

New functions and addendum

This document contains descriptions of how to set the new functions and their restrictions of WV-SF448. It is recommended to read them while referring to the Operating Instructions provided with this product together.

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

•Firmware Ver.1.50

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•Firmware Ver.1.55

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•Firmware Ver.1.56

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•Firmware Ver.1.60

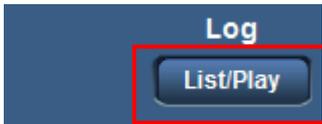
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1. Changes the name of “List” on the “Live” page

(Operating Instructions Monitor images on a PC - About the “Live” page, Display the log list)



On the "Live" page, the [List] button will be changed to the [List/Play] button.

2. Playback of H.264 data recorded on the SD memory card

(Operating Instructions - Display the log list)

Recording format of the SD memory card: JPEG

- **Alarm log:** Logs of the alarm occurrences such as time and date of the alarm occurrences and the alarm type will be displayed.
- **Manual/Schedule log:** Logs filed when images have been recorded manually or during the period of the schedule on the SD memory card will be displayed.
- **FTP trans. error log:** Logs filed when the FTP periodic image transmission function has failed will be displayed. Each log list can be displayed only when “On” is selected for “Save logs” on the [Log] tab of the “Basic” page respectively.

Note

- Refer to the provided operating instructions about the descriptions of the log list when “JPEG” is selected for “Recording format” of the SD memory card.

Recording format of the SD memory card: H.264(1), H.264(2)

- **Alarm log:** Logs of the alarm occurrences such as time and date of the alarm occurrences, the image recording period and the alarm type will be displayed.
- **Manual/Schedule log:** Logs filed when images have been recorded manually or during the period of the schedule on the SD memory card, and the image recording period will be displayed.

IMPORTANT

- When using SD memory cards to play recorded H.264 data using the play features (fast forward, rewind, etc.), we recommend using SDHC memory cards for best performance.
If an SD memory card (not an SDHC memory card) is used, depending on the subject and settings, images may not be displayed smoothly when they are played.
- Changes to the time & date settings by browser operations, NTP, etc., may be limited during recording.
 - When the time setting is moved forward during recording, the time is changed.
 - When the time setting is moved back by less than 5 seconds during recording, the time is not changed.
 - When the time setting is moved back by more than 5 seconds during recording, the time is changed.
However, the recording is stopped and then started again.
- If the following settings are changed, displaying of the live image and recording are temporarily stopped.
 - SD memory card settings
 - Recording format settings
 - Save trigger settings
 - H.264 recording settings
 - Image capture mode settings
 - H.264(1) and H.264(2) settings
- When “VGA Quad streams [4:3]” is selected for “Image capture mode”, SD memory cards cannot be used.

① Time

Displays the time period of the data recorded on the SD memory card.

② Log display

Select a log type to display on the log list.

- **All:** All logs will be displayed.
- **Select:** Only the logs of the selected log type will be displayed.
 - **Alarm log:** The log when an alarm is detected will be displayed.
 - **Manual/Schedule log:** Manual and Schedule logs will be displayed.

Default: All

③ Recording time

Configure the time period of logs displayed on the log list.

- **From:** Configure the starting period of logs displayed on the log list.
 - **First recording:** Displays from the first log recorded on the SD memory card.
 - **Today:** Displays the logs recorded today.
 - **Yesterday:** Displays the logs recorded yesterday.
 - **Last 7 days:** Displays the logs recorded from 6 days ago to the present day.
 - **Last 30 days:** Displays the logs recorded from 29 days ago to the present day.
 - **Date/time:** Displays the logs recorded from the entered date and time on “Date/time” box.
- **To:** Configure the ending period of logs displayed on the log list when “First recording” or “Date/time” is selected for [From].
 - **Last recording:** Displays to the last log recorded on the SD memory card.
 - **Date/time:** Displays the logs recorded until the entered date and time on “Date/time” box.

④ [Search] button

Searches for logs according to the conditions specified in “Log display” and “Recording time”.

The search result will be displayed on the log list.

⑤ Log list

Displays the log search results.

You can play back recorded data by clicking on the time or duration of the recorded data displayed under [Time] and [Duration].

- **[Top] button:** Click this button to display the log listed at the top.
- **[Prev. page] button:** Click this button to display the previous page of the log list.
- **[Next page] button:** Click this button to display the next page of the log list.
- **[Last] button:** Click this button to display the log listed at the bottom.
- **[Time&date]:** Time and date when each log has been recorded will be displayed.

Note

- When “Off” is selected for “Time display format”, the log occurrence times are displayed in 24 hour time format.
- The recording timing of logs is as follows.
 - **Alarm log:** Alarm occurrence time and date will be filed as a log.
 - **Manual/Schedule log:** Time and date when recording of images onto the SD memory card started manually or during the period of the schedule will be filed as a log. When images are recorded sequentially, logs will be filed every one hour. However, depending on the photographic subject and the setting used, logs may be filed in periods of over an hour.
- Depending on the subject and settings, the log time and the actual start time of recordings may not match.

- **[Duration]**: Displays the period of time that the data has been recorded on the SD memory card.
- **[Event]**: The event type will be displayed.
 - **ALM**: Log by “Alarm”
 - **MN/SC**: Log by “Manual/Schedule”
- **[SD memory card]**: Available capacity and the original capacity of the SD memory card will be displayed.

The displayed descriptions are the same descriptions displayed as “Remaining capacity” on the [SD memory card] tab.

- **[Delete] button**: Click this button to delete the currently displayed log list. When using the SD memory card, images associated with the log list will also be deleted.

IMPORTANT

- If there are too many recorded data files, it may take time to delete all of them. (When the total size is 1 GB, it may require about 1 hour.) Formatting the SD memory card can shorten the time to delete all the data.
- In the process of the deletion, “Alarm” and “Manual/Schedule” can not be operated.
- Do not turn off the power of the camera until the deletion is complete. When the power of the camera is turned off in the process of the deletion, some images may remain on the SD memory card. In this case, click the [Delete] button on the same log list window used to delete the logs.
- **[Download] button**: Click this button to download all logs of the selected log list onto the PC.
- **[Close] button**: Click this button to close the log list window.

(Operating Instructions - Playback of images on the SD memory card)

When clicking a time, a duration listed on the log list window, the “Live” page will turn to the “Playback” page. When images associated with the clicked log are on the SD memory card, the first image of them will be displayed.

Note

- When playing images saved on the SD memory card, it is necessary to select “Unlimited” for “Bandwidth control(bit rate)” of [Network] tab on the “Network” page.

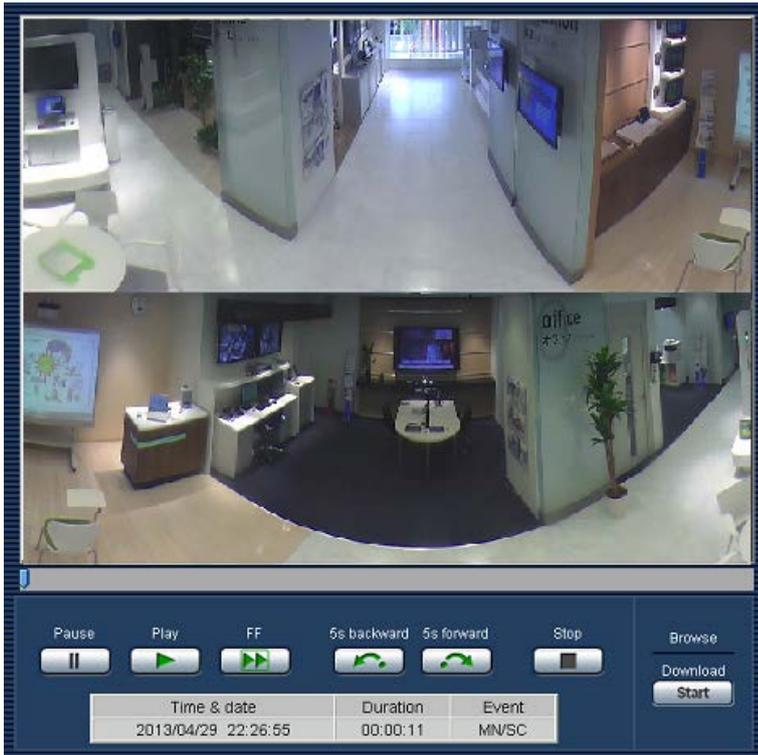
IMPORTANT

- Refresh interval of images may become slow during playback or download.
- When many images are saved on the SD memory card, it may take time to display images on the “Playback” page.
- Even when the size of the images saved on the SD memory card is “QVGA”, “1280x960” or “2048x1536”, the images will be displayed in VGA size on the “Playback” page. When “16:9” is selected for the aspect ratio, Images will be displayed in an image capture size of “640x360”, even “320x180”, “1280x720”, or “1920x1080” is selected. Therefore, images may look coarse on the “Playback” page.
- When playing images by selecting an FTP error log on the log list, images may not be played in order of images recorded on the SD memory card if they have been recorded on the SD memory card with selected value for the “Transmission interval” setting on the [FTP img. trans.] tab is “1min” or less.
- When “VGA Quad streams [4:3]” is selected for “Image capture mode”, SD memory cards cannot be used.

Recording format of the SD memory card: JPEG

Refer to the provided operating instructions about the descriptions of when “JPEG” is selected for “Recording format” of the SD memory card.

Recording format of the SD memory card: 264(1),H.264(2)



- **[PAUSE] button:** Playback will be paused when this button is clicked during playback. Playback will resume when this button is clicked during pausing.
- **[PLAY] button:** When this button is clicked, recorded data will be played.
- **[FF] button:** Each time this button is clicked, the playback speed will change. When the [PLAY] button is clicked during fast playback, playback speed will return to the normal playback speed.

