

SNC-RH124/RS46N/RS46P/RS44N/RS44P  
SNC-RH164/RS86N/RS86P/RS84N/RS84P

## Release Note

Ver. 1.87

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Sony Corporation

## Release Note

### Modification history

#	Release date	Version	Content of change and comment
1	2009/09/14	1.01	First release
2	2009/09/30	1.02	Bug Fix Add: Camera tampering detection alarm, VMF function, Major Improvements
3	2009/10/15	1.03	This version is only available for SNT-EX, EP series. - Supports the SNT-EX101E PoE model newly launched - Supports the China model.
4	2009/10/26	1.03.01	This version is only available for SNT-EX, EP series. Bug fix from Ver1.03
5	2009/11/09	1.04	BugFix Add: Note On Upgrading Firmware Major Improvements at Ver1.04
6	2009/12/15	1.06	BugFix Add: Major Improvements at Ver1.06
7	2010/04/27	1.10.01	Add: Newly Function, Improved Function Update: Major Improvements, Known Issues
8	2010/06/11	1.10.02	This version is only available for SNC-RS46N/RS46P/RS44N/RS44P/RS86N/RS86P/RS84N/RS84P BugFix there was a problem that software doesn't start normally when the CF card inserted in the CF card slot.
9	2010/08/27	1.22	Add: Newly Function, Improved Function Update: Major Improvements, Known Issues
10	2010/09/17	1.25	Bug Fix
11	2010/12/20	1.30	•Add: New Function, Improved Function •Update: Known Issues
12	2011/03/04	1.31	•Bug Fix •“Edge Storage” in “Functions”
13	2011/04/28	1.34	Bug Fix
14	2011/08/22	1.50	•Add: New Functions, Improved Functions •Update: Major Improvements, Known Issues
15	2012/01/20	1.61	Improved Function
16	2012/05/28	ditto	Only description of this release note is revised. •The version of SNC toolbox is updated. in “2. Note on Upgrading Firmware”. •Update: Known issues (17.8.)
17	2012/05/31	1.73	Add: New Function, Improved Function
18	2012/11/05	1.76	•Add: New Function and Corrected Problem for Ver.1.76. •Add: 6.4, 21.9.

## Release Note

19	2013/01/31	1.78.01	Add: New Function, Improved Function
20	2013/08/01	1.79	Add: New Function, Improved Function
21	2013/09/27	1.80	Add: Improved Function
22	2014/02/27	1.82.01	Add: New Function, Improved Function
23	2014/05/30	1.83	<ul style="list-style-type: none"> <li>• Add: Improved Function</li> <li>• Add: 1.4. ONVIF Conformance</li> <li>• Add: Known issues (31.11.)</li> </ul>
24	2014/06/30	1.84	<ul style="list-style-type: none"> <li>• Add: Improved Function</li> <li>• Delete: Known issues (31.11.)</li> </ul>
25	2014/11/10	1.85	Add: New Function
26	2016/12/22	1.86	<ul style="list-style-type: none"> <li>• Add: Improved Function</li> <li>• Add: New function for Ver. 1.86</li> </ul>
27	2017/04/25	1.87	Add New function for Ver. 1.87

**Table of contents**

1. About this release version.....	8
1.1. General Information.....	8
1.2. System Requirements .....	8
1.3. Compatibility .....	8
1.4. ONVIF Conformance.....	9
1.5. Note .....	9
2. Note on Upgrading Firmware.....	9
3. Newly Added Functions in Ver. 1.87.....	9
3.1. The security has been enhanced. ....	9
4. Function changed and Problems corrected in Ver.1.87.....	9
5. Newly Added Functions in Ver. 1.86.....	9
5.1. The security has been enhanced. ....	9
5.2. ONVIF Ver. 16.07 support .....	9
6. Function changed and Problems corrected in Ver.1.86.....	9
7. Newly Added Functions in Ver. 1.85.....	9
7.1. Windows 8.1 IE11 support .....	9
7.2. ONVIF Ver. 14.06 support .....	9
8. Newly Added Functions in Ver.1.84.....	10
9. Function changed and Problems corrected in Ver. 1.84.....	10
9.1. Improved a failure in superimposed date indication .....	10
10. Newly Added Functions in Ver.1.83.....	10
11. Function changed and Problems corrected in Ver. 1.83.....	10
11.1. PTZ control I/F settings restore problem .....	10
12. Newly Added Functions in Ver.1.82.01.....	10
12.1. ONVIF Ver.13.06 support.....	10
13. Function changed and Problems corrected in Ver. 1.82.01.....	10
13.1. Clock information's problem gained incorrectly in daylight saving time (DST)	10
13.2. Enhanced error correction capability for the firmware data stored in the	10
memory	10
14. Newly Added Functions in Ver.1.80.....	10
15. Function changed and Problems corrected in Ver. 1.80.....	11
15.1. 802.1x authentication failure after reboot.....	11
16. Newly Added Functions in Ver.1.79.....	11
16.1. Windows 8 IE10 support .....	11
16.2. ONVIF Ver.12.12 support.....	11
16.3. Additional function of RTP stream with user data .....	11
16.4. Added selection of Camera operating mode in GUI (SNC-RH124/RH164) ...	11
17. Function changed and Problems corrected in Ver. 1.79.....	11
17.1. Setting of Tilt position misaligned actual position by using ONVIF command	11
17.2. Support ONVIF Profile which includes Audio only.....	11
17.3. Imaging Service's problem of ONVIF.....	11
17.4. Disconnection of steam has occurred by Continuous Move control in ONVIF	

