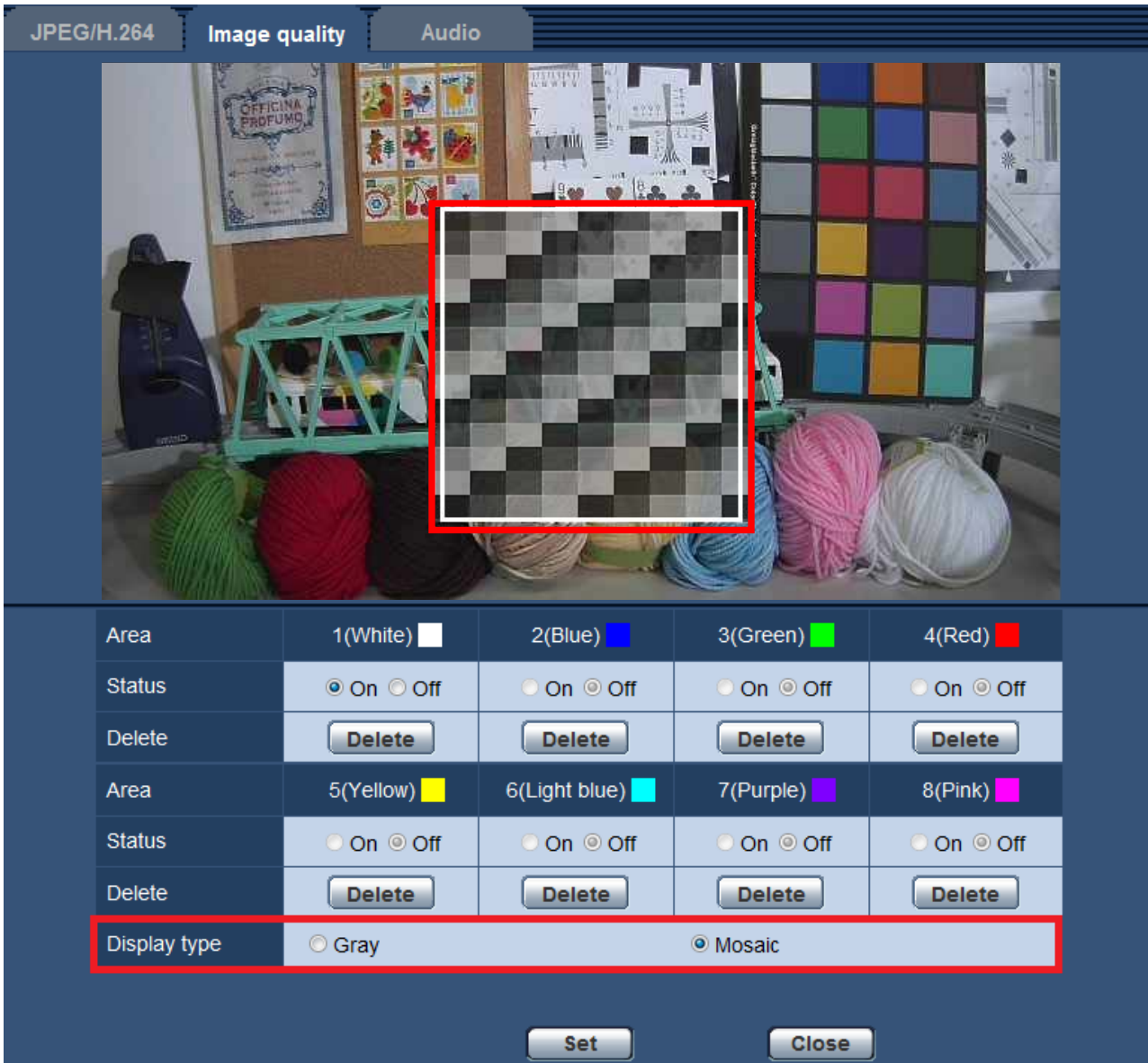
When there is a bright part in an image, the intensity may be overexposed.

Default: Off

Note

- This setting is only available when viewing images on the "Live" page with Internet Explorer.
- Even if this setting is changed, transmitted image data and data saved on the SD memory card are not changed.

3. Addition of "Display type" function (mosaic display) for "Privacy zone" (Operating Instructions Configure the settings relating to images and audio [Image/Audio] – Configure the settings relating to the privacy zone ("Privacy zone" setup menu))



[Display type]

Gray : Displays in gray.

Mosaic : Displays in mosaic.

Default : Gray

IMPORTANT

- When "Mosaic" is selected for [Display type], image behind the set area can be seen through. Therefore, the object and person behind the area can be recognized to some extent. Always check the result image according to factors such as the setting conditions or the subject.

Note

SFV631L **SPN631** **SPW631L** **SPN531**

- When "2 mega pixel [16:9](60fps mode)" is selected for [Image capture mode], "Mosaic" cannot be selected.

4. Addition of "AGC(audio)" setting (excluding SFV310)

(Operating Instructions Configure the settings relating to images and audio [Image/Audio]
– Configure the settings relating to audio [Audio])

JPEG/H.264	Image quality	Audio
Audio transmission/reception		Mic input
Audio encoding format		G.726
Audio bit rate		32kbps
Mic input volume (Camera to PC)		Mic Middle
AGC (audio)		High
Mic input interval (Camera to PC)		40ms
Audio output volume (PC to Camera)		Middle
Audio output interval (PC to Camera)		640ms
Audio output duration		5min
Audio output port (PC to Camera)		34004 (1024-50000)
Permission level of audio trans./recep.		<input type="radio"/> 1. Level 1 only <input type="radio"/> 2. Level 2 or higher <input checked="" type="radio"/> 3. All users

[AGC(audio)]

Automatically adjusts the audio reception to a suitable volume. The degree to which the volume is adjusted can be selected from High/Middle/Low.

When "High" is selected, it is easier to hear quiet sounds, but sounds may be heard as noise. If you do not want to hear noise, select "Middle" or "Low".

Default: High

Note

- This setting is also applied to the volume for [Audio recording] and [Audio detection].

IMPORTANT

- If the [AGC(audio)] setting is changed after configuring [Audio detection], the volume of the sound that is detected with [Audio detection] may change. In this case, make sure to check the [Audio detection] setting.

5. Addition of "RS485 operation screen" function SPN631 SPN611

(Operating Instructions Configure the extension unit settings [Extension unit])

The screenshot shows a configuration interface for a back unit. At the top, there are tabs for 'Front unit' and 'Back unit'. The interface is divided into several sections:

- Automatic detection:** Radio buttons for 'On' and 'Off' (selected).
- Additional function:** A dropdown menu set to 'RS485'.
- RS485 transmission:** Radio buttons for 'On' (selected) and 'Off'.
- Communication method:** Radio buttons for '4-line' (selected) and '2-line'.
- Baud rate:** A dropdown menu set to '19200bps'.
- Data bit:** A dropdown menu set to '8bit'.
- Parity check:** A dropdown menu set to 'None'.
- Protocol:** A dropdown menu set to 'Pelco-D'.
- Unit address:** A text input field containing '01'.
- RS485 operation screen:** Radio buttons for 'On(pan/tilt head)' and 'Off' (selected). This row is highlighted with a red border.
- Command table:** A section with a text input field and a 'Browse...' button.
- Upload:** A section with an 'Execute' button.