Note

- The maximum speed of the fast playback varies depending on the setting of “Max bit rate” - “H.264 recording” of the SD memory card.
- Depending on the subject and settings, images played in fast forward may not be displayed smoothly.
- **[5s backward] button:** Each time this button is clicked, the recorded data goes back by 5 seconds and starts playing.
- **[5s forward] button:** Each time this button is clicked, the recorded data goes forward by 5 seconds and starts playing.
- **[STOP] button:** Playback will stop and the “Playback” window will turn to the “Live” page.
- **[Time]:** Time and date when each log has been recorded will be displayed.
- **[Duration]:** Displays the period of time that the data has been recorded on the SD memory card.
- **[Event]:** The event type will be displayed.
 - **ALM:** Log by “Alarm”
 - **MN/SC:** Log by “Manual/Schedule”

Browse

- **[Start] button:** The selected image will be downloaded onto the PC.

Before downloading images, designate the destination directory in advance. (→ Operating Instructions - Configure the settings relating to the logs [Log])

The message window will be displayed to ask if it is OK to start download when the [Start] button is clicked. Click the [OK] button.

Note

- When the [Cancel] button is clicked in the process of the download, the download will be canceled. In this case, video data already downloaded before clicking the [Cancel] button will be saved on the PC.
- Video data is saved in files of approx. 2 MB or 20 MB depending on the settings. When the file size of video data is more than the configured value, multiple files will be downloaded.
- It is possible to play back video data saved on the PC using such applications as QuickTime Player or Windows Media Player*1. However, we are not liable for performance relating to these applications.
- Depending on the status of the SD memory card, QuickTime Player, or Windows Media Player, video data may not be able to be played back.
- When downloading data, the operation buttons on the “Playback” window cannot be operated.

*1 The supported operating system is Windows 8 and Windows 7 only.

(Operating Instructions Configure the basic settings of the camera [Basic] - Configure the settings relating to the SD memory card [SD memory card])

When "H.264(1)" or "H.264(2)" is selected for the "Recording format", the camera can transmit H.264 images and the displaying of H.264 images on the "Live" page become available.

(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(2)]

When “H.264(1)” is selected for “Recording format” on the [SD memory card] tab of the “Basic” page, the settings for “H.264(1)” on the [JPEG/H.264] tab of the “Image/Audio” page will be changed to the settings for “H.264(1) & recording”.

When “H.264(2)” is selected for “Recording format” on the [SD memory card] tab of the “Basic” page, the settings for “H.264(2)” on the [JPEG/H.264] tab of the “Image/Audio” page will be changed to the settings for “H.264(2) & recording”.

Note

- When “H.264(1)” or “H.264(2)” is selected for “Recording format”, When “3072kbps”, “4096kbps”, “6144kbps”, “8192kbps”, “10240kbps”, “12288kbps” or “14336kbps” is selected for “Max bit rate”, “2048kbps” is set.
- When “H.264(1)” or “H.264(2)” is selected for “Recording format” on the [SD memory card] tab of “Basic” page, the “Transmission priority” can not changed to “Best effort”.

* Refer to the Operating Instructions provided with this product about the each settings.

3. Changes about “Time zone” and “Summer time”

(Operating Instructions Configure the basic settings of the camera [Basic] - Configure the basic settings [Basic], Configure the settings of the servers [Server] - Configure the settings relating to the NTP server [NTP])

Basic		Internet	SD memory card	Log							
Camera title		ww-sw559									
Time & date	Date/time	Jan	/	01	/	2012	00	:	00	:	00
	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	Month	Day	Time								
End time & date	Month	Day	Time								
Camera title on screen	<input type="radio"/> On <input checked="" type="radio"/> Off										
Camera title on screen(0-9,A-Z)											
OSD	Position	Upper left									
Brightness status display	<input checked="" type="radio"/> On <input type="radio"/> Off										
Upside-down	<input type="radio"/> On <input checked="" type="radio"/> Off										
Indicator	<input checked="" type="radio"/> On <input type="radio"/> Off										
Alarm status update mode	<input type="radio"/> Polling(30s) <input checked="" type="radio"/> Real time										
Alarm status reception port	31004 (1-65535)										
Automatic installation of viewer software	<input checked="" type="radio"/> On <input type="radio"/> Off										
<input type="button" value="Set"/>											

■ Time zone moves to the Basic screen from the NTP screen and change the default setting

[Time zone]

Select a time zone corresponding to the location where the camera is in use.

Default: (GMT+09:00) Osaka, Sapporo, Tokyo (P model)

(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London (E model)

■ Change the default setting of “Start time & date” and “End time & date” of “Summer time (daylight saving)”

[Start time & date] [End time & date]

When “Auto” is selected for “Summer time (daylight saving)”, select the time & date for the start time and the end time (month, week, day of the week, time).

Default:

- [Start time & date] None (blank) (P model), 03 Last Sun 1 AM (E model)

- [End time & date] None (blank) (P model), 10 Last Sun 1 AM (E model)

4. Addition of “Auto” in Language selection

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



[Language]

Select the language to initially display when the camera is accessed from the following.

Auto/English/Japanese/Italian/French/German/Spanish/Chinese/Russian

Auto: The language used by the browser is automatically selected. If the language used by the browser is not supported by the camera, English is selected.

Default: Auto (P model), English (E model)

The language displayed on the “Live” page can also be changed except “Auto”.

Note

When "Auto" is selected for "Language", the screen on cellular phones (http://IP address/mobile) is displayed in English. If you want the screen to be displayed in Japanese or Chinese, select "Japanese" or "Chinese" for "Language".

5. Addition of “Internet” function

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

Functions have been added so that Internet settings can be easily performed.

Click the [Internet] tab of the “Basic” page. The settings relating to UPnP (Auto port forwarding), DDNS (Viewnetcam.com), and network settings for the Internet can be configured on this page.

The screenshot shows the 'Internet' configuration page. At the top, there are four tabs: 'Basic', 'Internet', 'SD memory card', and 'Log'. The 'Internet' tab is selected. The page is divided into two main sections. The first section is for 'UPnP(Auto port forwarding)' and includes a radio button for 'On' (which is unselected) and a radio button for 'Off' (which is selected). Below this is the 'DDNS' section, which has a dropdown menu for 'Area' with the text '--Select the service area--' and a 'Service' field. A 'Set' button is located below the DDNS section. The second section is titled 'Recommended network setting for internet' and contains a text box with the message 'A setup suitable for internet environment is carried out.' and a 'Set' button below it.

[UPnP (Auto port forwarding)]

Select “On” or “Off” to determine whether or not to use the port forwarding function of the router.

To use the auto port forwarding function, the router in use must support UPnP and the UPnP must be enabled.

Default: Off

Note

- Due to auto port forwarding, the port number may sometimes be changed. When the number is changed, it is necessary to change the port numbers registered in the PC and recorders, etc.
- The UPnP function is available when the unit is connected to the IPv4 network. IPv6 is not supported.
- To check if auto port forwarding is properly configured, click the [Status] tab on the “Maintenance” page, and check that the “Enable” is displayed for “Status” of “UPnP” When “Enable” is not displayed, refer to “Cannot access the camera via the Internet.” In Troubleshooting.
- When the “UPnP (Auto port forwarding)” setting is changed, the “Auto port forwarding” setting under “UPnP” on the [Network] tab of the “Network” page also changes to the same setting.

[Area]

Select the region where the camera is installed. If the camera is used outside of Japan, select “Global”. If the camera is used in Japan, select “Japan”.

Japan/Global

Default: Not selected

[Service]

Select the DDNS service to determine whether or not to use DDNS.

DDNS service that can be set by the settings of the [Area] changes as follows.

In case of selecting “Japan” : Off, MIEMASUNET-PRO

In case of selecting “Global” : Off, Viewnetcam.com

Default: Off

By selecting "MIEMASUNET-PRO" or "Viewnetcam.com" and clicking the [Set] button, the registration window will be displayed in a newly opened window.

Follow the on-screen instructions to register. Refer to the website (<http://www.viewnetcam.com/> , <http://panasonic.biz/miemasu/pro/>) for further information.

Note

- When the "DDNS" setting is changed, the "DDNS" setting on the [DDNS] tab of the "Network" page also changes to the same setting.

[Recommended network setting for internet]

The recommended settings for connecting to the Internet are performed here.

By clicking the [Set] button, a dialog displaying how the following settings will change is displayed.

Click the [OK] button after checking the settings to change the settings to the displayed values.

Following contents are set.

JPEG	Image capture size*2	VGA / 640x360, 2048x1536*1
H.264(1)	Image capture size*2	VGA / 640x360, 1280x960*1
	Transmission priority	Best effort
	Max bit rate (per client) * (Max./Min.)	1024kbps / 128kbps, 1024kbps / 256kbps*1
	Internet mode (over HTTP)	On
H.264(2)	Image capture size*5	QVGA / 320x180
	Transmission priority	Best effort
	Max bit rate (per client) * (Max./Min.)	1024kbps / 128kbps
	Internet mode (over HTTP)	On
Network	Max RTP packet size	Limited(1280byte)
	HTTP max segment size(MSS)	Limited(1280byte)

*1 When "3M Fisheye [4:3]" is selected for ""Image capture mode".

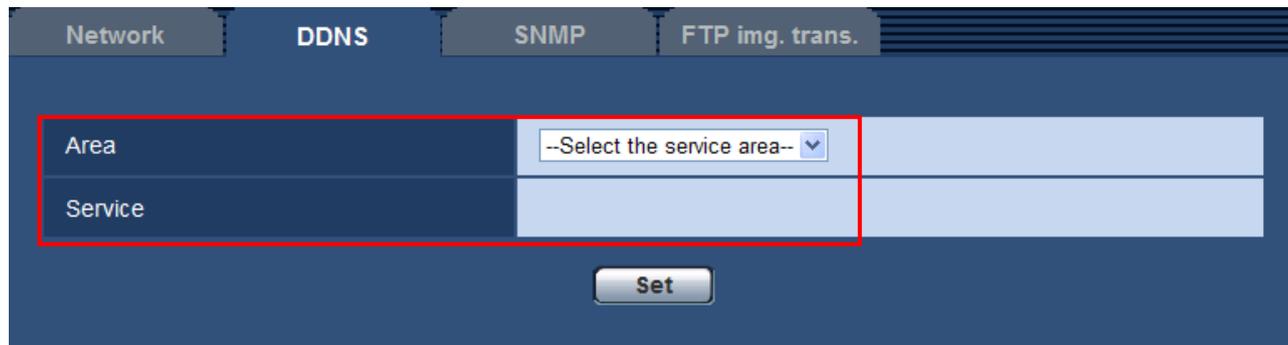
*2 Following contents are set.

