

## 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.
- This document is for the following models.  
WV-S2550L, WV-S2250L, WV-S1550L

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

### • Firmware Ver.1.10

No.	Functions	Item (Page)	Page
1	A setting item is added and changes are made in the [Basic] tab on the “Basic” page	Configure the basic settings [Basic]	2
2	“EAP-TLS” is added to the EAP method for IEEE 802.1X	IEEE 802.1X(User mng.)	5
3	“Login failure” indication added to the login-related display	About the displayed system log	9

### • Firmware Ver.4.00

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4	Improvement of readability of Date/time and characters on screen.	Basic (Basic)	10
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### • Firmware Ver.4.30

No.	Functions	Item (Page)	Page
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• Firmware Ver.4.80

<b>No.</b>	<b>Functions</b>	<b>Item (Page)</b>	<b>Page</b>
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12	Add to the system log when recording stream fails to write	Maintenance (Status)	22
13	Add a function to notify the user of writing failures in the recording stream with a unique alarm	Notification (Alarm)	23
14	Add a note when the bit rate of the recording stream is set to a value exceeding recommended value	Image/Audio (Image)	24

1. A setting item is added and changes are made in the [Basic] tab on the “Basic” page  
 (Operating Instructions Configure the basic settings [Basic])

Basic		SD memory card	Log	
Menu language		Auto		
Camera title		WV-S2550L		
Time & date	Date/time	Sep / 06 / 2018 13 : 05 : 52		
	Date/time display	<input type="radio"/> On <input checked="" type="radio"/> Off		
	Time display format	24h		
	Date/time display format	Mmm/DD/YYYY		
	Date/time position	Upper left		
	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 display		<input type="radio"/> On <input checked="" type="radio"/> Off		
Camera title on screen				
Camera title position		Upper left		
OSD	Character size	100%		
Brightness status display		<input type="radio"/> On <input checked="" type="radio"/> Off		
Image rotation		0 °(Off)		
Indicator		<input type="radio"/> On <input checked="" type="radio"/> Off		
Status update mode		<input type="radio"/> Polling(30s) <input checked="" type="radio"/> Real time		
Status reception port		31004 (1-65535)		
Viewer software (nvcv4Ssetup.exe)	Automatic installation	<input type="radio"/> On <input checked="" type="radio"/> Off		
	Drawing method	<input type="radio"/> GDI <input checked="" type="radio"/> Direct2D		
	Decoding Options	<input type="radio"/> Software	<input checked="" type="radio"/> Hardware	
	Smoother live video display on the browser (buffering)	<input type="radio"/> On <input checked="" type="radio"/> Off		
	Frame Skip Options (When PC is Heavy Processing Load)	<input type="radio"/> Auto <input checked="" type="radio"/> Manual		
	Contrast enhancement (RGB:0 to 255)	<input checked="" type="radio"/> On <input type="radio"/> Off		
Audio out		<input type="radio"/> Audio <input checked="" type="radio"/> Monitor		
Monitor out		<input type="radio"/> NTSC <input checked="" type="radio"/> PAL		
<b>Set</b>				

### (1) [Date/time position] is added

#### **[Date/time position]**

Select the position to display the time and date in an image.

- **Upper left:** The information will be displayed at the upper left corner of the screen.
- **Lower left:** The information will be displayed at the lower left corner of the screen.
- **Upper center:** The information will be displayed at the upper center of the screen.
- **Lower center:** The information will be displayed at the lower center of the screen.
- **Upper right:** The information will be displayed at the upper right corner of the screen.
- **Lower right:** The information will be displayed at the lower right corner of the screen.
- **Default:** Upper left

#### **Note**

- Only upper left or lower left can be configured for the OSD display position when "90 °" or "270 °" is selected for "Image rotation".

### (2) [OSD] - [Position] is changed to [Camera title position], and a description is added to Note

#### **[Camera title position]**

Select the position where the date, time, and character string will be displayed on the image.

- **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 image.
- **Lower center:** The above information will be displayed at the lower center of the image.
- **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

#### **Note**

- Only upper left or lower left can be configured for the OSD display position when "90 °" or "270 °" is selected for "Image rotation".

### (3) Descriptions are added to IMPORTANT of [OSD] - [Character size]

#### **[OSD] - [Character size]**

Select the character size of the date and time as well as text displayed in the image.