## Release Note

12	
17.5.	Several Time Zone settings will be available by using ONVIF command.... 12
17.6.	No update of Port number after changing HTTP's port setting by using ONVIF command..... 12
17.7.	Improved some Video Encoder Configuration's problems of ONVIF ..... 12
17.8.	Improvement of Edge Storage's recording performance ..... 12
17.9.	Add RTP-Info Header in the Information of response to PLAY over RTSP . 13
18.	Newly Added Functions in Ver. 1.78.01..... 13
18.1.	RFC3551 format support for G.726 ..... 13
18.2.	ONVIF Profile S support..... 14
19.	Function changed and Problems corrected in Ver. 1.78.01 ..... 14
19.1.	Edge Storage on time change..... 14
19.2.	Parameter setting for ONVIF command SetImagingSettings ..... 14
19.3.	Improvement of tolerance to tilt misalignment..... 14
19.4.	Improvement of streaming video performance over SSL ..... 14
19.5.	Correction of MPEG-4 SDP data ..... 14
19.6.	Image 2 setting data restoration problem ..... 14
20.	Newly Added Functions in Ver. 1.76..... 14
20.1.	CGI command setting for WS-Discovery..... 14
21.	Function changed and Problems corrected in Ver. 1.76..... 15
21.1.	Connectivity with other vendors' client software..... 15
21.2.	Preset registration when using other vendors' client software..... 15
21.3.	alarmdata.cgi sending when SSL is on ..... 15
21.4.	Incorrect return value by alarmdata.cgi during continuous motion detection 15
21.5.	Throughput degradation in full-duplex transmission..... 15
21.6.	Improvement of responsiveness in multicast streaming ..... 15
21.7.	Error response to ONVIF command SetVideoEncoderConfiguration ..... 15
22.	Newly Added Functions in Ver. 1.73..... 15
22.1.	Supported Web Browser ..... 15
22.2.	Multicast address setting per video instance ..... 16
22.3.	Zoom speed setting by using the Pelco-D protocol via serial..... 16
23.	Problems corrected in Ver. 1.73 ..... 16
23.1.	Default setting of multicast address ..... 16
23.2.	Zoom operation failure with ONVIF protocol connection ..... 16
23.3.	Response message issue with ONVIF protocol connection..... 16
23.4.	Effectiveness of RtpExpire value..... 16
24.	Problems corrected in Ver. 1.61 ..... 16
24.1.	Improvement of video codec mode update ..... 16
24.2.	Landscape mode display of Smartphone viewer ..... 17
24.3.	Streaming problem in Smartphone viewer..... 17
24.4.	Incorrect value in Fragment Offset of JPEG RTP packet header..... 17
24.5.	Reconnection problem on audio upload authentication error ..... 17
24.6.	Play operation problem of Edge Storage..... 17
24.7.	Problems after frequent PTZ operations..... 17