Image capture mode	2M Panorama [16:9], 1M Panorama [16:9], 2M Double Panorama [16:9], 1M Double Panorama [16:9]	1.3M Fisheye [4:3], 1.3M Quad PTZ [4:3], 1.3M Single PTZ [4:3], Fisheye + Quad PTZ	Double Panorama + Quad PTZ, Double Panorama + Single PTZ, Panorama + Quad PTZ, Panorama + Single PTZ, 2M Double Panorama + Fisheye, 1M Double Panorama + Fisheye, 2M Panorama + Fisheye, 1M Panorama + Fisheye	3M Fisheye [4:3]	VGA Quad streams [4:3]
JPEG	640x360	VGA	640x360	2048x1536	Unavailable
H.264 (1)	640x360	VGA	640x360	1280 × 960	VGA
H.264 (2)	320x180	QVGA	QVGA	-	-

- "Image capture size" is not changed, when "3M Fisheye [4:3]" is selected for "Image capture mode".
- "Max bit rate (per client) *" is changed to Max. "1024kbps *" and Min."256kbps *".

6. Addition of “Area” selection to the “DDNS” setting

(Operating Instructions Configuring the network settings [Network] - Configure the settings relating to DDNS [DDNS])



The screenshot shows a configuration page with tabs for 'Network', 'DDNS', 'SNMP', and 'FTP img. trans.'. The 'DDNS' tab is active. There are two input fields: 'Area' and 'Service'. The 'Area' field has a dropdown menu with the text '--Select the service area--'. A red box highlights the 'Area' field and the 'Service' field. Below these fields is a 'Set' button.

[Area]

Select the region where the camera is installed. If the camera is used outside of Japan, select “Global”. If the camera is used in Japan, select “Japan”.

Japan/Global

Default: None

[Service]

Select the DDNS service to determine whether or not to use DDNS.

DDNS service that can be set by the settings of the [Area] changes as follows.

In case of selecting “Japan” : Off, MIEMASUNET-PRO, Miemasu.net, Dynamic DNS Update, Dynamic DNS Update(DHCP)

In case of selecting “Global” : Off, Viewnetcam.com, Dynamic DNS Update, Dynamic DNS Update(DHCP)

Off: Does not use the DDNS function.

Viewnetcam.com: Uses the “Viewnetcam.com” service.

MIEMASUNET-PRO: Uses the “MIEMASUNET-PRO” service.

Miemasu.net: Uses the “Miemasu.net” service.

Dynamic DNS Update: Uses Dynamic DNS Update (RFC2136 compliant) without the DHCP cooperation.

Dynamic DNS Update(DHCP): Uses Dynamic DNS Update (RFC2136 compliant) with the DHCP cooperation.

Default: Off

By selecting "MIEMASUNET-PRO", "Miemasu.net" or "Viewnetcam.com" and clicking the [Set] button, the registration window will be displayed in a newly opened window.

Follow the on-screen instructions to register. Refer to the website (<http://www.viewnetcam.com/> , <http://www.miemasu.net/> , <http://panasonic.biz/miemasu/pro/>) for further information.

Note

- When using Dynamic DNS Update (RFC2136 compliant), refer to the network administrator for whether or not to cooperate with the DHCP.

7. Perform pre alarm recording using the JPEG recording function (Operating Instructions - Configure the basic settings of the camera [Basic] - Configure the settings relating to the SD memory card [SD memory card])

JPEG recording		
File name	img_	
Image saving interval/Number of images to be saved(Pre alarm)	Image saving interval 1fps	Number of images to be saved Off
Image saving interval/Number of images to be saved(Post alarm)	Image saving interval 1fps	Number of images to be saved 100 pics
Image capture size	Double Panorama/640x360	

Set

[Image saving interval/Number of images to be saved (Pre alarm)]

[Image saving interval]

When “Alarm input” is selected for “Save trigger”, select an interval (frame rate) of saving pre alarm images on the SD memory card from the following.

0.1fps/ 0.2fps/ 0.33fps/ 0.5fps/ 1fps

Default: 1fps

Note

- When “1920x1080” is selected for the image capture size of the JPEG images to be saved, “1fps” cannot be selected.

[Number of images to be saved]

Select a number of pre alarm images to be saved on the SD memory card from the following.

Off/ 1pic/ 2pics/ 3pics/ 4pics/ 5pics

Default: Off

Note

- When “1920x1080” is selected for the image capture size of the JPEG images to be saved, “4pics” and “5pics” cannot be selected.
- When “3M Fisheye [4:3]” is selected for “Image capture mode”, “Pre alarm” cannot be used.
- When “H.264(1)” or “H.264(2)” is selected for “Recording format”, Pre alarm and Post alarm can be set on “H.264 recording” of [Alarm] tab.
- “Number of images to be saved” can be configured only when “Alarm input” is selected for “Save trigger”.

8. Addition of “Permission level of viewing logs” setting

(Operating Instructions Configure the basic settings of the camera [Basic] -Configure the settings relating to the logs [Log])

Category	Save logs	Name of the destination directory for downloaded images
Alarm	<input checked="" type="radio"/> On <input type="radio"/> Off	C:\nwcam
Manual/Schedule	<input checked="" type="radio"/> On <input type="radio"/> Off	C:\nwcam
FTP error	<input checked="" type="radio"/> On <input type="radio"/> Off	C:\nwcam
Permission level of viewing logs		<input checked="" type="radio"/> 1. Level 1 only <input type="radio"/> 2. Level 2 or higher <input type="radio"/> 3. All users

[Permission level of viewing logs]

User level settings for viewing and operating "Log" on the "Live" page can be configured.

- **1. Level 1 only:** only Level 1 users can view and operate the "Log".
- **2. Level 2 or higher:** only Level 1 and Level 2 users can view and operate the "Log".
- **3. All users:** all users can view and operate the "Log".

However, only Level 1 and Level 2 users can delete logs, and only Level 1 users can view SD memory card folders.

Default: 1. Level 1 only

9. Addition of “Initial display stream on the browser” setting

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

Initial display stream on the browser
<input checked="" type="radio"/> H.264 <input type="radio"/> JPEG

[Initial display stream on the browser]

“Initial display stream on the browser” of [JPEG/H.264] tab on the “Image/Audio” page has been added.

Configure what type of images is initially displayed on the “Live” page.

H.264: Initially displays H.264 images on the “Live” page.

MPEG-4 : Initially displays MPEG-4 images on the “Live” page.

JPEG: Initially displays JPEG images on the “Live” page.

Default: H.264

Note

- Even when “H.264” is selected, if “Off” is selected for “H.264 transmission”, only JPEG images are displayed.
- This setting can not be changed when “Image capture mode” is set to “VGA Quad streams [4:3]”.

10. Addition of “Advanced VBR” to the “Transmission priority” of “H.264” (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	Double Panorama/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
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)
<input type="button" value="Set"/>	

[Transmission priority]

Select a transmission priority for H.264 images from the following.

- **Constant bit rate:** H.264 images will be transmitted with the bit rate selected for “Max bit rate (per client) *”.
- **Frame rate:** H.264 images will be transmitted with the frame rate selected for “Frame rate*”.
- **Best effort:** In accordance with the network bandwidth, H.264 images will be transmitted with the bit rate varying between the maximum and minimum bit rates that are set for “Max bit rate (per client)*”.
- **Advanced VBR:** H.264 images will be transmitted with the frame rate selected for “Frame rate*”. Images are transmitted so that the average transmission rate during the period specified for “Control time period” becomes the bit rate selected for “Max bit rate (per client)*”.

Default: Frame rate

Note

- When “Frame rate” or “Advanced VBR” is selected for “Transmission priority”, number of users who can access the camera may be limited more (may become less than 10).

[Burst tolerance level]

Select how much the bit rate can exceed “Max bit rate (per client)*” by from the following.

High/Middle/Low

Default: Low

Note

- This setting is only available when “Advanced VBR” is selected for “Transmission priority”.
- Depending on the H.264 bit rate used, the burst bit rate may only change by a maximum of about x4 for “High”, x2.5 for “Middle”, and x1.5 for “Low”

[Control time period]

Select the time period that the bit rate will be controlled for from the following. Images are transmitted so that the average transmission rate during the selected period becomes the bit rate selected for “Max bit rate (per client)*”.

1h/6h/24h/1week

Default: 24h

Note

- This setting is only available when “Advanced VBR” is selected for “Transmission priority”.

11. Addition of “Advanced VBR” to the “H.264 recording”

(Operating Instructions Configure the basic settings of the camera [Basic] - Configure the settings relating to the SD memory card [SD memory card])

H.264 recording	
Image capture size	Double Panorama/1920x1080
Recording priority	Advanced VBR
Frame rate*	30fps*
Control time period	24h
Max bit rate	2048kbps*
Image quality	Normal
Refresh interval	1s
Maximum file size	<input type="radio"/> 2 MB <input checked="" type="radio"/> 20 MB

[Recording priority]

From the following, select a recording priority for H.264 images to be recorded.

- **Constant bit rate:** H.264 images will be recorded with the bit rate selected for “Max bit rate”.
- **Frame rate:** H.264 images will be recorded with the frame rate selected for “Frame rate*”.
- **Advanced VBR:** H.264 images will be recorded with the frame rate selected for “Frame rate*”. Images are recorded so that the average transmission rate during the period specified for “Control time period” becomes the bit rate selected for “Max bit rate”.

Default: Frame rate

[Control time period]

Select the time period that the bit rate of images to be recorded will be controlled for from the following.

Images are recorded so that the average bit rate during the selected period becomes the bit rate selected for “Max bit rate”.

1h/6h/24h/1week

Default: 24h

Note

- This setting is only available when “Advanced VBR” is selected for “Recording priority”.