- **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.
- Depending on the setting and the numbers of characters used for [Character size], and the setting and image capture size of images, characters displayed on the screen may be cut off. After completing the settings, confirm the result on the “Live” page.

### **(4) A description of IMPORTANT of [Image rotation] is changed**

#### **[Image rotation]**

Set whether or not to rotate the image (JPEG, H.265, or H.264).

- **0 °(Off)**: Does not rotate the image.
- **90 °**: Rotates the image by 90 degrees.
- **180 °(Upside-down)**: Turns the image upside down.
- **270 °**: Rotates the image by 270 degrees.
- **Default**: 0 °(Off)

## **IMPORTANT**

- The position shifts if the image rotation setting is changed when the following area settings are configured. Therefore, configure the settings for each area after configuring the image rotation.
  - Privacy zone (→page 116)
  - VMD area (→page 138)
  - VIQS area (→page 118)
  - Mask area (→page 109)
- If “90 °” or “270 °” is selected for “Image rotation”, depending on the “Character size” setting and the number of characters used, characters displayed on the screen may be cut off.
- When “90 °” or “270 °” is selected for “Image rotation”, the position selectable with “Date/time position” and “Camera title position” is limited to “Upper left” or “Lower left”.

#### **Note**

- When “4:3” is selected for “Image capture mode”, “90 °” and “270 °” are not available.
- The analog output from the MONITOR OUT terminal rotates along with the set angle for “Image rotation”.

## 2. “EAP-TLS” is added to the EAP method for IEEE 802.1X

(Operating Instructions Configure the settings relating to the authentication [User mng.]-Configure IEEE 802.1X [IEEE 802.1X])

“EAP-TLS” is added to the EAP method for IEEE 802.1X, and the settings (CA Certificate, private key, Client Certificate) are added.

The screenshot shows the configuration page for IEEE 802.1X. The 'IEEE 802.1X' tab is selected. The 'IEEE 802.1X' status is set to 'On'. Below this, there are fields for 'User name', 'Password', and 'Retype password'. A red box highlights the certificate-related settings:

- CA Certificate:**
  - Certificate install: [Browse...] [Execute]
  - Information: not installed [Confirm] [Delete]
- Private key or Client Certificate including private key:**
  - Installation: [Browse...] [Execute]
  - Password (0 to 30 characters): [Text Field]
  - Install status of private key: not installed [Delete]
- Client Certificate:**
  - Installation: [Browse...] [Execute]
  - Information: not installed [Confirm] [Delete]

At the bottom, the 'EAP method' dropdown is set to 'EAP-TLS'. A red arrow points to the 'Execute' button of the 'Private key or Client Certificate including private key' section with the label "EAP-TLS" settings.

User name and password are required for EAP-MD5 or EAP-PEAP.  
User name and installation of private key, client certificate and CA certificate are required for EAP-TLS.  
PEM(\*.pem) or DER(\*.der) format are supported for CA certificate.  
PEM(\*.pem) or PFX(\*.pfx) format is supported for client certificate and private key.  
Input password for private key when private key or certificate of PFX format is encrypted. Leave password blank when not encrypted.

[Set]

This function can be used to configure a secure network environment using the authentication LAN switch. Contact your network administrator for how to configure the authentication LAN switch and each setting.

Set up in the following procedure since the procedure differs depending on the EAP method.

If “On” is already selected for “IEEE 802.1X”, start setup once selecting “Off” for “IEEE 802.1X”.

### EAP-MD5/EAP-PEAP

1. Select “On” for “IEEE 802.1X”.
2. Select “EAP-MD5” or “EAP-PEAP” for “EAP method”.
3. Click the [Set] button after entering the user name, the password, and confirming the password.

### EAP-TLS

1. Click the [Browse] button of “CA Certificate” - “Certificate install”. Then, select a CA Certificate and click the [Execute] button. The host name (Common Name) designated when created the certificate will be displayed at [Information].
2. Click the [Browse] button of “Private key or Client Certificate including private key”, and select a private key or Client Certificate that includes Private key.
3. Enter the password if the private key is encrypted or the password is set for Client Certificate for the PFX method. Leave password blank when not encrypted.