At the bottom of the interface is a 'Set' button.

[RS485 operation screen]

Determine whether or not to display items related to RS485 transmission on the "Live" page.

On(pan/tilt head) : Displays a screen that uses RS485 transmission to control the pan/tilt head.

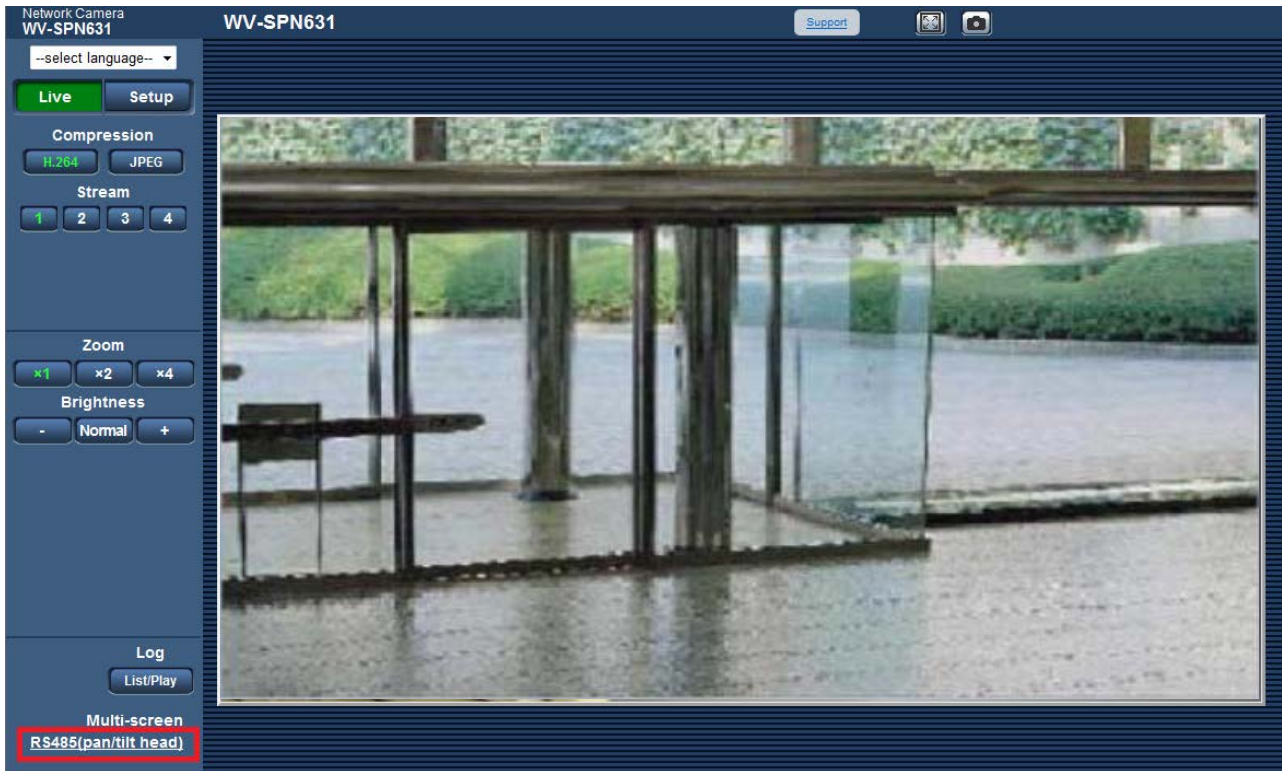
Off : Does not display items related to RS485 transmission.

Default : Off

Note

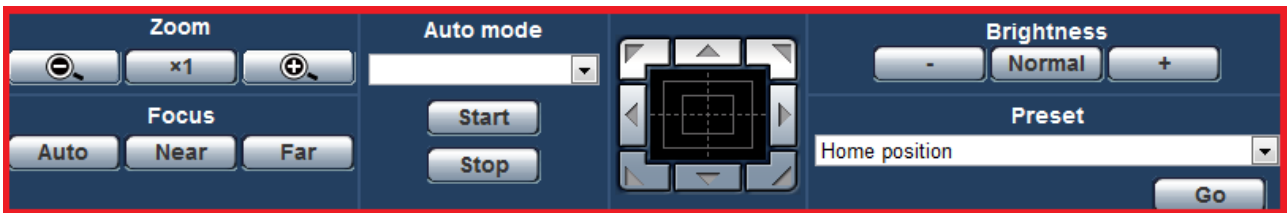
- This setting can only be used when using the optional RS485 Output unit (WV-SPN6R481).

(Operating Instructions Monitor images on a PC – About the "Live" page)



When "On(pan/tilt head control)" is selected for [RS485 operation screen], a link is displayed on the "Live" page.

If you click on the link, a setup menu for controlling the pan/tilt head is displayed in a newly displayed window.



IMPORTANT

- Depending on the pan/tilt head connected to, some functions may not be available. Refer to the specifications of your pan/tilt head for more information.

6. Changes Time zone settings

(Operating Instructions Configure the basic settings of the camera [Basic] - Configure the basic settings [Basic])

The Time Zone values have been reviewed and updated to include information current as of October 2014. Always check "Time zone" settings after completing the upgrade.

City	Before	After
Moscow	GMT+04:00	GMT+03:00
St. Petersburg	GMT+04:00	GMT+03:00
Volgograd	GMT+04:00	GMT+03:00
Ekaterinburg	GMT+06:00	GMT+05:00
Krasnoyarsk	GMT+08:00	GMT+07:00
Irkutsk	GMT+09:00	GMT+08:00
Yakutsk	GMT+10:00	GMT+09:00
Vladivostok	GMT+11:00	GMT+10:00
Magadan	GMT+12:00	GMT+10:00

7. Warning outputs, usage information, and error information display have been added for SD memory cards

(Operating Instructions Configure the alarm settings [Alarm] - Configure the settings relating to the alarm output terminal [Alarm], Maintenance of the camera [Maintenance] - Check the status [Status])

■ Addition of SD memory card error outputs

Warnings can output from the alarm output terminal if an error occurs for the SD memory card or if operations have reached a fixed state.

Alarm output terminal setup	
Alarm output trigger	<input type="radio"/> On <input checked="" type="radio"/> Off
SD memory card error	<input type="radio"/> On <input checked="" type="radio"/> Off
Alarm output type	<input checked="" type="radio"/> Latch <input type="radio"/> Pulse
Trigger output	<input type="radio"/> Open <input checked="" type="radio"/> Close
Pulse width	<input type="text" value="1"/> s (1-120s)

Alarm output terminal setup

[SD memory card error]

Select On or Off to determine whether or not to output signals from the alarm output terminal when an error is detected for the SD memory card.