12. Addition of "6144kbps *" to "Max bit rate (per client) **"

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

The image shows a configuration interface for H.264 video streams. It is divided into three main sections: H.264(1), H.264(2), and a section for browser display options. Each H.264 section contains a list of settings with radio buttons for On/Off and dropdown menus for values. The 'Max bit rate (per client) *' setting in both H.264(1) and H.264(2) is highlighted with a red box. In H.264(1), the max bit rate is set to 4096kbps and the min to 512kbps. In H.264(2), the max bit rate is set to 1536kbps and the min to 128kbps. Other settings include image capture size, frame rate, burst tolerance level, control time period, image quality, refresh interval, transmission type, unicast ports, multicast address, multicast port, and multicast TTL/HOPLimit. A 'Smoother live video display on the browser (buffering)' option is also present, set to On. The 'Initial display stream on the browser' is set to H.264.

Setting	Value
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	Double Panorama/1920x1000
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
Refresh interval	1s
Transmission type	Unicast port (AUTO)
Unicast port1 (Image)	32004 (1024-60000)
Unicast port2 (Audio)	33004 (1024-60000)
Multicast address	239.192.0.20
Multicast port	37004 (1024-60000)
Multicast TTL/HOPLimit	10 (1-254)
<input type="button" value="Set"/>	
H.264(2) 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	Double Panorama/640x360
Transmission priority	Frame rate
Frame rate*	30fps
Burst tolerance level	Low
Control time period	24h
Max bit rate (per client) *	Max: 1536kbps - Min: 128kbps
Image quality	Normal
Refresh interval	1s
Transmission type	Unicast port (AUTO)
Unicast port1 (Image)	32014 (1024-60000)
Unicast port2 (Audio)	33014 (1024-60000)
Multicast address	239.192.0.21
Multicast port	37004 (1024-60000)
Multicast TTL/HOPLimit	10 (1-254)
<input type="button" value="Set"/>	
Smoother live video display on the browser (buffering)	<input checked="" type="radio"/> On <input type="radio"/> Off
<input type="button" value="Set"/>	
Initial display stream on the browser	<input checked="" type="radio"/> H.264 <input type="radio"/> JPEG
<input type="button" value="Set"/>	

[Max bit rate (per client)*]

Select an H.264 bit rate per a client from the following. When “Best effort” is selected for “Transmission priority”, set the maximum and minimum bit rates.

64kbps/ 128kbps*/ 256kbps*/ 384kbps*/ 512kbps*/ 768kbps*/ 1024kbps*/ 1536kbps*/ 2048kbps*/ 3072kbps*/ 4096kbps */ 6144kbps * / 8192kbps*/ 10240kbps*/ 12288kbps*/ 14336kbps*

Default:

– H.264(1): 4096kbps*

– H.264(2): 1536kbps*

* The range of bit rates that can be configured for H.264 bit rates differs depending on the “Image capture size”.

- QVGA, VGA, 320x180, and 640x360: 64kbps - 4096kbps *
- 1280x960 and 1280x720: 256kbps* - 8192kbps *
- 1920x1080: 512kbps* - 14336kbps*

Note

- When “14336kbps” is selected, the number of users who can access H.264 images will be limited to “1”. (Only a single user can access H.264 images.)
- The H.264 bit rate is restricted by “Bandwidth control(bit rate)” on the [Network] tab on the “Network” page. For this reason, the bit rate may be lower than the value when any value with an asterisk (*) on the right is selected.

13. Addition of “Maximum file size” and “Pre alarm (recording) duration” to the “H.264 recording”

■Addition of “Maximum file size” to the “H.264 recording”

(Operating Instructions Configure the basic settings of the camera [Basic] - Configure the settings relating to the SD memory card [SD memory card])

H.264 recording	
Image capture size	1920x1080
Recording priority	Frame rate
Frame rate*	30fps *
Control time period	24h
Max bit rate	2048kbps *
Image quality	Normal
Refresh interval	1s
Maximum file size	<input type="radio"/> 2 MB <input checked="" type="radio"/> 20 MB

[Maximum file size]

Select the maximum file size for recorded H.264 files (MP4 format).

2MB/20MB

Default: 20MB

■Addition of “Pre alarm (recording) duration” to the “H.264 recording”

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

H.264 recording(SD memory card)		Max bit rate: 2048 kbps	Recording (memory) size per an alarm: 8 MB
Pre alarm	<input type="radio"/> Use <input checked="" type="radio"/> Not use		
Pre alarm (recording) duration	5s	Available range:1s - 5s *It would be changed depending on the H.264 bitrate setting.	
Post alarm (recording) duration	30s		

[Pre alarm (recording) duration]

Set the duration to save image data on the SD memory card before an alarm occurrence.

1s/ 2s/ 3s/ 4s/ 5s/ 8s/ 10s/ 15s/ 20s/ 25s/ 30s/ 40s/ 50s/ 60s/ 90s/ 120s

• **Default:** 5s

Note

- “Pre alarm (recording) duration” setting is available only when “20MB” is selected for “Maximum file size” in the [SD memory card] tab.
- “Pre alarm (recording) duration” setting may be changed, when “Max bit rate” in the [SD memory card] tab is changed.
- When “2MB” is selected for “Maximum file size”, “Pre alarm (recording) duration” cannot be configured and about 1 MB worth of data is recorded before an alarm occurrence.

14. Changes to an optional function of “Face detection outline display” and “Advanced func.”

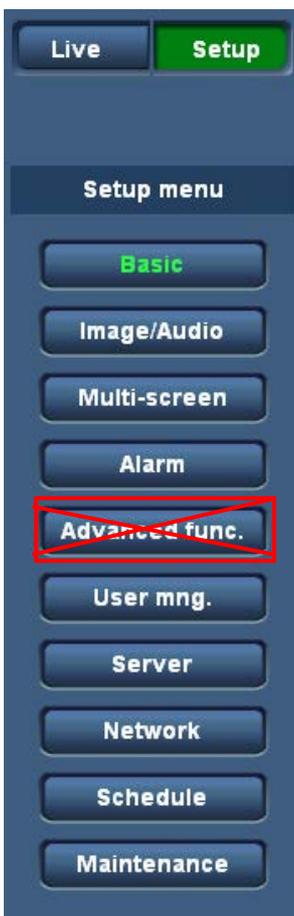
IMPORTANT

- Face detection function that could be used before the upgrading can be continuously used even after upgrading.

(Operating Instructions Monitor images on a PC - About the “Live” page)

The function that displays an outline on the faces detected with the Face detection function displayed on the "Live" page has been changed to an option function.

(Operating Instructions Configure the setting relating to the image recognition [Advanced func.])

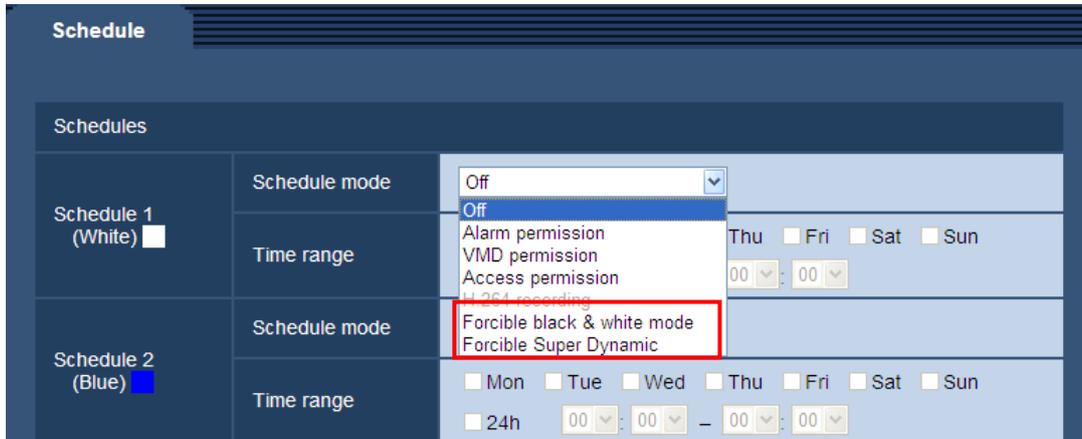


The Advanced func. menu has been changed to an optional function.

The Function expansion software is needed in order use the "Advanced func." function. For further information, refer to our website (<http://security.panasonic.com/pss/security/kms/>).

15. Addition of "Forcible black & white mode", "Forcible Super Dynamic" to "Schedule"

(Operating Instructions Configure the settings relating to the schedules [Schedule])



[Schedule mode]

The schedule settings for Alarm permission, VMD permission, Access permission, H.264 recording, Forcible black & white mode, and Forcible Super Dynamic can be configured on the "Schedule" page.

Off: No action will be taken for the respective schedule.

Alarm permission: Alarm input (terminal alarm) will be received during the period of the schedule.

VMD permission: The video motion detection (VMD) function will be active during the period of the schedule.

Access permission: Users whose access level is set to 2 and 3 on the [User auth.] tab can access the camera only in the period of schedule

H.264 recording: The SD recording will be performed at the designated time in the schedule.

* The other models already support this function.

Forcible black & white mode: During the period of the schedule, "Day & Night(IR)" will be executed.

Forcible Super Dynamic: During the period of the schedule, "Super Dynamic" will be executed. The "Light control mode" of "Image adjust" is changed to "Outdoor scene".

Default: Off

Note

- Select "On" for "User auth." on the [User auth.] tab of "User mng." page and "Off" for "Host auth." on the "Host auth." page to validate "Access permission".
- When selecting "H.264 recording", select "H.264" for "Recording format" on the [SD memory card] tab and select "Schedule" for "Save trigger".
- When "Super Dynamic" is switched to "On" from "Off", or to "Off" from "On", the image may be distorted temporarily.

16. Addition of [Time past from the date of manufacture]

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

DHCPv6	
Viewer software installation counter	0
Time past from the date of manufacture	1year(s) and 0 month(s)

[Time past from the date of manufacture]

Displays how much time has passed since the date of manufacture.

17 . Addition of “Portuguese” in [select language] pull-down menu on the Live page

(Operating Instructions Monitor images on a PC - About the “Live” page)

“Portuguese” is added in [select language] pull-down menu.



18. Addition of “Portuguese” in Language selection

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



[Language]

Select the language to initially display when the camera is accessed from the following.

