



HD NETWORK CAMERA

VN-H37U

VN-H137U

VN-H237U

VN-H237VPU

VN-H57U

VN-H257U

VN-H257VPU

VN-H157WPU

**Instructions
(Setting)**

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How to read this manual

■ Symbols in this manual

- Caution** : Operational precautions are provided.
- Note** : Limitations related to functions and use, and other helpful information are provided.
-  : Reference pages or reference items.

■ Contents of this manual

- This manual explains the system setup using Internet Explorer, and the Built-in Viewer operations.
- Our company holds the copyright of this manual. This manual may not be reprinted or reproduced either in part or in whole without prior consent from the company.
- Windows and Internet Explorer are registered trademarks of Microsoft Corporation in the United States and other countries.
- Product names of other companies described in this manual are trademarks or registered trademarks of the respective companies. Symbols such as TM, ® and © are omitted in this manual.
- Design, specifications and other contents described in this manual are subject to change without prior notice for purposes of improvement.
- The screens and windows shown in this manual may slightly differ from the actual ones.
- For the standard camera installation, refer to "Instructions (Installation)" and the separate "Safety Precautions" manual.
- The features and settings unique to each model are identified by the camera model and series name.

■ Copyright

- Please note that broadcasting materials recorded with this camera for profit or for the general public to watch may violate the author's rights protected under copyright law.
- Use of recorded materials without prior consent from the author is forbidden under copyright law except in limited, specific instances.

Camera Setting Requirements

Network

- Ensure that there is sufficient network bandwidth for the data volume to be sent out by camera. Also, do not send multicast stream that exceeds the bandwidth. If the entire bandwidth is used by the multicast stream, you may fail to control the camera via the network.
- Data volume to be sent by camera varies with the settings and number of distributions.
- The maximum bit rate for transmission is about 20 Mbps.

Estimation of Total Bit Rate

The total JPEG bit rate from camera is determined by the JPEG file size, number of clients, and number of frames requested by clients. The total H.264 bit rate from camera is determined by the number of distributions. Design the system by considering these points.

Bit Rate of JPEG Stream

The JPEG file size per frame varies with the encoding settings as well as input video signals. When AFS (or Average File Size) is selected, image is encoded so that the average size of multiple JPEG files becomes the target file size. If VFS (or Variable File Size) is selected, the quantization table during JPEG encoding will be maintained, and the file size will be increased or decreased according to the input signals.

For JPEG file size details, see the "Encoding" page. (☞ Page 26)

The maximum number of distributions varies with the bit rate settings as well as the client's requested frame rate. Up to 20 streams can be distributed (including multicast). The total frame rate refers to the sum of these frame rates.

For example, when 10 fps is requested by two clients, and in addition, multicast is transmitted at a rate of 10 fps, the total frame rate will be:

$$10+10+10 = 30 \text{ fps}$$

For example, when 5 fps is requested by two clients, and in addition, multicast is transmitted at a rate of 5 fps, the total frame rate will be:

$$5 + 5 + 5 = 15 \text{ fps}$$

If JPEG file size per piece is 120 KB, the total bit rate will be:

$$120 \text{ KB} \times 15 \text{ fps} = 1800 \text{ KB/s} \\ = \text{Approx. } 14.4 \text{ Mbps}$$

For detailed bit rate settings, see the "Encoding" page. (☞ Page 26)

If Multi Resolution is selected, the JPEG file size varies with the channels used.

For example, when 2 fps of 30 KB JPEG file and 3 fps of 10 KB JPEG file are sent, the total frame rate will be:

$$30 \text{ KB} \times 2 \text{ fps} + 10 \text{ KB} \times 3 \text{ fps} = 90 \text{ KB/s} \\ = \text{Approx. } 0.72 \text{ Mbps}$$

Bit Rate of H.264 and MPEG-4 Streams

You can select either the Variable Bit Rate (VBR) or Constant Bit Rate (CBR) system for H.264 and MPEG-4 streams.

When the VBR system is selected, the bit rate varies according to the condition of input video signals. The VBR system delivers a stable picture quality, but it is difficult to forecast the bit rate.

When the CBR system is selected, data is encoded at a fixed bit rate regardless of the condition of input video signals. The picture quality varies under the CBR system, but the bit rate can be easily forecasted.

You can specify an estimated bit rate for both VBR and CBR. (64 kbps to 8192 kbps)

Memo:

- "MPEG-4" is represented on this unit's screens as "MPEG4".

Audio Data Size (for Audio-Compatible Models Only)

Up to 2 streams of audio data can be sent. Up to 1 stream of audio data can be received. Each audio data stream is 64 kbps. The size of audio data can be calculated via the following formula:

$$64 \text{ kbps} \times \text{number of streams}$$

The number of streams should be the total of the number of TCP streams being sent (the number of clients) plus the number of multicast streams being sent/received. For example, if the camera is sending 2 streams of audio and receiving 1 stream of audio, the data size will be the following:

$$64 \text{ kbps} \times 3 = 192 \text{ kbps}$$

Restrictions on the Number of Distributions for Camera

The maximum number of distributions for camera is determined by the settings as well as requirements from the client.

For JPEG distribution, you can select either "Frame Rate Priority" mode or "Client Number Priority" mode. "Frame Rate Priority" mode distributes JPEG images according to the frame rate requested by the client. The maximum number of distributions is determined based on the highest bit rate within the distribution streams. For "Client Number Priority" mode, if there are requests from multiple clients, JPEG images are distributed in a lower frame rate than that requested to cater to multiple clients. It can accept 20 distribution requests as the maximum number of clients.

■ When Frame Rate Priority Mode is Selected

JPEG images are distributed as the frame rate requested by the client.

When a distribution request that exceeds the maximum number of distributions is received, this request is denied.

- When only JPEG images are distributed For example, if Client A requests for JPEG at 1 Mbps, while Client B requests for JPEG at 5 Mbps, additional 2 stream (total 4 streams) of distribution are possible for request below 5 Mbps.

Maximum number of distributions when only JPEG images are distributed

Distribution at maximum bit rate	Maximum number of distributions	Total maximum bit rate
less than 1 Mbps	20	20 Mbps
less than 5 Mbps	4	20 Mbps
less than 10 Mbps	2	20 Mbps
Greater than 10 Mbps	1	Greater than 20 Mbps

- When both JPEG and H.264 data is distributed When both JPEG and H.264 images are distributed simultaneously, up to two clients for JPEG and three clients for H.264 can be distributed, respectively. However, distribution requests that exceeds a total bit rate of 20 Mbps will be denied.

Maximum number of distributions when JPEG and H.264 data is distributed

	Maximum number of distribution	Total maximum bit rate
JPEG	2	10 Mbps
H.264	3	10 Mbps

- When distributing only H.264 data

The maximum number of distributions is determined by the preset bit rate. When a distribution request that exceeds the maximum number of distributions is received, this request is denied.

Maximum number of distributions when H.264 data is only distributed

Maximum bit rate per distributions	Maximum number of distributions	Total maximum bit rate
less than 1 Mbps	20	20 Mbps
less than 3 Mbps	6	20 Mbps
less than 6 Mbps	3	20 Mbps
less than 10 Mbps	2	20 Mbps
Greater than 10 Mbps	1	Greater than 20 Mbps

■ When Client Number Priority Mode is Selected

- When only JPEG images are distributed If the distribution request would be accepted in the frame rate priority mode, distribution works in the same way as frame rate priority mode, where JPEG images are distributed at the frame rate requested by the client. If the distribution request would be denied in the frame rate priority mode, the frame rate is controlled such that the maximum bit rate is as shown in the following table, to accept distribution requests from up to 20 clients. For example, if Clients A and B request for JPEG at 10 Mbps, the frame rate will be reduced such that the distribution bit rate to each client is less than 5 Mbps.

Maximum bit rate when only JPEG data is distributed

Current number of distributions	Maximum bit rate	Total maximum bit rate
2 or less	10 Mbps	20 Mbps
3 to 4	5 Mbps	20 Mbps
5 to 20	1 Mbps	20 Mbps

- When both JPEG and H.264 data is distributed When both JPEG and H.264 images are distributed, distribution works in the same way as frame rate priority mode if the distribution request would be accepted in the frame rate priority mode. If the distribution request would be denied in the frame rate priority mode, the frame rate is controlled such that the maximum bit rate is as shown in the left table (Maximum number of distributions when JPEG and H.264 data is distributed), to accept distribution requests for up to 20 a total number of 20 JPEG and H.264 distributions. However, distribution requests for which the total bit rate of the H.264 distribution stream exceeds 10 Mbps will be denied.

Camera Setting Requirements

Network (continued)

Insufficient Network Bandwidth

When there is insufficient bandwidth, the number of JPEG frames (frame rate) that the client can acquire will decrease. Also, the image distribution will delay. In the case of H.264/MPEG-4, noise interference may occur and playback may fail.

Network Delay

When the client acquires JPEG via TCP, camera will send out data while checking the ACK from the client at the same time. For networks with considerably delay, data cannot be sent out until ACK is received, and therefore the frame rate will drop. In the case of H.264/MPEG-4, noise interference may occur and playback may fail. A decrease in the frame rate due to network delays can be eliminated by receiving data via multicast.

Network Jitter

When there is considerable network jitter, delay time may be prolonged and the image frame rate may drop. In the case of H.264/MPEG-4, noise interference may occur and playback may fail.

Packet Loss

When acquiring images from camera via TCP, packet loss may be recovered by TCP transmission. When there is considerable delay in the network, however, data may be lost and the image frame rate may drop. In the case of H.264/MPEG-4, noise interference may occur and playback may fail.

If a packet is lost during multicast transmission from camera, the image frame rate may drop. In the case of H.264/MPEG-4, noise interference may occur and playback may fail.

List of Protocols and Port Numbers used by Camera

The camera uses the following protocols and port numbers. Ensure that these ports are allowed through the firewall when a firewall is to be installed.

Protocol/Port number	Purpose of use
Source	
TCP/80	JPEG/H.264/MPEG-4 acquisition, Web Settings page, API, audio acquisition
TCP/554	RTSP
TCP/10020 TCP/10021 TCP/10023	(Reserved for adjustment)
TCP/32040	Alarm distribution
TCP/49298	Audio data reception
Destination	
TCP/20, 21	FTP
TCP/25	Mail
TCP/110	POP (Mail delivery)
TCP/User-defined number	Sending alarm
UDP/123	SNTP
UDP/User-defined number	Sending alarm

Images

H.264 Profiles

High profiles can maintain high image quality with a low bit rate, but as the decoder needs to support high profiles, the processing load on the decoder becomes heavier.

Compared to high profiles, baseline profile offers lower compression performance, but the processing load on the decoder will be reduced. Selecting high profiles is recommended if the decoder has sufficient processing ability. The camera supports both the H.264 Baseline Profile and H.264 High Profile standards.

PTZ (Pan, Tilt, Zoom)

This camera has a digital PTZ function. While monitoring, the function can cut out an arbitrary area, move within the range of shooting and enlarge the image as if you were operating a PTZ camera.

Operating protocol

PSIA

This device conforms with PSIA (Physical Security Interoperability Alliance) specifications. PSIA is an organization whose aim is to promote the interoperability of IP-enabled security devices.

Initial user name and password are set as follows:

User name: psia
Password: jvc

The RTSP of this device complies with RFC2326. You can set up to 3 encoders. The RTSP URL for each encoder is as follows:

Encoder No.1
rtsp://192.168.0.2/PSIA/Streaming/channels/0
Encoder No.2
rtsp://192.168.0.2/PSIA/Streaming/channels/1
Encoder No.3
rtsp://192.168.0.2/PSIA/Streaming/channels/2

ONVIF

This camera supports ONVIF (Open Network Video Interface Forum). ONVIF is a forum that is standardizing surveillance device network protocols.

Protocols for discovery of surveillance devices, acquisition and modification of surveillance device settings, and audio/video data transfer are standardized under ONVIF.

The initial user name and password are set as follows:

User name: admin
Password: jvc

This camera fulfills the ONVIF test specification version 1.02.

Setting Pages

Selection of Languages on Setting Pages

There is a radio button for selecting the language at the right top corner of the setting pages, however the language will be automatically set according to the OS environment of your computer. If you select Japanese while using an English-language OS, it may not be correctly displayed because there is no Japanese environment. Select a language suitable for the OS of your computer on the setting pages. For how to open the setting pages, see "How to Open the Setting Page". (☞ Page 12)

Radio button for selecting languages

The screenshot shows the settings page for a Network Camera VN-H37. At the top right, there are two radio buttons for language selection: "Japanese" and "English(Custom)". The "English(Custom)" option is selected. Below the language selection, there are "OK" and "Cancel" buttons, and a note: "Keep power to camera at least for 10 seconds after change of settings." The main settings area is divided into "Network" and "Time" sections. The "Network" section includes fields for "IP Setting" (set to DHCP Disable), "IP Address" (192.168.0.2), "Subnet Mask" (255.255.255.0), and "Default Gateway" (0.0.0.0). The "Time" section includes fields for "Time (read only)" (2012/01/13 15:28:24 (Y/M/D-h.m.s)), "Time Zone" (set to (GMT) UTC), and "PC Time to Camera" (set to Set).

Memo:

- Your settings are stored in the Cookie folder.
- Once you have set a language, all information is displayed in the selected language after the next startup.

Uploading and downloading of the Language File

You can change the language on setting pages and built-in viewer of the camera.

- Procedure
 - (1) Click "Download" button on the Maintenance page.
 - (2) Save "language.ini" file to the appropriate folder in the computer.
 - (3) Edit the downloaded "language.ini" file using Notepad or general purpose text editor.
 - Current texts are described after "=" . Change them to desired text.
 - You can write comments after the ";" . Comments are annotations for each line and all the text from the ";" to the end of the line is ignored.
 - Maximum number of texts in one line is 126 bytes.
 - Save the file after editing. Do not change the file name.
 - Western European language (ISO-8859-1) is supported. Double byte character set is not supported.
 - (4) Click "Browse" button on the Maintenance page and select "language.ini" file which you edited.
 - (5) Click "Upload" button on the Maintenance page.
 - (6) Select "Custom", then click "Apply" button on the Maintenance page.
 - Language is replaced after reloading the Maintenance page. When language is not replaced, please reload the Maintenance page again.
- Following GUI is added to Maintenance page.

Language File	
Download	<input type="button" value="Download"/>
Upload	<input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Upload"/>

Pages Available to Each User

Enter User Name and Password

User name and password entry will be required at the beginning.

There are three access authorization levels to camera. The factory settings are as follows.

User Name	Default password	Authorization levels
admin	jvc	All operations and setting changes are allowed.
operator	jvc	The following items cannot be operated, and setting changes are not permitted. [Basic Setting1] [Network] [Protocol] [Access Restrictions] [Time] [Password] [Maintenance]
user	jvc	Viewing of images and some operations are permitted.

Memo:

- When accessing to the camera from Internet Explorer, refer to the "Instructions (IP Address Settings)."

Pages that Users Have Access to

Restrictions are placed on the pages that users have access to. In addition, links on the setting pages are also displayed according to the access privileges of the user.

● admin

Basic Setting1	[Network] [Time]
Basic Setting2	[Camera] [Encode]
Details	[Camera] [Encoding] [Audio](VN-H57U/H257U/ H257VPU/H157WPU only) [Alarm] [Alarm Environment] [Storage] [PTZ] [Auto Patrol] [Privacy Mask] [Motion Detection] [Audio Detection] (VN-H57U/H257U/ H257VPU/H157WPU only) [Tampering Detection] [Network] [Protocol] [Multicast] [Access Restriction] [Time] [Password] [Focus](VN-H57U/H257U/ H257VPU/H157WPU only) [Maintenance] [LED Settings] [Miscellaneous] [Operation] [Settings] [Position List] [Patrol Settings]

● operator

Basic Setting2	[Camera] [Encode]
Details	[Camera] [Encoding] [Audio](VN-H57U/H257U/ H257VPU/H157WPU only) [Alarm] [Alarm Environment] [Storage] [PTZ] [Auto Patrol] [Privacy Mask] [Motion Detection] [Audio Detection] (VN-H57U/H257U/ H257VPU/H157WPU only) [Tampering Detection] [Multicast] [Focus](VN-H57U/H257U/ H257VPU/H157WPU only) [LED Settings] [Miscellaneous] [Operation] [Settings] [Position List] [Patrol Settings]

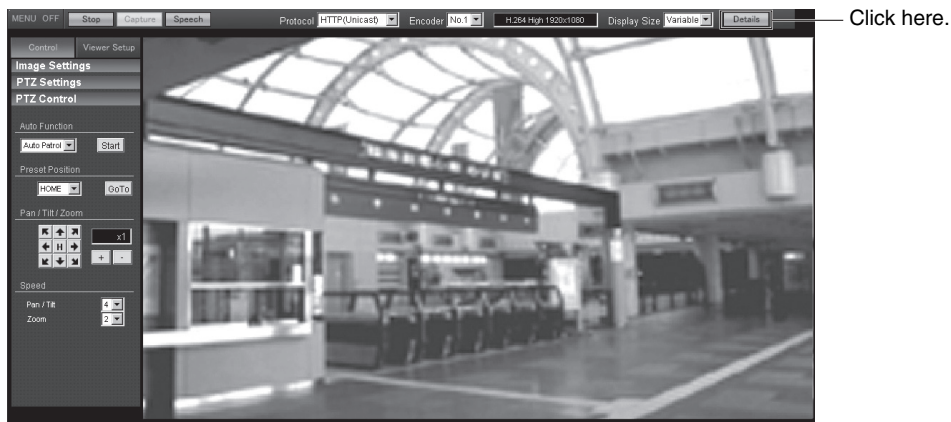
● user

Details	[Miscellaneous]
---------	-----------------

Settings

How to Open the Setting Page

1. Enter IP address of camera in the address bar of Internet Explorer.
(for example, the factory default of “http://192.168.0.2”)
2. Enter the user name and password.
(The factory default is “admin” and “jvc”)
3. The Built-in Viewer of the camera is displayed.



Memo:

- When IP address entry, see the “Instructions (IP Address Settings).”
- The [Security Information] screen appears before the top page display. Press the [OK] button to proceed. To suppress this warning screen, correct the Internet Explorer settings as follows.
 - Select [Tools] - [Internet Options] - [Security] - [Trusted sites].
 - Then, select [Custom Level] and [Miscellaneous] and set [Display mixed content] to “Enable”.

Note:

- Do not reset the camera and do not turn the power supply Off immediately after you have changed the settings. If done, your settings are lost and the camera may be returned to the factory defaults.

4. Click [Details] of the Built-in Viewer.

- [Basic Setting1] page will be opened if accessed by user name “admin”. (☞ Page 13)
- [Basic Setting2] page will be opened if accessed by user name “operator”. (☞ Page 15)
- [Miscellaneous] page will be opened if accessed by user name “user”. (☞ Page 86)

Basic Setting1 Page

This page sets the network basic.

This page can be used during access using "admin".

Click [Basic Setting1].

Built-in Viewer

Basic Setting1

Basic Setting2

Advanced Settings

OK Cancel Keep power to camera at least for 10 seconds after change of settings.

Network

IP Setting DHCP Disable

IP Address 192 168 0 2

Subnet Mask 255 255 255 0

Default Gateway 0.0.0.0

Time

Time (read only) 2012 / 05 / 02 00 : 13 : 04 (Y/M/D-h:m:s)

Time Zone (GMT)UTC

PC Time to Camera Set

Memo:

- If you enter the following URL directly into the address bar of Internet Explorer, you can open the [Basic Setting1] page without going through the Built-in Viewer.
<http://192.168.0.2/cgi-bin/display.cgi?basicmenu1.html>
 - Press the [OK] button to enable the new settings.
 - If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made.
-

Settings (continued)

Basic Setting1 Page (continued)

Network	
① IP Setting	<p>Sets the DHCP client function. To enable the DHCP, connect the camera to the network environment where the DHCP server is running. If you have set IP Setting to DHCP but the DHCP server does not exist, the camera will start with the IP address of 192.168.0.2 and the subnet mask of 255.255.255.0 approximately 2 minutes after startup. [Set values: DHCP Disable, DHCP Enable]</p>
② IP Address	<p>Sets the IP address of camera. [Factory default: 192.168.0.2]</p>
③ Subnet Mask	<p>Sets the subnet mask of camera. [Factory default: 255.255.255.0]</p>
④ Default Gateway	<p>Sets the default gateway of camera. Enter 0.0.0.0 if you do not want to set a default gateway. [Factory default: 0.0.0.0]</p>
Time	
⑤ Time (read only)	<p>Displays the clock time of camera. The time transmitted by camera is recorded in the JPEG header. Memo: _____ <ul style="list-style-type: none"> You cannot change the time with this item. For details about the time settings, see the "Time" page. (Page 70) </p>
⑥ Time Zone	<p>Sets a time zone. [Set value: (GMT-12:00) - (GMT) UTC - (GMT+12:45)]</p>
⑦ PC Time to Camera	<p>Click the [Set] button to set the time of computer on the camera. Memo: _____ <ul style="list-style-type: none"> Your computer's time zone cannot be applied. Only the time will be set. </p>

Basic Setting2 Page

This page sets fundamental camera and encoding parameters.
This page can be used during access using "admin" or "operator".

Click [Basic Setting2].

The screenshot shows the 'Basic Setting2' page with a sidebar on the left containing 'Built-in Viewer', 'Basic Setting2', and 'Advanced Settings'. The main area has 'OK' and 'Cancel' buttons at the top, with a note: 'Keep power to camera at least for 10 seconds after change of settings.' Below this are two sections: 'Camera' and 'Encode'. The 'Camera' section has a 'Camera ID' text box containing 'WN-H257' and a 'SceneFile' dropdown menu set to 'General'. The 'Encode' section is a table with five rows, each starting with a radio button. The first row is selected. Three callout boxes with numbers 1, 2, and 3 point to the 'Camera ID' text box, the 'SceneFile' dropdown, and the 'Encode' table respectively.

Camera	
Camera ID	WN-H257
SceneFile	General

Encode	
<input checked="" type="radio"/> H.264 High 1920x1080 30 fps	1920x1080, 30 fps, 8 Mbps, CBR, 30 I Frame Interval
<input type="radio"/> H.264 High 1920x1080 5 fps + Monitor Output	1920x1080, 5 fps, 2 Mbps, CBR, 5 I Frame Interval
<input type="radio"/> JPEG 1920x1080 + Monitor Output	1920x1080, 5 fps, 200 KB, AFS
<input type="radio"/> JPEG 1280x960	1280x960, 5 fps, 120 KB, AFS
<input type="radio"/> JPEG 640x480	640x480, 5 fps, 30 KB, AFS
<input type="radio"/> Set in "Encoding" Page	Jump and Set in "Encoding" Page

Encoder No.2 and No.3 will be OFF. when check it anything other than 'Set in "Encoding" Page'.
You cannot change encode settings during multicast streaming.