SD memory card error condition: SD memory card error (write error, read error, etc),

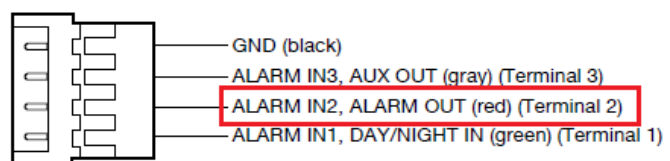
total use time over 6 years, and number of overwrites over 2000 times

On: When an error status is detected, the signals from an alarm output terminal is outputted and the “Alarm occurrence indication” button on the “Live” page blinks.

Off: Deactivates the warning status detection.

Default: Off

In order to be able to configure "Alarm output terminal setup", "Alarm output" must be selected for [Terminal2] of the [Alarm] setting.



* 4P alarm cable (accessory) example
(Differs depending on the camera model)

IMPORTANT

- In order to be able to correctly use this function, format the SD memory card with the camera before using it.

Note

- The alarm output terminal and the SD memory card errors use the same alarm output terminal.
- A signal is outputted to the alarm output terminal when either an alarm or SD memory card error occurs.
- When an SD memory card error is detected, the “Alarm occurrence indication” button on the “Live” page blinks. If you click on the “Alarm occurrence indication” button, the button will be hidden.

- Output signals from the alarm output terminal for [SD memory card error] differ depending on the settings of [Alarm output type].
- When "Latch" is selected: Even after you click the "Alarm occurrence indication" button and it disappears, output signals from the alarm output terminal will continue as long as the cause of the [SD memory card error] is not resolved.
- When "Pulse" is selected: Even after you click the "Alarm occurrence indication" button and it disappears, output signals from the alarm output terminal will continue as long as the cause of the [SD memory card error] is not resolved. However, if the time period specified for [Pulse width] is exceeded, output signals from the alarm output terminal will be stopped.

■ Addition of SD memory card usage information/error information displays

SD memory card information and usage status, and error information is displayed on the status window in the [Status] tab of the "Maintenance" page.

SD memory card		
Model no.	SU08G	
Serial no.	C07A787C	
Remaining capacity	7737322KB/7741440KB(Remaining capacity/Original capacity)	
Total use time	384 min (0days)	
Number of overwrite times	0	
No.	Time & date	Description
1	Oct/20/2014 19:07:02	<SD> Write-protect ON (Locked card)

SD memory card 1 · SD memory card 2 (**SFV631L** **SFV611L** **SPN631** **SPN611** **SPW631L** **SPW611L**)
SD memory card(**SPN531** **SFV311** **SFV310** **SPN311** **SFN310** **SPN310**)

[Model no.]

Displays the model number of the SD memory card.

If model number information could not be obtained, "Read error" is displayed. If the SD memory card is not used, "Not use" is displayed. In other cases "Unknown" is displayed.

[Serial no.]

Displays the serial number of the SD memory card.

If model number information could not be obtained, "Unknown" is displayed.

[Remaining capacity]

Displays the remaining capacity and total capacity of the SD memory card.

This is the same information that is displayed in [Remaining capacity] of the SD memory card information on the [SD memory card] tab of the "Basic" page.

[Total use time]

Displays the length of time that SD memory card has been inserted into and used with the camera.

If the length of time that the SD memory card has been used for cannot be obtained, "Unknown" is displayed. "Total use time" is updated once per hour.

[Number of overwrite times]

Displays the number of overwrite times as calculated from the total capacity of the SD memory card, the number of times the camera has written files to the SD memory card, and the file sizes.

If the number of overwrite times cannot be calculated, "Unknown" is displayed.

Note

- Because the overwrite time values are just estimates calculated by the camera, they may differ to the actual number of overwrite times.
- When using "SD memory card password lock" and the card's password does not match, the above information is not displayed.

[No] / [Time & date] / [Description] of the log

Displays the log related to the SD memory card.

Category	Indication	Description
SD memory card	<SD> Format	Successfully formatted the SD memory card.
	<SD> Format error	Error occurred when formatting the SD memory card.
	<SD> Write-protect ON (Locked card)	A write-protected SD memory card is inserted.
	<SD> Detection error	The SD memory card could not be correctly recognized.
	<SD> Write error	An error occurred when writing to the SD memory card.
	<SD> Read error	An error occurred when reading from the SD memory card.
	<SD> Delete error	An error occurred when deleting data from the SD memory card.
	<SD> File system error	An error occurred in File system of the SD memory card.
	<SD> Undefined error	An error other than the ones above has occurred for the SD memory card.

IMPORTANT

- In order to be able to correctly use this function, format the SD memory card with the camera before using it.
- When using SD memory cards that have been used on other devices such as PCs, the correct information may not be able to be displayed.
- Up to 30 SD memory card logs can be saved to the built-in memory of the camera. When the saved system logs have reached the maximum number, the newer logs will overwrite the older system logs.

8. Addition of “AAC(HIGH QUALITY)” setting (excluding SFV310)

(Operating Instructions Configure the settings relating to images and audio [Image/Audio]

– Configure the settings relating to audio [Audio])

JPEG/H.264	Image quality	Audio
Audio transmission/reception		Mic input
Audio encoding format		AAC-LC(HIGH QUALITY)
Audio bit rate		128kbps
Mic input volume (Camera to PC)		Mic Middle
AGC (audio)		High
Mic input interval (Camera to PC)		---
Audio output volume (PC to Camera)		Middle
Audio output interval (PC to Camera)		640ms
Audio output duration		5min
Audio output port (PC to Camera)		34004 (1024-50000)
Permission level of audio trans./recep.		<input type="radio"/> 1. Level 1 only <input type="radio"/> 2. Level 2 or higher <input checked="" type="radio"/> 3. All users

[Audio encoding format]

Select the audio reception encoding format from G.726, G.711, AA-LC and AAC-LC(HIGH QUALITY).

Default: G.726

Note

- G.711 is available only when “Mic input” is selected for “Audio transmission/reception”.
- G.726 is always applied for the audio transmission encoding format.

[Audio bit rate]

Select the audio bit rate used to transmit/receive audio data.

When G.726 is selected for “Audio encoding format” : 16kbps/32kbps

When AAC-LC(HIGH QUALITY) is selected for “Audio encoding format” : 64kbps/96kbps/128kbps

Default: 32kbps

IMPORTANT

- When “AAC-LC(HIGH QUALITY)” is selected, there are limitations about the following function.
 - “SD memory card” is not available.
 - “Audio Detection” is not available.
 - HTTPS is not available.
 - The maximum concurrent access number is limited to 5.