4. Click the [Execute] button to start installation.  
 "installed" will be displayed for "Install status of private key".  
 In the case of selecting Client Certificate including the private key, "installed" will be displayed for "Client Certificate" - "Information" as well.
5. When the private key is installed in step 2, select a Client Certificate after clicking the [Browse] button of "Client Certificate", and then click the [Execute] button. "installed" will be displayed for "Information"
6. Select "On" for "IEEE 802.1X". Then, select "EAP-TLS" for "EAP method".
7. Enter the user name registered to the server in "User name". Then, click the [Set] button.  
 If no user name is registered to the server, enter an arbitrary user name.  
 "Password" and "Retype password" can be left blank.

**Note**

- To delete each certificate, set [IEEE 802.1X] to "Off".

The following explains each setting.

**[IEEE 802.1X]**

Select "On" or "Off" to determine whether or not to perform port authentication using IEEE 802.1X.

- **Default:** Off

**[User name]**

Enter the user name accessing to the authentication LAN switch or the user name registered to the server. If no user name is registered to the server, enter an arbitrary user name.

- **Available number of characters:** 1 - 32 characters
- **Unavailable characters:** " & ; ¥

**[Password]**

**[Retype password]**

Enter the password to access the authentication LAN switch.

- **Available number of characters:** 4 - 32 characters
- **Unavailable characters:** " &

**[CA Certificate] - [Certificate install]**

Install the root CA Certificate. Do not include the intermediate CA Certificate.

Installation is possible only when "Off" is selected for "IEEE 802.1X".

■ Specification of CA Certificate

Item	Specifications	Remarks
Data format	Format: PEM or DER	Extension: pem or der
Max. number of certificates included in the PEM format	1 pc.	
Max. size of certificate	Approx. 10 Kbyte	

**[CA Certificate] - [Information]**

**not installed:** indicates that the certificate is not installed.

**CA certificate host name:** indicates that the certificate is installed.

**Expired:** indicates that the certificate is expired.

The details of CA Certificate can be checked with the [Confirm] button.

**[Private key or Client Certificate including private key] - [Install]**

Install the private key or Client Certificate that includes private key.

Installation is possible only when "Off" is selected for "IEEE 802.1X".

■ Specification of private key and Client Certificate including private key

Item	Specifications	Remarks
Data format	Format: PEM or PFX	Extension: pem or pfx
Key size [bit]	1024 /1536 /2048 /3072 /4096	
Max. number of certificates included in the PEM format	6 pc.	
Max. size of certificate (including intermediate CA Certificate)	Approx. 10 Kbyte	

**[Private key or Client Certificate including private key] - [Password]**

Enter the password if the private key is encrypted or the password is set for Client Certificate for the PFX method. Leave password blank when not encrypted.

**Available number of characters:** 0 - 30 characters

**[Private key or Client Certificate including private key] - [Install status of private key]**

**not installed:** Private key is not installed.

**installed:** Private key is installed.

**[Client Certificate] - [Install]**

Install the Client Certificate.

If signed by the intermediate CA Certificate, install the Client Certificate including the intermediate CA Certificate.

Installation is possible only when "Off" is selected for "IEEE 802.1X".

■ Specification of Client Certificate

Item	Specifications	Remarks
Data format	Format: PEM	Extension: pem
Max. number of certificates included in the PEM format	6 pc.	
Max. size of certificate (including intermediate CA Certificate)	Approx. 10 Kbyte	

**[Client Certificate] - [Information]**

**not installed:** indicates that the certificate is not installed.

**Certificate host name:** indicates that the certificate is installed.

**Expired:** indicates that the certificate is expired.

The details of Client Certificate can be checked with the [Confirm] button.

**[EAP method]**

Select the authentication method from EAP-MD5, EAP-PEAP or EAP-TLS.

**Example of CA Certificate check screen**

CA Certificate - Confirm	
Common Name	*****
Country	JP
State	Chiba
Locality	Yokohama
Organization	*****
Organizational Unit	Development
<input type="button" value="Close"/>	

### Example of Client Certificate check screen

Client Certificate - Confirm	
Common Name	192.168.1.1
Country	JP
State	Osaka
Locality	Kushima
Organization	Panasonic
Organizational Unit	Development

[Close](#)

### **IMPORTANT**

- After selecting “On” for “IEEE 802.1X”, if access to the camera fails for some reason, connect to a switch or port without authentication. It disables IEEE 802.1X, and enables access to the camera.
- If the Client Certificate includes intermediate CA Certificate, the Client Certificate needs to come first, then the intermediate CA Certificate.
- When a certificate over 10 Kbyte is installed, no error will be displayed during installation. However, an error may occur at the time of connection.