Memo:

- If you enter the following URL directly into the address bar of Internet Explorer, you can open the [Basic Setting2] page without going through the Built-in Viewer.
<http://192.168.0.2/cgi-bin/display.cgi?basicmenu2.html>
 - Press the [OK] button to enable the new settings.
 - If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made.
 - "H.264 High" indicates the H.264 High Profile standard.
-

Settings (continued)

Basic Setting2 Page (continued)

① Camera ID	<p>Text entered here will be written in the H.264 header and the JPEG comment segment (item name: camera). It links to the [Camera ID] of the [Camera] page. (☞ Page 19)</p> <p>Memo: _____</p> <ul style="list-style-type: none">● Refer to the "API Guide" on the file formats of JPEG.
② Scenefile	<p>You can select the setting that is suitable for the shooting scene. You can select the following eight scenes. You can customize the settings (except Camera ID) stored in "Scenefile". For details, see the [Camera] page. (☞ Page 19)</p> <p>General : General location Indoor : Place with indoor lighting Outdoor : For shooting the subject in sunlit conditions CLVI : Uses the fog removal function. (☞ Page 25) This can help increase visibility in environments where there is a large difference between lighted and shaded areas, or in environments where contrast is low due to fog, etc. Traffic : For shooting a subject that moves at high speeds, for example, during road surveillance. DataSaving: Data can be saved for VBR or VFS coding using noise suppression. For details, see "Encoding" (☞ Page 26). Day (Color): Always shoots in color. This setting is used for shooting in bright locations such as under in sunlit areas during the day. Night (B&W): Always shoots in black and white. This setting is used for shooting in dark locations such as at night or when the object is illuminated by infrared light.</p> <p>[Set values: General, Indoor, Outdoor, CLVI, Traffic, DataSaving, Day (Color), Night (B&W)]</p> <p>Memo: _____</p> <ul style="list-style-type: none">● Select "Day (Color) or "Night (B&W)" when you switch the Color or B&W using an alarm trigger. For details, see the [Alarm] page. (☞ Page 35)

* The [Set values] in bold letters are factory defaults.

③ **Encode**

Select the frame size for each screen of JPEG and H.264 from the following six patterns.

■ **Selectable distribution size**

	Set value	Frame Size	Frame Rate	Communication speed	Bit rate	I Frame Interval
1	H.264 High 1920x1080 30 fps	1920 x 1080	30 fps	8 Mbps	CBR	30 frames
2	H.264 High 1920x1080 5 fps + Monitor Output	1920 x 1080	5 fps	2 Mbps	CBR	5 frames
3	JPEG 1920x1080 + Monitor Output	1920 x 1080	5 fps	200 KB	AFS	–
4	JPEG 1280x960	1280 x 960	5 fps	120 KB	AFS	–
5	JPEG 640x480	640 x 480	5 fps	30 KB	AFS	–
6	Set in "Encoding" Page	Multi-encoding and details can be set on [Encoding] page.				

Memo:

- If [Set in "Encoding" Page] is selected, the details have been set in the [Encode] of "Encoding" page. (☞ Page 26)
- Refer to the "API Guide" on the file formats of JPEG.
- The settings of the [PTZ] page (☞ Page 49) and the [Auto Patrol] page (☞ Page 50) may not work for some combinations of distribution size in the Encoding page.

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Camera Page

This page sets the camera's parameters.

Settings here are linked to the Camera in the "Basic Setting2" page. (Page 16)

This page can be used during access using "admin" or "operator".

Click [Advanced Settings] and [Camera].

The screenshot shows the 'Camera' settings page. At the top, there are 'OK' and 'Cancel' buttons, and a message: 'Keep power to camera at least for 10 seconds after change of settings.' A 'Help' button is located in the top right corner of the settings area. The settings are organized into several sections:

- Camera ID:** VN-H57 (1)
- SceneFile:** General (2)
- Brightness:** Normal (3)
- Color Level:** Normal (4)
- Black Level:** Normal (5)
- Gamma:** ON (6)
- Enhance Level:** Normal (7)
- 3D DNR:** Mid (8)
- White Balance:** ATW-Wide (9)
- AWC R-Gain:** 107 (0 - 255)
- AWC B-Gain:** 25 (0 - 255)
- ALC:** AGC (10)
- Sense Up:** x2 (10)
- Priority:** Combo (10)
- Shutter Speed:** 1/30 (11)
- Day/Night:** Color (12)
- Color Average/Peak:** 8.2 (12)
- Black & White Average/Peak:** 8.2 (12)
- Back Light Compensation:** Area 1 (13)
- CLVI:** OFF (14)

Memo:

- Press the [OK] button to enable the new settings.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- Press the [Help] button to display the explanation of functions and settings in a pop-up window.

<p>① Camera ID</p>	<p>A character string entered here will be written to the JPEG comment segment (item name: camera).</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● You can enter up to 40 characters consisting of alphabets (both upper case and lower case), numerals, parentheses, commas, periods, spaces and hyphens. Use the radio button [Japanese / English (Custom)] at the right top corner of the setting page to select English (Custom). ● All characters entered in the JPEG comment segment will be saved, but some characters may not be displayed when Camera ID is viewed with the Built-in Viewer. ● Refer to the "API Guide" on the file formats of JPEG.
<p>② Scenefile</p>	<p>You can select the setting that is suitable for the shooting scene. You can select the following eight scenes. You can customize the [Camera] page settings (except Camera ID) stored in "Scenefile".</p> <p>General : General location Indoor : Place with indoor lighting Outdoor : For shooting the subject in sunlit conditions CLVI : Uses the fog removal function. (☞ Page 25) This can help increase visibility in environments where there is a large difference between lighted and shaded areas, or in environments where contrast is low due to fog, etc. Traffic : For shooting a subject that moves at high speeds, for example, during road surveillance.</p> <p>DataSaving: Data can be saved for VBR or VFS coding using noise suppression. For details, see "Encoding" (☞ Page 26). Day (Color): Always shoots in color. This setting is used for shooting in bright locations such as under in sunlit areas during the day. Night (B&W): Always shoots in black and white. This setting is used for shooting in dark locations such as at night or when the object is illuminated by infrared light.</p> <p>[Set values: General, Indoor, Outdoor, CLVI, Traffic, DataSaving, Day (Color), Night (B&W)]</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● Select "Day (Color)" or "Night (B&W)" when you switch the Color or B&W using an alarm trigger. For details, see the [Alarm] page. (VN-H37U, VN-H237VPU) (☞ Page 35) ● If you press the [OK] button, the settings (except Camera ID) of the [Camera] page will be store in the selected Scenefile. ● Press the [Initialize] button to restore the selected Scenefile to the factory defaults.

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Camera Page (continued)

③ Brightness	Adjusts the brightness of an image. Increasing the value brightens dark areas, and decreasing the value makes bright areas more pleasing to the eye. [Set values: -5 to Normal to 5]
④ Color Level	Adjusts the color level. A larger value increases the darkness of color, but a smaller value decreases the darkness of color. [Set values: -5 to Normal to 5]
⑤ Black Level	Adjusts the black level. Setting the value to "Low" darkens the video image. [Set values: Low, Normal] Memo: <ul style="list-style-type: none"> ● If the black level is set to "Low", this may be too low depending on the monitoring device, or dark area will become complete black. ● When using the Monitor Output or H.264/MPEG-4 images, set it to "Normal".
⑥ Gamma	To alter the appearance of dark areas in a video image, adjust the gamma curve. ON : Perform gamma correction. OFF : Do not perform gamma correction. The entire image appears dull. [Set values: ON, OFF]
⑦ Enhance Level	Sets the intensity of edge enhancement. A larger value increases the intensity of edge enhancement, but a smaller value decreases the intensity of edge enhancement. [Set values: -5 to Normal to 8]
⑧ 3D DNR	The noise on the screen will be reduced. [Set values: OFF, Low, Mid, High] Memo: <ul style="list-style-type: none"> ● With a moving object, the higher the noise reduction (as you select Low - Mid - High), the more likely there will be an afterimage. ● You cannot select this when the frame rate is set to 25 fps or higher.

* The [Set values] in bold letters are factory defaults.

⑨ White Balance	Adjusts the white balance. White balance can be adjusted for a light source with a color temperature range of 2300 K to 10000 K. [Set values: ATW-Wide, ATW-Narrow, AWC]
ATW-Wide	Switches to the Auto-Tracking White Balance (automatic color temperature tracking) Wide mode. Adjusts the white balance automatically according to the color temperature of the light. (Color temperature: 2300 K to 10000 K)
ATW-Narrow	Switches to the Auto-Tracking White Balance (automatic color temperature tracking) Narrow mode. Adjusts the white balance automatically according to the color temperature of the light. (Color temperature: 3200 K to 8000 K)
AWC	Switches to the Auto-White Balance Control mode. In the AWC mode, values entered for the [AWC R-Gain] and [AWC B-Gain] items are applied to white balance. Pressing the [OnePushAWC] button replaces the [AWC R-Gain] and [AWC B-Gain] values with the values of the AWC execution results. Memo: <ul style="list-style-type: none"> ● Execute by filling the screen completely with a white object in a location with lighting conditions similar to those of the object you are going to shoot. ● Even when white balance is set to "ATW-Wide" or "ATW-Narrow", pressing the [OnePushAWC] button switches the mode automatically to AWC. ● If you press the [OnePushAWC] button, the changes you made before pushing the button will be stored and the AWC mode will be executed.
AWC R-Gain	Sets the gain of R (red) when in the AWC mode. A larger value increases the redness, but a smaller value decreases the redness. [Set values: 0 to 107 to 255]
AWC B-Gain	Sets the gain of B (blue) when in the AWC mode. A larger value increases the blueness, but a smaller value decreases the blueness. [Set values: 0 to 65 to 255]

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Camera Page (continued)

⑩ ALC	Maintains the video level according to the object brightness. The priority of motion (by AGC) or the priority of picture quality (by Sense Up) can be selected. If both are set simultaneously, you can set their priority using the [Priority] option.
AGC	Sets the AGC (automatic gain control) level. You can adjust the brightness of image according to the object brightness. OFF : Disables the AGC function. Mid : When the amount of light is insufficient High : When the amount of light is particularly insufficient [Set values: OFF, Mid, High] Memo: <ul style="list-style-type: none"> ● If [Easy Day/Night] is set to "Auto", you cannot turn it "OFF". (VN-H137U, VN-H237U) ● If [Day/Night] is set to "Auto Low", "Auto Mid" or "Auto High", you cannot turn it "OFF". (This applies to models other than VN-H137U and VN-H237U.) ● The screen appears grainy at dark locations when the AGC function is in use.
Sense Up	This function is used to raise the sensitivity level by lengthening the exposure time. You can specify the number of times by which the sensitivity level is to be increased automatically when the object becomes dark. When "x16" is selected, the sensitivity level will automatically increases continuously until it is 16 times of the level when "OFF" is selected. [Set values: OFF, x2, x4, x8, x16, x32, x60] Memo: <ul style="list-style-type: none"> ● When the sensitivity is increased, the shutter speed drops and a moving object appears unnatural. ● Upon raising the sensitivity level, the screen may appear grainy or white, or white defects may occur. However, this is not a malfunction. ● When Sense Up is set to a value other than "OFF", flickers occur under the light of fluorescent or mercury lamps. This is not a malfunction of the camera, but is due to principles related to Sense Up. ● If the shutter speed is set to 1/50 to 1/10000, you can set the Sense Up to "OFF" only.
Priority	Sets the priority of ALC (function for maintaining the video level according to the object brightness). Combo : Selects the best combination automatically. Motion : Assigns priority to AGC (automatic gain control). This is suitable for shooting fast-moving objects. Quality : Assigns priority to the Sense Up function. This is suitable for shooting objects requiring a high picture quality. [Set values: Combo, Motion, Quality]

* The [Set values] in bold letters are factory defaults.

<p>⑪ Shutter Speed</p>	<p>Sets the shutter speed.</p> <p>1/30 to 1/10000 : Fixes the shutter speed.</p> <p>Auto (1/30 - 1/100) : Varies the shutter speed automatically between 1/30 and 1/100 seconds according to the brightness.</p> <p>Auto (1/30 - 1/1000) : Varies the shutter speed automatically between 1/30 and 1/1000 seconds according to the brightness.</p> <p>Auto (1/30 - 1/10000) : Varies the shutter speed automatically between 1/30 and 1/10000 seconds according to the brightness.</p> <p>Flickerless : Sets a shutter speed to prevent flickering in the 50 Hz power frequency.</p> <p>[Set values: 1/30, 1/50, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, Auto (1/30-1/100), Auto (1/30-1/1000), Auto (1/30-1/10000), Flickerless]</p> <p>Memo:</p> <ul style="list-style-type: none"> ● “Auto (1/30-1/10000)” is only recommended when using a manual iris lens. ● Flickers may occur when this is set to a value other than "Flickerless". ● When Sense Up is set to a value other than “OFF”, the shutter speed cannot be set to a value between 1/250 and 1/10000 seconds.
<p>⑫ Easy Day/Night (VN-H137U/H237U only)</p>	<p>Sets the Day and Night mode.</p> <p>Color : Keeps color mode activated at all times.</p> <p>Black & White: Keeps Black & White mode activated at all times.</p> <p>Auto : Switches to Black & White mode when the luminance level is low.</p> <p>[Set values: Color, Black and White, Auto]</p>
<p>Average: Peak</p>	<p>Exposure detection is set as a ratio of the AVERAGE value to the PEAK value.</p> <p>[Set values: 10:0, 9:1, 8:2, 7:3, 6:4, 5:5]</p>

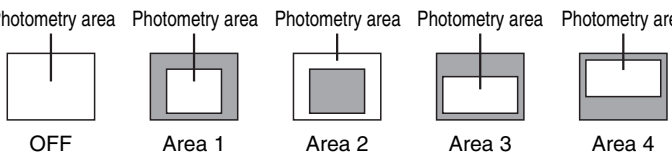
* The [Set values] in bold letters are factory defaults.

Settings (continued)

Camera Page (continued)

<p>⑫ Day/Night (VN-H37U/H57U/ H257U/H237VPU/ H257VPU/ H157WPU only)</p>	<p>Sets video to Black & White mode. Also allows you to select from among 3 levels for automatically activating Black & White mode in low-light conditions.</p> <p>[Set values: Color, Black & White, Auto Low, Auto Mid, Auto High]</p> <p>If you select AF performance in conjunction with switching modes, AF is performed when you switch between modes. (VN-H57 only)</p> <p>Memo:_____</p> <ul style="list-style-type: none"> • The mechanical sound of the infrared filter insertion/removal can be heard when the mode switches. • While the mechanical sound can be heard, audio streamed from the camera is muted. (VN-H257U, VN-H257VPU only) • If you set "Auto Low", "Auto Mid", or "Auto High", the camera immediately switches modes when the set amount of illumination is detected.
<p>Color</p>	<p>Keeps color mode activated at all times.</p>
<p>Color Average: Peak</p>	<p>The color mode peak photometry rate is set as a ratio of the AVERAGE value to the PEAK value.</p> <p>[Set values: 10:0, 9:1, 8:2, 7:3, 6:4, 5:5]</p>
<p>Black & White</p>	<p>Keeps Black & White mode activated at all times.</p>
<p>Black & White Average: Peak</p>	<p>The Black & White mode peak photometry rate is set as a ratio of the AVERAGE value to the PEAK value.</p> <p>[Set values: 10:0, 9:1, 8:2, 7:3, 6:4, 5:5]</p>
<p>Auto Low</p>	<p>Switches to Black & White mode when the subject's signal level has a low level of brightness.</p>
<p>Auto Mid</p>	<p>Switches to Black & White mode when the subject's signal level has a medium level brightness.</p>
<p>Auto High</p>	<p>Switches to Black & White mode when the subject's signal level has a high level of brightness.</p>

* The [Set values] in bold letters are factory defaults.

<p>13 Back Light Compensation</p>	<p>Selects the backlight compensation function. Enables unwanted light sources to be excluded from the photometry area.</p> <p>OFF : Disables backlight compensation.</p> <p>Areas 1 to 4 : Select a photometry area from the four areas.</p> <p>[Set values: OFF, Area 1, Area 2, Area 3, Area 4]</p> <p>Photometry area Photometry area Photometry area Photometry area Photometry area</p>  <p>OFF Area 1 Area 2 Area 3 Area 4</p> <p>Memo: _____</p> <ul style="list-style-type: none"> • The backlight compensation area is not linked to digital PTZ (Pan, Tilt, Zoom).
<p>14 CLVI</p>	<p>Select the fog removal function.</p> <p>It is effective in reducing image blur which occurs when zooming in on an object located at a distance or when shooting in foggy or dusty environments.</p> <p>Depending on the shooting conditions, it may be less effective or a noise may appear in the image, but this is not a camera malfunction.</p> <p>[Set values: ON, OFF]</p> <p>Memo: _____</p> <ul style="list-style-type: none"> • CLVI is an abbreviation for Clear Logic Video Intelligence.

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Encoding Page

This page sets JPEG/H.264/MPEG-4 encoding parameters.

This entry links to the [Encode] item of "Basic Setting2" page. (☞ Page 17)

This page can be used during access using "admin" or "operator".

Click [Advanced Settings] and [Encoding].

Memo:

- Press the [OK] button to enable the new settings.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- Encoding settings cannot be changed during multicast distribution. (☞ Page 66)
- If settings on this page are altered during playback using the Built-in Viewer, reboot the viewer.
- There is upper limit to transmission bit rate from the camera. If a bit rate that exceeds upper limit is specified, this new setting will not be applied. For details on the maximum transmission limit, refer to the section on "Network". (☞ Page 4)
- H.264 High indicates High Profile, and H.264 Baseline indicates Baseline Profile.
- The contents displayed in ③ changes depending on the type of encoding and the item selected.
- If the distribution bit rate exceeds 24 Mbps, the specified frame rate distribution fails.

① Encode		Select the encoding from [Single Encode], [Multi Resolution] or [Multi-Encode]. ③ options vary depending on the selected encoding system. [Set values: Single-Encode, Multi-Resolution, Multi-Encode1, Multi-Encode2]
	Single-Encode	[Set values: JPEG, H.264 Baseline, H.264 High]
	Multi-Resolution	[Set values: JPEG, H.264 Baseline, H.264 High]
	Multi-Encode1	[Set values: JPEG + H.264 Baseline, JPEG + H.264 High]
	Multi-Encode2	[Set values: JPEG(1280x960) + MPEG4(640x480) JPEG(1280x960) + MPEG4(320x240) JPEG(640x480) + MPEG4(640x480) JPEG(320x240) + MPEG4(320x240)]
② Aspect Ratio		Selects the width:height ratio of the image. [Set values: 16:9, 4:3]
③ Single-Encode		Enables Encoder No.1 only out of three channels of encoders. You can set a frame rate that exceeds 5 fps.
Encoder No.1	Framesize	Select the frame size of each JPEG or H.264 screen. Available sizes vary depending on the aspect ratio. [Set values for aspect ratio 16:9: 1920x1080, 1280x720, 640x360] [Set values for aspect ratio 4:3: 1280x960, 640x480, 320x240]
	Framerate	Select a frame rate. [Set values: 30 fps (this cannot be set for JPEG if the frame size is 1920 x 1080), 25 fps (JPEG is not supported), 15 fps, 10 fps, 7.5 fps, 5 fps , 3 fps, 2 fps, 1 fps]
	Bitrate (Rate control mode)	Select whether to set the control rate mode for single encoding to CBR (Constant Bit Rate) or VBR (Variable Bit Rate). CBR : Data is encoded at a fixed bit rate regardless of the condition of input video signals. It is easy to estimate the bit rate. Select from the list of bit rate ranges. VBR : The bit rate varies according to the condition of input video signals. The picture quality is stabilized but it is difficult to estimate the bit rate. Select from the list of bit rate ranges. [Set values: CBR, VBR] Bit rate range [Set values: 64, 128, 256, 384, 512, 768, 1024, 1536, 2048, 3072, 3584, 4096, 8192] kbps
	I Frame Interval	Select the I-frame interval. Encoding starts from the I-frame. Shortening the interval stabilizes the picture quality even when there area rapid changes in the video image. However, the picture quality for images with little change will deteriorate. In addition, when multicast packet loss occurs, the time interval required to restore the image is shorter. [Set values: 5, 10, 15, 30, 60, 90, 120] Frame

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Encoding Page (continued)

③ Multi-Resolution		From H.264 High, H.264 Baseline and JPEG, you can select one and set different frame sizes to up to three channels. The frame rate that can be set is lower than 5 fps.																																																							
Encoder No.1	Encoding Display	Displays the encoding system selected in Multi-Resolution.																																																							
	Framesize	Select the frame size of each JPEG or H.264 screen. Available sizes vary depending on the aspect ratio. [Set values for aspect ratio 16:9: 1920x1080, 1280x720, 640x360] [Set values for aspect ratio 4:3: 1280x960, 640x480, 320x240]																																																							
	Framerate	Select the frame rate of multi resolution. [Set values: 15 fps, 10 fps, 7.5 fps, 5 fps, 3 fps, 2 fps, 1 fps]																																																							
	Quality	Select the JPEG picture quality (rate control mode) and picture quality level. When "AFS" is selected, encoding is performed such that the target file size is the average size of multiple JPEG images. When "VFS" is selected, the quantization table during JPEG encoding will be maintained and the file size will increase or decrease according to the input signals. When recording JPEG data to a recorder with a limited storage capacity, note that the maximum recording time may vary as the file size fluctuates under this setting. [Set values: AFS, VFS] Picture quality level [Set values: Level 1 to Level 3 to Level 7] Memo: <ul style="list-style-type: none"> You can specify the file size by combining the frame size the picture quality level. <p style="text-align: right;">(Values for reference)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Picture quality level file size (KB)</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1920 x 1080</td> <td>320</td> <td>280</td> <td>240</td> <td>200</td> <td>160</td> <td>120</td> <td>80</td> </tr> <tr> <td style="text-align: center;">1280 x 720</td> <td>180</td> <td>160</td> <td>140</td> <td>120</td> <td>100</td> <td>80</td> <td>60</td> </tr> <tr> <td style="text-align: center;">640 x 360</td> <td>80</td> <td>60</td> <td>40</td> <td>30</td> <td>25</td> <td>20</td> <td>15</td> </tr> <tr> <td style="text-align: center;">1280 x 960</td> <td>180</td> <td>160</td> <td>140</td> <td>120</td> <td>100</td> <td>80</td> <td>60</td> </tr> <tr> <td style="text-align: center;">640 x 480</td> <td>80</td> <td>60</td> <td>40</td> <td>30</td> <td>25</td> <td>20</td> <td>15</td> </tr> <tr> <td style="text-align: center;">320 x 240</td> <td>27</td> <td>20</td> <td>13</td> <td>10</td> <td>8</td> <td>7</td> <td>5</td> </tr> </tbody> </table>	Picture quality level file size (KB)	1	2	3	4	5	6	7	1920 x 1080	320	280	240	200	160	120	80	1280 x 720	180	160	140	120	100	80	60	640 x 360	80	60	40	30	25	20	15	1280 x 960	180	160	140	120	100	80	60	640 x 480	80	60	40	30	25	20	15	320 x 240	27	20	13	10	8	7
Picture quality level file size (KB)	1	2	3	4	5	6	7																																																		
1920 x 1080	320	280	240	200	160	120	80																																																		
1280 x 720	180	160	140	120	100	80	60																																																		
640 x 360	80	60	40	30	25	20	15																																																		
1280 x 960	180	160	140	120	100	80	60																																																		
640 x 480	80	60	40	30	25	20	15																																																		
320 x 240	27	20	13	10	8	7	5																																																		
Encoder No.2	Encoding Display	Displays the encoding system selected in Multi-Resolution.																																																							
	Framesize	Same as for Encoder No.1. The default value is "1280x720" pixels for Encoder No.2.																																																							
	Framerate	Same as for Encoder No.1. The default value is "5 fps" pixels for Encoder No.2.																																																							
	Quality	Same as for Encoder No.1. The default values are "AFS" and "Level 3" for Encoder No.2.																																																							

* The [Set values] in bold letters are factory defaults.