## Release Note

25. Newly Added Functions in Ver. 1.50.....	17
25.1. NTCIP support.....	17
25.2. Connection List.....	18
25.3. Smartphone viewer.....	18
26. Problems corrected in Ver. 1.50 .....	18
26.2. Pan/Tilt operation speed via serial.....	18
26.3. Preset registration via serial .....	18
26.4. Saving setting for SNMP.....	18
27. Problems corrected in Ver. 1.34 .....	19
27.1. Edge Storage .....	19
27.2. Alarm buffer .....	19
27.3. Streaming.....	19
28. Problems corrected in Ver. 1.31 .....	19
28.1. Motion detection .....	19
28.2. SNMP.....	19
28.3. Event file .....	19
28.4. Area zoom .....	19
29. Newly Added Functions in Ver. 1.30.....	20
29.1. Language.....	20
29.2. Supported OS and browsers.....	20
29.3. ONVIF .....	20
29.4. Image size.....	20
29.5. Letter box .....	20
29.6. Edge Storage .....	20
29.7. Addition of frame rate .....	20
30. Changed or improved Functions in Ver. 1.3.....	20
30.1. Preset name.....	20
31. Newly Added Functions in Ver. 1.25.....	20
31.1. RTSP Multicast streaming.....	20
32. Newly Added Functions in Ver. 1.22.....	21
32.1. Language.....	21
32.2. HPoE LLDP support (SNC-RH124/RS46N/RS46P/RS44N/RS44P) .....	21
32.3. Video & PT drive refresh function.....	21
33. Changed or improved Functions in Ver. 1.22.....	21
33.1. Privacy masking.....	21
33.2. Assigning the IP address to the camera using ARP commands.....	21
33.3. Addition of image size .....	21
34. Functions.....	22
34.1. Audio Upload Tool.....	22
34.2. Motion Detection.....	22
34.3. Camera tampering detection alarm .....	22
34.4. VMF function .....	22
34.5. Thumbnails in the Preset Position Panel .....	22
34.6. SSL.....	22
34.7. RTSP Streaming .....	23

## Release Note

34.8.	Edge Storage .....	23
34.9.	Shadow Tour setting.....	24
35.	Major improvements at Ver. 1.30.....	24
35.1.	PTZ control I/F .....	24
35.2.	Image disturbance in H.264.....	24
36.	Major Improvements at Ver. 1.25 .....	24
36.1.	Time .....	24
36.2.	Edge Storage .....	24
36.3.	Factory Default .....	24
36.4.	Auto Day/Night function .....	25
36.5.	Preset Tour function .....	25
37.	Major Improvements at Ver. 1.22 .....	25
37.1.	Image quality of JPEG (without streaming).....	25
37.2.	Bit rate in MPEG-4.....	25
37.3.	Motion Detection area .....	25
37.4.	RTSP .....	25
37.5.	Preset tour.....	26
38.	Known issues.....	27
38.1.	About IPv6 DHCPv6.....	27
38.2.	About Safari .....	27
38.3.	Edge Storage .....	27
38.4.	RTSP .....	27
38.5.	SNC video player .....	27
38.6.	Long-time Viewing with Smartphone Viewer.....	27
38.7.	Simultaneous pressing of multiple buttons with Smartphone Viewer.....	27
38.8.	Panorama creation by SNC toolbox of the versions 1.2.4.0 or before .....	27
38.9.	Firmware upgrade by SNC toolbox of the versions 1.2.5.0.....	28
38.10.	Motion detection after position changed by calling preset position.....	28

## 1. About this release version

### 1.1. General Information

This version is Ver. 1.87. This firmware can be applied to the following models.

- SNC-RH124 (SYM, CN)
- SNC-RS46N (UCJ)
- SNC-RS46P(CE, CN)
- SNC-RS44N (UCJ)
- SNC-RS44P(CE, CN)
- SNC-RH164 (SYM, CN)
- SNC-RS86N (UCJ)
- SNC-RS86P(CE, CN)
- SNC-RS84N (UCJ)
- SNC-RS84P(CE, CN)

This release note describes the detailed information about this version.

### 1.2. System Requirements

The following computer environment is necessary for the computer to display images and the controls of the camera.

- OS  
Windows 7 (32-bit version, 64-bit version)  
Windows 8.1 (32-bit version, 64-bit version)  
Authorized editions:  
    Windows 7 : Ultimate, Professional  
    Windows 8.1 : Pro  
Microsoft DirectX 9.0c or higher
- Web Browser  
Microsoft Internet Explorer Ver. 11.0 (Windows 8.1 Desktop Mode only)  
Firefox Ver. 50.1 (Plug-in free viewer only)  
Google Chrome Ver. 55.0 (Plug-in free viewer only)
- CPU  
Intel Pentium 4, 2.4 GHz or higher, or Intel Core 2 Duo, 2 GHz or higher  
(SNC-RS46N/RS46P/RS44N/RS44P/RS86N/RS86P/RS84N/RS84P)  
Intel Core 2 Duo, 2 GHz or higher (SNC-RH124/RH164)
- Memory  
1 GB or more
- Display  
1280 × 1024 pixels or higher (SNC-RS46N/RS46P/RS44N/RS44P/RS86N/RS86P/  
RS84N/RS84P)  
1600 × 1200 pixels or higher (SNC-RH124/RH164)