Auto/English/Japanese/Italian/French/German/Spanish/Chinese/Russian/Portuguese

Auto: The language used by the browser is automatically selected. If the language used by the browser is not supported by the camera, English is selected.

Default: Auto (P model), English (E model)

The language displayed on the “Live” page can also be changed except “Auto”.

19 . Change the language of E-mail notification for [Diag.]

(Operating Instructions Configure the alarm settings [Alarm] - Configuration of the settings relating to the E-mail notification [Notification])

Note

When the language except "Japanese" is selected for "Language" in [Basic] tab, E-mail body for [Diag.] is displayed in English. When "Japanese" is selected, it is displayed in Japanese.

20. Addition of “Image capture mode” settings

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

-Configure the settings relating to images [JPEG/H.264])

[Image capture mode]

Select an image to be displayed on the “Live” page.

The following “Image capture mode” settings can be configured depending on the mounting position.

<Ceiling>

2M Double Panorama [16:9]/ 1M Double Panorama [16:9]/ 1.3M Quad PTZ [4:3]/ 1.3M Single PTZ [4:3]/
Double Panorama + Quad PTZ/ Double Panorama + Single PTZ

<Wall>

2M Panorama [16:9]/ 1M Panorama [16:9]/ 1.3M Quad PTZ [4:3]/ 1.3M Single PTZ [4:3]/ Panorama +
Quad PTZ/ Panorama + Single PTZ

<Ceiling/Wall>

3M Fisheye [4:3]/ 1.3M Fisheye [4:3]/ 2M Double Panorama + Fisheye/ 1M Double Panorama + Fisheye/
Fisheye + Quad PTZ/ 2M Panorama + Fisheye/ 1M Panorama + Fisheye

<Ceiling>

VGA Quad streams [4:3]

Default: 2M Double Panorama [16:9]

Note

- The types of images that can be displayed using the added "2M Double Panorama + Fisheye", "1M Double Panorama + Fisheye", "Fisheye + Quad PTZ", "2M Panorama + Fisheye", and "1M Panorama + Fisheye" image capture modes are as follows.

Image capture mode type	Image capture mode	Image types	Mounting positions
2 Monitor (Max. 15fps) This type transmits 2 types of images. A maximum of 15 fps transmissions are possible.	2M Double Panorama + Fisheye 1M Double Panorama + Fisheye	Double Panorama Fisheye	Ceiling
	Fisheye + Quad PTZ	Fisheye, Quad PTZ	Ceiling
	2M Panorama + Fisheye 1M Panorama + Fisheye	Panorama, Fisheye	Wall

- The following images can be transmitted with the added image capture modes.

Image capture mode	description
2M Double Panorama + Fisheye	2 megapixel Double Panorama images (with an aspect ratio of 16:9) and 1.3 megapixel Fisheye images (with an aspect ratio of 4:3) can be transmitted at the same time.
1M Double Panorama + Fisheye	1 megapixel Double Panorama images (with an aspect ratio of 16:9) and 1.3 megapixel Fisheye images (with an aspect ratio of 4:3) can be transmitted at the same time.
Fisheye + Quad PTZ	1.3 megapixel Fisheye images (with an aspect ratio of 4:3) and 1.3 megapixel Quad PTZ images (with an aspect ratio of 4:3) can be transmitted at the same time.
2M Panorama + Fisheye	2 megapixel Panorama images (with an aspect ratio of 16:9) and 1.3 megapixel Fisheye images (with an aspect ratio of 4:3) can be transmitted at the same time.
1M Panorama + Fisheye	1 megapixel Panorama images (with an aspect ratio of 16:9) and 1.3 megapixel Fisheye images (with an aspect ratio of 4:3) can be transmitted at the same time.

- The image capture sizes of images from the added image capture modes that can be displayed in the "Live" are as follows. (Excluding multi-screen.)

Image capture mode type	Image capture mode	JPEG	H.264(1)	H.264(2)
2 Monitor (Max. 15fps)	2M Double Panorama + Fisheye	Double Panorama : 1920×1080 640×360 320×180 Fisheye : 1280×960 VGA QVGA	Double Panorama : 1920×1080 640×360 320×180	Fisheye : 1280×960 VGA QVGA
	1M Double Panorama + Fisheye	Double Panorama : 1280×720 640×360 320×180 Fisheye : 1280×960 VGA QVGA	Double Panorama : 1280×720 640×360 320×180	Fisheye : 1280×960 VGA QVGA
	Fisheye + Quad PTZ	Fisheye : 1280×960 VGA QVGA Quad PTZ : 1280×960 VGA QVGA	Fisheye : 1280×960 VGA QVGA	Quad PTZ : 1280×960 VGA QVGA
	2M Panorama + Fisheye	Panorama : 1920×1080 640×360 320×180 Fisheye : 1280×960 VGA QVGA	Panorama : 1920×1080 640×360 320×180	Fisheye : 1280×960 VGA QVGA
	1M Panorama + Fisheye	Panorama : 1280×720 640×360 320×180 Fisheye : 1280×960 VGA QVGA	Panorama : 1280×720 640×360 320×180	Fisheye : 1280×960 VGA QVGA

- The image capture sizes of images from the added image capture modes that can be displayed on cellular phones are as follows.

Image capture mode type	Image capture mode	Image capture size
2 Monitor (Max. 15fps)	2M Double Panorama + Fisheye	Fisheye, Quad PTZ : VGA QVGA
	1M Double Panorama + Fisheye	
	Fisheye + Quad PTZ	Panorama, Double Panorama : 640×360 320×180
	2M Panorama + Fisheye	
	1M Panorama + Fisheye	

Note

The types of images configured in the “Image capture size” of “Live” page (Initial display)” are displayed.

- The image capture sizes of images from the added image capture modes that can be displayed on mobile terminals are as follows.

Image capture mode type	Image capture mode	Image capture size
2 Monitor (Max. 15fps)	2M Double Panorama + Fisheye	Fisheye, Quad PTZ : 1280×960 VGA QVGA
	1M Double Panorama + Fisheye	
	Fisheye + Quad PTZ	1M Panorama, 1M Double Panorama : 1280×720 640×360 320×180
	2M Panorama + Fisheye	
	1M Panorama + Fisheye	2M Panorama, 2M Double Panorama : 640×360 320×180

Note

The types of images configured in the “Image capture size” of “Live” page (Initial display)” are displayed.

• JPEG images in the added image capture modes

(Operating Instructions Configure the basic settings of the camera [Basic] -Configure the settings relating to the SD memory card [SD memory card])

The image capture sizes that can be selected for JPEG images are as follows.

Image capture mode type	Image capture mode	Recording format	Image capture size
2 Monitor (Max. 15fps)	2M Double Panorama + Fisheye 2M Panorama + Fisheye	JPEG	When Double Panorama or Panorama is selected for "Image capture size" on "Live" page (Initial display): 1920×1080 640×360 320×180 When Fisheye is selected for "Image capture size" on "Live" page (Initial display): 1280×960 VGA QVGA
	1M Double Panorama + Fisheye 1M Panorama + Fisheye	JPEG	When Double Panorama or Panorama is selected for "Image capture size" on "Live" page (Initial display): 1280×720 640×360 320×180 When Fisheye is selected for "Image capture size" on "Live" page (Initial display): 1280×960 VGA QVGA
	Fisheye + Quad PTZ	JPEG	When Fisheye is selected for "Image capture size" on "Live" page (Initial display): 1280×960 VGA QVGA When Quad PTZ is selected for "Image capture size" on "Live" page (Initial display): 1280×960 VGA QVGA

• **H.264 images in the added image capture modes**

(Operating Instructions Configure the basic settings of the camera [Basic] -Configure the settings relating to the SD memory card [SD memory card])

The image capture sizes that can be selected for H.264 images are as follows.

Image capture mode type	Image capture mode	Recording format	Image capture size
2 Monitor (Max. 15fps)	2M Double Panorama + Fisheye 2M Panorama + Fisheye	H.264(1) : Double Panorama or Panorama H.264(2) : Fisheye	H.264(1) : 1920×1080 640×360 320×180 H.264(2) : 1280×960 VGA QVGA
	1M Double Panorama + Fisheye 1M Panorama + Fisheye	H.264(1) : Double Panorama, or Panorama H.264(2) : Fisheye	H.264(1) : 1280×720 640×360 320×180 H.264(2) : 1280×960 VGA QVGA
	Fisheye + Quad PTZ	H.264(1) : Fisheye H.264(2) : Quad PTZ	H.264(1) : 1280×960 VGA QVGA H.264(2) : 1280×960 VGA QVGA

• **Self return in the added image capture modes**

(Operating Instructions Configure the settings relating to images and audio [Image/Audio] -Configure the settings relating to the camera operations [Cam. Function])

Self return can be configured when using the "Fisheye + Quad PTZ" image capture mode. The self return function can be used when Quad PTZ images are being displayed.

• **Image adjust, preset position, privacy zone, and VIQS settings in the added image capture modes**

(Operating Instructions Configure the settings relating to images and audio [Image/Audio] -Configure the settings relating to image adjust, preset positions, privacy zone, and VIQS [Image/Position])

Image adjust :

Image quality can be adjusted.

Image quality adjustment is performed on fisheye images.

Preset position (Preset position setup menu) :

Preset positions can be configured.

Settings can be configured when using the "Fisheye + Quad PTZ" image capture mode.

Preset position (Initial position setup menu) :

The initial position setting of panorama and double panorama images can be configured.

Settings can be configured when using the "2M Double Panorama + Fisheye", "1M Double Panorama + Fisheye", "2M Panorama + Fisheye", and "1M Panorama + Fisheye" image capture modes.

Privacy zone :

When there is a zone that you do not want to display, set the zone as a privacy zone not to be displayed. Privacy zone settings are performed on fisheye images.

VIQS :

It is possible to enhance the image quality of the specified range within a shooting area (image).

When "2M Double Panorama + Fisheye", "1M Double Panorama + Fisheye", "2M Panorama + Fisheye", or "1M Panorama + Fisheye" is used for the image capture mode, VIQS can be configured for Double Panorama and Panorama images of H.264(1).

When "Fisheye + Quad PTZ" is used for the image capture mode, VIQS can be configured for Fisheye images of H.264(1).