③ Multi-Resolution (continued)

Encoder No.3	Encoding Display	When you use Encoder No.3, turn ON the encoding that you selected in multi resolution. If you select "OFF", you will not be able to set Encoder No.3. [Set values: JPEG, OFF]
	Framesize	Same as for Encoder No.1. The default value is "640x360" pixels for Encoder No.3.
	Framerate	Same as for Encoder No.1. The default value is "5 fps" pixels for Encoder No.3.
	Quality	Same as for Encoder No.1. The default values are "AFS" and "Level 3" for Encoder No.3.

③ Multi-Encode1

You can specify JPEG for Encode No.1, and H.264 High or H.264 Baseline for No.2. The frame rate that can be set is lower than 15 fps.

Encoder No.1	Encoding Display	Displays the "JPEG" encoding system selected in Multi-Encode1.
	Framesize	Select the frame size of each JPEG or H.264 screen. Available sizes vary depending on the aspect ratio. [Set values for aspect ratio 16:9: 1920x1080, 1280x720, 640x360] [Set values for aspect ratio 4:3: 1280x960, 640x480, 320x240]
	Framerate	Select the frame rate of Multi-Encode1. [Set values: 15 fps, 10 fps, 7.5 fps, 5 fps, 3 fps, 2 fps, 1 fps]
	Quality	Select the JPEG picture quality (rate control mode) and picture quality level. When "AFS" is selected, encoding is performed such that the target file size is the average size of multiple JPEG images. When "VFS" is selected, the quantization table during JPEG encoding will be maintained and the file size will increase or decrease according to the input signals. When recording JPEG data to a recorder with a limited storage capacity, note that the maximum recording time may vary as the file size fluctuates under this setting. [Set values: AFS, VFS] Picture quality level [Set values: Level 1 to Level 3 to Level 7]

Memo: _____

- The chart below shows file sizes for each combination of frame size and picture quality level.
- Select between level 1 and level 7. The picture quality increases when the level value is small. However, the file size increases (see the table below).

(Values for reference)

Frame Size \ Picture quality level file size (KB)	Picture quality level						
	1	2	3	4	5	6	7
1920 x 1080	320	280	240	200	160	120	80
1280 x 720	180	160	140	120	100	80	60
640 x 360	80	60	40	30	25	20	15
1280 x 960	180	160	140	120	100	80	60
640 x 480	80	60	40	30	25	20	15
320 x 240	27	20	13	10	8	7	5

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Encoding Page (continued)

③ Multi-Encode1 (continued)		
Encoder No.2	Encoding Display	Displays the encoding system selected in Multi-Encode1. [For JPEG+H.264 Baseline : H.264 Baseline] [For JPEG+H.264 High : H.264 High]
	Framesize	Select the frame size of each JPEG or H.264 screen. Available sizes vary depending on the aspect ratio. [Set values for aspect ratio 16:9: 1920x1080, 1280x720, 640x360] [Set values for aspect ratio 4:3: 1280x960, 640x480, 320x240]
	Framerate	Select the frame rate of Multi-Encode1. [Set values: 15 fps, 10 fps, 7.5 fps, 5 fps, 3 fps, 2 fps, 1 fps]
	Bitrate	Select whether to set the control rate mode for full size 30 fps encoding to CBR (Constant Bit Rate) or VBR (Variable Bit Rate). CBR : Data is encoded at a fixed bit rate regardless of the condition of input video signals. It is easy to estimate the bit rate. Select from the list of bit rate ranges. VBR : The bit rate varies according to the condition of input video signals. The picture quality is stabled but it is difficult to estimate the bit rate. Select from the list of bit rate ranges. [Set values: CBR, VBR] Bit rate range [Set values: 64, 128, 256, 384, 512, 768, 1024, 1536, 2048, 3072, 3584, 4096, 8192] kbps
	I Frame Interval	Select the I-frame interval. Encoding starts from the I-frame. Shortening the interval stabilizes the picture quality even when there area rapid changes in the video image. However, the picture quality for images with little change will deteriorate. In addition, when multicast packet loss occurs, the time interval required to restore the image is shorter. [Set values: 5, 10, 15, 30, 60, 90, 120] Frame

* The [Set values] in bold letters are factory defaults.

③ Multi-Encode2		The following can be set for Encoder No.1 and Encoder No.2. JPEG(1280 x 960) + MPEG4 (640 x 480) JPEG(1280 x 960) + MPEG4 (320 x 240) JPEG(640 x 480) + MPEG4 (640 x 480) JPEG(320 x 240) + MPEG4 (320 x 240) The frame rate can be set to 15 fps or lower.																																																							
Encoder No.1	Encoding Display	Displays the "JPEG" encoding selected for Multi-Encode2.																																																							
	Framesize	Displays the frame size selected for Multi-Encode2.																																																							
	Framerate	Specify the frame rate for Multi-Encode2. [Set values: 15 fps, 10 fps, 7.5 fps, 5 fps, 3 fps, 2 fps, 1 fps]																																																							
	Picture Quality	Select the JPEG picture quality (rate control mode) and picture quality level. When "AFS" is selected, encoding is performed such that the target file size is the average size of multiple JPEG images. When "VFS" is selected, the quantization table during JPEG encoding will be maintained and the file size will increase or decrease according to the input signals. When recording JPEG data to a recorder with a limited storage capacity, note that the maximum recording time may vary as the file size fluctuates under this setting. [Set values: AFS, VFS] Picture quality level [Set values: Level 1 to Level 3 to Level 7] Memo: <ul style="list-style-type: none"> • The chart below shows file sizes for each combination of frame size and picture quality level. • Select between level 1 and level 7. The picture quality increases when the level value is small. However, the file size increases (see the table below). <p style="text-align: right;">(Values for reference)</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="text-align: left;">Picture quality level file size (KB)</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> </tr> </thead> <tbody> <tr> <td>1920 x 1080</td> <td>320</td> <td>280</td> <td>240</td> <td>200</td> <td>160</td> <td>120</td> <td>80</td> </tr> <tr> <td>1280 x 720</td> <td>180</td> <td>160</td> <td>140</td> <td>120</td> <td>100</td> <td>80</td> <td>60</td> </tr> <tr> <td>640 x 360</td> <td>80</td> <td>60</td> <td>40</td> <td>30</td> <td>25</td> <td>20</td> <td>15</td> </tr> <tr> <td>1280 x 960</td> <td>180</td> <td>160</td> <td>140</td> <td>120</td> <td>100</td> <td>80</td> <td>60</td> </tr> <tr> <td>640 x 480</td> <td>80</td> <td>60</td> <td>40</td> <td>30</td> <td>25</td> <td>20</td> <td>15</td> </tr> <tr> <td>320 x 240</td> <td>27</td> <td>20</td> <td>13</td> <td>10</td> <td>8</td> <td>7</td> <td>5</td> </tr> </tbody> </table>	Picture quality level file size (KB)	1	2	3	4	5	6	7	1920 x 1080	320	280	240	200	160	120	80	1280 x 720	180	160	140	120	100	80	60	640 x 360	80	60	40	30	25	20	15	1280 x 960	180	160	140	120	100	80	60	640 x 480	80	60	40	30	25	20	15	320 x 240	27	20	13	10	8	7
Picture quality level file size (KB)	1	2	3	4	5	6	7																																																		
1920 x 1080	320	280	240	200	160	120	80																																																		
1280 x 720	180	160	140	120	100	80	60																																																		
640 x 360	80	60	40	30	25	20	15																																																		
1280 x 960	180	160	140	120	100	80	60																																																		
640 x 480	80	60	40	30	25	20	15																																																		
320 x 240	27	20	13	10	8	7	5																																																		

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Encoding Page (continued)

③ Multi-Encode2 (continued)		
Encoder No.2	Encoding Display	Displays the "MPEG4" encoding selected for Multi-Encode2.
	Framesize	Displays the frame size selected for Multi-Encode2.
	Framerate	Specify the frame rate for Multi-Encode2. [Set values: 15 fps, 10 fps, 7.5 fps, 1 fps]
	Bitrate	Select whether to set the control rate mode for encoding to CBR (Constant Bit Rate) or VBR (Variable Bit Rate). CBR : Data is encoded at a fixed bit rate regardless of the condition of input video signals. It is easy to estimate the bit rate. Select from the list of bit rate ranges. VBR : The bit rate varies according to the condition of input video signals. The picture quality is stabled but it is difficult to estimate the bit rate. Select from the list of bit rate ranges. [Set values: CBR, VBR] Bit rate range [Set values: 64, 128, 256, 384, 512, 768, 1024, 1536, 2048, 3072, 3584, 4096, 8192] kbps
	I Frame Interval	Select the I-frame interval. Encoding starts from the I-frame. Shortening the interval stabilizes the picture quality even when there are rapid changes in the video image; however, the picture quality for images with little change will deteriorate. In addition, when multicast packet loss occurs, the time interval required to restore the image is shorter. [Set values: 15, 30] Frame
④ Monitor Output		
		Sets monitor output. [Set values: ON, OFF] Memo: <ul style="list-style-type: none"> ● To turn the monitor output ON, set the following in the [Single-Encode] (JPEG/H.264 Baseline/H.264 High) option: <ul style="list-style-type: none"> • Aspect ratio = 16:9 • Frame size = 1920 x 1080 • Frame rate = 5 fps or less ● If you changed the setting of the camera's monitor selection switch, you need to restart the camera.

* The [Set values] in bold letters are factory defaults.

Audio Page

(These features are not available on VN-H37U/H137U/H237U/H237VPU.)

This page sets audio parameters.

This page can be used during access using “admin” or “operator”.

- Click [Advanced Settings] to display the setting menu.
- Click [Audio].
- Press the [OK] button to enable the new settings.

Click [Advanced Settings] and [Audio].

● Audio

<p>① Communicate</p>	<p>Sets the audio communication protocol. When set to Half Duplex, audio sent from the camera to a computer is muted while audio is being sent from the computer to the camera. When set to Full Duplex, audio can be sent from a computer to the camera while audio is also being sent from the camera to the computer. [Set values: Half Duplex, Full Duplex]</p> <p>Memo:—</p> <ul style="list-style-type: none"> ● When set to Full Duplex, audio sent from a computer to the camera with an external microphone attached may return to the computer via the microphone, resulting in an echo. In this case, use the Half Duplex setting.
<p>② Mike Gain</p>	<p>Sets the gain for an external microphone connected to the camera. [Set values: 0 dB, 20 dB, 26 dB, 32 dB, AGC]</p>
<p>③ Mike Power Supply</p>	<p>Sets the power supply for an external microphone connected to the camera. [Set values: ON, OFF]</p>

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Audio Page (continued)

● Upload

④ Audio File No.1 - No.5

Registers an audio file of the output from the camera's audio output cable or connector when the alarm is activated.

- To output the registered audio
 - Create a file on a computer with the following specifications, and register it to the camera.
 - ◆ File format WAV file format
 - ◆ Encoding method Linear PCM
 - ◆ Sampling frequency 8 kHz
 - ◆ Quantization bit 16 bit
 - ◆ Monaural
 - ◆ Maximum size 10 seconds (cumulative, for playback files 1 to 5)
 - Set [Action] on the Alarm Page to "Play Audio" (☞ Page 36)

Note:

- If you activate the Speech functions of the Built-in Viewer during audio file playback, playback of the audio file will stop.
- Playback of an audio file cannot be performed while the Built-in Viewer's Speech functions are active.

Click the [Browse] button to display the file selection screen, and select the audio file that you created.

Click the [Upload] button to register the selected audio file to the camera.

Click the [Delete] button to delete the audio file registered to the camera.

Click the [Play] button to play the audio file registered to the camera, and output it from the camera's audio output cable or connector.

Press the [Stop] button to stop playback of the audio file.

Memo:

- WAV files can be recorded and edited using Sound Recorder in Windows or other compatible audio processing tool.

Alarm Page

This page sets actions to be taken if an alarm occurs.

You can set up to five actions (No. 1 to No. 5).

This page can be used during access using “admin” or “operator”.

Click [Advanced Settings] and [Alarm].

Build Viewer
 Basic Setting1
 Basic Setting2
 Advanced Settings
 Camera
 Encoding
 Alarm
 Alarm Environment
 Storage
 PTZ
 Auto Patrol
 Privacy Mask
 Motion Detection
 Audio Detection
 Tampering Detection
 Network
 Protocol
 Multicast
 Access Restrictions
 Time
 Password
 Focus
 Maintenance
 LED State
 Miscellaneous
 Operation
 Settings
 Position List
 Patrol Settings

OK Cancel Keep power camera for at least for 10 seconds after change of settings. Help

No.1

Action	1st Trigger	Max. Interval	2nd Trigger
Mail	Position	sec (1 - 3600)	Disable

Mail Settings Unset

Mail Address

Mail Text JPEG Attachment Encoder

Trigger Position Number (0 - 19)

Time Filter	Unmask All	00 H 00 M 24 H 00 M
Sunday	Unmask All	00 H 00 M 24 H 00 M
Monday	Unmask All	00 H 00 M 24 H 00 M
Tuesday	Unmask All	00 H 00 M 24 H 00 M
Wednesday	Unmask All	00 H 00 M 24 H 00 M
Thursday	Unmask All	00 H 00 M 24 H 00 M
Friday	Unmask All	00 H 00 M 24 H 00 M
Saturday	Unmask All	00 H 00 M 24 H 00 M

No.2

Action	1st Trigger	Max. Interval	2nd Trigger
Disable	Pin Input1 Make	sec (1 - 3600)	Disable

No.3

Action	1st Trigger	Max. Interval	2nd Trigger
Disable	Pin Input1 Make	sec (1 - 3600)	Disable

No.4

Action	1st Trigger	Max. Interval	2nd Trigger
Disable	Pin Input1 Make	sec (1 - 3600)	Disable

No.5

Action	1st Trigger	Max. Interval	2nd Trigger
Disable	Pin Input1 Make	sec (1 - 3600)	Disable

Memo:

- Press the [OK] button to enable the new settings. Only the items that are valid under the selected action will be saved. If you set an [Action] to “Disable”, its settings are initialized.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- The contents displayed changes depending on the selected action and the item of 1st Trigger.
- Press the [Help] button to display the explanation of functions and settings in a pop-up window.

Settings (continued)

Alarm Page (continued)

<p>① Action</p>	<p>Selects the action performed when the alarm is activated.</p> <p>Disable : Performs no action.</p> <p>Mail : Sends an email. Specify the recipient's mail address. The mail subject will be "Alarm from {model name}" (e.g., for VN-H257VPU: "Alarm from VN-H257VPU"), and the sender will be the value for [Camera ID]. Input the message body to be sent in [Mail Text]. Up to 127 alphanumeric characters can be sent. Up to 63 Japanese characters can be sent. Set JPEG Attachment to "ON" to attach the latest image to the mail.</p> <p>TCP : Sends the text string input in the [TCP Data] field via TCP to the recipients specified in [TCP IP Address] and [TCP Port Number].</p> <p>UDP : Sends the text string input in the [UDP Data] field via UDP to the recipients specified in [UDP IP Address] and [UDP Port Number].</p> <p>Position : Move to the position set at [Action Position Number] item ⑥ (☞ Page 39).</p> <p>Play Audio : Plays the audio file registered to the camera. Refer to [Audio File] on the [Audio] page. (☞ Page 34) (VN-H57U/H257U/H257VPU/H157WPU only)</p> <p>Pin Output1 Make:Changes Pin Output1 to Make.</p> <p>Pin Output1 Break:Changes Pin Output1 to Break.</p> <p>Pin Output2 Make:Changes Pin Output2 to Make.</p> <p>Pin Output2 Break:Changes Pin Output2 to Break.</p> <p style="padding-left: 40px;">Pin Output1 Make, Pin Output1 Break, Output2 Make, and Pin Output2 Break are available on VN-H57U/H257VPU/H157WPU/H257U only. Set the time in the [Alarm Output Duration] field.</p> <p>Switch Scene File:Specifies the scene of filming.</p> <p>[Set values: Disable, Mail, TCP, UDP, Position, Play Audio, Pin Output1 Make, Pin Output1 Break, Pin Output2 Make, Pin Output2 Break]</p>
-----------------	---

* The [Set values] in bold letters are factory defaults.

<p>② 1st Trigger</p>	<p>Select the 1st trigger to perform an action.</p> <p>[Set values: Pin Input1 Make, Pin Input1 Break, Pin Input2 Make, Pin Input2 Break, Position, Audio Detection1, Audio Detection2 (VN-H57U/H257U/H257VPU/H157WPU only), Motion Detection, Tampering Detection, Black & White, Day/Night, Time]</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● If you set the [2nd Trigger] to "Disable", an action will be performed when only [1st Trigger] is triggered. (VN-H57U/H257U/H257VPU/H157WPU only) ● When "Motion Detection" or "Position" is selected for the [1st Trigger] trigger, [Max. Interval] and [2nd Trigger] cannot be selected. (VN-H57U/H257U/H257VPU/H157WPU only) ● "Time" can be specified only when the action is "Switch Scene File".
<p>③ Max. Interval (VN-H57U/H257U/H257VPU/H157WPU only)</p>	<p>This is available when both [1st Trigger] and [2nd Trigger] are set. Specify the maximum interval between each trigger for [1st Trigger] and [2nd Trigger]. An action will be performed if [2nd Trigger] occurs within the maximum time interval after [1st Trigger] occurs.</p> <p>[Set values: 1 - 3600] sec</p>
<p>④ 2nd Trigger (VN-H57U/H257U/H257VPU/H157WPU only)</p>	<p>Select the 2nd trigger to perform an action.</p> <p>[Set values: Disable, Pin Input1 Make, Pin Input1 Break, Pin Input2 Make, Pin Input2 Break]</p>
<p>⑤ Mail</p>	<p>Mail Settings : If you have set the [SMTP Server], [Port Number], and [Sender Mail Address] on the [Alarm Environment] page, the "Configured" message is shown. If not set, the "Not configured" message is shown. For details about the mail setup, refer to "Alarm Environment Page". (Page 40)</p> <p>Mail Address : Enter the recipient's mail address.</p> <p>Mail Text : Enter the mail text. You can enter text consisting of up to 127 alphanumeric characters. Or a text of up to 63 dual-byte characters can be entered.</p> <p>JPEG Attachment : Specify whether or not to attach an image file to the mail. To attach JPEG images, check the Attach box and select the transmission channel.</p> <p>Encoder : Specifies an Encoder No. for encoding of attached JPEG files.</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● You cannot select [Attach JPEG] if there is no channel with Encode set to JPEG.

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Alarm Page (continued)

<p>⑤ TCP</p>	<p>TCP IP Address : Enter the IP address or FQDN of the destination of TCP notification.</p> <p>TCP Port Number : Enter the port number of the destination of TCP notification. (1 to 65535)</p> <p>TCP Data : Enter a character string to be sent for TCP notification. You can enter text consisting of up to 127 alphanumeric characters. Or a text of up to 63 dual-byte characters can be entered.</p> <p>JPEG Attachment : Specify whether or not to attach an image file. To attach JPEG images, check the Attach box and select the transmission channel.</p> <p>Encoder : Specifies an Encoder No. for encoding of attached JPEG files.</p> <p>Memo:</p> <ul style="list-style-type: none"> You cannot select [Attach JPEG] if there is no channel with Encode set to JPEG.
<p>⑤ UDP</p>	<p>UDP IP Address : Enter the IP address or FQDN of the destination of UDP notification.</p> <p>UDP Port Number : Enter the port number of the destination of UDP notification. (1 to 65535)</p> <p>UDP Data : Enter a character string to be sent for UDP notification. You can enter text consisting of up to 127 alphanumeric characters. Or a text of up to 64 dual-byte characters can be entered.</p>
<p>⑤ Switch Scene File</p>	<p>Scene File : Select the scene file to change.</p> <p>For details of the scene file, see the [Camera] page. (Page 19)</p> <p>[Set values: General, Indoor, Outdoor, CLVI, Traffic, DataSaving, Day (Color), Night (B&W)]</p>
<p>⑤ Position</p>	<p>Action Position Number: Sets a position number to move.</p> <p>[Set values: 0 to 19]</p>
<p>⑤ Play Audio (VN-H57U/H257U/H257VPU/H157WPU only)</p>	<p>Audio File : For selecting the file number to play when the [Action] item is set to "Play Audio".</p> <p>[Set values: 1 to 5]</p>
<p>⑤ Pin Output1 Make, Pin Output1 Break, Pin Output2 Make, Pin Output2 Break (VN-H57U/H257U/H257VPU/H157WPU only)</p>	<p>Alarm Output Duration: For specifying the output time when the [Action] item is set to "Pin Output1 Make", "Pin Output1 Break", "Pin Output2 Make", or "Pin Output2 Break".</p> <p>[Set values: 0 / 100 to 5000] msec</p>

* The [Set values] in bold letters are factory defaults.

⑥ Action Position Number	For setting the position number to move to when [Action] item ① is set to "Position". [Set values: 0 to 19]
⑥ Audio File	For selecting the file number to play when [Action] item ① is set to "Play Audio". [Set values: 1 to 5]
⑥ Trigger Position Number	For setting the position number to move to when [1st Trigger] item ② is set to "Position". [Set values: 0 to 19]
⑥ Time	Time : Executes an action at the time you have entered. [Set values: 00H00M-23H59M]
⑥ Day/Night (VN-H37U/H237VPU/H57U/H257U/H257VPU/H157WPU only)	Color : Executes an action when the image changes from Black and White to color. Black and White: Executes an action when the image changes from color to Black and White. Memo: _____ ● This function is valid only for models with Day and Night.
⑦ Time Filter	Sets the alarm action in each day of week, and sets the corresponding time of the day. Applicable day of week: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday Alarm action : Unmask All Mask All Unmask Span Mask Span Applicable time period: Specify the alarm start and end times.

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Alarm Environment Page

This page sets up the alarm environment.

This page can be used during access using "admin" or "operator".

Click [Advanced Settings] and [Alarm Environment].

OK Cancel Keep power to camera for at least 10 seconds after change of settings.

Mail Settings

SMTP Server	0.0.0.0 (IP or FQDN)
Port Number	25 (1 - 65535)
Send Mail Address	
POP before SMTP	Disable
POP Server	0.0.0.0 (IP or FQDN)
Port Number	110 (1 - 65535)
User Name	
Password	

Alarm Output

Duration	Output 1	1000 msec (0 / 100 - 5000)
	Output 2	1000 msec (0 / 100 - 5000)
Manual Output	Output 1	Make Break Current Output: Break
	Output 2	Make Break Current Output: Break

Memo:

- Press the [OK] button to enable the new settings.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.