### 1.3. Compatibility

There is no change on CGI command, RTSP, other network protocols and the streaming



format. It is compatible with Ver. 1.86 about connectivity between the external network devices and the camera.

#### 1.4. ONVIF Conformance

This version firmware validates ONVIF conformance with ONVIF Device Test Tool version 17.01.

#### 1.5. Note

If you are connecting with RealShot Manager Advanced, RealShot Manager Lite or NSR-1200/1100/1050H, please use since Ver. 1.3.2. or later.

Because there is a problem when the version Ver. 1.3.1 or older version is used.

### 2. Note on Upgrading Firmware

When upgrading the firmware, you should use the SNC toolbox of Ver. 1.3.8.0 or later. Refer to the release note of the SNC toolbox for the details of cameras supported by the SNC toolbox.

See "Using the SNC toolbox" section in the User's Guide for the usage.

### 3. Newly Added Functions in Ver. 1.87

#### 3.1. The security has been enhanced.

[Note] When you fail in installation of ActiveX, apply the latest Windows security patches.

### 4. Function changed and Problems corrected in Ver.1.87

There is no function which is changed and there is no problem which is fixed in this version.

### 5. Newly Added Functions in Ver. 1.86

#### 5.1. The security has been enhanced.

#### 5.2. ONVIF Ver. 16.07 support

Conformance testing has been passed with ONVIF Device Test Tool Version 16.07.

### 6. Function changed and Problems corrected in Ver.1.86

There was a problem that the camera rarely fails to start up correctly. This problem has been corrected.

(Problem from Ver. 1.01)

### 7. Newly Added Functions in Ver. 1.85

#### 7.1. Windows 8.1 IE11 support

This version supports Internet Explorer 11 (IE11) in Desktop User Interface Mode on Windows 8.1. But it does not support IE11 launching from Start Screen in Windows 8.1 and it has no evaluations of IE11 for Windows 7.

#### 7.2. ONVIF Ver. 14.06 support

Conformance testing has been passed with ONVIF Device Test Tool Version 14.06.

## 8. Newly Added Functions in Ver.1.84

Nothing.

## 9. Function changed and Problems corrected in Ver. 1.84

### 9.1. Improved a failure in superimposed date indication

The failure in superimposed date indication occurs in leap year adjustment function which will detect all years involved the last 1 digit is 4 or 8 as leap-year. This version improved this problem. For example of this failure, the date of Feb. 29 will be superimposed on the indication after Feb. 28 instead of Mar.1 in 2014, 2018, 2034, 2038 and later wrong years and superimposed date indication will make delay of one day from system setting.

But "Date and time" Tab of GUI will correctly update to Mar.1 and it is possible to correct the wrong date indication by re-setting from this Tab.

(Problem from Ver. 1.01)

## 10. Newly Added Functions in Ver.1.83

Nothing.

## 11. Function changed and Problems corrected in Ver. 1.83

### 11.1. PTZ control I/F settings restore problem

There was a problem that the PTZ control I/F settings saved in the configuration file could not be restored properly. This problem has been fixed.

(Problem from Ver. 1.30)

## 12. Newly Added Functions in Ver.1.82.01

### 12.1. ONVIF Ver.13.06 support

Conformance testing has been passed with ONVIF Device Test Tool Version 13.06.

## 13. Function changed and Problems corrected in Ver. 1.82.01

### 13.1. Clock information's problem gained incorrectly in daylight saving time (DST)

When the setting of 'automatically adjust clock for DST changes' had been activated, this problem would occur in Camera's clock information which gained an hour at every 3 or 4 days in DST. This version improved this problem.

(Problem from Ver. 1.01)

### 13.2. Enhanced error correction capability for the firmware data stored in the memory

Some defect data in a part of the memory's area may cause the problem which is camera may not launch or some particular function may not work correctly after power-on or after rebooting. Therefore error correction capability was enhanced for the improvement to them.