Alarm images in the added image capture modes

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

Select the capture size of images to be transmitted to the FTP server, images to be attached to the alarm E-mail, or images to be saved to the SD memory card.

Image capture mode type	Image capture mode	Image capture size
2 Monitor (Max. 15fps)	2M Double Panorama + Fisheye	<ul style="list-style-type: none"> When Fisheye or Quad is selected for "Image capture size" on "Live" page (Initial display)": 1280×960 VGA QVGA
	2M Panorama + Fisheye	<ul style="list-style-type: none"> When Double Panorama or Panorama is selected for "Image capture size" on "Live" page (Initial display)": 640×360 320×180
	Fisheye + Quad PTZ	<ul style="list-style-type: none"> When "Alarm input" is selected for "Save trigger" of the SD memory card, the "1920x1080" size is also available.
	1M Double Panorama + Fisheye	<ul style="list-style-type: none"> When Fisheye is selected for "Image capture size" on "Live" page (Initial display)": 1280×960 VGA QVGA
	1M Panorama + Fisheye	<ul style="list-style-type: none"> When Double Panorama or Panorama is selected for "Image capture size" on "Live" page (Initial display)": 1280×720 640×360 320×180

VMD area in the added image capture modes

(Operating Instructions Configure the alarm settings [Alarm] -Configure the VMD settings [VMD area])

VIQS areas used for detecting the movement of objects can be configured.

VIQS area settings with the added image capture modes are performed with Fisheye images.

• **Face detection* in the added image capture modes**

(Operating Instructions Configure the setting relating to the image recognition [Advanced func.]

-Configuration of the settings relating to the face detection [Face detection])

Face detection information is not added to Fisheye images of the "2M Double Panorama + Fisheye", "1M Double Panorama + Fisheye", "Fisheye + Quad PTZ", "2M Panorama + Fisheye", and "1M Panorama + Fisheye" image capture modes.

* To use the "Face detection" functions, you need to install the extension software.

• **Priority stream in the added image capture modes**

(Operating Instructions Configure the settings relating to the authentication [User mng.] -Configure the settings relating to the priority stream [System])

The description below is the configuration of the priority stream that can transmit images without deteriorating the image quality and refresh interval even when multiple users access concurrently.

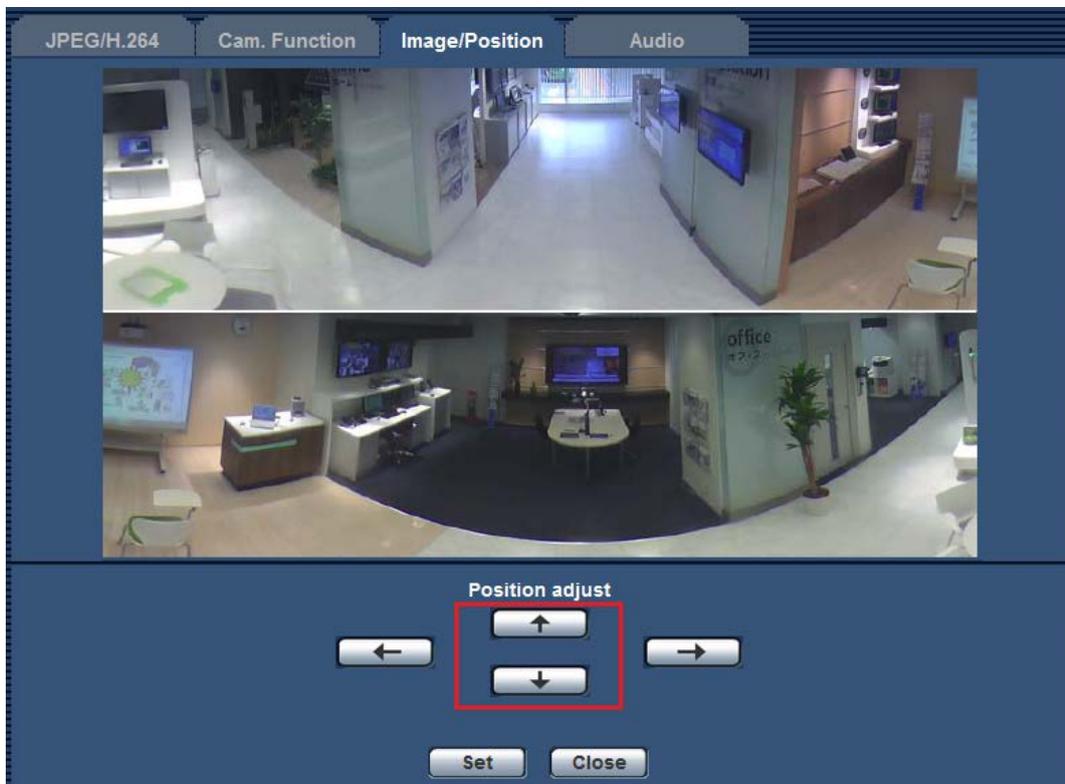
The image capture sizes of images that can be specified when priority stream is used can be selected from the following.

Image capture mode type	Image capture mode	Image capture size
2 Monitor (Max. 15fps)	2M Double Panorama + Fisheye	<ul style="list-style-type: none"> When Fisheye or Quad is selected for "Image capture size" on ""Live" page (Initial display)": 1280×960 VGA QVGA When Double Panorama or Panorama is selected for "Image capture size" on ""Live" page (Initial display)": 1920×1080 640×360 320×180
	2M Panorama + Fisheye	
	Fisheye + Quad PTZ	
	1M Double Panorama + Fisheye	<ul style="list-style-type: none"> When Fisheye is selected for "Image capture size" on ""Live" page (Initial display)": 1280×960 VGA QVGA
	1M Panorama + Fisheye	<ul style="list-style-type: none"> When Double Panorama or Panorama is selected for "Image capture size" on ""Live" page (Initial display)": 1280×720 640×360 320×180

21. Up/down angle adjustment function for Double Panorama

(Operating Instructions Configure the settings relating to images and audio [Image/Audio]
- Configure the settings relating to image adjust, preset positions, privacy zone, and VIQS [Image/Position] - Configure the preset positions (Initial position setup menu))

Up/down angle adjustment function for Double Panorama has been added.



[Position adjust] buttons

-  : Images are displayed adjusted to the left. The top and bottom panorama images move together.
-  : Images are displayed adjusted to the right. The top and bottom panorama images move together.
-  : Images are displayed adjusted to the upward. The top and bottom panorama images move together.
-  : Images are displayed adjusted to the downward. The top and bottom panorama images move together.

[Set] button

Saves the adjusted screen position.

Note

- Adjusting the up/down angle may reduce image quality. Therefore we recommend making adjustments while checking images.

22. Addition of “Audio output duration” and “Mic input mute in privacy mode” setting

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

Setting	Value
Audio mode	Off
Mic select	Internal
Audio encoding format	<input checked="" type="radio"/> G.726 <input type="radio"/> G.711
Audio bit rate	32kbps
Mic input volume (Camera to PC)	Mic Middle
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
Mic input mute in privacy mode	<input checked="" type="radio"/> On (Mute) <input type="radio"/> Off (No Mute)

Set

[Audio output duration]

Configure the maximum duration for each time audio is outputted.

1min/2min/3min/5min/10min/20min/30min/1h

Default: 5min

Note

- Audio output stops when the specified time has passed. To turn the audio transmission function on, click the Audio output button again.

[Mic input mute in privacy mode]

Select "On (Mute)" or "Off (No Mute)" to determine whether or not to mute audio transmission.

On (Mute): Audio transmission is muted when privacy mode is active.

Off (No Mute): Audio transmission is not muted when privacy mode is active.

Default: On (Mute)

23. Addition of “Alarm deactivation time” setting

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

The screenshot shows a configuration interface with tabs for 'Alarm', 'VMD area', 'Audio detection', and 'Notification'. The 'Alarm' tab is active. The interface contains several rows of settings:

Terminal 1	Off
Terminal 2	Off
Terminal 3	Off
VMD alarm	VMD >>
Auto track alarm	Auto track setting >>
Audio detection alarm	Audio detection >>
Command alarm	<input type="radio"/> On <input checked="" type="radio"/> Off
Originating port number	8181 (1-65535)
Alarm deactivation time	5s

A red box highlights the 'Alarm deactivation time' row. A 'Set' button is located at the bottom of the interface.

[Alarm deactivation time]

Configure the duration that detections won't be made after an alarm is detected. For example, by using this function you can prevent mail from being sent too often when mail notifications are configured to be sent to cellular phones when an alarm is detected.

5s / 10s / 30s / 1min / 3min / 5min / 10min

Default: 5s

Note

- The duration that alarm detections are not made can be managed for each type of alarm. For example, during the time when detections for command alarms are not made, detections for VMD alarm can be made.

24. Addition of pre alarm to FTP alarm transmission

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

Alarm image FTP >>							
Alarm image FTP transmission	<input type="radio"/> On <input checked="" type="radio"/> Off						
Directory name	<input type="text"/>						
File name	<input type="text"/>						
FTP transmission retry	<input type="radio"/> On <input checked="" type="radio"/> Off						
Pre alarm	<table border="1"> <thead> <tr> <th>Transmission interval</th> <th>Maximum number of images</th> <th>Recording duration</th> </tr> </thead> <tbody> <tr> <td>1fps</td> <td>0 pic</td> <td>0s</td> </tr> </tbody> </table>	Transmission interval	Maximum number of images	Recording duration	1fps	0 pic	0s
Transmission interval	Maximum number of images	Recording duration					
1fps	0 pic	0s					
Post alarm	<table border="1"> <thead> <tr> <th>Transmission interval</th> <th>Number of images</th> <th>Recording duration</th> </tr> </thead> <tbody> <tr> <td>1fps</td> <td>100 pics</td> <td>100s</td> </tr> </tbody> </table>	Transmission interval	Number of images	Recording duration	1fps	100 pics	100s
Transmission interval	Number of images	Recording duration					
1fps	100 pics	100s					
Image capture size	VGA						
Image compression rate upon alarm detection	<input type="radio"/> On <input checked="" type="radio"/> Off						
Image quality upon alarm detection	5 Normal						

[FTP transmission retry]

Select "On" or "Off" to determine whether or not to resend failed FTP transmissions.