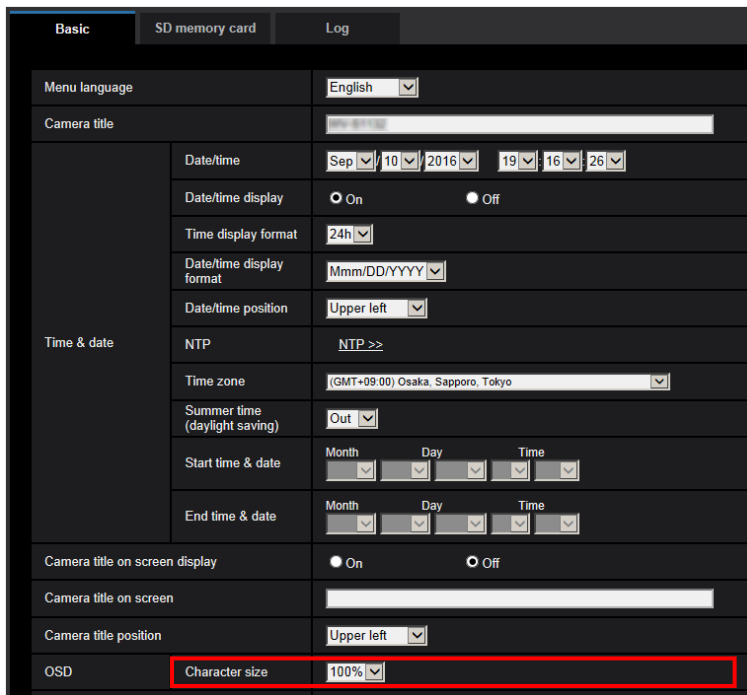
### 3. “Login failure” indication added to the login-related display (Operating Instructions About the displayed system log)

#### Error indications relating to the login errors

Category	Indication	Description
Login failure	User name	<ul style="list-style-type: none"><li>• The user name of the user who failed to log in will be displayed when “On” is selected for “User auth.”.</li><li>• If the user is not registered, (Guest User) is displayed.</li><li>• Under normal operations, the “Login failure” log may be kept. This is not a problem with the camera.</li><li>• If there are many logs in succession, it may indicate that someone is trying to illegally access the camera. Consult with your network administrator.</li></ul>

## 4. Improvement of readability of Date/time and characters on screen (Operating Instructions Configure the basic settings of the camera [Basic]- Configure the basic settings [Basic])

[100%\*] was added to [OSD] - [Character size] in order to improve readability.



Basic		SD memory card	Log	
Menu language		English		
Camera title				
Time & date	Date/time	Sep 10 2016 19:16:26		
	Date/time display	<input checked="" type="radio"/> On <input type="radio"/> Off		
	Time display format	24h		
	Date/time display format	Mmm/DD/YYYY		
	Date/time position	Upper left		
	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 display		<input checked="" type="radio"/> On <input type="radio"/> Off		
Camera title on screen				
Camera title position		Upper left		
OSD	Character size	100%*		

### [OSD] - [Character size]

Select the character size of the date and time as well as text displayed in the image.

- **100%\*** : Character size is displayed at 150% for resolutions less than VGA. Characters are displayed with standard size for resolutions larger than VGA.
- **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.
- Depending on the setting and the numbers of characters used for [Character size], and the setting and image capture size of images for [Image rotation], characters displayed on the screen may be cut off. After completing the settings, confirm the result on the “Live” page.

### **Note**

- If “Overlay” is “On”, “Character size” cannot be set to “150%” or “200%”.

## 5. Change in encryption of the settings.

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

The screenshot shows the 'Data' tab in a camera's maintenance interface. It is divided into two main sections: 'Backup' and 'Restore'.  
In the 'Backup' section, there are three rows: 'Setup data', 'Scene file', and 'Logs'. Each row has an 'Execute' button to its right. The 'Setup data' row is highlighted with a red border.  
In the 'Restore' section, there are two rows: 'Setup data' and 'Scene file'. The 'Setup data' row has a 'Browse...' button, two radio button options: 'Restore all settings.' (which is selected) and 'Restore all settings except the network settings.', and an 'Execute' button. The 'Scene file' row has a 'Browse...' button and an 'Execute' button. The 'Setup data' row in the 'Restore' section is also highlighted with a red border.  
At the bottom of the interface, there is a grey box with 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

- 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.