9. Addition of "Auto time adjustment" to "Terminal 1"

(Operating Instructions Configure the alarm settings [Alarm] - Configure the settings relating to the alarm output terminal [Alarm])

The screenshot shows a configuration interface for an alarm system. At the top, there are four tabs: "Alarm", "VMD area", "Audio detection", and "Notification". The "Alarm" tab is selected. Below the tabs, there is a table of alarm settings. The "Terminal 1" row is highlighted with a red border. The "Terminal 1" row has two columns: "Terminal 1" and "Auto time adjustment" (with a dropdown arrow) and "Close" (with a dropdown arrow). The "Terminal 2" row has a dropdown menu set to "Off". The "Terminal 3" row has a dropdown menu set to "Off". The "VMD alarm" row has a link "VMD >>". The "Audio detection alarm" row has a link "Audio detection >>". The "Command alarm" row has two columns: "Command alarm" with radio buttons for "On" and "Off" (where "Off" is selected), and "Originating port number" with a text input field containing "8181" and "(1-65535)". The "Alarm deactivation time" row has a dropdown menu set to "5s".

[Terminal 1]

Determine how to use terminal 1.

Off: Not used.

Alarm input: Receives alarms. When "Alarm input" is selected, a pull-down menu for "Close" and "Open" is displayed.

- **Close:** An alarm is detected when the terminal status is changed to "Close".
- **Open:** An alarm is detected when the terminal status is changed to "Open".

Black & white input: Receives the black & white switchover input. (When the input is set to On, the black & white mode is activated.)

Auto time adjustment: Receives the time adjustment input. When the signal is received and if the clock is within 29 minutes \pm the hour, the time will be adjusted to 00 minutes 00 seconds. When the time setting is moved back by less than 5 seconds, the time is not changed. When "Auto time adjustment" is selected, a pull-down menu for "Close" and "Open" is displayed.

- **Close:** The time is adjusted when the terminal status is changed to "Close".
- **Open:** The time is adjusted when the terminal status is changed to "Open".

<Example>

When the signal is received at 14:50:10, the time will be adjusted to 15:00:00.

When the signal is received at 15:14:45, the time will be adjusted to 15:00:00.

When the signal is received at 15:29:00, the time will not be adjusted.

When the signal is received at 15:30:30, the time will not be adjusted.

When the signal is received at 15:31:00, the time will be adjusted to 16:00:00.

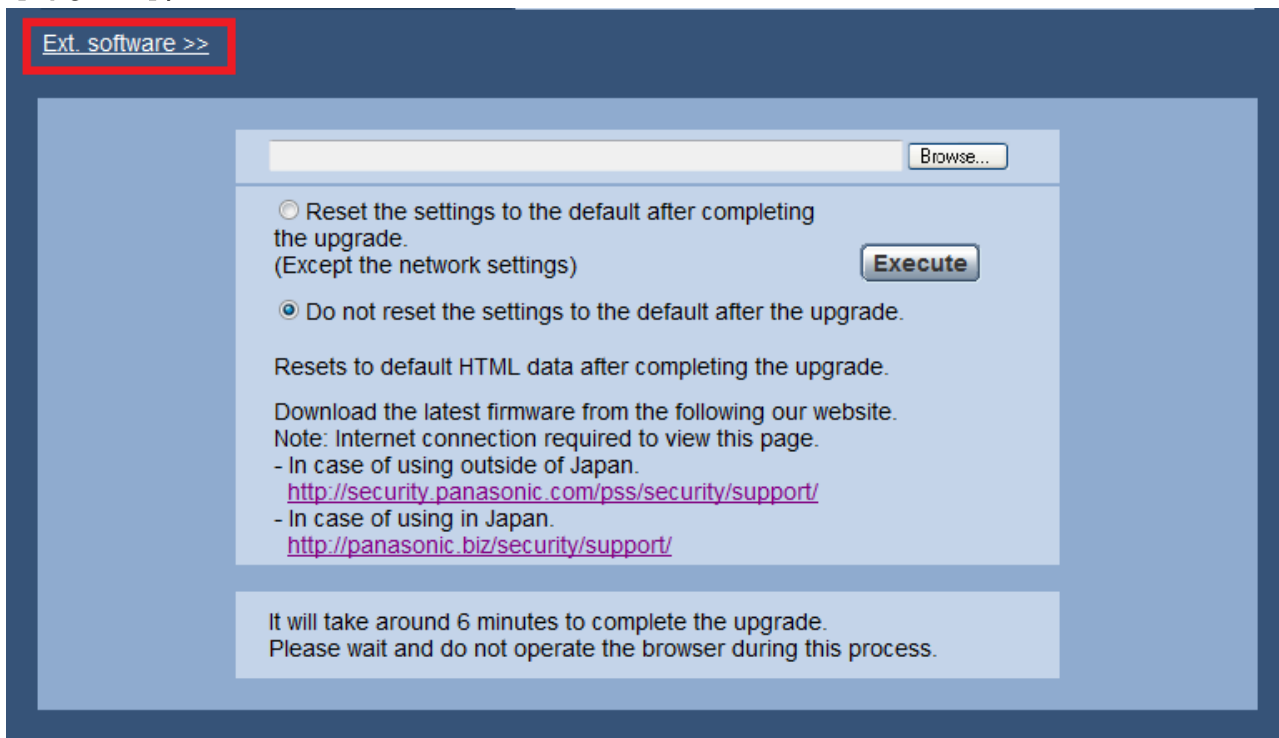
When the signal is received at 15:59:56, the time will be adjusted to 16:00:00.

When the signal is received at 16:00:04, the time will not be adjusted.

Default: Off

10. Addition of the link to extension software screen

(Operating Instructions Maintenance of the camera [Maintenance] - Upgrade the firmware [Upgrade])



A link for extension software screen is displayed.

Refer to our website (<http://security.panasonic.com/pss/security/kms/>) for further information about extension software.

11. Addition of “Audio out”, “Monitor out” function

(Operating Instructions Configure the basic settings of the camera [Basic] – Configure the basic settings [Basic])

WV-SFV631L, WV-SFV631LT, WV-SFV611L, WV-SFV311, **SFV531**

To enable this function, please enter the following CGI in the web browser of the PC. For the IP address of the camera, please refer to the Operating Instructions 1.1.

http://(IP address of the camera)/cgi-bin/setup_menu_disp?audio_monitor=1

After transmission, the following screen is displayed on the web browser.

AUDIO_MONITOR_SETUPMENU, 1

Please configure the settings with reference to Operating Instructions “Configure the basic settings of the camera [Basic] – Configure the basic settings [Basic]”.

To hide the screen of this function, please enter the following CGI in the web browser of the PC.

http://(IP address of the camera)/cgi-bin/setup_menu_disp?audio_monitor=0

After transmission, the following screen is displayed on the web browser.