(Problem from Ver. 1.01)

## 14. Newly Added Functions in Ver.1.80

Nothing.

## 15. Function changed and Problems corrected in Ver. 1.80

### 15.1. 802.1x authentication failure after reboot

The problem of 802.1x authentication failure had been found in connection with 802.1x authentication PoE Hub. This version improved this problem.

(Problem from Ver. 1.01)

## 16. Newly Added Functions in Ver.1.79

### 16.1. Windows 8 IE10 support

This version supports Internet Explorer 10 (IE10) in Desktop User Interface Mode on Windows 8. But it does not support IE10 launching from Start Screen in Windows 8 and it has no evaluations of IE10 for Windows 7.

### 16.2. ONVIF Ver.12.12 support

Conformance testing has been passed with ONVIF Device Test Tool Version 12.12.

### 16.3. Additional function of RTP stream with user data

Additional function of RTP stream with user data is installed in this version. New CGI category is added as 'userdata.cgi', and this function is available to change its parameter 'RTPUserData' value from default setting 'off' to 'on' as shown below.

[http://ip\\_adr/command/userdata.cgi?RTPUserData=on](http://ip_adr/command/userdata.cgi?RTPUserData=on)

For details regarding this function, refer to the instructions for the CGI Command Manual.

### 16.4. Added selection of Camera operating mode in GUI (SNC-RH124/RH164)

In previous version's GUI, Camera operating mode with video output was selectable by setting 'NTSC + IP' or 'PAL + IP' of Video output mode item, but it was fixed 'NTSC' when 'IP only' (without video output) was chosen.

By adding the selection item of Camera operating mode in this version's GUI, it is available to choose 'NTSC' or 'PAL' when 'IP only (Video output off)' is chosen too.

## 17. Function changed and Problems corrected in Ver. 1.79

### 17.1. Setting of Tilt position misaligned actual position by using ONVIF command

In setting of Tilt position by using ONVIF command, it moved to different position from the original position which has been set by ver. 1.76 or older. And getting status of tilt position showed strange value which was not same as setting position because of using original tilt position value. This version fixed this problem.

(Problem from Ver. 1.78.01)

### 17.2. Support ONVIF Profile which includes Audio only

When ONVIF profile which includes Audio only is created, previous version returns BadRequest to GetStreamUri command. This version fixed the problem by returning URI.

(Problem from Ver. 1.78.01)

### 17.3. Imaging Service's problem of ONVIF

Parameters of The maxim exposure time and Minimum exposure time were wrong value in Imaging Service of ONVIF. This version improved this error.

(Problem from Ver. 1.04)

17.4. Disconnection of stream has occurred by Continuous Move control in ONVIF

In PTZ control of ONVIF, disconnection of stream has occurred by using Continuous Move command. This version improved the error in this process.

(Problem from Ver. 1.04)

17.5. Several Time Zone settings will be available by using ONVIF command

CET-1, IDLW time zone settings had been unavailable by using ONVIF command. This version improved this problem and supported a setting of offset hours from GMT (e.g. 'GMT-5' is meaning to Eastern Time of USA and Canada, but it does not support offsets of minutes and seconds).

(Problem from Ver. 1.04)

17.6. No update of Port number after changing HTTP's port setting by using ONVIF command

Even though HTTP's port number was changed from default value, there would be no update of new port number in Device Service Address of ONVIF command. This version improved this problem.

(Problem from Ver. 1.04)

17.7. Improved some Video Encoder Configuration's problems of ONVIF

Some problems have been found on getting and setting Image2's parameter in Video Encoder Configuration of ONVIF. These problems occur under the restriction of camera performance because image2's parameter depends on Image1's setting. And so this version improved them in accordance with the condition.

And some format (e.g. PTxxHxxMxxS) of RTSP session time out setting is available from this version. (Maximum period of time out is 600 seconds, and the value more than it will be limited to 600 seconds.)

(Problem from Ver. 1.04)

17.8. Improvement of Edge Storage's recording performance

It has been found some defaults in the recording to memory media of Edge Storage, and it would cause media error and make irregular stop. This version improved the cause of defaults by changing data format and structure in the media.

(Problem from Ver.1.31)

Caution

- The old data recorded in the media cannot be transformed into new format.
- Depending on media, it has possibilities to produce a condition unrecordable for about 1 second infrequently under using this version.

Edge storage function needs updating Ver1.79 to avoid media error.

Please follow the procedure to update firmware as below.