## 6. Change of [Viewer software (nwc4Ssetup.exe)] - [Smoother live video display on the browser (buffering)] default setting (Operating Instructions Configure the basic settings of the camera [Basic]- Configure the basic settings [Basic])

Change of [Viewer software (nwc4Ssetup.exe)] - [Smoother live video display on the browser (buffering)] default setting.

Viewer software (nwc4Ssetup.exe)	Automatic installation	<input type="radio"/> On	<input checked="" type="radio"/> Off	
	Drawing method	<input type="radio"/> GDI	<input checked="" type="radio"/> Direct2D	
	Decoding Options	<input type="radio"/> Software	<input checked="" type="radio"/> Hardware	<b>Confirm</b>
	Smoother live video display on the browser (buffering)	<input checked="" type="radio"/> On	<input type="radio"/> Off	
	Frame Skip Options (When PC is Heavy Processing Load)	<input type="radio"/> Auto	<input checked="" type="radio"/> Manual	
	Contrast enhancement (RGB:0 to 255)	<input checked="" type="radio"/> On	<input type="radio"/> Off	

### [Viewer software (nwc4Ssetup.exe)] - [Smoother live video display on the browser (buffering)]

Perform settings to display camera images on the viewer software.

- **On:** Images are temporarily stored on the computer and are displayed smoother.
- **Off:** Images are displayed in real-time and are not stored on the computer.
- **Default:** Off

#### Note

- If the image is not displayed smoothly, set to "On".

## 7. Change of [Internet mode] default setting

**(Operating Instructions Configure the settings relating to images and audio**

**[Image/Audio] Configure the settings relating to Stream [Image])**

Change of [Internet mode] default setting.

Stream(1)	
Stream transmission	<input type="radio"/> On <input checked="" type="radio"/> Off
Stream encoding format	<input type="radio"/> H.265 <input checked="" type="radio"/> H.264
Internet mode	<input type="radio"/> On <input checked="" type="radio"/> Off

### [Internet mode]

Select “On” when transmitting H.265 (or H.264) images via the Internet. It is possible to transmit stream without changing the broadband router settings configured for JPEG image transmission.

- **On:** H.265 (or H.264) images and audio will be transmitted using the HTTP port. Refer to [HTTP port] for further information about the HTTP port number settings.
- **Off:** H.265 (or H.264) images and audio will be transmitted using the UDP port.
- **Default:** On

### Note

- When “On” is selected, only “Unicast port (AUTO)” will be available for “Transmission type”.
- When “On” is selected, it may take time to start displaying stream images.
- When “On” is selected, stream images may not be displayed depending on the number of the concurrent access user and audio data availability, etc.
- When “On” is selected, only IPv4 access is available.

## 8. Enhanced the access restriction function of SNMP v1/v2

(Operating Instructions “Configuring the network settings” [Network]

- “Configure advanced network settings” [Advanced]
- “Configure the settings relating to SNMP”)

The address range setting of the SNMP manager that receives requests from the camera is newly added.

The screenshot shows a web interface for configuring network settings. The 'Advanced' tab is selected. A navigation bar at the top includes links for SMTP(E-mail), FTP, NTP, UPnP, HTTPS, DDNS, SNMP (highlighted in yellow), and QoS. Below this, the 'SNMP agent setting' section is visible. The 'SNMP version' is set to 'SNMPv1/v2'. Under the 'SNMPv1/v2' section, the 'Community' field is empty. The 'Manager address' field is highlighted with a pink box. Below this, the 'SNMPv3' section is visible, with fields for 'User name (1 to 32 characters)', 'Authentication' (MD5 and SHA1), 'Encryption method' (DES and AES), and 'Password (8 to 16 characters)'.

- **[Manager address]**

Enter the IP address of the SNMP manager from which requests are to be permitted when the SNMP version is v1 or v2. When left blank, requests from all IP addresses will be permitted.

**Note**

- When “IP address/subnet mask” is entered, it is possible to restrict IP address of SNMP manager from which request is permitted by subnet.