AUDIO_MONITOR_SETUPMENU, 0

Audio out	<input checked="" type="radio"/> Audio	<input type="radio"/> Monitor
Monitor out	<input type="radio"/> NTSC	<input type="radio"/> PAL

[Audio out]

Set the Audio/Monitor output format.

Audio/Monitor

Default: Audio

Note

- When “Audio out” is set to “Audio”, “Monitor out” cannot be selected.
- When “Audio mode” is set to anything other than “Off” or “Mic input”, “Audio out” cannot be set to “Monitor”.
- When “Audio out” is set to “Monitor”, “Audio mode” can only be set to “Off” or “Mic input”.

[Monitor out]

Set the monitor output method.

WV-SFV631L, WV-SFV631LT, WV-SFV611L, **SPW631L**, **SPW611L**, WV-SFV311, **SFV531**

Switch priority/NTSC/PAL

Default: Switch priority

SFV531

NTSC/PAL

Default: NTSC

12. Addition of “Smart Coding mode” function

(Operating Instructions Configure the settings relating to images and audio [Image/Audio]
– Configure the settings relating to H.264 images [JPEG / H.264])

H.264(1)	
H.264 transmission	<input checked="" type="radio"/> On <input type="radio"/> Off
Internet mode (over HTTP)	<input type="radio"/> On <input checked="" type="radio"/> Off
Image capture size	1920x1080 ▾
Transmission priority	Frame rate ▾
Frame rate*	30fps * ▾
Burst tolerance level	Low ▾
Control time period	24h ▾
Max bit rate (per client) *	Max 4096kbps * ▾ - Min 1024kbps * ▾
Image quality	Normal ▾
Smart Coding mode	<input type="radio"/> On <input checked="" type="radio"/> Off
Refresh interval	1s ▾
Transmission type	Unicast port (AUTO) ▾
Unicast port1(Image)	32004 (1024-50000)
Unicast port2(Audio)	33004 (1024-50000)
Multicast address	239.192.0.20
Multicast port	37004 (1024-50000)
Multicast TTL/HOPLimit	16 (1-254)

[Smart Coding mode]

You can turn stream transmission adjustment on and off.

This allows you to reduce the amount of data transmitted when there is little motion in the image.

Default: Off

Note

- This setting is available when “Transmission priority” is set to “VBR”.
- When “Smart Coding mode” is set to “On”, the maximum refresh interval becomes 8s.
- When “Smart Coding mode” is changed from “On” to “Off”, the “Refresh interval” setting returns to the “Off” value.
- Turning Smart Coding mode to “On” will make refresh interval variable between 1s and 8s.
If only I-frame is used for playback and display, the display interval will change.

13. Expanded selection for “HTTPS”

(SFV631L SFV611L SPN631 SPN611 SPW631L SPW611L SPN531 SFV531 SPN531A SFV130 SFV110)
(Operating Instructions Configure the network settings [Network]
– How to configure HTTPS settings)

When using HTTPS, a selection of certificate is now available.
A [Execute] button to download the root certificate when using pre-installed certificate is added.

HTTPS	
Connection	HTTP ▾
Select certificate	Pre-installed ▾
HTTPS port	443 (1-65535)
Pre-installed certificate	
Download root certificate	Execute
CA Certificate	
CRT key generate	Execute
Generate Certificate Signing Request	Execute
CA Certificate install	Browse... Execute
Information	Invalid Confirm Delete

■ [HTTPS] – [Select certificate]

Selects a certificate to be used by HTTPS.

Pre-installed : Pre-installed certificate will be selected.

CA : CA Certificate will be selected. It will be displayed only when a CA Certificate is installed.

Default : Pre-installed

Note

- The selection of CA Certificate is only available when the CA Certificate is added.

■ [Pre-installed certificate] – [Download root certificate]

When the [Execute] button is clicked, the pre-installed root certificate will be downloaded.

The signature verification of pre-installed certificate will become available when the root certificate is installed in the PC in use.

Note

- Refer to the Panasonic support website (<http://security.panasonic.com/pss/security/support/info.html>), for how to install the root certificate to the PC.

IMPORTANT

SFV631L **SFV611L** **SPN631** **SPN611** **SPW631L** **SPW611L** **SPN531** **SFV531** **SPN531A**

- This function is available with the cameras produced after April, 2016 (Serial No. PDxxxxxx)
(when the first digit is alphabet P, Q, R, or later; or the second digit is alphabet D, E, F or later in the case of the first digit is P).

SFV130 **SFV110**

- This function is available with the cameras produced after May, 2016 (Serial No. PExxxxxx)
(when the first digit is alphabet P, Q, R, or later; or the second digit is alphabet E, F, G or later in the case of the first digit is P).

14. Expanded selection for “Alteration detection”

(SFV631L SFV611L SPN631 SPN611 SPW631L SPW611L SPN531 SFV531 SPN531A SFV130 SFV110)

(Operating Instructions Configure the basic settings of the camera [Basic]

-Configure the settings relating to alteration detection [Alteration detection])

Alteration detection	
Select certificate	Pre-installed ▾
Additional info for detecting alteration	<input type="radio"/> On <input checked="" type="radio"/> Off
<input type="button" value="Set"/>	
Pre-installed certificate	
Certificate download	<input type="button" value="Execute"/>
CA Certificate	
CRT key generate	<input type="button" value="Execute"/>
Generate Certificate Signing Request	<input type="button" value="Execute"/>
Certificate install	<input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Execute"/>
Information	Invalid <input type="button" value="Confirm"/> <input type="button" value="Delete"/>
Certificate download	<input type="button" value="Execute"/>

[Alteration detection] – [Select certificate]

Selects a certificate to be used by alteration detection function.

Pre-installed : Pre-installed certificate will be selected.

CA : CA Certificate will be selected. It will be displayed only when a CA Certificate is installed.

Default : Pre-installed

Note

- The selection of CA Certificate is only available when the CA Certificate is added.

[Pre-installed certificate] – [Certificate download]

When the [Execute] button is clicked, the certificate will be downloaded.

The downloaded certificate will be used when executing alteration detection for videos (MP4 files) in the SD memory card with use of dedicated software.

IMPORTANT

SFV631L **SFV611L** **SPN631** **SPN611** **SPW631L** **SPW611L** **SPN531** **SFV531** **SPN531A**

- This function is available with the cameras produced after April, 2016 (Serial No. PDxxxxxx)
(when the first digit is alphabet P, Q, R, or later; or the second digit is alphabet D, E, F or later in the case of the first digit is P).

SFV130 **SFV110**

- This function is available with the cameras produced after May, 2016 (Serial No. PExxxxxx)
(when the first digit is alphabet P, Q, R, or later; or the second digit is alphabet E, F, G or later in the case of the first digit is P).

15. Addition of administrator registration window for the first time access and change to default user management values

("Configure the settings relating to the authentication [Usermng.]" - "Configure the settings relating to the user authentication [User auth.]" of the Operating Instructions)

■ Addition of "Administrator registration" window for the first time access

Administrator registration
Enter the user name and password of the administrator.