① Mail Settings (VN-H57U/H257U/H257VPU/H157WPU only)		For setting the mail options when [Mail] is selected as the action on the Alarm page. If an SMTP server, a port number or a sender's mail address has been set, "Preset" will be displayed.
SMTP Server		Sets the IP address or FQDN of the SMTP server. Memo: _____ FQDN (Fully Qualified Domain Name) This refers to a domain name that has been completely specified, without abbreviation of the host or domain names on a TCP/IP network. For example, with a host name of www and a domain name of victor.co.jp, the FQDN representation is "www.victor.co.jp". Japanese cannot be used in a FQDN. If you have configured an FQDN, configure a DNS server on the Network Basic page as well. (Page 59)
Port Number		Enter the port number. [Set values: 0 - 110 - 65535]
Send Mail Address		Set the sender's mail address.
POP before SMTP	To enable [POP before SMTP], select "Enable" and set up the POP server.	
	POP Server	Sets the IP address or FQDN of the POP server.
	Port Number	Enter the port number. [Set values: 0 - 110 - 65535]
	User Name	Enters a user name.
	Password	Enters a password.
② Alarm output		Configure settings related to alarm output from an alarm output cable or connector.
Duration		Sets the output duration for [Manual Output]. [Set values: 0/ 100 - 1000 - 5000] msec
Manual Output		Manually operate alarm output. The current output status is displayed on the right side. When [Duration] is set to "0", pressing the [Make] button sets the alarm to make output, and pressing the [Break] button sets the alarm to break output. When [Duration] is set to other than "0", pressing the [Make] button sets the alarm to make output only for the output duration time, and then changes it to break output. When [Duration] is set to other than "0", pressing the [Break] button sets the alarm to break output only for the output duration time, and then changes it to make output.

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Storage Page

This page sets up data recording.

This page can be used during access using "admin" or "operator".

Click [Advanced Settings] and [Storage].

OK Cancel Keep power to camera at least for 10 seconds after change of settings.

Storage

Storage Mode: OFF FTP Record

FTP Server: 0.0.0.0 (IP or FQDN)

Path: _____

User Name: _____

Password: _____

FTP Record Mode: Constant Alarm Constant+Alarm

Constant

Encoder: _____

Interval: _____ sec (1 - 65535)

File Naming: Auto YYYYMMDDHHMMSS-NNN-2.jpg
 Manual1 with timestamp (User-Defined-StringYYYYMMDDHHMMSSNNN.jpg)
 Manual2 Fixed (User-Defined-String.jpg)

User-Defined-String: _____

Sunday	Unmask All	00	00	00	00	00	00	M
Monday	Unmask All	00	00	00	00	00	00	M
Tuesday	Unmask All	00	00	00	00	00	00	M
Wednesday	Unmask All	00	00	00	00	00	00	M
Thursday	Unmask All	00	00	00	00	00	00	M
Friday	Unmask All	00	00	00	00	00	00	M
Saturday	Unmask All	00	00	00	00	00	00	M

Alarm

Encoder: _____ 5 fps

Trigger1, Interval, Trigger2: Pin Input1 Make _____ sec (1 - 3600) Disable

Pra-Trigger: 5 sec (0 - 60)

Post-Trigger: 5 sec (0 - 60)

Sunday	Unmask All	00	00	00	00	00	00	M
Monday	Unmask All	00	00	00	00	00	00	M
Tuesday	Unmask All	00	00	00	00	00	00	M
Wednesday	Unmask All	00	00	00	00	00	00	M
Thursday	Unmask All	00	00	00	00	00	00	M
Friday	Unmask All	00	00	00	00	00	00	M
Saturday	Unmask All	00	00	00	00	00	00	M

Memo:

- Press the [OK] button to enable the new settings.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- Displayed options will change, depending on the selected Storage mode.

① Storage Mode	Selects a storage mode. Depending on the selected storage mode, ② options vary. [Set values: OFF, FTP Record]
-----------------------	---

If ① Storage Mode is set to "FTP Record", FTP Record options will be displayed.

② FTP Server	Sets an IP address of FTP server or FQDN.
③ Path	<p>Sets a path name. If the [Path] is left blank, the FTP transfer is made to the home directory of FTP server.</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● To make an FTP transfer to a directory locating under the home directory: Sets the directory name in the [Path] field. Separate directories by delimiter "/" from each other. Example: subdir1/subdir2 ● If "/" is set at the beginning of directory name, the destination directory of FTP transfer depends on the FTP server.
④ User Name	Enters a user name.
⑤ Password	Enters a password. When a user name is specified, "*****" will be displayed.
⑥ FTP Record Mode	<p>Sets an FTP recording mode. Depending on the selected FTP record mode, ⑦ options vary.</p> <p>Constant : Transfers JPEG images to the FTP server at each specified time.</p> <p>Alarm : Transfers JPEG images around the time when the specified conditions are met to the FTP server.</p> <p>Constant+Alarm : Enables both Constant and Alarm.</p> <p>[Set values: Constant, Alarm, Constant+Alarm]</p>

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Storage Page (continued)

⑦ Constant	Sets the continuous recording.
Encoder	Selects an Encoder for continuous recording. Memo: _____ ● You can select an Encoder No. for JPEG file encoding.
Interval	Sets a recording interval by seconds. [Set values: 1 to 65535] sec
File Naming	You can select any of three (3) formats of recording file names. If you select "Auto", a file name is created based on the year, month, day, hours, minutes, seconds, and a number. Example: 20111114161032-001-2.jpg If you select "Manual1", a file name is created based on the User-Defined-String which is added by year, month, day, hours, minutes and seconds. Example: Camera1_20111114161032001.jpg If you select "Manual2", a file name is created based on the User-Defined-String only. Example: Camera1.jpg [Set values: Auto, Manual1, Manual2]
Sunday to Saturday	Sets the start and end time of recording for each day of week. [Set values: Unmask All, Mask All, Unmask Span, Mask Span] If you have selected "Specify the time period for invoking the action" or "Specify to stop the action", you must set the time period. [Set values: 00H00M-24H00M]
⑧ Alarm	Sets alarm recording.
Encoder	Sets an encoder for alarm recording and a JPEG frame rate. [Set values: 5 fps, 3 fps, 2 fps, 1 fps] Memo: _____ ● You can select an Encoder No. for JPEG. ● The frame rates that can be set vary depending on the encoding settings.

* The [Set values] in bold letters are factory defaults.

⑧ Alarm (continued)

<p>Trigger1, Interval, Trigger2</p>	<p>For the VN-H137U/H237U Trigger 1 : Sets a condition to record an alarm. [Set values: Position, Motion Detection, Tampering Detection, time] Interval: Unavailable. Trigger 2 : Unavailable.</p> <p>For the VN-H37U/H237VPU Trigger 1 : Sets a condition to record an alarm. [Set values:Position, Motion Detection, Tampering Detection, Day/Night, time] Interval: Unavailable. Trigger 2 : Unavailable.</p> <p>For the VN-H57U/H257U/H257VPU/H157WPU Trigger 1 : Sets a condition to record an alarm. [Set values: Pin Input1 Make, Pin Input1 Break, Pin Input2 Make, Pin Input2 Break, Position, Audio Detection1, Audio Detection2, Motion Detection, Tampering Detection, Day/Night, Time] Interval: [Set values: 1 to 3600] Trigger 2 : [Set values: Pin Input 1 Make, Pin Input 1 Break, Pin Input 2 Make, Pin Input 2 Break]</p>
<p>Position Number</p>	<p>Position Number is displayed if Trigger1 is set to "Position". This function executes an action if the trigger is moved to the position entered. [Set values: 0 to 19]</p>
<p>Day/Night (VN-H37U and VN-H237VPU only)</p>	<p>Day/Night is displayed if Trigger1 is set to "Day/Night". Color : Executes an action when the image changes from Black and White to color. Black and White: Executes an action when the image changes from color to Black and White. [Set values: Color, Black and White] Memo: _____ ● This function is valid only for models with Day and Night.</p>
<p>Time</p>	<p>Time is displayed if Trigger1 is set to "Time". This function executes an action at the time you have entered. [Set values: 00H00M-24H00M]</p>
<p>Pre-Trigger</p>	<p>Sets a trigger time before FTP recording (a recording time before alarm input) in seconds. [Set values: 0 to 5 to 60] sec</p>
<p>Post-Trigger</p>	<p>Sets a trigger time after FTP recording (a recording time after alarm input) in seconds. [Set values: 0 to 5 to 60] sec</p>
<p>Sunday to Saturday</p>	<p>Sets the start and end time of recording for each day of week. [Set values: Unmask All, Mask All, Unmask Span, Mask Span] If you have selected "Specify the time period for invoking the action" or "Specify to stop the action", you must set the time period. [Set values: 00H00M-24H00M]</p>

* The [Set values] in bold letters are factory defaults.

memo

memo

memo

PTZ Page

This page sets the movement speed for Auto Return and Preset Position.

This page can be used during access using “admin” or “operator”.

- First, set the frame size to 640 x 360 or 640 x 480 in the [Encode] page. (☞ Page 26)

Click [Advanced Settings] and [PTZ].

Memo:

- Press the [OK] button to enable the new settings.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.

Note:

- You can use the Digital PTZ for frame sizes 640 x 360 and 640 x 480 only. (☞ Page 17)

① Auto Return	Restores automatically to the state being specified under [Mode] if the manually operated camera is not operated for the time period specified by [Return Time].		
<table border="1"> <tr> <td data-bbox="71 927 303 1094">Mode</td> <td data-bbox="303 927 1048 1094">Sets an action taken after Auto Return. Disable : Disables the auto return. Home : Returns to the home position. Auto Patrol : Restores the auto patrol action. [Set values: Disable, Home, Auto Patrol]</td> </tr> </table>	Mode	Sets an action taken after Auto Return. Disable : Disables the auto return. Home : Returns to the home position. Auto Patrol : Restores the auto patrol action. [Set values: Disable, Home, Auto Patrol]	
Mode	Sets an action taken after Auto Return. Disable : Disables the auto return. Home : Returns to the home position. Auto Patrol : Restores the auto patrol action. [Set values: Disable, Home, Auto Patrol]		
<table border="1"> <tr> <td data-bbox="71 1094 303 1161">Return Time</td> <td data-bbox="303 1094 1048 1161">Sets a time before restoring the action by Auto Return. [Set values: 1, 2, 3, 5, 10, 20, 30, 60] min</td> </tr> </table>	Return Time	Sets a time before restoring the action by Auto Return. [Set values: 1, 2, 3, 5, 10, 20, 30, 60] min	
Return Time	Sets a time before restoring the action by Auto Return. [Set values: 1, 2, 3, 5, 10, 20, 30, 60] min		
<table border="1"> <tr> <td data-bbox="71 1161 303 1195">Test</td> <td data-bbox="303 1161 1048 1195">Click [Execute] to test the Auto Return action.</td> </tr> </table>	Test	Click [Execute] to test the Auto Return action.	
Test	Click [Execute] to test the Auto Return action.		
② Preset Position Speed	Specifies the speed to move to the preset position. Memo: <ul style="list-style-type: none"> • The speed to move the preset position of Auto Patrol is not specified in this setting as the setting of the speed to move the Auto Patrol page is applied. 		
<table border="1"> <tr> <td data-bbox="71 1331 303 1362">Speed</td> <td data-bbox="303 1331 1048 1362">[Set values: Moment, Low, Mid, High]</td> </tr> </table>	Speed	[Set values: Moment, Low, Mid, High]	
Speed	[Set values: Moment, Low, Mid, High]		

* The [Set values] in bold letters are factory defaults.

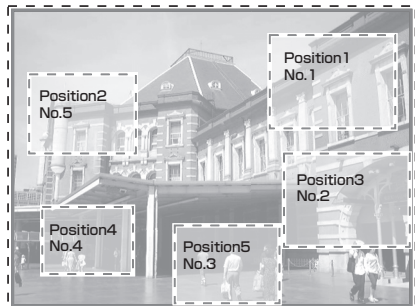
Settings (continued)

Auto Patrol Page

This page sets the Auto Patrol operation to switch and display multiple position images at preset time interval. Set this page to view registered positions in order.

This page can be used during access using "admin" or "operator".

- First, set the frame size to 640 x 360 or 640 x 480 in the [Encode] page. (☞ Page 26)

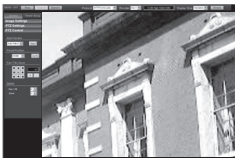


← Whole shooting No.0 (Home)

No.0 (Home)



No.1 (Position1)



No.2 (Position3)



No.5 (Position2)



No.4 (Position4)



No.3 (Position5)



Settings (continued)

Privacy Mask Page

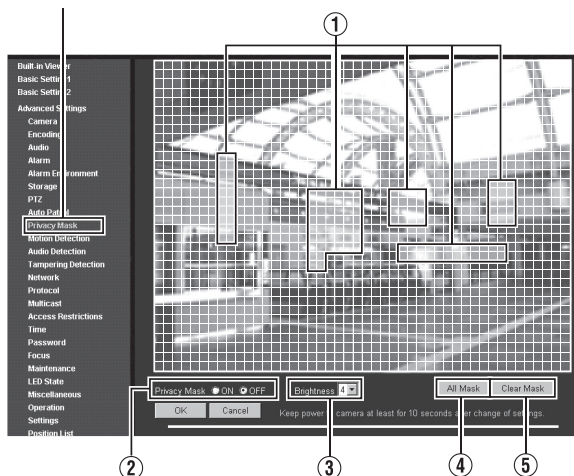
Privacy Mask is a function that can mask a portion of image.

Rectangular privacy mask areas can be set for the camera. Drag the blue rectangular areas on the screen to set the privacy mask for them.

This page can be used during access using “admin” or “operator”.

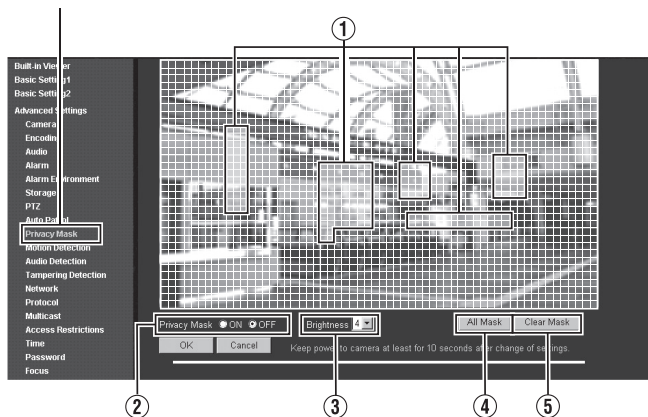
■ 46 horizontal by 34 vertical block (For aspect ratio 4:3 or for 1280 x 960, 640 x 480, or 320 x 240 pixels)

Click [Advanced Settings] and [Privacy Mask].



■ 60 horizontal by 34 vertical block (For aspect ratio 16:9 or for 1920 x 1080, 1280 x 720, or 640 x 360 pixels)

Click [Advanced Settings] and [Privacy Mask].



Memo:

- Press the [OK] button to enable the new settings.
- When camera images are acquired by the Built-in Viewer or another client and if this acquisition exceeds the distribution capability of camera, the video images may not appear on the Privacy Mask page. When you use the Privacy Mask page, turn the Built-in Viewer and another client Off.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- The privacy mask that you set also works for the monitor output.

Note:

- Masks cannot be set in a zoomed screen.
 - When you open the Privacy Mask settings page, it is displayed in the fixed (full-screen) size. The size of the mask you have set changes when you zoom.
-

① Mask	The screen is divided into 46 (horizontal) by 34 (vertical) blocks (for aspect ratio 4:3) or into 60 (horizontal) by 34 (vertical) blocks (for aspect ratio 16:9). You can specify the positions to be masked in each block.
② Privacy Mask	Turns the Privacy Mask function ON or OFF. [Set values: ON, OFF]
③ Brightness	Sets a brightness of Privacy Mask areas. When a large value is set, the brightness level increases (becomes white). When a small value is set, the brightness level decreases (becomes dark). This setting is common to all blocks. [Set values: 0 to 4 to 8]
④ All Mask	Enables all the privacy masks. Press the [OK] button to enable this setting.
⑤ Clear Mask	Releases all the privacy masks.

* The [Set values] in bold letters are factory defaults.

Settings (continued)

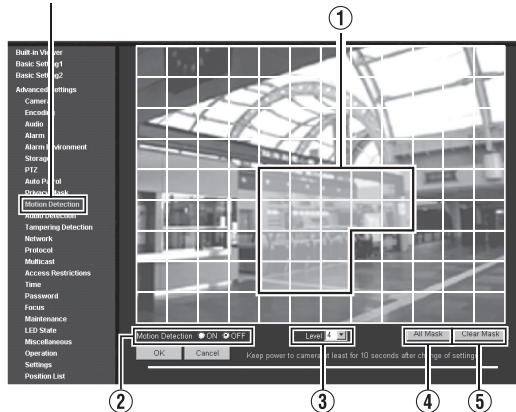
Motion Detection Page

This page sets the motion detection.

This page can be used during access using “admin” or “operator”.

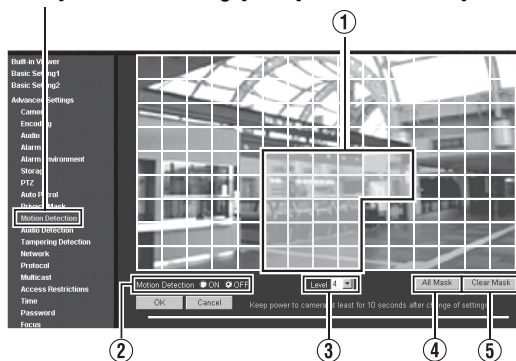
■ 13 horizontal by 9 vertical block (For aspect ratio 4:3)

Click [Advanced Settings] and [Motion Detection].



■ 15 horizontal by 9 vertical block (For aspect ratio 16:9)

Click [Advanced Settings] and [Motion Detection].



Memo:

- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- When camera images are acquired by the Built-in Viewer or another client and if this acquisition exceeds the distribution capability of camera, the video images may not appear on the Motion Detection page. When you use the Motion Detection page, turn the Built-in Viewer and another client Off.
- The area valid for motion detection is displayed in blue.
- When motion is detected, the area around the screen is highlighted in red.

① Motion Detection Area	The display screen showing the motion detection area is divided into 13 (horizontal) by 9 (vertical) blocks (for aspect ratio 4:3) or into 15 (horizontal) by 9 (vertical) blocks (for aspect ratio 16:9). You can specify whether to enable motion detection in each block. When you click a block for motion detection, the block turns blue and it becomes a target of detection. When you click the right-hand mouse button on the blue block, the blue display is cancelled and detection will not be applied to this block. If you move the mouse while pressing the right- or left-hand button, you can set up multiple blocks at once. When you set all blocks and press the [OK] button, the motion detection is made valid for each block.
② Motion Detection	Turns the motion detection ON or OFF. [Set values: ON, OFF] Memo: <hr/> <ul style="list-style-type: none">● You cannot set this to [ON] when the frame rate is set to 25 fps.
③ Level	Sets a sensitivity of motion detection. Increasing the number raises the detection sensitivity level and the detection becomes more sensitive. [Set values: 0 to 4 to 10]
④ All Mask	Deactivates detection regions.
⑤ Clear Mask	Performs motion detection on all blocks.

* The [Set values] in bold letters are factory defaults.

Memo:

- The area display position servers as a reference. Always check its operation.
- A single screen is divided into 135 blocks (13 horizontal by 9 vertical blocks) (for aspect ratio 4:3) or into 108 blocks (12 horizontal by 9 vertical blocks) (for aspect ratio 16:9). Set the angle of view so that the size of object for motion detection is larger than the size of multiple blocks.
- Masks cannot be set in a zoomed screen.
- When you open the setting page for motion detection, it is displayed in the fixed (full-screen) size.

Note:

- Flickers of fluorescent lamps may cause motion detection.
- A brightness change due to the light source may be detected as motion.
- The motion detection function is not intended to prevent theft or fire. Also, this function may not function properly under certain conditions of object and settings.
Our company is not liable for any accident or damage that occurs.
- When [Tampering Detection] or [Audio Detection] is set to "ON", the motion detection function cannot be used.

Settings (continued)

Audio Detection Page

(VN-H57U/H257U/H257VPU/H157WPU only)

This page sets the audio detection.

This page can be used during access using "admin" or "operator".

Click [Advanced Settings] and [Audio Detection].

Memo:

- The meter turns green when below the detection level threshold, and turns red when above the detection level threshold.
- Press the [OK] button to enable the new settings. settings (except for the selection for ①)
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to its previous value. When you press the [Cancel] button, other entries that you changed will also be restored to their previous values.
- After audio has been detected, if the audio level is below the detection level threshold for 5 seconds or more, the camera returns to non-detection status.

Note:

- If the audio driver is not installed on your computer, audio detection does not function.
- When [Tampering Detection] or [Motion Detection] is set to "ON", the audio detection function cannot be used.

① No.1, (No.2)	Select the item to use with the peak meter for detection confirmation. [Set values: No.1, No.2]
② No.1	
Audio Detection	Enables/disables detection of No.1. [Set values: ON, OFF]
Level	Sets the detection level. [Set values: 0 to 4 to 10]
Detection Time	Detects audio that continues longer than the set time. [Set values: 0 to 1000 to 3000] msec
③ No.2	Sets No.2. This is the same as No.1.

* The [Set values] in bold letters are factory defaults.

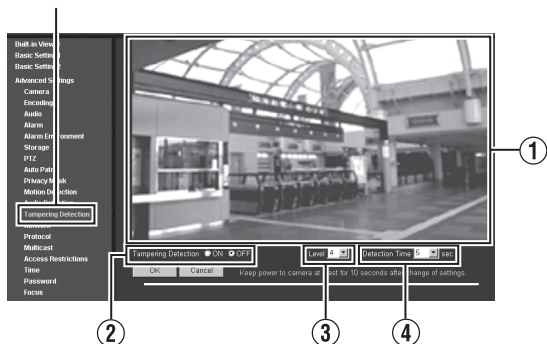
Settings (continued)

Tampering Detection Pages

This page sets the tampering detection.

This page can be used during access using "admin" or "operator".

Click [Advanced Settings] and [Tampering Detection].



Memo:

- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to its previous value. When you press the [Cancel] button, other entries that you changed will also be restored to their previous values.
- When the Built-in Viewer or another client is acquiring images from the camera and the camera's transfer capabilities are exceeded, video may not be displayed on the [Tampering Detection] page. When using the [Tampering Detection] page, disable the Built-in Viewer and other clients.

Note:

- Detection may not be possible due to the installation conditions of the camera or the subject being shot.
- When [Motion Detection] or [Audio Detection] is set to "ON", the tampering detection function cannot be used.

① Inspection screen	When tampering is detected, the area around the viewer becomes accentuated in red. Tampering detection is triggered when the video brightness data becomes focused on a single value. This may take place when the lens has been blocked, or an obstacle is placed in front of the camera.
② Tampering Detection	Turns tampering detection ON or OFF. [Set values: ON, OFF]
③ Level	Sets the tampering detection level. Larger numbers will increase the detection level, making it more sensitive. [Set values: 0 to 4 to 10]
④ Detection Time	Sets the minimum time for detecting tampering. If video determined to be tampering continues for longer than the specified time, tampering detection is triggered. [Set values: 5 to 50 to 100] sec

* The [Set values] in bold letters are factory defaults.

Network Page

This page sets the network settings.

This page can be used during access using "admin".