For example, when “192.168.0.1/24” is entered, all requests from the SMNP managers in the range from “192.168.0.1” to “192.168.0.254” will be permitted.

**Available number of characters:** 0 - 128 characters

**Available characters:** Alphanumeric characters, the colon (:), the period (.) and the slash (/).

**Default:** None (blank)

## 9. Added “SNMP transmission upon alarm detection” to “Camera action on alarm”

(Operating Instructions “Configure the alarm settings” [Alarm] - “Configure the settings relating to the camera action on alarm occurrence”)

“SNMP transmission upon alarm detection” is newly added to the settings relating to the camera action on alarm.

Click “To SNMP setting” to display the setup menu that can configure the settings relating to SNMP transmission when an alarm occurs. The setup menu will be displayed in a newly opened window. (→ 10. Added “SNMP trap setting” to “SNMP”)

Camera action on alarm	
Image compression rate upon alarm detection	<a href="#">Image compression rate upon alarm detection setup &gt;&gt;</a>
Alarm E-mail notification	<a href="#">E-mail server &gt;&gt;</a>
Alarm image FTP transmission	<a href="#">FTP setup &gt;&gt;</a>
Alarm image recording(SD memory card)	<a href="#">SD memory card setup &gt;&gt;</a>
Panasonic alarm protocol	<a href="#">Panasonic alarm protocol notification &gt;&gt;</a>
HTTP alarm notification	<a href="#">HTTP alarm notification setup &gt;&gt;</a>
SNMP transmission upon alarm detection	<a href="#">To SNMP setting</a>

## 10. Added “SNMP trap setting” to “SNMP”

(Operating Instructions “Configuring the network settings” [Network] - “Configure advanced network settings” [Advanced] - “Configure the settings relating to SNMP”)

“SNMP trap setting” is newly added to the settings relating to SNMP.  
Configure settings relating to SNMP trap when an alarm occurs.

SNMP trap setting		<input checked="" type="radio"/> On <input type="radio"/> Off
Destination of Trap	Address	<input type="text"/>
	Port number	<input type="text" value="162"/> (1-65535)
SNMPv2c	Community	<input type="text"/>
<b>Trap setting</b>		
	Enable/Disable	Trap string
SNMP Generic trap	<input type="checkbox"/> coldStart	<input type="text" value="cold start"/>
	<input type="checkbox"/> linkUp	<input type="text" value="linkup"/>
	<input type="checkbox"/> authenticationFailure	<input type="text" value="auth error"/>
Alarm	<input type="checkbox"/> Terminal 1	<input type="text" value="terminal alarm 1"/>
	<input type="checkbox"/> Terminal 2	<input type="text" value="terminal alarm 2"/>
	<input type="checkbox"/> Terminal 3	<input type="text" value="terminal alarm 3"/>
	<input type="checkbox"/> VMD	<input type="text" value="VMD alarm"/>
	<input type="checkbox"/> Command alarm	<input type="text" value="cmd"/>
SD memory card	<input type="checkbox"/> Diag.	<input type="text" value="sd alarm"/>
Ext. software	<input type="checkbox"/> Alarm	<input type="text" value="alarm"/>

- **[SNMP trap setting]**

Set On/Off of the SNMP trap.  
**Default:** Off

- **[Destination of Trap] - [Address]**

Enter the destination address of the SNMP trap.  
**Available number of characters:** 0 - 128 characters  
**Available characters:** Alphanumeric characters, the colon (:) and the period (.).  
**Default:** None (blank)

- **[Destination of Trap] - [Port number]**

Enter the port number of the destination address of the SNMP trap.

**Available port number:** 1 - 65535

**Default:** 162

The following port numbers are unavailable since they are already in use.

20, 21, 23, 25, 42, 53, 67, 68, 69, 80, 110, 123, 161, 443, 554, 995, 10669, 10670, 59000 - 61000

- **[SNMPv2c] - [Community]**

Enter the community name of the destination address of the SNMP trap.

**Available number of characters:** 0 - 32 characters

**Unavailable characters:** 2-byte characters

**Default:** None (blank)

**IMPORTANT**

- When using the SNMP trap function, it is necessary to enter the community name. When no community name is entered, the SNMP trap function will not work.