User name (1 to 32 characters)

Password (8 to 32 characters)

Retype password

Set

Note:

- (1) Distinguish between upper- and lower cases.
- (2) Entry of the following is not allowed as a user name: 2-byte characters, and 1-byte symbols "& ; \".
- (3) Entry of the following is not allowed as a password: 2-byte characters, and 1-byte symbols "&".
- (4) For the password, use two or more types of characters from alphabetic characters, numbers, and symbols.
- (5) Keep the user name and password at hand so as not to lose.
- (6) It is recommended to change the password periodically.

The "Administrator registration" window will be displayed when accessing a camera for the first time.

(The default of the camera's user authentication setting is On.)

Enter "User name", "Password" and "Retype password" by following the instructions displayed on the screen, and then click the [Set] button.

After completing the registration, the camera will automatically be re-connected and the authentication window will be displayed. Enter the registered user name and password to start operation.

IMPORTANT

- It is recommended to change the password periodically.

■ Made the default values for user name/password unavailable and changed the input characters limitation

The default values for user name/password were abolished in order to enhance the security. The following default values and rules for entering characters have also changed.

[User auth.]

The default has changed from "Off" to "On".

[Password] / [Retype password]

The available number of characters has changed from "4 – 32 characters" to "8 – 32 characters". Also please use at least 2 types of characters (letters, numbers, and symbols).

16. Expansion of [Bandwidth control(bit rate)] selections

("Configuring the network settings [Network]" - "Configure the network settings [Network]" of the Operating Instructions)

Common	
HTTP port	<input type="text" value="80"/> (1-65535)
Line speed	<input type="text" value="Auto"/>
Max RTP packet size	<input checked="" type="radio"/> Unlimited(1500byte) <input type="radio"/> Limited(1280byte)
HTTP max segment size(MSS)	<input type="text" value="Unlimited(1460byte)"/>
Bandwidth control(bit rate)	<input type="text" value="Unlimited"/>
Easy IP Setup accommodate period	<input checked="" type="radio"/> 20min <input type="radio"/> Unlimited
FTP access to camera	<input type="radio"/> Allow <input checked="" type="radio"/> Forbid

[Bandwidth control(bit rate)]

Select the total bit rate for data transmission from the following.

Selections from 10240 kbps to 51200 kbps were added.

Unlimited/ 64 kbps/ 128 kbps/ 256 kbps/ 384 kbps/ 512 kbps/ 768 kbps/ 1024 kbps/ 2048 kbps/
4096 kbps/ 8192 kbps/ 10240 kbps/ 15360 kbps/ 20480 kbps/ 25600 kbps/ 30720 kbps/ 35840 kbps/
40960 kbps/ 51200 kbps

Default : Unlimited

17. Addition of “On(Mid)” and “On(High)” to [Smart Coding mode]

("Configure the settings relating to images and audio [Image/Audio]" - "Configure the settings relating to the image capture mode [JPEG/H.264]" of the Operating Instructions)

H.264(1)	
H.264 transmission	<input checked="" type="radio"/> On <input type="radio"/> Off
Internet mode (over HTTP)	<input type="radio"/> On <input checked="" type="radio"/> Off
Image capture size	1920x1080 ▾
Transmission priority	Frame rate ▾
Frame rate*	30fps * ▾
Burst tolerance level	Low ▾
Control time period	24h ▾
Max bit rate (per client) *	Max 4096kbps * ▾ - Min 512kbps * ▾
Image quality	Normal ▾
Smart Coding mode	Off ▾
Refresh interval	1s ▾
Transmission type	Unicast port (AUTO) ▾
Unicast port1(Image)	32004 (1024-50000)
Unicast port2(Audio)	33004 (1024-50000)
Multicast address	239.192.0.20
Multicast port	37004 (1024-50000)
Multicast TTL/HOPLimit	16 (1-254)

[Smart Coding mode]

“On(Mid)” and “On(High)” were added to the stream transmission adjustment methods.

“On(Low)” is same as “On” of Ver.2.40 or lower.

Off: Smart Coding mode is not used.

On(Low): When there is no movement in the image, the H.264 refresh interval is set to 8 seconds. By doing this the amount of data transmitted can be reduced. When there is movement in the image, the refresh interval is set to 1 second.

On(Mid): When there is no movement in the image, the H.264 refresh interval is set to 16 seconds. When there is movement in the image, the refresh interval is set to 4 seconds.

On(High): Using the Auto-VIQS technology, the amount of data transmitted can be reduced for the areas in images with no movement while keeping the high image quality of areas in the image where there is movement. In the same way as “On(Mid)”, the refresh interval is set to 16 seconds when there is no movement and 4 seconds when there is movement.

Note:

- When “On(High)” is selected for “Smart Coding mode”, VIQS on the [Image] tab of the “Camera” page cannot be used. When VIQS is selected on the [Image] tab, “On(High)” cannot be selected for “Smart Coding mode”.

- While “On(Mid)” or “On(High)” mode is higher effect of reducing amount of data than “On(Low)”, the image quality may be partially degrade.

18. Addition of "2 mega pixel [16:9] (30fps mode)" to [Image capture mode]

SFV611L SPSN611 SPW611L SFV311 SFV310 SPSN311 SFN310 SPSN310

("Configure the settings relating to images and audio [Image/Audio]" - "Configure the settings relating to the image capture mode [JPEG/H.264]" - "Configure the settings relating to JPEG images [JPEG/H.264]" - "Configure the settings relating to H.264 images [JPEG/H.264]" of the Operating Instructions)



[Image capture mode]

"2 mega pixel [16:9] (30fps mode)" was added to Image capture mode.

1.3 mega pixel [16:9](30fps mode)/1.3 mega pixel [16:9](60fps mode)/1.3 mega pixel [4:3](30fps mode)/
2 mega pixel [16:9] (30fps mode)

Default : 1.3 mega pixel [16:9](30fps mode)

JPEG		
JPEG(1)	Image capture size	1280x720
	Image quality	Quality 1 5 Normal Quality 2 8
JPEG(2)	Image capture size	640x360
	Image quality	Quality 1 5 Normal Quality 2 8
JPEG(3)	Image capture size	320x180
	Image quality	Quality 1 5 Normal Quality 2 8

JPEG

[Image capture size]

When "2 mega pixel [16:9] (30fps mode)" is selected for "Image capture mode", the following image capture size can be selected for JPEG images.