The screenshot shows the Network Page configuration interface. On the left is a sidebar menu with categories: Built-in Viewer, Basic Setting 1, Basic Setting 2, Advanced Settings, Camera, Encoding, Audio, Alarm, Alarm Environment, Storage, PTZ, Auto Patrol, Privacy Mask, Motion Detection, Audio Detection, Tampering Detection, Network (highlighted), Protocol, Multicast, Access Restrictions, Time, Password, Focus, Maintenance, LED Rate, Miscellaneous, Operation, Settings, Position List, and Data Settings. The main area contains an 'IP Setting' section and an 'Other' section. At the top are 'OK' and 'Cancel' buttons and a note: 'Keep power to camera at least for 10 seconds after change of settings.' The 'IP Setting' section includes: IP Setting (DHCP Disable), IP Address (192.168.0.2), Subnet Mask (255.255.255.0), Default Gateway (0.0.0.0), Host Name, DNS Server (0.0.0.0), MAC Address (00:80:88:46:e6:09), IP Protocol (IP Version 4 selected, IP Version 6), and IPv6 Address (link local: Disabled, global: Disabled). The 'Other' section includes: Negotiation (Auto), TOS(DS field) (0 (0 - 252)), TTL(unicast) (64 (1 - 255)), TTL(multicast) (32 (1 - 255)), and MTU (1500 (1280 - 1500)). Numbered callouts 1-14 point to various fields and buttons.

Section	Field	Value
IP Setting	IP Setting	DHCP Disable
	IP Address	192 . 168 . 0 . 2
	Subnet Mask	255 . 255 . 255 . 0
	Default Gateway	0.0.0.0
	Host Name	
	DNS Server	0.0.0.0
	MAC Address	00:80:88:46:e6:09
	IP Protocol	<input checked="" type="checkbox"/> IP Version 4 <input type="checkbox"/> IP Version 6
	IPv6 Address	link local: Disabled global: Disabled
	Other	Negotiation
TOS(DS field)		0 (0 - 252)
TTL(unicast)		64 (1 - 255)
TTL(multicast)		32 (1 - 255)
MTU		1500 (1280 - 1500)

Click [Advanced Settings] and [Network].

Memo:

- Press the [OK] button to enable the new settings.
- If you change the settings, the camera will restart. The camera takes about 90 seconds to restart.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- If you change the settings other than host name and DNS server on the [Network] page, all of the currently operating services are terminated. For example, if you change a setting on the [Network] page during JPEG, H.264 or MPEG-4 file distribution, the file distributions are stopped and the TCP connection is disconnected.

Settings (continued)

Network Page (continued)

IP Setting	
① IP Setting	Sets the DHCP client function. To enable the DHCP, connect the camera to the network environment where the DHCP server is running. If you have "enabled" the DHCP but the DHCP server does not exist, the camera will start with the IP address of 192.168.0.2 and the subnet mask of 255.255.255.0 approximately 2 minutes after startup. For the IP address details, see the "Instructions (IP Address Settings)." [Set values: DHCP Disable, DHCP Enable]
② IP Address	Sets the IP address of camera. [Factory default: 192.168.0.2]
③ Subnet Mask	Sets the subnet mask of camera. [Factory default: 255.255.255.0]
④ Default Gateway	Sets the default gateway of camera. Enter "0.0.0.0" if you do not want to set a default gateway. [Factory default: 0.0.0.0]
⑤ Host Name	Sets a host name of camera. It can consist of alphanumeric characters, hyphen (-), and period (.). Underscore (_) character is not allowed to use.
⑥ DNS Server	Sets an address of DNS server. [Factory default: 0.0.0.0]
⑦ MAC Address	The MAC address of camera is shown as a hexadecimal number.
⑧ IP Protocol	Turns the IP Version 6 setting On or Off. (IP Version 4 is usually set to On.)
⑨ IPv6 Address	When you enable the IP Version 6 setting, two address types are displayed. They are: "link local" and "global". However, if the IPv6 is not supported by the connected network, the "global" address bar is shown as "Disabled".
Other	
⑩ Negotiation	Sets the network negotiation. If you have selected a value other than "Auto", do not set the connected network device to "Auto". Be sure to set it to the same value as the camera. [Set values: Auto, 100M Full, 100M Half, 10M Full, 10M Half] Memo: _____ <ul style="list-style-type: none"> The camera and another connecting device on the network may connect automatically when the other than "Auto" is selected for the camera and "Auto" is set for the other connecting device.
⑪ TOS(DS field)	Sets a TOS value of IP packets which contain visual data. [Set values: 0 to 252]
⑫ TTL(unicast)	Sets a TTL value of TCP packets which contain visual data. [Set values: 1 to 64 to 255]
⑬ TTL(multicast)	Sets a TTL value of UDP packets which contain visual data. [Set values: 1 to 32 to 255]
⑭ MTU	Sets the maximum size of packets which contain visual data. [Set values: 1280 to 1500]

* The [Set values] in bold letters are factory defaults.

Protocol Page

This page sets the protocol.

This page can be used during access using "admin".

OK Cancel Keep power to camera at least for 10 seconds after change of settings.

Server Certificate

Register Information ①

Local Certification

Protocol Settings

HTTP/HTTPS HTTP HTTPS

HTTP Server Port (1 - 65535)

HTTPS Server Port (1 - 65535) ②

SNMP ON OFF

AMX Device Discovery Protocol ON OFF

Standard Surveillance Protocol

PSIA/ONVIF PSIA ONVIF OFF ③

JPEG Streaming

Priority Client Number Framerate ④

Before changing priority of JPEG streaming, please stop all JPEG streams including multicast.

Click [Advanced Settings] and [Protocol].

Memo:

- Press the [OK] button to enable the new settings.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- When you connect via Internet Explorer after changing protocol settings, enter the address using the new server port and port number in the address bar.
- The camera's default settings do not support using the HTTPS and SNMP functions. For protocol settings when using HTTPS with SNMP, see "HTTPS and SNMP Function Update Procedure". (Page 125)

① Server Certificate	Specifies settings related to server certificates.
	<p>Register Information Displays valid server certificates.</p> <p>Local Certification When you press the [Create Server Certificate] button, displays the screen for entering information required to create a server certificate.</p>
② Protocol Settings	Sets protocols.
	<p>HTTP/HTTPS Select the protocol to use. [Set values: HTTP, HTTPS]</p>

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Protocol Page (continued)

② Protocol Settings (continued)	
HTTP Server Port	<p>You can change the port number for the built-in HTTP server of the camera.</p> <p>[Set values: 1 to 80 to 65535]</p> <p>Memo: _____</p> <ul style="list-style-type: none"> To access the camera from Internet Explorer, enter the following in the Internet Explorer address bar when the camera is set to its default settings. http://192.168.0.2 If the port number has been changed to 8080, enter it after the IP address as follows. http://192.168.0.2:8080 Enter [:] and the port number If you change the HTTP server port, the port for the video stream deliver request also changes.
HTTPS Server Port	<p>You can change the port number for the built-in HTTPS server of the camera.</p> <p>[Set values: 1 to 443 to 65535]</p> <p>Memo: _____</p> <ul style="list-style-type: none"> To access the camera from Internet Explorer, enter the following in the Internet Explorer address bar when the camera is set to its default settings. https://192.168.0.2 If the port number has been changed to 8080, enter it after the IP address as follows. https://192.168.0.2:8080 Enter [:] and the port number If you change the HTTPS server port, the port for the video stream deliver request also changes.
SNMP	<p>Sets SNMP.</p> <p>[Set values: ON, OFF]</p>
AMX Device Discovery Protocol	<p>You can change the AMX device discovery protocol. Set this to "ON" when using the camera with an AMX system.</p> <p>[Set values: ON, OFF]</p>

* The [Set values] in bold letters are factory defaults.

③ Standard Surveillance Protocol	Sets standard surveillance protocols.
PSIA/ONVIF	You can change the standard surveillance protocols. [Set values: PSIA, ONVIF, OFF]
④ JPEG Streaming	Selects the JPEG image streaming priority.
Priority	<p>Selects whether to give priority to the client number for JPEG image streaming or the frame rate.</p> <p>Client Number : Gives priority to the streaming client number. Lowers the JPEG frame rate as delivery requests increase, allowing delivery to a maximum of 20 clients.</p> <p>Framerate : Gives priority to the frame rate. Set this to maintain the frame rate for JPEG images requested by clients. Delivery requests that exceed the maximum number will be denied.</p> <p>[Set values: Client Number, Framerate]</p>

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Register Information

Displays valid server certificates.

This page can be used during access using "admin".

- This is displayed when you update the HTTPS and SNMP functions. For directions on updating, refer to [HTTPS and SNMP Function Update Procedure]. (Page 125)

Built-in Viewer	Register Information
Basic Setting1	Validated Date
Basic Setting2	Mar 7 15:01:57 2013 GMT
Advanced Settings	Country Code (2 letter code)
Camera	JP
Encoding	State
Audio	Kanagawa
Alarm	City
Alarm Environment	Yokohama-shi
Storage	Organization
PTZ	JVC KENWOOD Corporation
Auto Patrol	Organization Unit
Privacy Mask	Business Relation Bureau
Motion Detection	Common Name
Audio Detection	JA in Kanto
Tampering Detection	Mail Address
Network	kanaga_mail@jvc-kenwood.co.jp
Protocol	

Create Server Certificate Page

This page is for creating a new server certificate for local certification.

This page can be used during access using "admin".

- This is displayed when you update the HTTPS and SNMP functions. For directions on updating, refer to [HTTPS and SNMP Function Update Procedure]. (☞ Page 125)

Item	Max Characters
Country Code (2 letter code)	2 Characters
State	126 Characters
City	126 Characters
Organization	64 Characters
Organization Unit	64 Characters
Common Name	64 Characters
Mail Address	64 Characters

① Country Code	Enter the country code of the local certificate authority. Use the 2-letter alphabetical country code defined in ISO3166-1 alpha 2.
② State	Enter the state of the local certificate authority.
③ City	Enter the city of the local certificate authority.
④ Organization	Enter the organization name of the local certificate authority.
⑤ Organization unit	Enter the organization unit name of the local certificate authority.
⑥ Common name	Enter the administrator name or server host name of the local certificate authority.
⑦ Mail Address	Enter the administrator's mail address.

- Characters that can be input vary by item.

- ① A-Z
- ② ~ ⑤ a-zA-Z0-9_.,+/()-
- ⑥ a-zA-Z0-9.-
- ⑦ a-zA-Z0-9_@.+"#\$-

Settings (continued)

Multicast Page

(Audio-related functions are only available on the VN-H57U/H257U/H257VPU/H157WPU.)

This page specifies manual multicast streaming.

This page can be used during access using "admin" or "operator".

The screenshot shows the Multicast settings page. On the left is a navigation menu with the following items: Built-in Viewer, Basic Setting1, Basic Setting2, Advanced Settings, Camera, Encoding, Audio, Alarm, Alarm Environment, Storage, PTZ, Auto Patrol, Privacy Mask, Motion Detection, Audio Detection, Tampering Detection, Network, Protocol, Multicast (highlighted), Access, and Restrictions. The main content area has a title bar with 'OK' and 'Cancel' buttons and a warning: 'Keep power to camera at least for 10 seconds after change of settings'. Below this are three sections for Encoder No.1, Encoder No.2, and Encoder No.4: Audio. Encoder No.1 has fields for H.264 High, 1920x1080, 5 fps, Destination Address (225.0.1.1), and Destination Port (49152), with a 'Start' button. Encoder No.2 and Encoder No.3 are empty. Encoder No.4: Audio has fields for Destination Address (225.0.3.1) and Destination Port (49152), with a 'Start' button. Numbered callouts 1-9 point to: 1. OK button; 2. Cancel button; 3. H.264 High dropdown; 4. 5 fps dropdown; 5. Encoder No.2 section; 6. Start button for Encoder No.1; 7. Encoder No.4: Audio section; 8. Start button for Encoder No.4; 9. Start button for Encoder No.4.

Click [Advanced Settings] and [Multicast].

Memo:

- To save the changes made to the entire page, press the [OK] button.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.

Encoder No.1 to No.3	Sets the manual streaming of Encoder No.1 to Encoder No.3.
① Encoding	Displays the "Encode" being set for each encoder. (☞ Page 27) [Display values: JPEG, H.264 Baseline, H.264 High, MPEG4]
② FrameSize	Displays the "FrameSize" being set for each encoder. (☞ Page 26)
③ FrameRate	Displays the "FrameRate" being set for each encoder. (☞ Page 26) You can change it if the encoding is "JPEG". [Set values: 30 fps to 5 fps to 1/30 fps] Memo: _____ <ul style="list-style-type: none"> You can change the frame rate if it is below the limit specified on the [Basic Setting2] page or on the [Encode] page.
④ Destination Address	Sets a destination address for encoded data streaming. Set a multicast address. If you have another device for multicast streaming, set a different multicast address. [Factory default: Encoder No.1: 225.0.1.1, Encoder No.2: 225.0.2.1, Encoder No.3: 225.0.4.1]
⑤ Destination Port	Sets a destination port number for encoded data streaming. Enter an even number to meet the RTP. If you have another device for multicast streaming, you should set a different port number. If a port number is duplicated, you cannot receive multiple number of multicast data using a single computer. [Factory default: Encoder No.1: 49152, Encoder No.2: 59152, Encoder No.3: 29152]
⑥ Start	Saves the encoder settings, and starts manual streaming. The [Stop] button is displayed during manual streaming. You cannot change the frame rate, destination address, and destination port during data distribution. Memo: _____ <ul style="list-style-type: none"> To save the settings made to the entire page, press the [OK] button.

Audio (VN-H57U/H257U/H257VPU/H157WPU only)

⑦ Destination Address	Specifies the destination address for audio streaming. Specify a multicast address. When used with other multicast transmitting devices, set a separate multicast address for each device. [Factory default: 225.0.3.1]
⑧ Destination Port	Specifies the destination port number for audio streaming. Specify an even number in accordance with RTP. When used with other multicast transmitting devices, it is recommended that you set a separate port number for each device. If the same port numbers are used, multiple multicasts will not be receivable on a single computer. [Factory default: 39152]
⑨ Start	For starting and stopping manual distribution.

* The [Set values] in bold letters are factory defaults.

Memo: _____

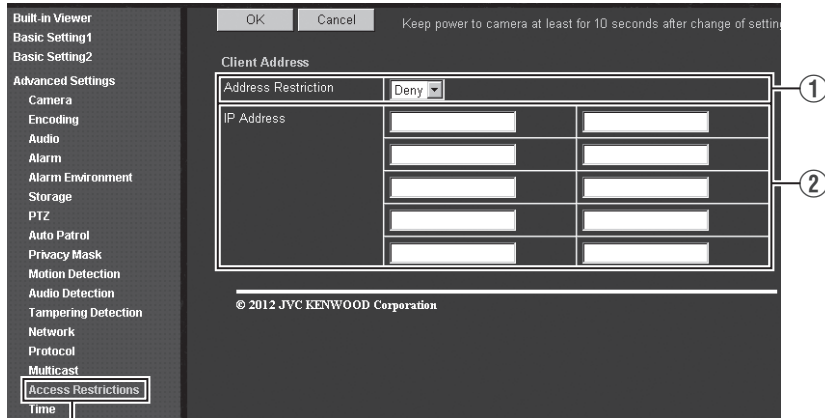
- If the camera power supply is turned Off during multicast streaming, the camera will restart multicast streaming automatically after the camera is restarted.
- Settings ①~⑨ are not displayed when the encoder is set to "OFF".

Settings (continued)

Access Restrictions Page

This page sets the client restrictions.

This page can be used during access using "admin".



Click [Advanced Settings] and [Access Restrictions].

Memo:

- Press the [OK] button to enable the new settings.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- This function applies to H.264, JPEG or MPEG-4. This function does not restrict the access via the Web browser and the use of API.

Note:

- The Access Restriction function determines the restrictions when TCP connection is made by the client. If the TCP connection is already established to the client, this TCP connection is not released even when you sets the access restrictions after the connection.

Client Address	You can restrict a client to allow access to the camera using its IP address.
① Address Restriction	<p>If "Deny" is selected, retrieving H.264, JPEG or MPEG-4 by the IP address set in [IP Address] option will be denied. An access to the Settings page is not restricted.</p> <p>If "Allow" is selected, retrieving H.264, JPEG or MPEG-4 by the IP address set in [IP Address] option will be permitted. An access to the Settings page is not restricted.</p> <p>[Set values: Deny, Allow]</p>
② IP Address	Up to 10 blocked or permitted client IP addresses can be registered.

Note:

- If "Allow" is selected, but all IP address fields are left blank, retrieving H.264, JPEG or MPEG-4 by all IP addresses will be denied.
An access to the Settings page is not restricted.
Additionally, the camera also denies transmission to an IP address if it is specified via API.

Memo:

- When you set a specific IP address range, enter a combination of IP address and subnet mask in the [IP Address] field.
 - Define the subnet mask using a length between 8 and 30 bits.
For example, when you set the IP address range between "192.168.0.0" and "192.168.0.255", enter "192.168.0.0/24" (IP-address/Subnet-mask-bit-length).
-

Settings (continued)

Time Page

This page sets the current clock time.

This page can be used during access using "admin".

OK Cancel Keep power to camera at least for 10 seconds after change of settings.

Sntp	OFF	①
Sntp Server	0.0.0.0 (IP or FQDN)	②
Interval	Hour (1 - 24) 1	③
Time	2012 / 04 / 20 : 06 : 15 : 55 (Y/M/D-h:m:s)	④
Time Zone	(GMT+9:00) Japan	⑤
PC Time to Camera	Set	⑥

Click [Advanced Settings] and [Time].

Memo:

- Press the [OK] button to enable the new settings.
- If the [OK] button is pressed upon entering an invalid value, a warning message will appear and the entry will be denied. Press the [Cancel] button to restore the invalid entry to the value before the change was made. If you press the [Cancel] button, other changed items will also be restored to the values before the change was made.
- Adjust the time and the time zone together.

① SNTP	<p>Sets the SNTP client function. OFF :Does not access to NTP server. ON :Gets the time by periodical accessing to the specified NTP server. [Set values: OFF, ON] Memo:_____</p> <ul style="list-style-type: none"> • The time is recorded in the JPEG header when distributed by the camera. The time recorded in the JPEG header may not continue immediately before and after the acquisition of time from NTP server.
② SNTP Server	<p>Sets an IP address of NTP server. [Factory default: 0.0.0.0]</p>
③ Interval	<p>Sets a unit and values of measurement for the time interval at which to access the NTP server. [Set values: Min (1 - 60), Hour (1 - 24), Day (1 - 31)]</p>
④ Time	<p>Displays the clock time of camera. You can correct the time by entering a value (without seconds). Memo:_____</p> <ul style="list-style-type: none"> • The time is recorded in the JPEG header when distributed by the camera. Discontinuity may occur in the JPEG header's time immediately before and after changing the time.
⑤ Time Zone	<p>Sets a time zone. [Set value: (GMT-12:00) to (GMT)UTC to (GMT+12:45)]</p>
⑥ PC Time to Camera	<p>Click [Set] to set the computer's time on the camera.</p>

* The [Set values] in bold letters are factory defaults.

Settings (continued)

Password Page

This page sets a password.

This page can be used during access using "admin".

User Name	Password	Password Re-Input	Action
admin	...		Set
admin1			Set Delete
admin2			Set Delete
admin3			Set Delete
operator			
User Name	Password	Password Re-Input	Action
operator	...		Set
operator1			Set Delete
operator2			Set Delete
operator3			Set Delete
user			
User Name	Password	Password Re-Input	Action
user	...		Set
user1			Set Delete
user2			Set Delete
user3			Set Delete

Input password in 1 - 16 characters.
Keep power to camera at least for 10 seconds after change of settings.

Click [Advanced Settings] and [Password].

① User Name	<p>You must set passwords for the "admin", "operator" and "user".</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● You can set up to four users each for "admin", "operator" and "user". ● You cannot specify a user name other than the character strings displayed.
② Password	<p>Enters a password.</p> <p>A password can be one to 16 alphanumeric characters. Password characters are case-sensitive.</p>
③ Password Re-Input	<p>Enter the new password again for confirmation.</p>

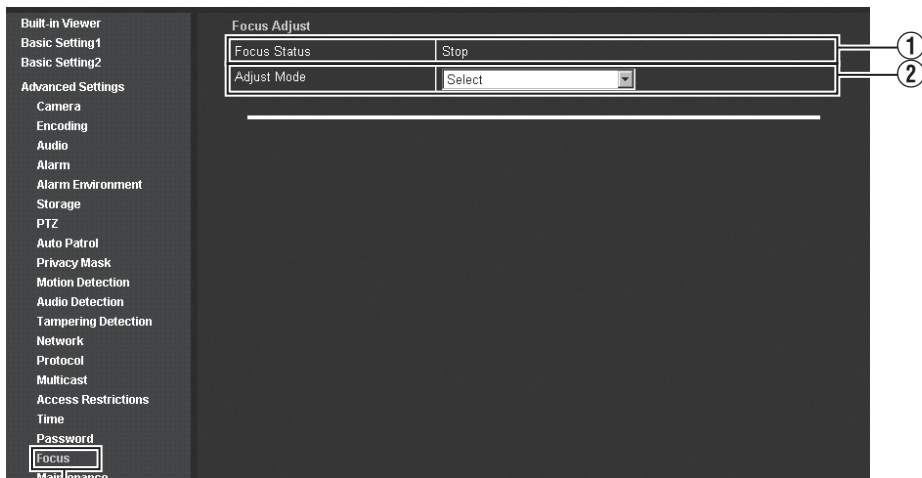
④ Action	Enables password settings or deletes them. When you press a button, its confirmation screen appears. Set : Sets the password you have entered. Delete : Deletes the default password. Memo: ● Remember that you cannot delete the "admin", "operator", and "user" factory default passwords.
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- Note:**
- Always handle the password carefully so that you do not forget it.
 - If you have forgotten the password, please consult your nearest JVC dealer.
-

Settings (continued)

Focus Page

You can adjust the focus from a computer (electric focus) for VN-H57U/H257U/H257VPU/H157WPU. Select the adjustment mode from the pull-down menu and perform adjustment as necessary. This page can be used during access using "admin" or "operator".



Click [Advanced Settings] and [Focus].

Note:

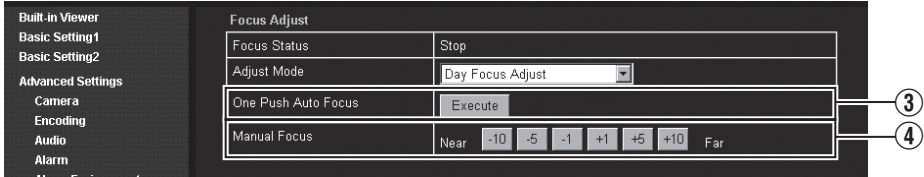
- Before making adjustments via the Focus page, roughly adjust the camera's lens. If the rough focus is widely out of alignment, focus adjustment may be performed incorrectly.