On: If transmission fails, transmissions are resent until they are successfully sent.

Off: If transmission fails, the image that failed to be sent is discarded and the next image is sent.

Default: Off

[Pre alarm]

• Transmission interval

Select the update interval of images before an alarm occurs from the following.

0.1fps/ 0.2fps/ 0.33fps/ 0.5fps/ 1fps

Default: 1fps

• Maximum number of images

Select the number of images to be transmitted from the following.

0pic/ 1pic/ 2pics/ 3pics/ 4pics/ 5pics/ 6pics*/ 7pics*/ 8pics*/ 9pics*/ 10pics*/ 20pics*/ 30pics*/ 50pics*

Default: 0pic

• Recording duration

The recording time, which changes according to the configured "Transmission interval" and "Maximum number of images", of images recorded before an alarm occurs is displayed.

[Post alarm]

• Number of images

Select the number of images to be transmitted from the following.

1pic/ 2pics/ 3pics/ 4pics/ 5pics/ 6pics/ 7pics/ 8pics/ 9pics/ 10pics/ 20pics/ 30pics/ 50pics/ 100pics/ 200pics/ 300pics/ 500pics/ 1000pics/ 1500pics/ 2000pics/ 3000pics

Default: 100pics

* 1500pics has been added as a selection.

Note

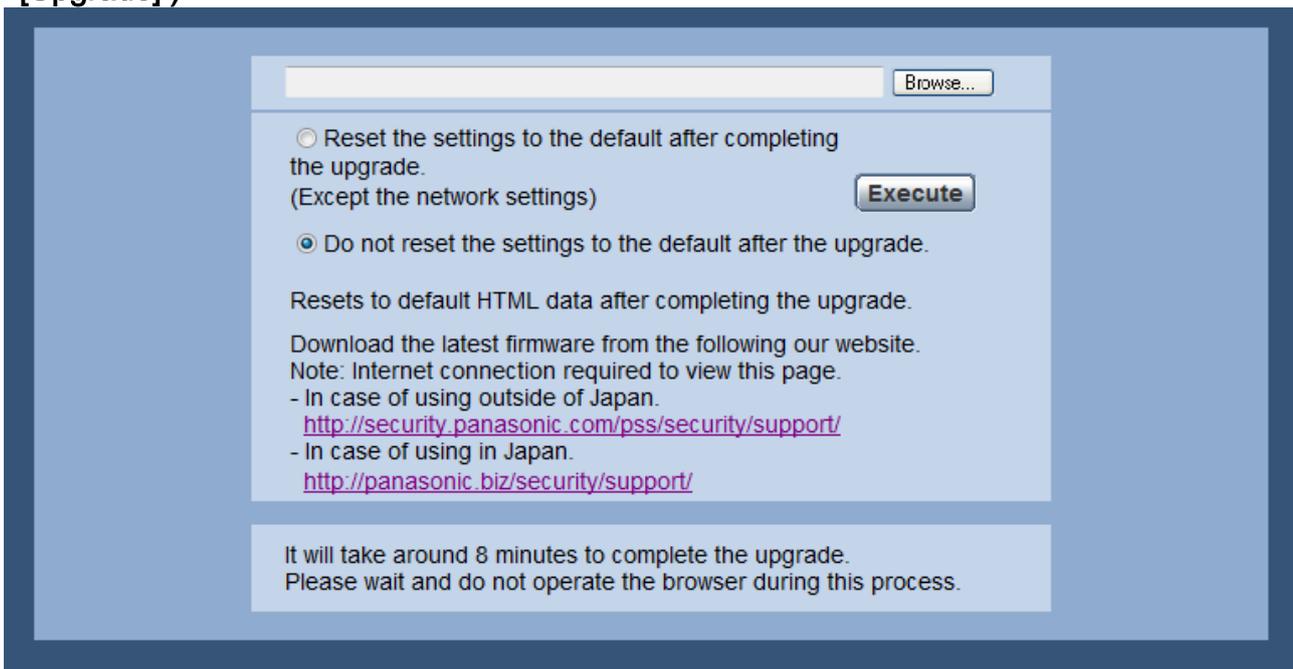
- When "On" is selected for "Image compression rate upon alarm detection", only post alarm recorded images are compressed. Compression is not applied to pre alarm recorded images.
- When a selection with an asterisk (*) on the right of it is selected for "Maximum number of images" of "Pre alarm", the specified number of images may not be able to be sent depending on the image capture size and image quality. The following table shows the maximum number of images that can be sent for pre alarm.

Unit: number of images

		Image quality									
		0	1	2	3	4	5	6	7	8	9
Image capture size	1280x960	5	6	7	8	10	10	10	20	30	40
	1280x720	7	8	10	10	10	20	20	30	40	50
	VGA	10	20	20	30	30	40	50	50	50	50
	640x360	20	30	40	50	50	50	50	50	50	50
	QVGA	40	50	50	50	50	50	50	50	50	50
	320x180	50	50	50	50	50	50	50	50	50	50

25. Addition of a support site link to the Upgrade screen

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



A link for support information for network cameras is displayed.

- For use in other countries except Japan
<http://security.panasonic.com/pss/security/support/>
- For use in Japan
<http://panasonic.biz/security/support/>

The support information is displayed when the link is clicked.

Note

- It is necessary to connect to the Internet to display the support information.

26. Changes to image attachments for E-mail information

(Operating Instructions Configure the alarm settings [Alarm] - Configuration of the settings relating to the E-mail notification [Notification])

E-mail notification	<input type="radio"/> On	<input checked="" type="radio"/> Off
Alarm image attachment	<input checked="" type="radio"/> On	<input type="radio"/> Off

"Alarm image attachment" can now be activated (set to "On") even if "H.264(1)" or "H.264(2)" is selected for "Recording format" ([SD memory card] tab of the "Basic" page).

Note

- The settings for "Image capture size" of the "Alarm image" section on the [Alarm] tab will be applied to the size of the image to be attached. However, images cannot be attached if "1280x960" or "1280x720" is selected for "Image capture size".

27. Improvement to display the setup menu and the “Live” page when Privacy Mode is enabled

(Operating Instructions Privacy Mode - Changes to screen displayed for Privacy mode)

The screen displayed when privacy mode is enabled has been changed.

(Before Ver.1.55)

The privacy mode dialog box is displayed but the setup menu and the “Live” page aren’t displayed.

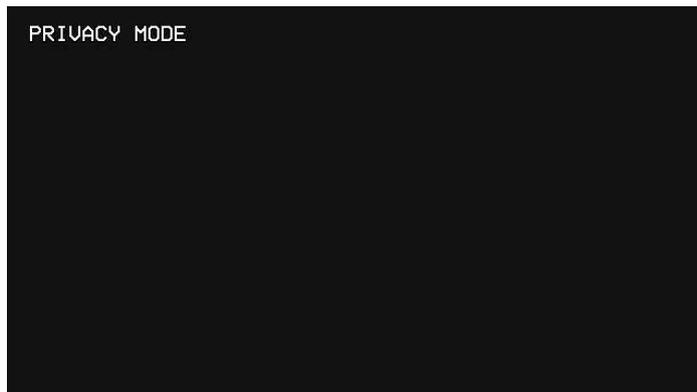


(Ver.1.55 or later)

The same as when privacy mode is disabled, when privacy mode is enabled the setup menu is displayed and feature settings can be used.

You can determine if privacy mode is enabled by checking if the privacy mode image is displayed for the “Live” page.

The privacy mode image is a black image with “PRIVACY MODE” displayed in it.



28. Addition of Privacy Mode control to the “Live” page

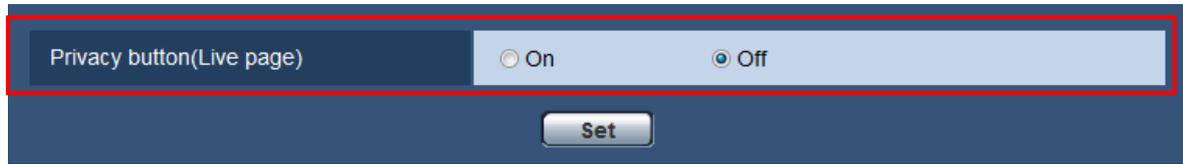
(Operating Instructions Monitor images on a PC - About the “Live” page)



The privacy mode can now be enabled or disabled from the “Live” page. However, in order to display this button the “Privacy button(Live page)” setting must be enabled on the [Basic] tab. (Refer to function no. 29)

29. Addition of function to display/hide the privacy mode control button on the "Live" page

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



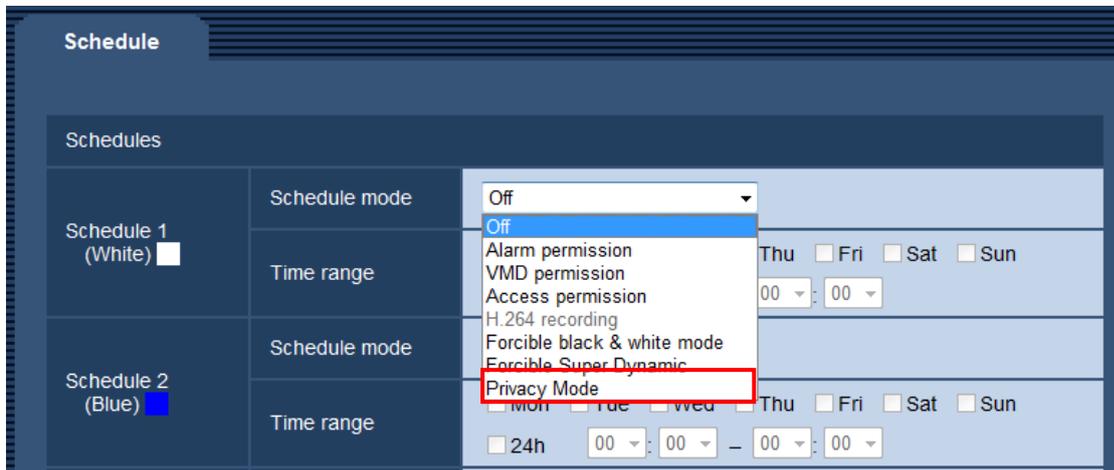
[Privacy button(Live page)]

Select "On" or "Off" to determine whether to display ("On") or hide ("Off") the privacy mode control button on the "Live" page.