1920×1080/ 640×360/ 320×180/ 160×90

H.264(1)	
H.264 transmission	<input checked="" type="radio"/> On <input type="radio"/> Off
Internet mode (over HTTP)	<input type="radio"/> On <input checked="" type="radio"/> Off
Image capture size	1920x1080 ▾
Transmission priority	Frame rate ▾
Frame rate*	30fps * ▾
Burst tolerance level	Low ▾
Control time period	24h ▾
Max bit rate (per client) *	Max 4096kbps * ▾ - Min 512kbps * ▾
Image quality	Normal ▾
Smart Coding mode	Off ▾
Refresh interval	1s ▾
Transmission type	Unicast port (AUTO) ▾
Unicast port1(Image)	32004 (1024-50000)
Unicast port2(Audio)	33004 (1024-50000)
Multicast address	239.192.0.20
Multicast port	37004 (1024-50000)
Multicast TTL/HOPLimit	16 (1-254)

H.264(1)/H.264(2)/H.264(3)/H.264(4)

[Image capture size]

When "2 mega pixel [16:9] (30fps mode)" is selected for "Image capture mode", the following image capture size can be selected for H.264 images.

Image capture mode	image capture size			
	H.264(1)	H.264(2)	H.264(3)	H.264(4)
2 mega pixel [16:9] (30fps mode)	1920×1080	1920×1080	640×360	640×360
	640×360	640×360	320×180	320×180
	320×180	320×180	160×90	160×90
	160×90	160×90		

19. Change in restrictions on characters for password (Operating Instructions For administrator registration)

Administrator registration
Enter the user name and password of the administrator.

User name (1 to 32 characters)

Password (8 to 32 characters)

Retype password

Note:

- (1) Distinguish between upper- and lower cases.
- (2) Entry of the following is not allowed as a user name: 2-byte characters, and 1-byte symbols " & ; \
- (3) Entry of the following is not allowed as a password: 2-byte characters, and 1-byte symbols " &
- (4) For the password, use three or more types of characters from upper- and lowercase alphabetic characters, numbers, and symbols.
- (5) Keep the user name and password at hand so as not to lose.
- (6) It is recommended to change the password periodically.
- (7) Set the password which does not include the user name.

[Password (8 to 32 characters)]/[Retype password]

Enter the administrator password.

Available number of characters: 8 - 32 characters

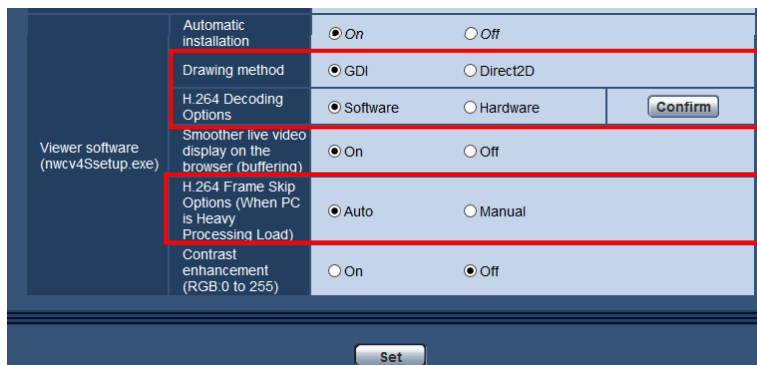
Unavailable characters: 2-byte characters, and 1-byte symbols " &

Note

- Distinguish between upper- and lower cases.
- Use three or more types of characters from upper- and lowercase alphabetic characters, numbers, and symbols.
- Set the password which does not include the user name.

20. [Drawing method], [Decoding Options], [Frame Skip Options (When PC is Heavy Processing Load)] are added to Viewer software

(Operating Instructions Configure the basic settings of the camera [Basic]- Configure the basic settings [Basic])



[Viewer software (nvcv4Ssetup.exe)] - [Drawing method]

Perform image display settings when displaying camera images with the viewer software.

- **GDI:** The drawing method generally used in Windows.
- **Direct2D:** Can reduce choppy drawing of images.
- **Default:** GDI

IMPORTANT

- Use “Direct2D” with a computer that has the latest graphic driver version installed to it.
- When using “Direct2D”, set “Smoother live video display on the browser (buffering)” to “On”.
If “Off” is selected for “Smoother live video display on the browser (buffering)”, “Direct2D” may not be very effective.

Note

- If your computer’s operating system is Windows 7 and the Aero function is disabled, “Direct2D” may not be very effective.
- When “Direct2D” is selected for “Drawing method”, video may not be displayed or the displayed image may be seen as it is partially corrupted depending on the PC in use.
- Refer to the Panasonic support website for information of PCs for which “Direct2D” is selectable.
Panasonic website (<https://security.panasonic.com/support/info/> <Control No.: C0313>)

[Viewer software (nvcv4Ssetup.exe)] - [H.264 Decoding Options]

Select the decoding method for H.264 images on the “Live” page.

- **Software:** Decoding is performed by software.
- **Hardware:** Uses the Hardware Acceleration (QSV/DXVA) function that performs fast decoding.
- **Default:** Software

IMPORTANT

- “Hardware” may not be able to be used depending on the computer used.
One of the following messages is displayed when the [Confirm] button is clicked.
 - The hardware decode is available on your PC.
*Depending on your PC environment, Video output may become impossible. In that case it is necessary to select “Software” for “H.264 Decoding Options”.
 - The hardware decode is not available on your PC. It is necessary to select "Software" for "H.264 Decoding Options".

Note

- When “Hardware” is selected for “Decoding Options”, video may not be displayed or the displayed image may be seen as it is partially corrupted depending on the PC in use.
- Refer to the Panasonic support website below for information of PCs for which “Hardware” is selectable.

Panasonic website (<https://security.panasonic.com/support/info/> <Control No.: C0313>)

[Viewer software (nwcV4Ssetup.exe)] - [Frame Skip Options (When PC is Heavy Processing Load)]

Perform settings to display camera images on the viewer software.

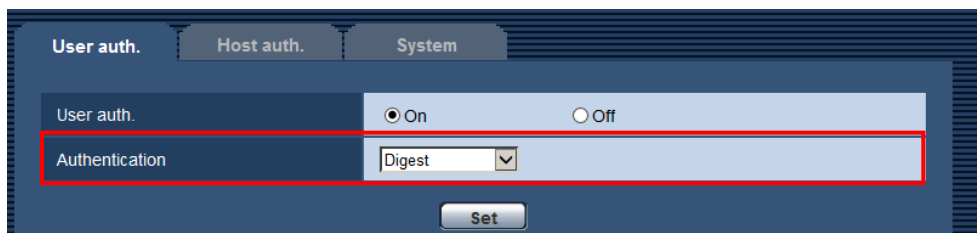
- **Auto:** If there is a delay in displaying images from the camera, the delay can be resolved by automatically skipping frames.
- **Manual:** If there is a delay in displaying images from the camera, frames are not skipped automatically.
- **Default:** Auto

Note

- When “Manual” is selected, “Off”, “1 Frame Skip”, “2 Frames Skip”, “4 Frames Skip”, “6 Frames Skip”, or “8 Frames Skip” can be selected for frame skip by right-clicking on the “Live” page. The value selected here will revert to “Off” when the browser is closed.