<p>① Focus Status</p>	<p>Focus adjustment operation status. Ready : Preparing to move. Stop : Not moving. Moving : Currently moving. Error : A moving error occurred.</p>
<p>② Adjust Mode</p>	<p>Sets the adjustment mode. When using an adjustment mode other than "Select" and you do not perform any operation for 3 minutes or more, the mode automatically returns to "Select". Select : This is the default mode. Day Focus Adjust : Provides a finer level of adjustment than can be achieved by performing rough focus adjustment of the camera lens. Night Focus Offset : You can mitigate the amount of focus blurring (bokeh) from infrared exposure. Back Focus Position Initialize : Perform initialization if you have changed the lens or if you want to readjust this camera's lens focus after performing Day Focus Adjust. (VN-H57U only)</p> <p>[Set values: Select, Day Focus Adjust, Night Focus Offset, Back Focus Position Initialize]</p> <p>Note:_____</p> <ul style="list-style-type: none"> ● When adjusting the focus, turn off slow shutter and alarm. ● Do not perform focus adjustment from multiple users. ● If the focus does not move, check if the camera lens's focus adjustment gear has returned to its original position. (VN-H257U/H257VPU/H157WPU) ● When the electric focus is being used, the motor emits noise. ● When using the electric focus, the field angle may slightly shift. This is not a malfunction. ● If you select "Day Focus Adjust", "Night Focus Adjust", or "Back Focus Position Initialize", the camera enters Focus Assist mode and the lens iris opens. The status LED color also alternates between green and orange. Focus Assist mode is not automatically disabled after you finish adjusting the focus. The LED turns green when you select "Select", and the camera exits Focus Assist mode.

* The [Set values] in bold letters are factory defaults.

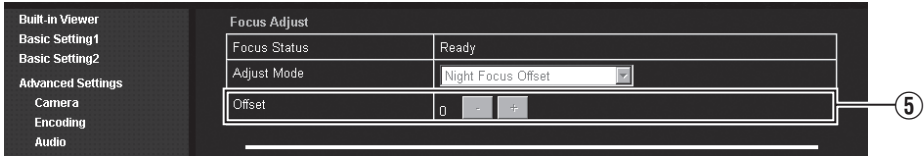
Settings (continued)

Focus Page (continued)



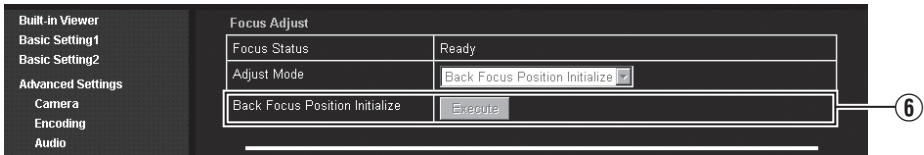
When you select "Day Focus Adjust" in [② Adjust Mode], the camera automatically enters color mode and Focus Assist mode. Adjust the focus in a bright environment.

<p>③ One Push Auto Focus</p>	<p>Click the [Execute] button to automatically adjust the focus. This may take several seconds. When the process is finished, the status becomes "Stop". Use the viewer to check the focus. If an error is displayed, check the shooting environment, and execute the procedure again.</p> <p>Note:—</p> <ul style="list-style-type: none"> • Depending on the shooting environment (low contrast, low illumination, a moving subject, etc.), an error may be displayed, or the focus may not be set to the optimal position. • If you perform shooting of a close subject by zooming the lens to the wide position or shooting of a far subject by zooming the lens to the tele position, the focus may not be set to the optimal position. (VN-H257U/H257VPU/H157WPU) • If the focus cannot be set to the optimal position using One Push Auto Focus, perform adjustments using manual focus.
<p>④ Manual Focus</p>	<p>Moves the focus amount according to the value for each button.</p> <p>Note:—</p> <ul style="list-style-type: none"> • If you exceed the range of movement for the focus, nothing happens even if you push these buttons. In this case, move in the opposite direction. • If you move in the opposite direction and there is no point at which you can achieve focus, perform back focus initialization. Perform fine adjustment of the focus again with manual focus after roughly adjusting the camera's lens focus (refer to "Instructions (Installation)"). (VN-H57U only) • When using the zoom lens with VN-H57 Perform manual focus adjustment so that the zoom is focused for both the tele and wide positions.



When you select "Night Focus Offset" in [(2) Adjust Mode], the camera automatically enters Black & White mode and Focus Assist mode. Adjust the offset value in a B&W mode environment to achieve focus.

<p>5 Offset</p>	<p>When using this function and the offset is set to other than "0", the focus is automatically moved by the offset amount when you enter B&W mode.</p> <p>Note:</p> <ul style="list-style-type: none"> • Before performing Night Focus Offset, make sure to perform Day Focus Adjust. • Depending on the shooting environment, the focus may not be set to the optimal position. • When the night focus offset is set to other than "0", the motor emits noise when you switch between color and black/white.
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When you select "Back Focus Position Initialize" in [(2) Adjust Mode], the camera automatically enters color mode.

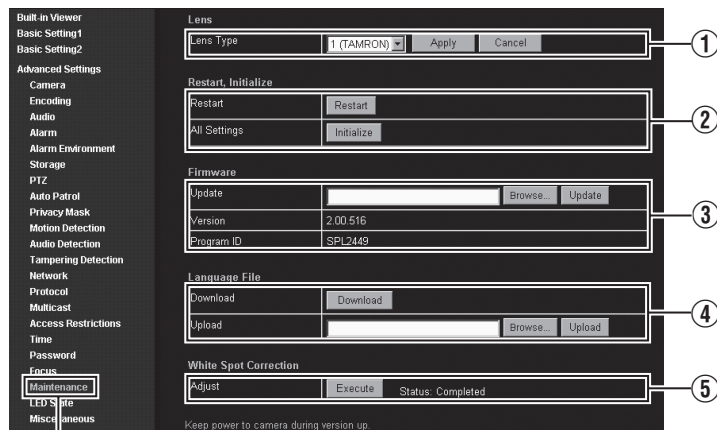
<p>6 Back Focus Position Initialize (VN-H57U only)</p>	<p>Click the [Execute] button to initialize the back focus position. Wait for several seconds until the status becomes "Execute". After initializing, perform rough adjustment of the camera's lens focus again.</p> <p>Note:</p> <ul style="list-style-type: none"> • During initialization, a large gear sound may be emitted. This is not a malfunction.
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Settings (continued)

Maintenance Page

This page maintains the camera system.

This page can be used during access using "admin".



Click [Advanced Settings] and [Maintenance].

<p>① Lens (VN-H37U/ H57U only)</p>	<p>Selects the lens type and adjusts the lens.</p>
<p>Lens Type</p>	<p>Select the lens type of camera. If you press the [Apply] button after selecting a lens type, the setting will be saved. 1 (TAMRON) : Select this type to use a Tamron lens. 2 (FUJINON) : Select this type to use a Fujinon lens. [Set values: 1 (TAMRON), 2 (FUJINON)]</p>
<p>② Restart, Initialize</p>	<p>Restarts the camera and initializes the set values of the camera.</p>
<p>Restart</p>	<p>Restarts the camera. The camera takes about 1 minutes and 30 seconds to restart.</p>
<p>All Settings</p>	<p>Clicking [Initialize] restores all settings to the factory defaults, and restarts the camera. All passwords are initialized as well. However, the time of the clock built in the camera is not reset. Current services such as JPEG/H.264/MPEG-4 streaming are all stopped. For factory defaults, see the "List of Factory Defaults of Each Page". (☞ Page 82)</p>

* The [Set values] in bold letters are factory defaults.

③ Firmware	Displays the update, the version and the program number of the firmware.
Update	<p>Updates the camera firmware and restarts the camera. Your camera settings are saved. Copy the new firmware file to the computer where you use the Internet Explorer, and open the file by pressing the [Browse...] button. Press the [Update] button to start firmware updating. Current services such as JPEG/H.264/MPEG-4 streaming are all stopped. The firmware updating may take several minutes. When the firmware is successfully updated, the message is displayed in Internet Explorer.</p> <p>Note:—</p> <ul style="list-style-type: none"> ● Do not shut down the system and computer power supplies when the firmware is being updated and when the camera is restarting immediately after firmware updating. If the power is shut down, it may cause a malfunction of camera. ● Before starting firmware updating, terminate any access to the camera (by the viewer or others), except for the access from the Maintenance Page. If an access to the camera from anything other than the Maintenance Page is valid, and if you start to update the firmware, the access from this Maintenance Page may be disconnected. If it occurs, terminate the access from anything other than the Maintenance Page. Then, access to this Maintenance Page again and restart firmware updating.
Version	Displays the version of the firmware.
Program ID	Displays the program ID of the firmware.

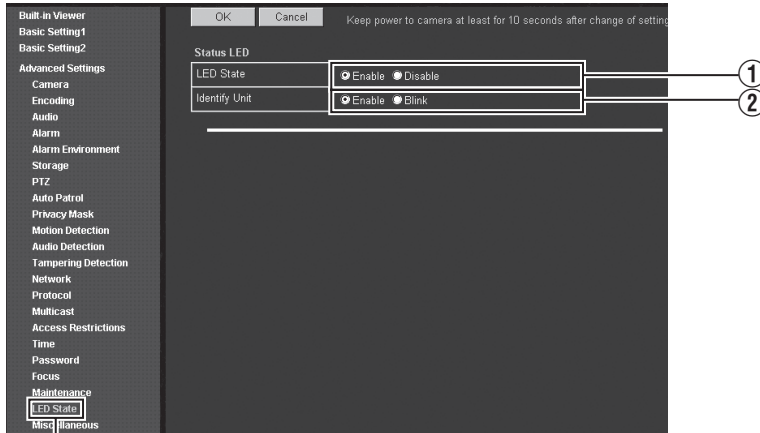
Settings (continued)

Maintenance Page (continued)

④ Language File	The Language File (the file of languages) can be uploaded or downloaded only when the "English (Custom)" is selected by the language selection radio button. (Page 8)
Download	Downloads the Language File. Click [Download] button to download the "language.ini" file to computer.
Upload	Uploads the Language File. Click [Browse...] button to display the file selection screen. Please select the "language.ini" file which you edited. Click [Upload] button to upload the selected "language.ini" file to camera.
⑤ White Spot Correction	Corrects the white spots shown in the image. Make the screen black by covering it with the lens cap, press the [Execute] button and perform correction. Memo: <ul style="list-style-type: none">● When you correct white spots, block the light completely using a lens cap before you start.● If you perform adjustment in an environment where you cannot block the light from reaching the lens, adjustment may fail. If adjustment fails, try again in an environment where the light is completely blocked using a lens cap.● If checking for newer versions of pages stored by Internet Explorer is not set to "Every time I visit the webpage", you cannot perform white spot correction. In that case, follow the procedure below to set checking for newer versions of stored pages to "Every time I visit the webpage". Select [Tools] - [Internet Options] - [General] - [Temporary Internet Files] - [Settings] - [Every time I visit the webpage].

LED State Page

This page sets the [STATUS] LED indication of the camera.
This page can be used during access using “admin” or “operator”.



Click [Advanced Settings] and [LED State].

Memo:

- Press the [OK] button to enable the new settings. If you press the [Cancel] button, your changes are canceled and the current camera settings are displayed.

Status LED	Allow to check and set the [STATUS] LED indication of the camera.
① LED State	<p>Turns the [STATUS] indicator On or Off when the camera is operating.</p> <p>Enable : Continues to light when the camera is operating.</p> <p>Disable : Turns the indicator Off after the camera has started.</p> <p>[Set values: Enable, Disable]</p>
② Identify Unit	<p>If you wish to blink the [STATUS] indicator of the camera, set this option to “Blink”. This may occur if you wish to visually check the camera operation when configuring the camera from the computer.</p> <p>[Set values: Enable, Blink]</p> <p>Memo:</p> <ul style="list-style-type: none"> • If you have set the [LED State] to “Disable”, the indicator does not light even when you set the [Identify Unit] to “Blink”.

* The [Set values] in bold letters are factory defaults.

Settings (continued)

List of Factory Defaults of Each Page

■ Camera Page (Page 18)

Item	Factory Defaults
Camera ID	Model name (An example of VN-H137 for the VN-H137U)
Scenefile	General
Brightness	Normal
Color Level	Normal
Black Level	Normal
Gamma	ON
Enhance Level	Normal
3D DNR	Mid
White Balance	ATW-Wide
AWC R-Gain	107
AWC B-Gain	65
ALC	Mid
Sense Up	x2
Priority	Combo
Shutter Speed	1/30
Easy Day/Night (VN-H137U/H237U only)	Color
Average: Peak	8:2
Day/Night (VN-H37U/H57U/H257U/ H237VPU/H257VPU/ H157WPU only)	Color
AF is performed in conjunction with switching modes.	ON
Color Average:Peak	5:5
Black & White Average:Peak	
Back Light Compensation	OFF
CLVI	OFF

■ Encoding Page (Page 26)

Item	Factory Defaults	
Encode	Single-Encode	
Aspect Ratio	16:9	
Encoder No.1	Encode	H.264 High
	Framesize	1920x1080
	Framerate	5 fps
	Bit Rate	CBR 2048 kbps
I Frame Interval	5 frames	
Encoder No.2	OFF	
Encoder No.3	OFF	
Monitor Output	ON	

■ Audio Page (Page 33)

(This function is only available on VN-H57U/
H257U/H257VPU/H157WPU)

Item	Factory Defaults
Communicate	Half Duplex
Mike Gain	32 dB
Mike Power Supply	ON
Audio File No.1	–
Audio File No.2	–
Audio File No.3	–
Audio File No.4	–
Audio File No.5	–

■ Alarm Page (☞ Page 35)

Item	Factory Defaults
Action	Disable
1st Trigger	Pin Input1 Make
Max. Interval (VN-H57U/H257U/ H257VPU/H157WPU only)	–
2nd Trigger (VN-H57U/H257U/ H257VPU/H157WPU only)	Disable
Action Position Number *1	–
Mail Settings *2	Unset
Mail Address *2	–
Mail Text *2	–
Attachment JPEG *2	–
Encoder *2	–
TCP IP Address *3	–
TCP Port Number *3	–
TCP Data *3	–
Attachment JPEG *3	–
Encoder *3	–
UDP IP Address *4	–
UDP Port Number *4	–
UDP Data *4	–
Audio File *5 (VN-H57U/H257U/ H257VPU/H157WPU only)	–
Duration *6 (VN-H57U/H257U/ H257VPU/H157WPU only)	–
Switch Scene File *7	General
Trigger Position Number *8	–
Easy Day/Night (VN-H137U/H237U only)	Color
Time *9	–
Day/Night *10 (VN-H37U/H57U/H257U/ H237VPU/H257VPU/ H157WPU only)	Color
Time Filter Unmask	All

*1: If Action is set to "Position"

*2: If Action is set to "Mail Settings"

*3: If Action is set to "TCP Data"

*4: If Action is set to "UDP Data"

*5: If Action is set to "Audio Playback"

*6: If Action is set to "Pin Output1 Make", "Pin Output1 Break", "Pin Output2 Make" or "Pin Output2 Break"

*7: If Action is set to "Switch Scene File"

*8: If 1st Trigger is set to "Position"

*9: If 1st Trigger is set to "Time"

*10: If 1st Trigger is set to Black & White mode

■ Alarm Environment Page (☞ Page 40)

Item	Factory Defaults
SMTP Server	0.0.0.0
Port Number	25
Send Mail Address	–
POP before SMTP	Disable
POP Server	0.0.0.0
Port Number	110
User Name	–
Password	–
Duration Output 1 (VN-H57U/H257U/ H257VPU/H157WPU only)	1000 msec
Duration Output 2 (VN-H57U/H257U/ H257VPU/H157WPU only)	1000 msec
Manual Output Output 1 (VN-H57U/H257U/ H257VPU/H157WPU only)	Make, Break
Manual Output Output 2 (VN-H57U/H257U/ H257VPU/H157WPU only)	Make, Break

Settings (continued)

List of Factory Defaults of Each Page (continued)

■ Storage Page (☞ Page 42)

Item		Factory Defaults
Storage Mode		OFF
FTP Server ^{*1}		0.0.0.0
Path ^{*1}		–
User Name ^{*1}		–
Password ^{*1}		–
FTP Record Mode ^{*1}		Constant + Alarm
Constant ^{*1}	Encoder	–
	Interval	–
	File Naming	Auto
	Sunday to Saturday	Unmask All
Alarm ^{*1}	Encoder	– 5 fps
	Trigger1	Pin Input1 Make
	Interval	–
	Trigger2	Disable
	Pre-Trigger	5 sec
	Post-Trigger	5 sec
	Sunday to Saturday	Unmask All

*1: If Recording Mode is set to "FTP Record"

■ PTZ Page (☞ Page 49)

Item	Factory Defaults
Mode	Disable
Return Time	1 min
Speed	Moment

■ Auto Patrol Page (☞ Page 50)

Item	Factory Defaults
Position	0 to 19
Stay Time	Skip
Moving Speed	Moment

■ Privacy Mask Page (☞ Page 52)

Item	Factory Defaults
Privacy Mask	OFF
Brightness	4

■ Motion Detection Page (☞ Page 54)

Item	Factory Defaults
Motion Detection	OFF
Level	4

■ Audio Detection Page (☞ Page 56)

(This function is only available on VN-H57U/H257U/H257VPU/H157WPU)

Item		Factory Defaults
No.1, 2		No.1
No.1	Audio Detection	OFF
	Level	4
	Detection Time	1000 msec
No.2	Audio Detection	OFF
	Level	4
	Detection Time	1000 msec

■ Tampering Detection Page (☞ Page 58)

Item	Factory Defaults
Tampering Detection	OFF
Level	4
Detection Time	50 sec

■ Network Page (🔍 Page 59)

Item	Factory Defaults
IP Setting	DHCP Disable
IP Address	192.168.0.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
Host Name	–
DNS Server	0.0.0.0
IP Protocol	IP Version 4: ON IP Version 6: OFF
Negotiation	Auto
TOS(DS field)	0
TTL(unicast)	64
TTL(multicast)	32
MTU	1500

■ Protocol Page (🔍 Page 61)

Item	Factory Defaults
HTTP/HTTPS	HTTP
HTTP Server Port	80
HTTPS Server Port	443
SNMP	OFF
AMX Device Discovery Protocol	OFF
PSIA/ONVIF	OFF
JPEG Streaming	Client Number

■ Multicast Page (🔍 Page 66)

Item		Factory Defaults
Encoder No.1	Framesize	5 fps
	Destination Address	225.0.1.1
	Destination Port	49152
Encoder No.2	Framesize	5 fps
	Destination Address	225.0.2.1
	Destination Port	59152
Encoder No.3	Framesize	5 fps
	Destination Address	225.0.4.1
	Destination Port	29152

Encoder No.4	Destination Address	225.0.3.1
	Destination Port	39152

■ Access Restrictions Page (🔍 Page 68)

Item	Factory Defaults
Access Restriction	Deny
IP Address	–

■ Time Page (🔍 Page 70)

Item	Factory Defaults
SNTP	OFF
SNTP Server	0.0.0.0
Interval	Hour (1 - 24)
Time Zone	(GMT) UTC

■ Password Page (🔍 Page 72)

Item	Factory Defaults
Password	Displayed as *** Default passwords are: “admin” : jvc “operator” : jvc “user” : jvc
Password Re-Input	–

■ LED State Page (🔍 Page 81)

Item	Factory Defaults
LED State	Enable
Identify Unit	Enable

Settings (continued)

Miscellaneous Page

This page displays the software information of the camera.

This page can be used during access using “admin”, “operator” or “user”.

The screenshot shows a web interface with a left-hand navigation menu and a main content area. The navigation menu includes: Built-in Viewer, Basic Setting1, Basic Setting2, Advanced Settings, Camera, Encoding, Audio, Alarm, Alarm Environment, Storage, PTZ, Auto Patrol, Privacy Mask, Motion Detection, Audio Detection, Tampering Detection, Network, Protocol, Multicast, Access Restrictions, Time, Password, Focus, Maintenance, and IP State. The 'Miscellaneous' option is highlighted with a red box. The main content area is titled 'Free Open Source Software' and contains the following text: 'Software information regarding this product, Model No. VN-R57', '- SOFTWARE LICENSE AGREEMENT', '- Important Notice concerning the Software', 'The Software contained in this product, among others, consists of the following software:', '(1) the software which is developed by or for JVC KENWOOD Corporation;', '(2) the software which is licensed under the below:', '- GNU GENERAL PUBLIC LICENSE Version 2.0 (GPLv2.0)', '- GNU LESSER GENERAL PUBLIC LICENSE Version 2.1 (LGPLv2.1)', 'Also this product includes:', '(3) the software uses libraries from the FFmpeg project under the LGPLv2.1;', '(4) the software which is licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>', 'Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.', '(5) This product includes lighttpd-1.4.6 that has copyright note below;', 'Copyright (c) 2004, Jan Kneschke, incremental', 'All rights reserved.'

Click [Advanced Settings] and [Miscellaneous].

Operation Page

This page displays the operation status of camera.
This page can be used during access using “admin” or “operator”.

Click [Advanced Settings] and [Operation].

① Total Sending Bitrate	Displays the total TCP/UDP bit rate sent by the camera, and individual bit rates.
② Destination	Displays the number of streams the camera is sending.
③ System Log	Displays the following information. <ul style="list-style-type: none"> ● Number of seconds after startup of camera ● Alarm information

Settings (continued)

Settings Page

Displays the firmware version and the current settings of the camera.

This page can be used during access using “admin” or “operator”.

The following screen is an example of one possible configuration.

The screenshot shows a web interface with a dark background. On the left is a vertical navigation menu with various settings categories. The 'Settings' option is highlighted with a white box. The main content area is divided into three sections: 'Firmware', 'Camera', and 'Lens', each containing a table of configuration parameters.

Firmware	
Version	2.00.516
Program ID	SPL2449

Camera	
Camera ID	VN-H57
Scenefile	General
Brightness	Normal
Color Level	Normal
Black Level	Normal
Gamma	ON
Enhance Level	Normal
3D DNR	Mid
White Balance	ATW-Wide (R-Gain: 107, B-Gain: 65)
AGC	Mid
Sense Up	x2
ALC Priority	Combo
Shutter Speed	1/30
Day/Night	Color
Average/Peak	Color = 8:2, Black & White = 8:2
Back Light Compensation	OFF
CLVI	OFF

Lens	
Lens Type	1 (TAMRON)

Click [Advanced Settings] and [Settings].