- **[SNMP Generic trap] - [coldStart] - [Enable/Disable]**

When the check box is checked, a trap (SNMPv2-MIB::coldStart) will be sent.

**Default:** Not checked (Disable)

- **[SNMP Generic trap] - [coldStart] - [Trap string]**

When a camera startup trap is to be extended and sent, set the string of characters of the extended trap.

**Available number of characters:** 0 - 32 characters

**Unavailable characters:** 2-byte characters

**Default:** cold start

- **[SNMP Generic trap] - [linkUP] - [Enable/Disable]**

When the check box is checked, a trap (SNMPv2-MIB::linkup) will be sent at the time when the camera is linked up.

**Default:** Not checked (Disable)

- **[SNMP Generic trap] - [linkUP] - [Trap string]**

When a camera linkup trap is to be extended and sent, set the string of characters of the extended trap.

**Available number of characters:** 0 - 32 characters

**Unavailable characters:** 2-byte characters

**Default:** linkup

- **[SNMP Generic trap] - [authenticationFailure] - [Enable/Disable]**

When the check box is checked, a trap (SNMPv2-MIB::coldStart) will be sent at the time when an SNMP authentication error occurs.

**Default:** Not checked (Disable)

- **[SNMP Generic trap] - [authenticationFailure] - [Trap string]**

When a SNMP authentication error occurrence trap is to be extended and sent, set the string of characters.

**Available number of characters:** 0 - 32 characters

**Unavailable characters:** 2-byte characters

**Default:** auth error

- **[Alarm] - [Terminal 1] - [Enable/Disable]**  
When the check box is checked, a trap will be sent at the time when an alarm occurs in terminal 1.  
**Default:** Not checked (Disable)
- **[Alarm] - [Terminal 1] - [Trap string]**  
Set the string of characters to be used for the trap of [Terminal 1].  
**Available number of characters:** 0 - 32 characters  
**Unavailable characters:** 2-byte characters  
**Default:** terminal alarm 1
- **[Alarm] - [Terminal 2] - [Enable/Disable]**  
When the check box is checked, a trap will be sent at the time when an alarm occurs in terminal 2.  
**Default:** Not checked (Disable)
- **[Alarm] - [Terminal 2] - [Trap string]**  
Set the string of characters to be used for the trap of [Terminal 2].  
**Available number of characters:** 0 - 32 characters  
**Unavailable characters:** 2-byte characters  
**Default:** terminal alarm 2
- **[Alarm] - [Terminal 3] - [Enable/Disable]**  
When the check box is checked, a trap will be sent at the time when an alarm occurs in terminal 3.  
**Default:** Not checked (Disable)
- **[Alarm] - [Terminal 3] - [Trap string]**  
Set the string of characters to be used for the trap of [Terminal 3].  
**Available number of characters:** 0 - 32 characters  
**Unavailable characters:** 2-byte characters  
**Default:** terminal alarm 3
- **[Alarm] - [VMD] - [Enable/Disable]**  
When the check box is checked, a trap will be sent at the time when a video motion detection is activated.  
**Default:** Not checked (Disable)
- **[Alarm] - [VMD] - [Trap string]**  
Set the string of characters to be used for the trap of [VMD].  
**Available number of characters:** 0 - 32 characters  
**Unavailable characters:** 2-byte characters  
**Default:** VMD alarm
- **[Alarm] - [Command alarm] - [Enable/Disable]**  
When the check box is checked, a trap will be sent at the time when a command alarm occurs.  
**Default:** Not checked (Disable)
- **[Alarm] - [Command alarm] - [Trap string]**  
Set the string of characters to be used for the trap of [Command alarm].  
**Available number of characters:** 0 - 32 characters  
**Unavailable characters:** 2-byte characters  
**Default:** cmd

- **[SD memory card] - [Diag.] - [Enable/Disable]**

When the check box is checked, a trap will be sent in the following cases.

- When a notification of the remaining capacity of SD memory card has been provided
- When the SD memory card has become full
- When the SD memory card cannot be recognized

**Default:** Not checked (Disable)

- **[SD memory card] - [Diag.] - [Trap string]**

Set the string of characters to be used for the trap of [Diag.]

**Available number of characters:** 0 - 32 characters

**Unavailable characters:** 2-byte characters

**Default:** sd alarm

- **[Ext. Software] - [Alarm] - [Enable/Disable]**

When the check box is checked, a trap will be sent at the time when an alarm occurs in the extension software.