21. Change of authentication method default setting

(Operating Instructions Configure the settings relating to the authentication [User mng.] - Configure the settings relating to the user authentication [User auth.]



[Authentication]

Set the user authentication method.

- **Digest or Basic:** Uses “Digest or Basic” authentication.
- **Digest:** Uses “Digest” authentication.
- **Basic:** Uses “Basic” authentication.
- **Default:** Digest

IMPORTANT

■ About the system devices (Panasonic network disk recorder and others)

- When connection with a system device cannot be established, upgrade the system device.
- For information on upgrading system devices, refer to the following web site:
<https://security.panasonic.com/support/info/> <Control No.: C0701>
- Support may already be ended for some system devices (discontinuation). In such a case, it may be possible to connect by setting “Basic” for the authentication method of the user authentication.

22. User authentication function for host authentication is added

(Operating Instructions Configure the settings relating to the authentication [User mng.]- Configure the settings relating to the host authentication [Host auth.]

After the host authentication, execute the user authentication according to the setting of the "User auth." (On/Off) to allow the access subject to the authentication.

The screenshot shows the 'Host auth.' configuration page. It features three main sections: 'Host auth.' with 'On' and 'Off' radio buttons (selected), an 'IP address' text field, and 'Access level' with '1. Administrator', '2. Camera control', and '3. Live only' radio buttons (selected). A 'Host check' section at the bottom includes a dropdown menu and a 'Delete' button.

Note

When "On" is set for "User auth.":

The user authentication is required when connecting to this camera using an IP address set as the host authentication.

When "Off" is set for "User auth.":

The user authentication is not required when connecting to this camera using an IP address set as the host authentication.

However, if accessing to the outside of the access level, the user authentication is required.

IMPORTANT

- With the host set by an old version, the user authentication is not required within the access level even if the "User auth." is "On".

For the host set by an old version, asterisk (*) will be displayed at the beginning of the IP address in the "Host check" field.

23. Change of default setting of “Bandwidth control(bit rate)” (Operating Instructions Configuring the network settings [Network]- Configure the network settings [Network])

Change of default setting of “Bandwidth control(bit rate)”

The screenshot shows the 'Advanced' tab of the Network configuration interface. The 'Bandwidth control(bit rate)' setting is highlighted with a red box and is set to 51200kbps. Other settings include IPv4 network (Auto(Advanced)), IPv6 network (Off), and various DNS and HTTP settings.

Section	Setting	Value
IPv4 network	Network Settings	Auto(Advanced)
IPv4 network	IP address(IPv4)	192 . 168 . 0 . 10
IPv4 network	Subnet mask	255 . 255 . 255 . 0
IPv4 network	Default gateway	192 . 168 . 0 . 1
IPv4 network	DNS	<input checked="" type="radio"/> Auto <input type="radio"/> Manual
IPv4 network	Primary server address	0 . 0 . 0 . 0
IPv4 network	Secondary server address	0 . 0 . 0 . 0
IPv6 network	Manual	<input type="radio"/> On <input checked="" type="radio"/> Off
IPv6 network	IP address(IPv6)	
IPv6 network	Default gateway	
IPv6 network	DHCPv6	<input type="radio"/> On <input checked="" type="radio"/> Off
IPv6 network	Primary DNS server address	
IPv6 network	Secondary DNS server address	
Common	HTTP port	80 (1-65535)
Common	Line speed	Auto
Common	Max RTP packet size	<input checked="" type="radio"/> Unlimited(1500byte) <input type="radio"/> Limited(1280byte)
Common	HTTP max segment size(MSS)	Unlimited(1460byte)
Common	Bandwidth control(bit rate)	51200kbps
Common	Easy IP Setup accommodate period	<input checked="" type="radio"/> 20min <input type="radio"/> Unlimited
Common	FTP access to camera	<input type="radio"/> Allow <input checked="" type="radio"/> Forbid

[Bandwidth control(bit rate)]

Select the total bit rate for data transmission from the following.

Unlimited/ 64kbps/ 128kbps/ 256kbps/ 384kbps/ 512kbps/ 768kbps/ 1024kbps/ 2048kbps/ 4096kbps/
8192kbps/ 10240kbps/ 15360 kbps/ 20480kbps/ 25600kbps/ 30720kbps/ 35840kbps/ 40960kbps/
51200kbps

- **Default:** 51200kbps

24. Encryption of the settings

(Operating Instructions Maintenance of the camera [Maintenance] - Settings data/backing up or restoring logs [Data])

The screenshot shows the 'Data' menu of a camera's web interface. It is divided into two main sections: 'Backup' and 'Restore'.
Under 'Backup', there are three rows:

- 'Setup data' with an 'Execute' button.
- 'Scene file' with an 'Execute' button.
- 'Logs' with an 'Execute' button.

Under 'Restore', there are two rows:

- 'Setup data' with a 'Browse...' button, two radio button options: 'Restore all settings.' (unselected) and 'Restore all settings except the network settings.' (selected), and an 'Execute' button.
- 'Scene file' with a 'Browse...' button and an 'Execute' button.

At the bottom, a light blue box contains the text: 'It will take around 2 minutes to complete restoring data. Please wait and do not operate the browser during this process.'

Backup

[Setup data]

Click the [Execute] button to backup the setup data of the camera to a PC.

Note

- The settings backed up after this version of software will be encrypted. Therefore, if using the software of older version, the settings cannot be restored.

25. “Login failure” indication added to the login-related display (Operating Instructions About the displayed system log)

Error indications relating to the login errors

Category	Indication	Description
Login failure	User name	<ul style="list-style-type: none">• The user name that has failed in login will be displayed when “On” is selected for “User auth.”.• If no user is registered, “Guest User” will be displayed.

26. Change in encryption of the settings.

(Operating Instructions Maintenance of the camera [Maintenance] - Settings data/backing up or restoring logs [Data])

The screenshot shows a web interface with a top navigation bar containing 'System log', 'Upgrade', 'Status', 'Default reset', and 'Data'. The 'Data' tab is active. Below the navigation bar, there are two main sections: 'Backup' and 'Restore'. In the 'Backup' section, there are three rows: 'Setup data' with an 'Execute' button, 'Scene file' with an 'Execute' button, and 'Logs' with an 'Execute' button. In the 'Restore' section, there are three rows: 'Setup data' with a file input field, a 'Browse...' button, and two radio button options: 'Restore all settings.' and 'Restore all settings except the network settings.' with an 'Execute' button; 'Scene file' with a file input field, a 'Browse...' button, and an 'Execute' button. A message box at the bottom of the 'Restore' section states: 'It will take around 2 minutes to complete restoring data. Please wait and do not operate the browser during this process.'

Backup

[Setup data]

Click the [Execute] button to backup the setup data of the camera to a PC.

Note

- Encryption of the settings has been changed after this version. Therefore, if you revert the software to the previous version, the settings cannot be restored.