- 1) Stop Edge Storage or Image memory function.
- 2) Back up the data in memory media. (Refer to the explanation below.)
- 3) Update camera firmware.
- 4) Format the memory media by camera. (All of data recorded in the media will be deleted.)
- 5) Restart Edge Storage or Image memory.

Please back up the data in memory media by one of following procedures.

- a) By using Recorder which can receive RTSP streaming, play back the data in the media and record it.
- b) Validate camera's FTP server, and get the data recorded in the media to FTP clients. [Note]
- c) After power-off, remove the media from the camera, and copy the data recorded in the media to computer. [Note]

[Note]

SNC video player is available to play back the image data (\*.maf files) which are backed up by the procedure b) or c).

When firmware is updated before backup of the old data in the media, please return to a previous version and back up according to the above-mentioned procedure. Updated firmware will detect old data format, will show the message "FORMAT MEDIA PLEASE" on display and will record a message which requests to format the media to system log. In this condition, camera cannot restart Edge Storage function.

#### 17.9. Add RTP-Info Header in the Information of response to PLAY over RTSP

Over RTSP, RTP-Info Header has not included in the information of response to PLAY command. This version is able to add the information by using CGI command as shown below.

[http://ip\\_adr/command/camera.cgi?RTPInfo=on](http://ip_adr/command/camera.cgi?RTPInfo=on) (default setting is 'off')

For details regarding this function, refer to the instructions for the CGI Command Manual.  
(Problem from Ver. 1.01)

### 18. Newly Added Functions in Ver. 1.78.01

#### 18.1. RFC3551 format support for G.726

RFC3551 besides ITU-T formats are supported for G.726 audio codec. Generally RFC3551 format is selected on ONVIF connection.

These two formats are specified by streaming request URI as below.

- ITU-T format  
rtsp://ip\_adr/media/video1  
or  
rtsp://ip\_adr/media/video1?g726=itu-t
- RFC3551 format  
rtsp://ip\_adr/media/video1?g726=rfc3551

The following CGI parameter specifies audio streaming port number for RFC3551.

- Unicast: RTSPUcAudioG726RfcPort (default 51004)
- Multicast: RTSPMcAudioG726RfcPort (default 61004)

## 18.2. ONVIF Profile S support

ONVIF Profile S is supported. Conformance to Profile S is validated with ONVIF Device Test Tool Version 12.06.

## 19. Function changed and Problems corrected in Ver. 1.78.01

### 19.1. Edge Storage on time change

There was a problem that Edge storage recording may stop when time change occurs by events such as daylight savings. This problem has been fixed.

(Problem from Ver. 1.10.01)

### 19.2. Parameter setting for ONVIF command SetImagingSettings

There was a problem that the camera returned the "HTTP/1.1 400 Bad Request" to ONVIF SetImagingSettings command with Brightness and ColorSaturation parameter expressed by decimals.

This problem has been fixed.

(Problem from Ver. 1.04)

### 19.3. Improvement of tolerance to tilt misalignment

Tolerance to tilt misalignment caused by the vibration occurred when pan/tilt stops is improved.

(Problem from Ver. 1.01)

### 19.4. Improvement of streaming video performance over SSL

The frame rate of SSL streaming video is improved.

(Problem from Ver. 1.01)

### 19.5. Correction of MPEG-4 SDP data

The extraneous last four bytes of SDP(Session Description Protocol) data for MPEG-4 in RTSP streaming are removed.

(Problem from Ver. 1.01)

### 19.6. Image 2 setting data restoration problem

There was the problem that the Image 2 setting data may not be restored properly. This problem has been fixed.

(Problem from Ver. 1.01)

## 20. Newly Added Functions in Ver. 1.76

### 20.1. CGI command setting for WS-Discovery

The following CGI command disables WS-Discovery protocol for ONVIF connection. At this time the multicast join message packet to 239.255.255.250 is not sent at startup.

[http://ip\\_adr/command/system.cgi?WsDiscovery=off](http://ip_adr/command/system.cgi?WsDiscovery=off)

For details, refer to the CGI Command Manual.

## 21. Function changed and Problems corrected in Ver. 1.76

### 21.1. Connectivity with other vendors' client software

There was a problem that connections with Omnicast client software provided by Genetec may be lost. This problem has been fixed.

(Problem from Ver. 1.30)

### 21.2. Preset registration when using other vendors' client software

There was a problem that the preset position cannot be saved when using NICE client software. This problem has been fixed.