**Note**

- This setting will not be displayed if the extension software is not installed.

**Default:** Not checked (Disable)

- **[Ext. Software] - [Alarm] - [Trap string]**

Set the string of characters to be used for the trap of [Ext. software].

**Note**

- This setting will not be displayed if the extension software is not installed.

**Available number of characters:** 0 - 32 characters

**Unavailable characters:** 2-byte characters

**Default:** alarm

## **11. Add a notify to the [SNMP trap setting]**

**(Operating Instructions Configure the network settings [Network] – Configure advanced network settings [Advanced])**

Add the notifications to [SNMP trap settings].

### **Note**

- In order to activate SNMP trap notifications for when alarms occur, alarm operation settings are required.

For information on settings related alarm operations, refer to Configure the alarm settings [Alarm] in Operating Instructions.

## 12. Add to the system log when recording stream fails to write

### (Operating Instructions “Others” – “Maintenance” - Check the status [Status])

A system log has been added for errors in the write process of the recording stream to the log related to SD memory cards.

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.
	<SD> An abnormality occurs in continuity of the SD memory recording. Check the recording bit rate setting of the SD memory recording.	An error occurred when writing to the SD memory card.
<SD> An error occurs in the SD memory card. Check the status of the SD memory card.	The SD memory card write process still generates data loss. Make sure that the SD memory card is properly recognized. If the card is not recognized, reboot the unit, or remove and reinsert the SD memory card to check.	

### 13. Add a function to notify the user of writing failures in the recording stream with a unique alarm

(Operating Instructions “Others” – “Maintenance” - Configure the alarm settings [Alarm])

– Configuration of the settings relating to alarm notification [Notification] –

#### Configure the settings relating to Panasonic alarm protocol)

Add the write processing error of the recording stream to the occurrence condition of the Panasonic alarm protocol notification of “Diag.”

#### Panasonic alarm protocol

##### • [Panasonic alarm protocol]

Select “On” or “Off” to determine whether or not to provide notification by Panasonic alarm protocol according to the settings for the “Alarm” and “Diag.” checkboxes of “Destination of notification” below.

- When an alarm is detected (“Alarm”)
- When a notification of the remaining capacity of the SD memory card has been provided (“Diag.”)
- When the SD memory card has become full (“Diag.”)
- When the SD memory card cannot be recognized (“Diag.”)
- When there is a write error on the SD memory card (“Diag.”)

**Default:** Off

#### Destination of notification

##### • [Address 1] - [Address 8]

Enter the destination IP address or host name of the Panasonic alarm protocol from the following.

Up to 8 destination server addresses can be registered.

**[Alarm] checkbox:** When the checkbox is checked, the Panasonic alarm notification will be provided upon an alarm occurrence.

**[Diag.] checkbox:** When the checkbox is checked, notification using Panasonic alarm protocol will be provided in the following cases.

- When notification of the remaining capacity of the SD memory card has been provided
- When the SD memory card has become full
- When the SD memory card cannot be recognized
- When the SD memory card cannot be written

**[Destination server address]:** Enter the destination server address or host name.

**Available characters:** Alphanumeric characters, the colon (:), the period (.), the underscore (\_), and the hyphen (-).

To delete the registered destination server address, click the [Delete] button respective to the desired destination server address.

## 14. Add a note when the bit rate of the recording stream is set to a value exceeding recommended value

### (Operating Instructions “Image/Audio” - Configure the settings relating to Stream [Image])

Add the statement that it is possible that an error may occur in the continuity of SD memory card recording, if you set a bit rate that exceeds the recommended value in “Note” of “Max bit rate (per client) \*”.

#### [Max bit rate (per client)\*]:

#### **Note**

- The bit rate for “Stream” is restricted by “Bandwidth control (bit rate)” on the [Network] tab on the “Network” page. When a value with “\*” attached is set, images may not be streamed.
- It is recommend that the bit rate setting of the stream to be 8192 kbps or lower. Setting a value higher than 8192 kbps may cause abnormalities in the continuity of the recorded video.
- When the refresh interval is too short, the actual bit rate may exceed the set bit rate depending on the subject.
- Depending on the number users connecting at the same time or the combination of features used, the bit rate may be lower than the configured value. Check the transmission of images after changing settings.