Encode

Mode	Single-Encode
Aspect Ratio	16:9
Monitor Output	ON

Encoder No.1: H.264 High

Framesize	1920x1080
Framerate	5 fps
Bitrate	CBR 2048 kbps
I Frame Interval	5 Frame

Encoder No.2: OFF

Framesize	1280x720
Framerate	5 fps
Bitrate	CBR 2048 kbps
I Frame Interval	5 Frame

Encoder No.3: OFF

Framesize	640x360
Framerate	5 fps
Bitrate	CBR 2048 kbps
I Frame Interval	5 Frame

Audio

Communicate	Half Duplex
Mike Gain	32 dB
Mike Power Supply	ON
Audio File	No. 1: ---- No. 2: ---- No. 3: ---- No. 4: ---- No. 5: ----

Alarm

No.1	
Action	Disable
Trigger1 , Interval, Trigger2	----, Disable, Disable
Sunday	Unmask All
Monday	Unmask All
Tuesday	Unmask All
Wednesday	Unmask All
Thursday	Unmask All
Friday	Unmask All
Saturday	Unmask All

Settings (continued)

Settings Page (continued)

No.2	
Action	Disable
Trigger1, Interval, Trigger2	----, Disable, Disable
Sunday	Unmask All
Monday	Unmask All
Tuesday	Unmask All
Wednesday	Unmask All
Thursday	Unmask All
Friday	Unmask All
Saturday	Unmask All

No.3	
Action	Disable
Trigger1, Interval, Trigger2	----, Disable, Disable
Sunday	Unmask All
Monday	Unmask All
Tuesday	Unmask All
Wednesday	Unmask All
Thursday	Unmask All
Friday	Unmask All
Saturday	Unmask All

No.4	
Action	Disable
Trigger1, Interval, Trigger2	----, Disable, Disable
Sunday	Unmask All
Monday	Unmask All
Tuesday	Unmask All
Wednesday	Unmask All
Thursday	Unmask All
Friday	Unmask All
Saturday	Unmask All

No.5	
Action	Disable
Trigger1, Interval, Trigger2	----, Disable, Disable
Sunday	Unmask All
Monday	Unmask All
Tuesday	Unmask All
Wednesday	Unmask All
Thursday	Unmask All
Friday	Unmask All
Saturday	Unmask All

Alarm Environment**Mail Settings**

SMTP Server	0.0.0.0
SMTP Port Number	25
Send Mail Address	
POP before SMTP	Disable
POP Server	0.0.0.0
POP Port Number	110
User Name	

Alarm Output

Duration	Output 1: 1000 msec Output 2: 1000 msec
----------	--

Storage

Storage Mode	OFF
--------------	-----

FTP Record

FTP Server	0.0.0.0
Path	
User Name	
FTP Record Mode	

FTP Constant

Encoder	No. 1
Interval	sec
File Naming	Auto User-Defined-String:
Sunday	Unmask All
Monday	Unmask All
Tuesday	Unmask All
Wednesday	Unmask All
Thursday	Unmask All
Friday	Unmask All
Saturday	Unmask All

FTP Alarm

Encoder	No. 1
Framerate	fps
Trigger1, Interval, Trigger2	----, Disable, Disable
Pre-Trigger	5 sec
Post-Trigger	5 sec
Sunday	Unmask All
Monday	Unmask All
Tuesday	Unmask All
Wednesday	Unmask All
Thursday	Unmask All
Friday	Unmask All
Saturday	Unmask All

Tampering Detection

Tampering Detection	OFF
Level	4
Detection Time	5 sec

Network

IP Setting	DHCP Disable
IP Address	192.168.0.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
Host Name	
DNS Server	0.0.0.0
MAC Address	00:80:88:46:a6:09
IP Protocol	IP Version 4: ON IP Version 6: Disable
IPv6 Address	link local: Disabled global: Disabled
Negotiation	Auto
TOS(DS field)	0
TTL(unicast)	64
TTL(multicast)	32
MTU	1500

Protocol

HTTP/HTTPS	HTTP: Enable HTTPS: Disable
HTTP Server Port	80
HTTPS Server Port	
SNMP	
AMX Device Discovery Protocol	OFF
PSIA/ONVIF	PSIA: Disable ONVIF: Disable
JPEG Streaming	Framerate

Settings (continued)

Settings Page (continued)

Multicast	
Encoder No.1: H.264 High, 1920x1080, 5 fps	
Status	- Idling -
Destination Address	225.0.1.1
Destination Port	49152
Encoder No.2: OFF	
Status	- Idling -
Destination Address	225.0.2.1
Destination Port	59152
Encoder No.3: OFF	
Status	- Idling -
Destination Address	225.0.4.1
Destination Port	29152
Encoder No.4: Audio	
Status	- Idling -
Destination Address	225.0.3.1
Destination Port	39152
Address Restriction	
Address Restriction	Deny
IP Address	

Time

SNTP	Disable
SNTP Server	0.0.0.0
Interval	1 Hour
Time	2012/04/20 06:00:00
Time Zone	(GMT+9:00) Japan

LED State

LED State	Enable
Identify Unit	Enable

Settings (continued)

Position List Page

Displays the preset position information.

This page can be used during access using “admin” or “operator”.

Position	Registration	Title
0	Registered	Home
1	Unregistered	
2	Unregistered	
3	Unregistered	
4	Unregistered	
5	Unregistered	
6	Unregistered	
7	Unregistered	
8	Unregistered	
9	Unregistered	
10	Unregistered	
11	Unregistered	
12	Unregistered	
13	Unregistered	
14	Unregistered	
15	Unregistered	
16	Unregistered	
17	Unregistered	
18	Unregistered	
19	Unregistered	

Navigation menu on the left:
Built in Viewer
Basic Setting1
Basic Setting2
Advanced Settings
Camera
Encoding
Audio
Alarm
Alarm Environment
Storage
PTZ
Auto Patrol
Privacy Mask
Motion Detection
Audio Detection
Tampering Detection
Network
Protocol
Multicast
Access Restrictions
Time
Password
Focus
Maintenance
LED State
Miscellaneous
Operation
Settings
Position List
Patrol Settings

Click [Advanced Settings] and [Position List].

Patrol Settings Page

Displays the Auto Patrol information and its settings.

This page can be used during access using "admin" or "operator".

OK Cancel Keep power to camera at least for 10 seconds after change of setting

No.	Title	Position	Stay Time	Moving Speed
No.0	Home	0 (0 - 19)	Skip sec	Moment
No.1		1 (0 - 19)	Skip sec	Moment
No.2		2 (0 - 19)	Skip sec	Moment
No.3		3 (0 - 19)	Skip sec	Moment
No.4		4 (0 - 19)	Skip sec	Moment
No.5		5 (0 - 19)	Skip sec	Moment
No.6		6 (0 - 19)	Skip sec	Moment
No.7		7 (0 - 19)	Skip sec	Moment
No.8		8 (0 - 19)	Skip sec	Moment
No.9		9 (0 - 19)	Skip sec	Moment
No.10		10 (0 - 19)	Skip sec	Moment
No.11		11 (0 - 19)	Skip sec	Moment
No.12		12 (0 - 19)	Skip sec	Moment
No.13		13 (0 - 19)	Skip sec	Moment
No.14		14 (0 - 19)	Skip sec	Moment
No.15		15 (0 - 19)	Skip sec	Moment
No.16		16 (0 - 19)	Skip sec	Moment
No.17		17 (0 - 19)	Skip sec	Moment
No.18		18 (0 - 19)	Skip sec	Moment
No.19		19 (0 - 19)	Skip sec	Moment

Navigation menu (left sidebar):

- Built-in Viewer
- Basic Setting1
- Basic Setting2
- Advanced Settings
 - Camera
 - Encoding
 - Audio
 - Alarm
 - Alarm Environment
 - Storage
 - PTZ
 - Auto Patrol
 - Privacy Mask
 - Motion Detection
 - Audio Detection
 - Tampering Detection
- Network
 - Protocol
 - Multicast
- Access Restrictions
- Time
- Password
- Focus
- Maintenance
- LED State
- Miscellaneous
- Operation
- Settings
 - Position List
 - Patrol Settings

Click [Advanced Settings] and [Patrol Settings].

Built-in Viewer Operations

The camera has the Built-in Viewer.

Enter the IP address of camera in the address bar of Internet Explorer. The Built-in Viewer allows H.264/JPEG/MPEG-4 data monitoring and digital PTZ operations.

- When you are using the JPEG data compression, you can display a series of still images and record still images.
- Audio can be sent and received via the Built-in Viewer. (This function is only available on VN-H57U/H257U/H257VPU/H157WPU.)
- You can operate PTZ (Pan, Tilt, Zoom) function using a mouse.
 - If you click the mouse on the screen, the clicked spot will be the center of the display area.
 - You can manipulate zooming by rotating the mouse wheel.

Memo:

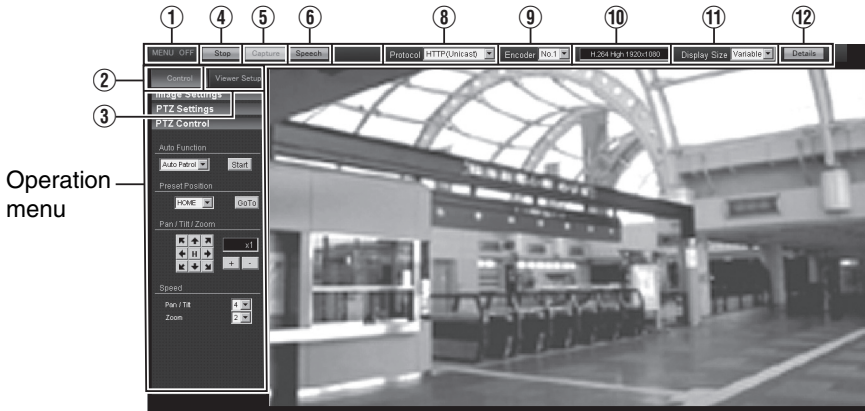
- The first time you display the Built-in Viewer in Internet Explorer, the viewer will be installed on the computer.

- | | |
|---------------------------------------|---|
| ◆ Screen Configuration (☞Page 99) | ◆ On Screen Display Settings (☞Page 112) |
| ◆ Picture Quality Setting (☞Page 101) | ◆ Settings related to Audio Monitor (☞Page 118) |
| ◆ PTZ Settings (☞Page 104) | ◆ Other Setting (☞Page 120) |
| ◆ PTZ Control (☞Page 106) | ◆ Exiting the Built-in Viewer (☞Page 121) |
| ◆ Unicast Settings (☞Page 108) | |
| ◆ Multicast Settings (☞Page 110) | |

If the display or configuration of the open window appears strange, check the computer settings as follows:

- ① Select [Start] - [Control Panel] - [Appearance and Personalization]
- ② Select [Display] - [Adjust screen resolution]
- ③ Check that [Resolution] is set to [Monitor size (recommended)].
- ④ Otherwise, change the setting to [Monitor size (recommended)] and press the [OK] button.
- ⑤ In [Display Settings], press the [Keep changes] button.

Screen Configuration



① MENU OFF/ MENU ON	Displays or hides the operation menu. Click [MENU ON], and the operation menu will appear at the left of the page.
② Control	Switches the Operation Menu to the Control Menu. Click the [Control] button to adjust the [Image Settings], [PTZ Settings] or [PTZ Control] settings. (☞ Page 101, 104, 106)
③ Viewer Setup	Switches the Operation Menu to the Viewer Setup Menu. Click this when you specify [Unicast], [Multicast], [On Screen Display], [Audio Monitor] or [Other]. (☞ Page 108, 110, 112, 118, 120)
④ Stop/Play	Pauses or plays back images.
⑤ Capture	Captures the currently displayed image in your computer. The image is recorded as a JPEG file in the folder that is created under the [Document] folder of the computer. This folder is named to have the “model name” during factory shipment. (For example, “VN-H237” is named for the VN-H237.) The file name shows the year, month, days, hours, minutes, seconds, and milliseconds. Memo: ● You can rename the folder if desired. (☞ Page 120) Note: ● The clock time of this file name is the clock time of the computer. Note that it is not the “time” of the camera. ● You cannot capture images as motion images. ● Also, you cannot capture H.264/MPEG-4 images.
⑥ Speech (VN-H57U/ H257U/H257VPU/ H157WPU only)	When you click this, audio from the microphone connected to your computer is sent to the camera. The audio is output from the camera's LINE OUT. If you do not click this, audio from the camera's audio signal input cable or connector and audio from the microphone connected to the audio cable is output from your computer speakers. When transmitting audio, this button turns orange.

Built-in Viewer Operations (continued)

Screen Configuration (continued)

<p>⑧ Protocol</p>	<p>Selects a protocol to be used when the viewer captures images from the camera. HTTP (Unicast): Allows monitoring the camera with a single viewer. If a packet is lost, the packet data is transmitted again and recovered. RTP (Multicast): Allows multiple viewers to monitor the camera. [Set values: HTTP (Unicast), RTP (Multicast)] To play back multicast streams, you must start multicast transmission from the [Multicast] page. (☞ Page 66)</p> <p>Note:</p> <ul style="list-style-type: none"> ● If you select “RTP (Multicast)” and start the Built-in Viewer, you may be alarmed by the Windows Firewall. In that case, select “Do not block” and proceed to the next step. ● If you select “Block”, the multicast stream will be blocked by the Windows Firewall. The viewer cannot play back multicast data.
<p>⑨ Encoder</p>	<p>Select the stream when the protocol is "HTTP (Unicast)". [Set values: No.1, No. 2, No. 3]</p>
<p>⑩ Compression type and frame size</p>	<p>Displays the stream type and the resolution.</p>
<p>⑪ Display Size</p>	<p>Sets a display size of image area. Fixed : Sets the image display size to the same as the preset frame size. For frame size setting, see "Encoding" page of [Advanced Settings]. Variable: Displays images according to the Web browser's window size. [Set values: Fixed, Variable]</p> <p>Memo:</p> <ul style="list-style-type: none"> ● The window size of the Web browser does not change even if you select the “Fixed” or “Variable” display size.
<p>⑫ Details</p>	<p>Opens the Settings page. The display page varies depending on the access privilege of the user. Administrator (admin) : [Basic Setting1] page is opened. Operator (operator) : [Basic Setting2] page is opened. User (user) : [Miscellaneous] page is opened. For details, see "How to Open the Setting Page." (☞ Page 12)</p>

* The [Set values] in bold letters are factory defaults.

Memo:

- The Built-in Viewer settings are stored in the Cookies text file.
- From this Settings screen, you can set up the Built-in Viewer as the software on the computer. You cannot set up camera operations from this screen.

Searching and Deleting Cookies File

- Select [Tools] - [Internet Options] - [General] of Internet Explorer, and click the [Settings] button under [Browsing history]. The [Temporary Internet Files and History Setting] window is displayed. Press the [View files] button. The [Temporary Internet Files] window opens and the files will be listed. The "cgi-bin/" file on the list is the Cookie for the Built-in Viewer.
- If you delete this Cookies file, the current viewer settings are deleted. When you start the Built-in Viewer in the next time, the viewer will be initialized and started.

Picture Quality Setting

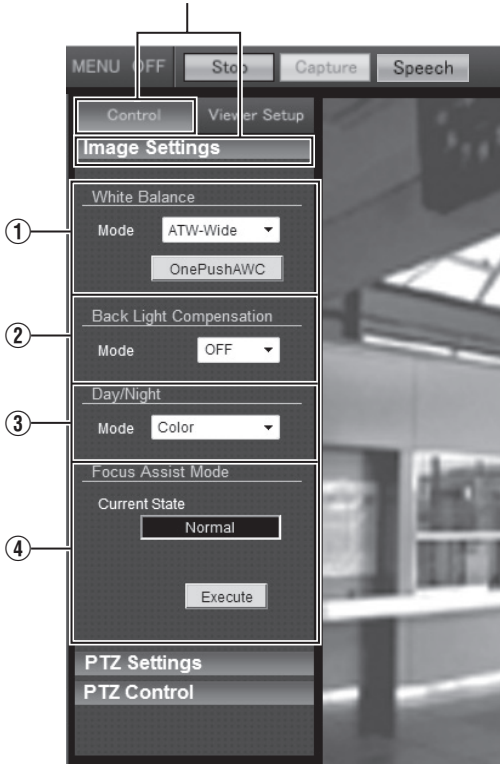
Adjusts the picture quality.

This page can be used during access using “admin” or “operator”.

- While the Viewer Setup Menu is open, click [Control] to switch to the Control Menu.
- Click [Image Settings] to open the Settings screen.

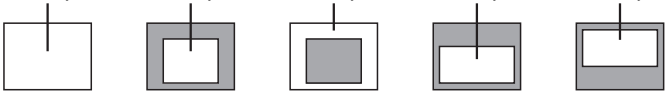
■ Image Settings

Click here.



Built-in Viewer Operations (continued)

Picture Quality Setting (continued)

<p>① White Balance</p> <p>Mode</p> <p>[OnePushAWC] button</p>	<p>Selects the white balance control function.</p> <p>ATW-Wide : Selects the Auto-Tracking White Balance (automatic color temperature tracking) Wide mode. Adjusts the white balance automatically according to the color temperature of the light. (Color temperature: 2300 K to 10000 K)</p> <p>AWC-Narrow : Selects the Auto-Tracking White Balance (automatic color temperature tracking) Narrow mode. Adjusts the white balance automatically according to the color temperature of the light. (Color temperature: 3200 K to 8000 K)</p> <p>[Set value: ATW-Wide, ATW-Narrow, AWC]</p> <p>Executes AWC (automatic white balance control).</p> <p>Memo:—</p> <ul style="list-style-type: none"> Execute by filling the screen completely with a white object in a location with lighting conditions similar to those of the object you are going to shoot. When you set the white balance to "ATW-Wide" or "ATW-Narrow" and when you press the [OnePushAWC] button, the camera switches to AWC mode.
<p>② Back Light Compensation</p> <p>Mode</p>	<p>Selects the backlight compensation function. Use this compensation to exclude unwanted light sources from the photometry area.</p> <p>OFF : Disables backlight compensation.</p> <p>Areas 1 to 4 : Select a photometry area from the four areas.</p> <p>[Set values: OFF, Area 1, Area 2, Area 3, Area 4]</p> <p>Photometry area Photometry area Photometry area Photometry area Photometry area</p>  <p style="text-align: center;">OFF Area 1 Area 2 Area 3 Area 4</p> <p>Memo:—</p> <ul style="list-style-type: none"> The backlight compensation area is not linked to digital PTZ.
<p>③ Easy Day/Night (VN-H137U/H237U only)</p> <p>Mode</p>	<p>Sets the Day and Night mode.</p> <p>Color : Keeps color mode activated at all times.</p> <p>Black & White : Keeps Black & White mode activated at all times.</p> <p>Auto : Switches to Black & White when the luminance level is low.</p> <p>[Set values: Color, Black & White, Auto]</p>

* The [Set values] in bold letters are factory defaults.

<p>③ Day/Night (VN-H37U/H57U/H257U/H237VPU/H257VPU/H157WPU only)</p>	<p>Sets video to Black & White mode. Also allows you to select from among 3 levels for automatically activating Black & White mode in low-light conditions.</p>
<p>Mode</p>	<p>Color : Keeps color mode activated at all times. Black & White : Keeps Black & White mode activated at all times. Auto Low : Switches to Black & White mode when the subject's signal level has a low level of brightness. Auto Mid : Switches to Black & White mode when the subject's signal level has a medium level brightness. Auto High : Switches to Black & White mode when the subject's signal level has a medium level brightness.</p> <p>[Set values: Color, Black & White, Auto Low, Auto Mid, Auto High]</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● The mechanical sound of the infrared filter insertion/removal can be heard when the mode switches. ● If you set "Auto Low", "Auto Mid", or "Auto High", the camera immediately switches modes when the set amount of illumination is detected.
<p>④ Focus Assist Mode</p>	<p>Switches to the Focus Assist mode. Press the [Execute] button, and the [Current State] will be changed to [Focus Assist] and the Focus Assist mode will be selected. The [Stop] button is displayed during Focus Assist mode. Press the [Stop] button, and the [Current State] will return to [Normal] and the Focus Assist mode will be released.</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● The camera enters the Focus Assist mode and the [STATUS] indicator blinks green and orange alternately. When the Focus Assist mode is released, the [Status] indicator lights up in green. ● The Focus Assist mode is released after three minutes if it is not used.

* The [Set values] in bold letters are factory defaults.

Built-in Viewer Operations (continued)

PTZ Settings

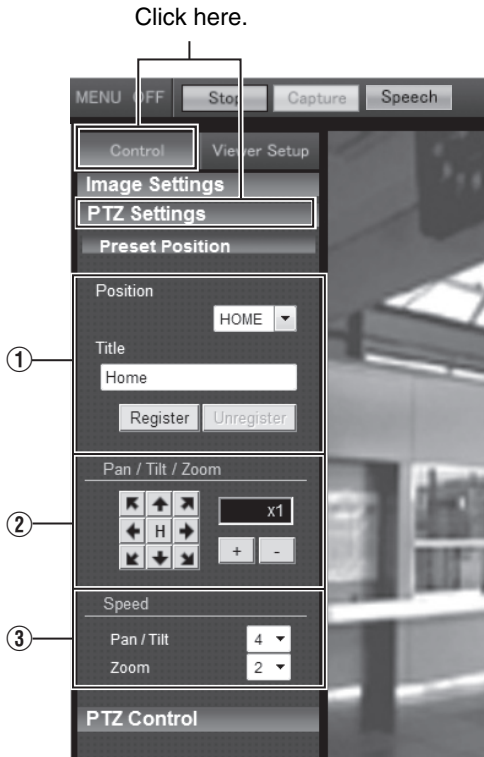
Sets the camera preset position.

- This page can be used during access using “admin” or “operator”.
- While the Viewer Setup Menu is open, click [Control] to switch to the Control Menu.
- Click [PTZ Settings] to open the Settings screen.

Note:

- You can use the Digital PTZ for frame sizes 640x360 and 640x480 only.

■ PTZ Settings



<p>① Preset Position</p> <p>Position</p> <p>Title</p>	<p>Sets the camera preset position.</p> <p>Selects a Position. [Set values: HOME, 1 to 19]</p> <p>Displays the current title. To register or change the title, enter a title here. (The title can be entered using up to 32 alphanumeric characters or up to 16 dual-byte characters.) Press the [Register] button, and the new position will be registered.</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● Press the [Unregister] button to delete the current position information. Note that you cannot delete the [Home] position. ● The home position is displayed in the full-screen area by factory default.
<p>② Pan / Tilt / Zoom</p>	<p>■ Pan/Tilt operation Press any arrow button to move the display area in its direction. When you release the button, the movement stops. Press the [H] button to return to the "Home position".</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● When the zoom is x1, Pan and Tilt cannot be operated. <p>■ Zooming Increases or decreases the display area by digital zooming. Zoom can be operated from x1 to x8. [+]:Zooms in and enlarges an object. [-]:Zooms out and reduces an object.</p> <p>■ Scale display Displays the current magnification.</p>
<p>③ Speed</p>	<p>Sets an operation speed.</p> <p>Pan / Tilt: Controls the panning or tilting speed. A larger value increases the panning/tilting speed. [Set values: 1 to 4 to 8]</p> <p>Zoom : Controls the zooming speed. A larger value increases the zooming speed. [Set values: 1 to 2 to 4]</p>

* The [Set values] in bold letters are factory defaults.

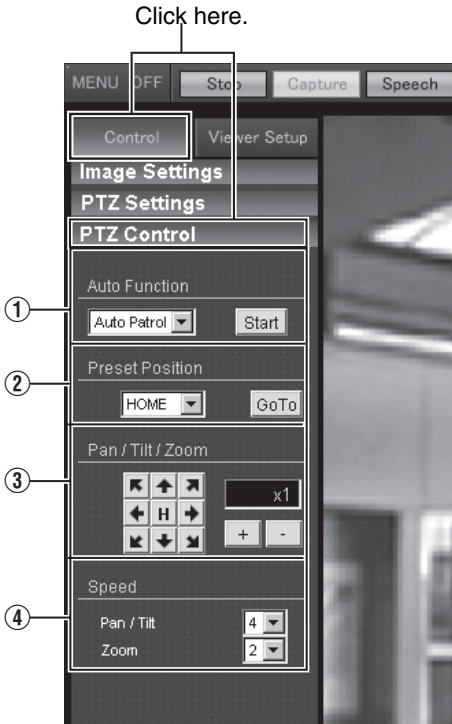
Built-in Viewer Operations (continued)

PTZ Control

Controls the PTZ function. You can set up the PTZ from the [PTZ Settings] page. (Page 104)

- This page can be used during access using “admin” or “operator”.
- While the Viewer Setup Menu is open, click [Control] to switch to the Control Menu.
- Click [PTZ Settings] to open the Settings screen.