Default: Off

30. Addition of "Privacy Mode" to the Schedule

(Operating Instructions Configure the settings relating to the schedules [Schedule])



[Schedule mode]

The schedule settings for Alarm permission, VMD permission, Access permission, H.264 recording, Forcible black & white mode, and Forcible Super Dynamic and Privacy Mode can be configured on the "Schedule" page.

Off: No action will be taken for the respective schedule.

Alarm permission: Alarm input (terminal alarm) will be received during the period of the schedule.

VMD permission: The video motion detection (VMD) function will be active during the period of the schedule.

Access permission: Users whose access level is set to 2 and 3 on the [User auth.] tab can access the camera only in the period of schedule.

H.264 recording: The SD recording will be performed at the designated time in the schedule.

* The other models already support this function.

Forcible black & white mode: During the period of the schedule, "Day & Night(IR)" will be executed.

Forcible Super Dynamic: During the period of the schedule, "Super Dynamic" will be executed. The "Light control mode" of "Image adjust" is changed to "Outdoor scene".

Privacy Mode: During the period of the schedule, privacy mode is enabled and the privacy mode image (refer to function no. 27) is displayed. During all other periods the live image is displayed as per usual.

Default: Off

Note

- Select "On" for "User auth." on the [User auth.] tab of "User mng." page and "Off" for "Host auth." on the "Host auth." page to validate "Access permission".
 - When selecting "H.264 recording", select "H.264" for "Recording format" on the [SD memory card] tab and select "Schedule" for "Save trigger".
 - When "Super Dynamic" is switched to "On" from "Off", or to "Off" from "On", the image may be distorted temporarily.
 - "Privacy Mode" control with the schedule is controlled by the schedule start and finish times.
 - When the schedule starts: Privacy mode is enabled.
 - When the schedule finishes: Privacy mode is disabled.
- Depending on how the Privacy button  and alarm terminal are controlled, "Privacy Mode" may not be controlled as configured in the schedule settings.

31. Changes to Mic select operations when operating in Privacy Mode (Operating Instructions Configure the settings relating to the privacy action on alarm [Alarm])

Operations for Mic select when Privacy Mode is operated by the Privacy button  and schedule have changed.

(Before change)

If the Privacy Mode is enabled by the Privacy button or "Schedule"*3 when "Privacy action on alarm"*2 is selected for "Terminal1"*1 of "Alarm", the selected microphone will change depending on the setting for "Mic Select" of "Privacy action on alarm".

(After change)

The microphone used when Privacy Mode is operated by the Privacy button or schedule is not dependant on the setting for "Mic Select" of "Privacy action on alarm".

Note

For details on each item, refer to the Operating Instructions or the following items in this document.

*1 Terminal1 : Operating Instructions Configure the settings relating to the alarm action [Alarm]

*2 Privacy action on alarm : Operating Instructions Configure the settings relating to the privacy action on alarm [Alarm]

*3 Schedule : 30. Addition of "Privacy Mode" to the Schedule (this document)

32. Changes Time zone settings

(Operating Instructions Configure the basic settings of the camera [Basic] - Configure the basic settings [Basic], Configure the settings of the servers [Server] - Configure the settings relating to the NTP server [NTP])

The Time Zone values have been reviewed and updated to include information current as of October 2014.

City	Before	After
Caracas	GMT-04:00	GMT-04:30
Georgetown	GMT-03:00	GMT-04:00
Minsk	GMT+02:00	GMT+03:00
Sri Jayawardenepura Kotte	GMT+06:00	GMT+05:30
Magadan	GMT+11:00	GMT+10:00

33. Addition of “Upper center” and “Lower center” to the “Position” setting of “OSD”

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

The screenshot shows a configuration window with several settings. The 'OSD' section has a 'Position' dropdown menu open, listing options: Upper left, Upper left, Lower left, Upper center (highlighted in blue), Lower center (highlighted in red), Upper right, and Lower right. Other settings include 'Camera title on screen' (radio buttons for On/Off), 'Camera title on screen (0-9, A-Z)' (text input fields for Ch1-Ch4), 'Brightness status display' (radio buttons for On/Off), 'Upside-down' (radio buttons for On/Off), and 'Indicator' (radio buttons for On/Off).

[Position]

Select the position where the time and date and a character string to be displayed on the image of the “Live” page.

Upper left: The above information will be displayed at the upper left corner of the main area on the “Live” page.

Lower left: The above information will be displayed at the lower left corner of the main area on the “Live” page.

Upper center: The above information will be displayed at the upper center of the main area on the “Live” page.

Lower center: The above information will be displayed at the lower center of the main area on the “Live” page.

Upper right: The above information will be displayed at the upper right corner of the main area on the “Live” page.

Lower right: The above information will be displayed at the lower right corner of the main area on the “Live” page.

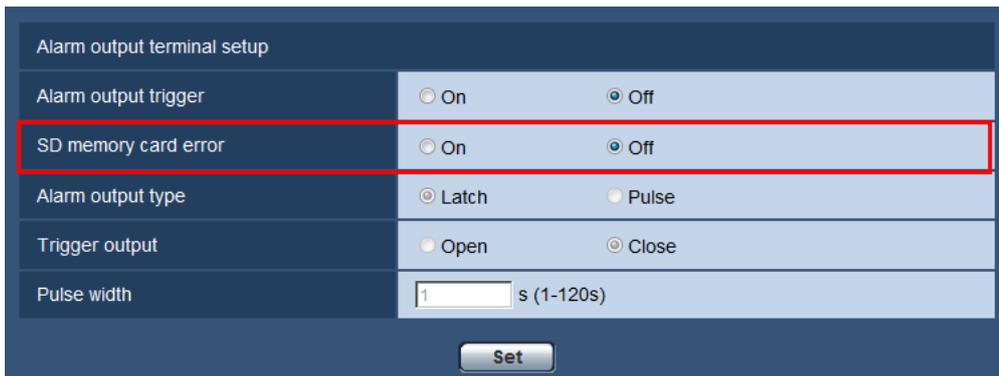
Default: Upper left

34. 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

[SD memory card error]

* Only for models that have alarm output terminals.

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),

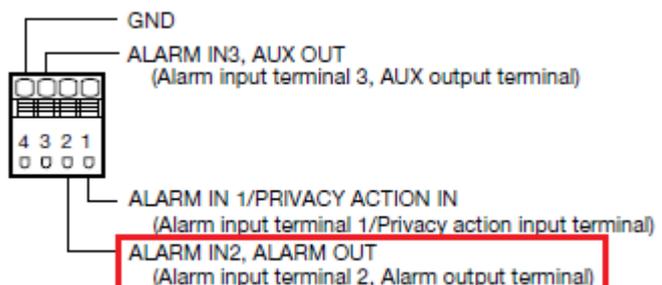
total use time over 6 years, and number of overwrites over 2000 times

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.



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)

[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.

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

Displays the log related to the SD memory card.

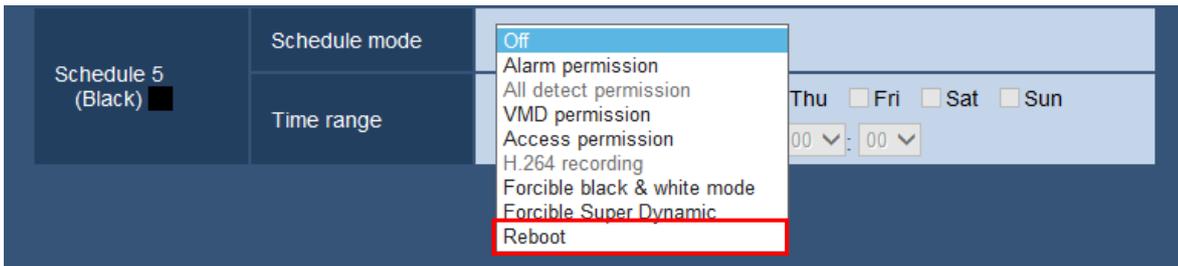
Category	Indication	Description
SD memory card	<SD> Format	Successfully formatted the SD memory card.
	<SD> Format error	Error occurred when formatting the SD memory card.
	<SD> Write-protect ON (Locked card)	A write-protected SD memory card is inserted.
	<SD> Detection error	The SD memory card could 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 Ver.1.30 or later of the software.)
- 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.
- SD memory card logs are erased if the power of the camera is turned off.

35.Addition of “Reboot” to “Schedule 5”

(Operating Instructions Configure the settings relating to the schedules [Schedule])



[Schedule mode]

The schedule settings for Alarm permission, VMD permission, Access permission, H.264 recording, Forcible black & white mode, Forcible Super Dynamic and Reboot can be configured on the "Schedule" page.

Off: No action will be taken for the respective schedule.

Alarm permission: Alarm input (terminal alarm) will be received during the period of the schedule.

VMD permission: The video motion detection (VMD) function will be active during the period of the schedule.

Access permission: Users whose access level is set to 2 and 3 on the [User auth.] tab can access the camera only in the period of schedule.

H.264 recording: The SD recording will be performed at the designated time in the schedule.

Forcible black & white mode: During the period of the schedule, “Day & Night(IR)” will be executed.

Forcible Super Dynamic: During the period of the schedule, “Super Dynamic” will be executed. The “Light control mode” of “Image adjust” is changed to “Outdoor scene” .

Reboot: The camera will reboot at the designated time in the schedule. It is impossible to operate the camera for about 2 minutes after rebooting the camera.

Default: Off

Note

- Select “On” for “User auth.” on the [User auth.] tab of “User mng.” page and “Off” for “Host auth.” on the “Host auth.” page to validate “Access permission” .
- When selecting “H.264 recording” , select “H.264” for “Recording format” on the [SD memory card] tab and select “Schedule” for “Save trigger” .
- When "Super Dynamic" is switched to "On" from "Off", or to "Off" from "On", the image may be distorted temporarily.