(Problem from Ver. 1.50)

### 21.3. alarmdata.cgi sending when SSL is on

There was a problem that alarmdata.cgi could not be sent when SSL is enabled. This problem has been fixed.

(Problem from Ver. 1.30)

### 21.4. Incorrect return value by alarmdata.cgi during continuous motion detection

There was a problem that alarmdata.cgi has possibilities to return 0 (which indicates no motion is detected) in very rare cases even though motion was detected continuously. The actual occurrence frequency is rare. This problem has been fixed.

(Problem from Ver. 1.01)

### 21.5. Throughput degradation in full-duplex transmission

When 10Mbps or 100Mbps full-duplex mode is specified by CGI command, Ethernet throughput may be degraded. This problem has been fixed.

(Problem from Ver. 1.01)

### 21.6. Improvement of responsiveness in multicast streaming

The CGI command responsiveness has been improved in multicast streaming.

(Problem from Ver. 1.01)

### 21.7. Error response to ONVIF command SetVideoEncoderConfiguration

There was a problem that the camera may return the "HTTP/1.1 500 Internal Server Error" to ONVIF SetVideoEncoderConfiguration request.

This problem has been fixed.

(Problem from Ver. 1.04)

## 22. Newly Added Functions in Ver. 1.73

### 22.1. Supported Web Browser

Microsoft Internet Explorer Ver.9.0 is newly supported.

The verification test is executed for Windows 7.

## 22.2. Multicast address setting per video instance

It is possible to set and request different multicast address respectively for image1, image2, image3 (only for SNC-RS46N/RS46P/RS44N/RS44P/RS86N/RS86P/RS84N/RS84P), and audio.

For details, refer to the CGI Command Manual.

### [Note]

This function can't be used by ActiveX viewer, setting menu and the SNC toolbox.

## 22.3. Zoom speed setting by using the Pelco-D protocol via serial

The following CGI command is provided to set zoom speed by using the Pelco-D protocol via serial.

[http://ip\\_adr/command/serial.cgi?PelcoDZoomSpeed=0,1,2,3](http://ip_adr/command/serial.cgi?PelcoDZoomSpeed=0,1,2,3) (0: Slowest, 3: Fastest)

The default value is 1.

For details, refer to the CGI Command Manual.

## 23. Problems corrected in Ver. 1.73

### 23.1. Default setting of multicast address

The default setting of multicast address was 224.0.0.200 which is assigned as "Local Network Control Block" by RFC3171. This value has been changed to 239.192.0.200.

(Problem from Ver. 1.01)

### 23.2. Zoom operation failure with ONVIF protocol connection

With ONVIF protocol connection Tele-zoom operation does not work properly after another Tele-zoom is done. The same problem occurs in case of Wide-zoom operation. This problem has been fixed.

(Problem from Ver. 1.04)

### 23.3. Response message issue with ONVIF protocol connection

When both Configuration and Profile are not specified on

GetVideoSourceConfigurationOptionsRequest, VideoSourceTokenAvailable field is missing on GetVideoSourceConfigurationOptionsResponse. This problem has been fixed.

(Problem from Ver. 1.04)

### 23.4. Effectiveness of RtpExpire value

There was a problem that the changed value of CGI parameter RtpExpire had not been effective without reboot. It is no longer required to reboot for changing this value from this version.

(Problem from Ver. 1.01)

## 24. Problems corrected in Ver. 1.61

### 24.1. Improvement of video codec mode update

It used to take about 3 seconds to update a frame rate or a bit rate of the video codec. By improvement of this version the duration is reduced by approximately 90 percent.

(Problem from Ver. 1.01)



#### 24.2. Landscape mode display of Smartphone viewer

The lower part of the video may not be displayed in landscape mode of Smartphone viewer. This problem has been fixed. The blank image on the both horizontal side of the video may be displayed so that the whole video is displayed on the display area keeping the image aspect ratio.

(Problem from Ver. 1.50)

#### 24.3. Streaming problem in Smartphone viewer

When HTTP port number is set to a number other than 80(default) in the Network menu, the streaming data could not be received in the Smartphone viewer. This problem has been fixed.

(Problem from Ver. 1.50)

#### 24.4. Incorrect value in Fragment Offset of JPEG RTP packet header

The value of Fragment Offset in JPEG RTP packet header differs from the correct one defined by RFC 2435. This problem has been fixed. For the client software which wants to use the former incorrect value to keep compatibility, the following CGI command is provided.