■ PTZ Control



① Auto Function	Starts or stops automatic patrol. Press the [Start] button to start automatic patrol. The [Stop] button is displayed during Auto Patrol. Press the [Stop] button to stop automatic patrol.
② Preset Position	You can select a preset position and click the [GoTo] button to move to it. If the selected position is already registered, the camera moves to the selected position. [Set values: HOME, 1 to 19]
③ Pan / Tilt / Zoom	<p>■ Pan/Tilt operation Press any arrow button to move the display area in its direction. When you release the button, the movement stops. Press the [H] button to return to the "Home position".</p> <p>Memo:_____</p> <ul style="list-style-type: none"> ● When the zoom is x1, Pan and Tilt cannot be operated. <hr/> <p>■ Zooming Increases or decreases the display area by digital zooming. Zoom can be operated from x1 to x8. [+]:Zooms in and enlarges an object. [-]:Zooms out and reduces an object.</p> <p>■ Scale display Displays the current magnification.</p>
④ Speed	Sets an operation speed. Pan / Tilt: Controls the panning or tilting speed. A larger value increases the zooming speed. [Set values: 1 to 4 to 8] Zoom : Controls the zooming speed. A larger value increases the zooming speed. [Set values: 1 to 2 to 4]

* The [Set values] in bold letters are factory defaults.

Built-in Viewer Operations (continued)

Unicast Settings

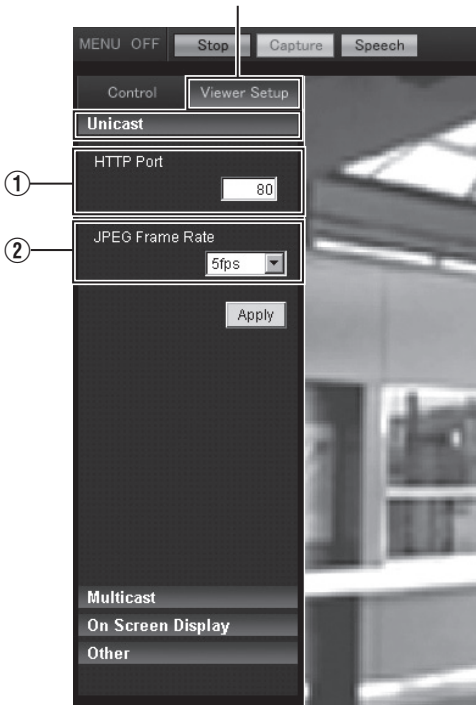
You can set the HTTP port and the JPEG frame rate in Unicast.

This page can be used during access using “admin” or “operator”.

- When the Control Menu is open, click [Viewer Setup] to switch to the Viewer Setup Menu.
- Click [Unicast] to open the Settings screen.
- When you click the [Apply] button, the current settings are made valid on the viewer and they are stored in the computer.

■ Unicast

Click here.



<p>① HTTP Port</p>	<p>You can change the port number to be used when the client computer accesses to the camera via HTTP. Specify the same value as the parameter being set on the camera's Protocol Page. (☞ Page 61) [Factory default: 80]</p>
<p>② JPEG Frame Rate</p>	<p>Sets a frame rate for image acquisition by the viewer. A high frame rate increases the amount of data processed by the computer where the viewer is running. [Set values: 30fps, 15fps, 10fps, 7.5fps, 6fps, 5fps, 3fps, 2fps, 1fps, 1/2fps, 1/3fps, 1/5fps, 1/10fps, 1/15fps, 1/20fps, 1/30fps, 1/60fps]</p> <p>Memo: _____</p> <ul style="list-style-type: none"> ● Set the JPEG frame rate so that the CPU load of the computer does not exceed 80%. If the CPU load is too high, the computer may not operate normally. ● The highest frame rate for images is the camera's encoding setting (☞ Page 26, Framerate value).

Built-in Viewer Operations (continued)

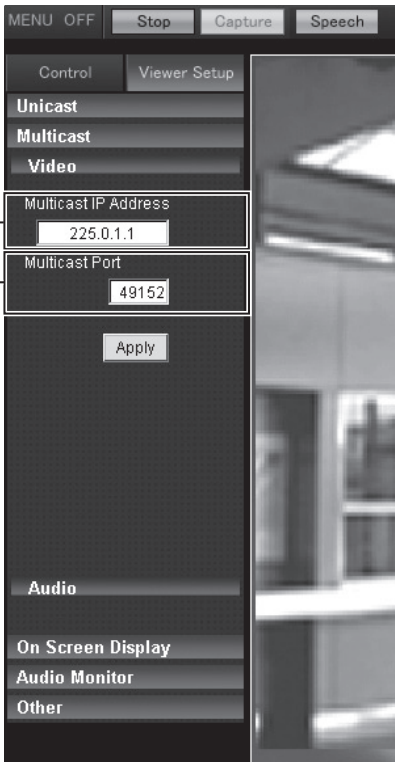
Multicast Settings

You can set up an IP addresses for images and audio received in multicast, and set up the multicast ports.

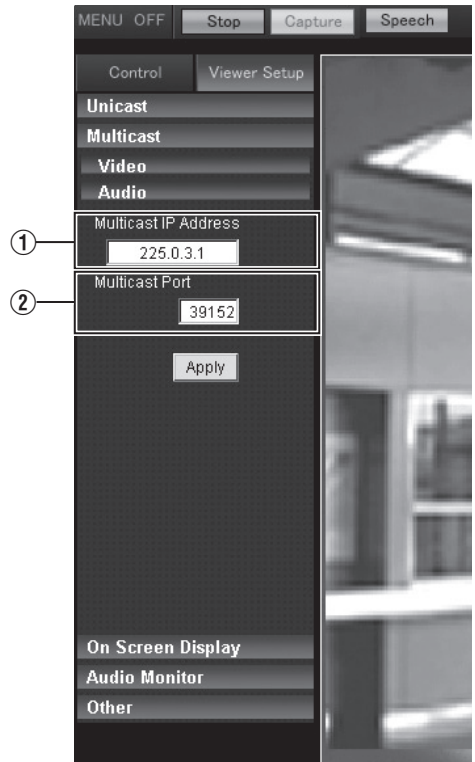
This page can be used during access using “admin” or “operator”.

- When the Control Menu is open, click [Viewer Setup] to switch to the Viewer Setup Menu.
- Click [Video] or [Audio] in [Multicast] to open the Settings screen.
- When you click the [Apply] button, the current settings are made valid on the viewer and they are stored in the computer.
- Only VN-H57U/H257U/H257VPU/H157WPU can perform audio multicasting.

■ Video



■ Audio



■ Video settings	
① Multicast IP Address	You can change the multicast IP address. [Factory default: 225.0.1.1]
② Multicast Port	You can change the multicast port number. [Factory default: 49152]
■ Audio settings (VN-H57U/H257U/H257VPU/H157WPU only)	
① Multicast IP Address	You can change the multicast IP address. [Factory default: 225.0.3.1]
② Multicast Port	You can change the multicast port number. [Factory default: 39152]

Memo:

- For Multicast IP Address and Multicast Port specify the same value as the one set on the [Multicast] page (☞ Page 66) for Destination Address and Destination Port respectively.

Built-in Viewer Operations (continued)

On Screen Display Settings

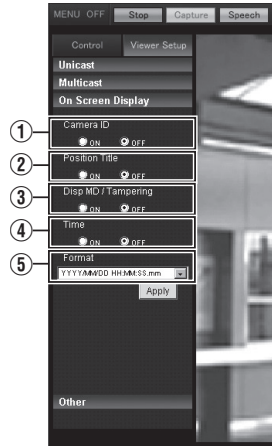
Sets a display item on the viewer screen.

An image is overlaid by characters on the Built-in Viewer.

This page can be used during access using “admin” or “operator”.

- When the Control Menu is open, click [Viewer Setup] to switch to the Viewer Setup Menu.
- Click [On Screen Display] to open the Settings screen.
- When you click the [Apply] button, the current settings are made valid on the viewer and they are stored in the computer.

■ On Screen Display



① Camera ID	When turned ON, the [Camera ID] is displayed at the top of the screen. You can set the [Camera ID] from the camera's [Basic Setting2] or [Camera] Page. (Page 15, 18) [Set values: ON, OFF]
② Position Title	When turned ON, the position title is displayed in the lower right of the screen. [Set values: ON, OFF]
③ Disp MD / Tampering	When you turn the Motion or Tampering Detection “ON”, the image display frame is shown in red. [Set values: ON, OFF]
④ Time	Turn the [Time] “ON” to display the time. The time is displayed at the right bottom position of the screen. The clock time contained in the JPEG data or stream data is displayed. * Stream data: Stream data encoded with H.264 Baseline, H.264 High, or MPEG-4. [Set values: ON, OFF]
⑤ Format	Selects a time display format. YYYY, MM and DD denote the year, month and days. HH, MM and SS are hours, minutes and seconds. "mm" is 1/100 seconds. [Set values: YYYY/MM/DD HH:MM:SS.mm, YYYY/MM/DD HH:MM:SS, DD/MM/YYYY HH:MM:SS, MM/DD/YYYY HH:MM:SS, MM/DD HH:MM:SS, HH:MM:SS, HH:MM]

* The [Set values] in bold letters are factory defaults.

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Built-in Viewer Operations (continued)

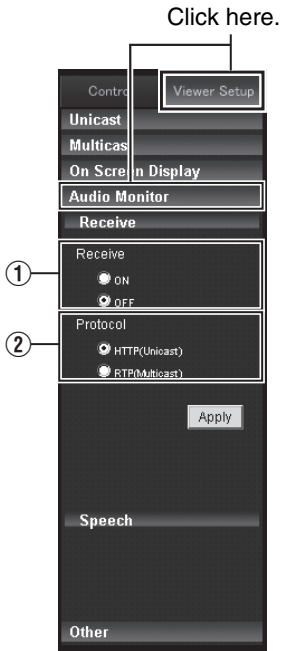
Settings related to Audio Monitor

(VN-H57U/H257U/H257VPU/H157WPU only)

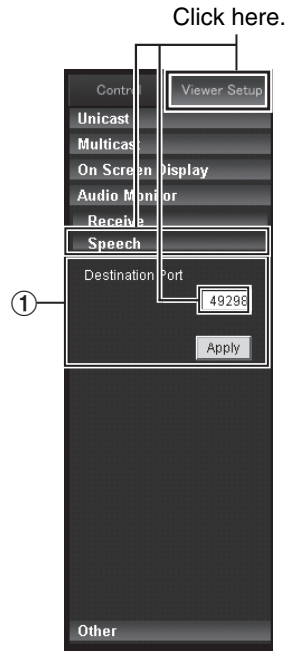
This is used to make settings related to sending and receiving audio via the Built-in Viewer.

- This page can be used during access using "admin" or "operator".
- To use this, the password for the user name "operator" must be set. (☞ Page 72)
- If another menu is displayed, click [Viewer Settings] to switch.
- Click on each menu bar at the left of the screen to open the corresponding setting menu.
- When you press the [Apply] button, the setting is enabled in the viewer and saved to your computer.

■ Receive



■ Speech



■ Receiving settings	Specifies settings for receiving audio streamed from the camera.
① Receive	Enables/disables reception. To receive audio streams, select "ON".
② Protocol	<p>Selects the stream type for receiving audio. Select "HTTP (Unicast)" to recover by retransmission when packet loss occurs. Select "RTP (Multicast)" to monitor camera audio from multiple client computers. When receiving via RTP (Multicast), start multicast sending via the [Manual distribution] page. (☞ Page 66)</p> <p>Note:</p> <ul style="list-style-type: none"> ● When you set "RTP(Multicast)" and restart the Built-in Viewer, Windows Firewall may display an alert. In this case, select "Do not block" and continue. ● If you select "Block", Windows Firewall will block multicast streams, and audio cannot be received on the client computer. ● Audio cannot be received if there is no audio driver installed on your computer.
■ Speech settings	Specifies settings for sending audio from the computer to the camera.
① Destination port	<p>Changes the destination port for sending audio from the computer to the camera. The factory default is 49298.</p> <p>Note:</p> <ul style="list-style-type: none"> ● Audio cannot be received if there is no audio driver installed on your computer.

Built-in Viewer Operations (continued)

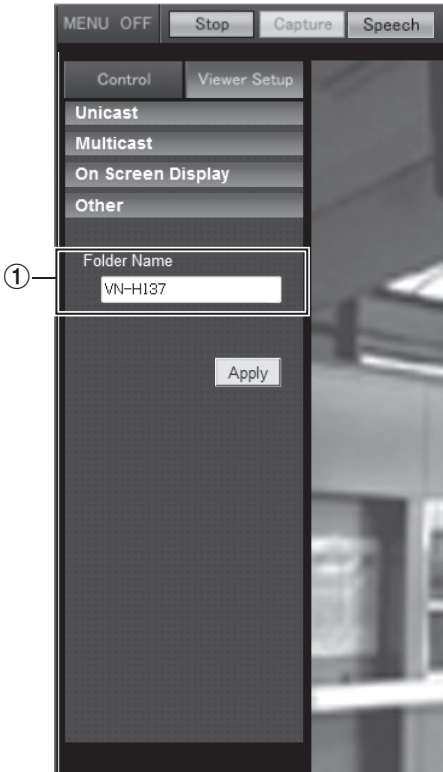
Other Setting

When you are using the JPEG data compression, you can display still images. You can rename the folder which stores a captured file.

This page can be used during access using “admin” or “operator”.

- When the Control Menu is open, click [Viewer Setup] to switch to the Viewer Setup Menu.
- Click [Other] to open the Settings screen.
- When you click the [Apply] button, the current settings are made valid on the viewer and they are stored in the computer.

■ Other

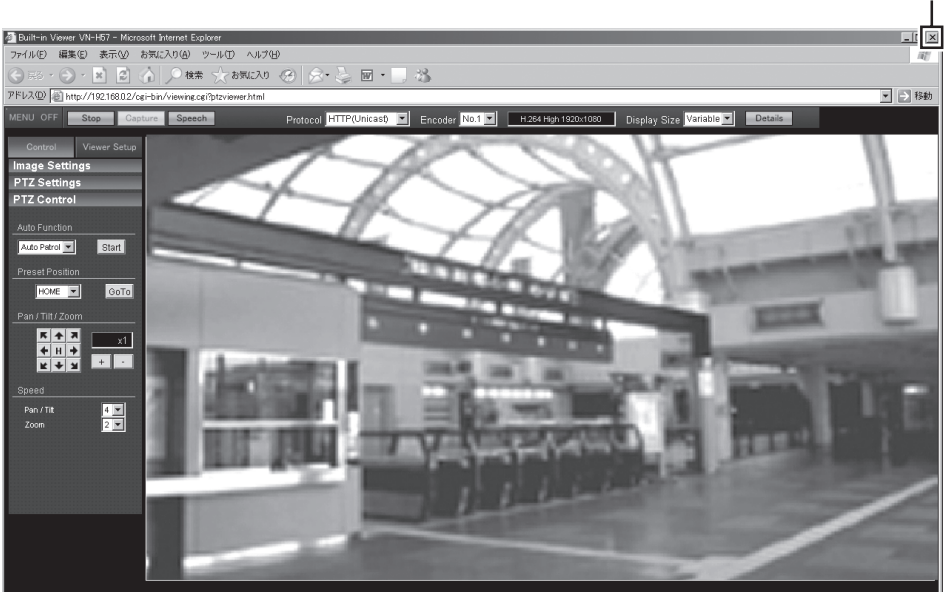


- | | |
|----------------------|---|
| ① Folder Name | You can rename the folder which stores a captured file. |
|----------------------|---|

Exiting the Built-in Viewer

Click the [×] button at the right top corner of the window to exit the viewer.

Click here.



Memo:

- When you start the Built-in Viewer in the next time, start the Internet Explorer and enter the URL of Built-in Viewer in the address bar of the explorer.
For example, if the camera has IP address "192.168.0.2", enter the URL as follows:
`http://192.168.0.2/`
 - If a "Security Alarm" window appears, click [Yes] to proceed.
-

Troubleshooting

Symptom	Possible Causes and Actions Taken	Reference Page
I do not know the IP address of the camera.	<ul style="list-style-type: none"> ● IP address "192.168.0.2" and subnet mask "255.255.255.0" are set by default during factory shipment. ● If you have set the [IP Setting] to "DHCP Enable" and if you start the camera on the LAN where no DHCP server exists, you can start the camera with the factory default IP address. ● If you have a computer connected to the same LAN, you can search for the IP address using the search tool from the computer. 	📖 Page 14 Instructions (IP Address Settings)
I cannot display the Settings page of the camera.	Check the current settings of Internet Explorer. Also, if you are using a proxy server, set the proxy server of the Internet Explorer.	Instructions (IP Address Settings)
I cannot install the Built-in Viewer.	Check the current settings of Internet Explorer. The Built-in Viewer consists of the ActiveX software components.	—
A warning message appears when I start the Built-in Viewer.	When you use the Built-in Viewer in the first time, the ActiveX software is installed. However, this installation may be rejected by the Anti-virus software settings. If it occurs, change the Anti-virus software settings first, and then install the Built-in Viewer.	—
When I install the Built-in Viewer, the authentication by VeriSign appears.	The Built-in Viewer has an electronic signature for authentication by VeriSign. If computers are connected to the Internet in the network environment, the digital certificate of the Built-in Viewer can be checked by VeriSign authentication.	—
Videos sent via TCP do not play.	<ul style="list-style-type: none"> ● The camera can transmit a maximum of 20 videos via TCP, and a maximum of 20 Built-in Viewers can be connected to 1 camera. If you need to monitor cameras in more places, use the multicast streaming. Multicast streaming of MPEG-4, JPEG, and H.264 is possible with this camera. The number of streams depends on the encoder setting. ● If you set the JPEG Streaming to "Frame Rate", the frame rate requested by clients are kept but the maximum number of streams is reduced. 	📖 Page 4 📖 Page 26 📖 Page 66 📖 Page 63

Symptom	Possible Causes and Actions Taken	Reference Page
Multicast images do not play.	<ul style="list-style-type: none"> ● Start manual multicast streaming from the [Multicast] page of the camera. ● When you receive multicast streaming using the Built-in Viewer, check to see that multicast address and port number matches between the [Multicast] page of camera and the Built-in Viewer settings. Also, use the multicast streaming on the network supporting the IGMPv2. ● Multicast streaming may be blocked by the Windows 7 Firewalls. In that case, you can go through the firewalls as follows. <ol style="list-style-type: none"> ① Select [Start] - [Control Panel] - [System and Security]. ② Open [Check firewall status] under [Windows Firewall]. ③ Open the [Advanced] menu and select [Inbound Rules] - [New Rule]. ④ In [New Inbound Rule Wizard], select "port" in [Rule type]. ⑤ In [Protocols and Ports], enter the port number for "Specific local ports". ⑥ Selects "Allow the connection" in [Actions]. ⑦ Selects applicable conditions in [Profile]. ⑧ Register an arbitrary character string for the "Name" in [Name]. 	<p>☞ Page 66</p> <p>☞ Page 110</p> <p>☞ Page 99</p>
The frame rate of displayed videos is low.	<ul style="list-style-type: none"> ● When you are using the Built-in Viewer, check the viewer settings. ● If the network has a narrow bandwidth, the frame rate will be limited. ● If you set the video distribution setting to "Client Number" and if the number of streaming requests increases, the images are distributed at a frame rate lower than the preset rate. ● If the distribution capability (☞ Page 5) is exceeded, images are distributed at the lower frame rate so that the upper quantity limit of distribution data is not exceeded. 	<p>☞ Page 98</p> <p>☞ Page 109</p> <p>☞ Page 63</p>
A white zone appears in the Built-in Viewer.	<ul style="list-style-type: none"> ● If you set up Internet Explorer as follows, some Internet Explorer graphics may not appear and will be left white on some computers. In such a case, you can display Internet Explorer graphics normally by selecting as follows. If you select [Start] - [Control Panel] - [Appearance and Personalization] - [Display] - [Make text and other items larger or smaller] and select "100% (default)", the normal drawing will start. 	<p>—</p>
When 3D DNR is used, an afterimage appears.	<p>When you use 3-dimensional noise reduction, in principle, an afterimage can appear if you shoot a moving object, however it is not a camera malfunction.</p>	<p>☞ Page 20</p>

Troubleshooting (continued)

Symptom	Possible Causes and Actions Taken	Reference Page
<p>I cannot receive an alarm via TCP/UDP.</p>	<ul style="list-style-type: none"> ● Multicast streaming may be blocked by the Windows 7 Firewalls. In that case, you can go through the firewalls as follows. <ol style="list-style-type: none"> ① Select [Start] - [Control Panel] - [System and Security]. ② Open [Check firewall status] under [Windows Firewall]. ③ Open the [Advanced] menu and select [Inbound Rules] - [New Rule]. ④ In [New Inbound Rule Wizard], select “port” in [Rule type]. ⑤ In [Protocols and Ports], enter the port number for “Specific local ports”. ⑥ Selects “Allow the connection” in [Actions]. ⑦ Selects applicable conditions in [Profile]. ⑧ Register an arbitrary character string for the “Name” in [Name]. 	<p>Page 100</p>
<p>Multicast videos do not play.</p>	<p>If your computer has multiple network cards, disable the network cards to which the camera is not connected. You can perform this as follows.</p> <ol style="list-style-type: none"> ① Select [Start] - [Network Connections]. ② Right-click on the connection(s) not used for the camera, and select "Disable". 	<p>Page 100</p>
<p>Videos set to be exported are not saved to my computer.</p>	<p>When using Windows 7 or Windows Vista for your OS, run Internet Explorer as an administrator. You can perform this as follows.</p> <ol style="list-style-type: none"> ① Right-click Internet Explorer. ② Select [Run as administrator]. 	

HTTPS and SNMP Function Update Procedure

The camera's default settings do not support using the HTTPS and SNMP functions. To use the HTTPS and SNMP functions, use the firmware update function via the Maintenance Page, and update to the firmware version designated below. (☞ Page 79)

Acquire firmware for updating via the site below.
<http://www3.jvckenwood.com/english/pro/vnetworks/index.html>

The file names of the firmware files used for updating are as follows.

h137u_v2.00.214forSupport.img

Model name Version number

or

h137u_v2.00.214woActiveX.img

Model name Version number

To use the HTTPS and SNMP functions, update using the firmware with the following file name characteristics.

h***_v*.*..www.woActiveX.img

Note:

- ActiveX for the Built-in Viewer is not included; with the camera at its factory default settings, install the Built-in Viewer's ActiveX to your computer via Internet Explorer while set to the factory default settings, and update the camera's firmware.
-

To revert to the original firmware for which the HTTPS and SNMP functions cannot be used, return the camera settings to factory defaults, and update using the firmware with the following file name characteristics.

h***_v*.*.***forSupport.img

You can install ActiveX to your computer by accessing the Built-in Viewer URL via Internet Explorer.

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