`http://ip_adr/command/camera.cgi?RTPMJPEGOOffset=off`

For details regarding this function, refer to the instructions for the CGI Command Manual.

(Problem from Ver. 1.01)

#### 24.5. Reconnection problem on audio upload authentication error

When a network connection for audio upload from a client software causes authentication error, the camera does not close its connection. If the client tries to reconnect by using the same connection, it fails to reconnect. This problem has been fixed by closing the failure connection from the camera. SNC audio upload tool close the failure connection from the client and has no problem.

(Problem from Ver. 1.01)

#### 24.6. Play operation problem of Edge Storage

Play operation of Edge Storage may not start depending on the specified start time and end time. This problem has been fixed.

(Problem from Ver. 1.30)

#### 24.7. Problems after frequent PTZ operations

Some functions may not work properly after frequent and short interval PTZ operations are performed by using Omnicast client software provided by Genetec.

(Problem from Ver. 1.10.01)

### 25. Newly Added Functions in Ver. 1.50

#### 25.1. NTCIP support

NTCIP (National Transportation Communications for ITS protocol) is the protocol for the transportation monitoring standardized in the U.S.A. The registration and calling of the preset and PTZ control are working with the VidShield software by VidSys in the U.S.A.

There is no setting item regarding this function in the Administrator menu.

## 25.2. Connection List

This is a function to acquire information regarding the delivery destination of the streaming. This is used to recognize which client is receiving the streaming.

It is possible to acquire the IP address, port number, protocol using HTTP or UDP, and detailed information, such as media type for H.264, etc., for every session.

This is supported by the CGI command. There is no setting item regarding this function in the Administrator menu.

For details regarding this function, refer to the instructions for the CGI Command Manual.

## 25.3. Smartphone viewer

This is a viewer for smart phones to display an image or perform the PTZ operation by accessing from a smart phone.

The user manual and support information for this function are at the following site.

<http://www.sony.net/ipela/snc>

## 26. Problems corrected in Ver. 1.50

### 26.1. Following capability when Pan/Tilt is performed via serial

Following capability for Pan/Tilt operation controlled by the joystick, etc., via serial was bad. This problem has been fixed.

(Problem since Ver. 1.10.02)

### 26.2. Pan/Tilt operation speed via serial

The speed for Pan and Tilt can be set individually when performing the Pan/Tilt operation by using the Pelco-D protocol, but speed for Tilt could not be set correctly. This problem has been fixed.

(Problem since Ver. 1.01)

### 26.3. Preset registration via serial

The preset name became blank when the preset registration was performed by using the Pelco-D protocol or VISCA protocol. The preset disappeared when the version upgrade was performed in this status. This problem has been fixed so the number of the preset becomes the preset name automatically since the name cannot be registered during the preset registration via serial.

(Problem since Ver. 1.01)

### 26.4. Saving setting for SNMP

SNMP related settings may not be saved when the version was updated or a setting was called. This problem has been fixed. When a version is to be updated from the version prior to Ver. 1.50 or the setting is to be called from the file saved in the version prior to Ver. 1.50, note down the required SNMP related setting values and reset them after the version is updated or the setting is called.

(Problem since Ver. 1.01)

## 27. Problems corrected in Ver. 1.34

### 27.1. Edge Storage

When the overwrite setting was set to ON and there were 500 entries, there was a problem that the entry was not overwritten from the oldest one.

(Problem since Ver. 1.30)

The problem that playback was not possible with RTP/RTSP/HTTP has been corrected.

(Problem since Ver. 1.30)

There was an error in timestamp of streaming. This problem has been fixed.

(Problem since Ver. 1.10)

The Range parameter was rounded down to the whole number. This problem has been fixed.

(Problem since Ver. 1.30)

### 27.2. Alarm buffer

When using the alarm buffer, the data was discarded if the post time and event occurrence overlapped. This problem has been fixed.

(Problem since Ver. 1.01)

### 27.3. Streaming

Multicast's stream acquisition request failed if it was performed consecutively. This problem has been fixed.

(Problem since Ver. 1.01)

## 28. Problems corrected in Ver. 1.31

### 28.1. Motion detection

If pan/tilt operation was repeated during motion detection, there was a case where motion detection did not operate. This problem has been fixed.

(Problem since Ver. 1.01)

### 28.2. SNMP

The CGI command of SNMP did not operate. This problem has been fixed.

(Problem since Ver. 1.30)

### 28.3. Event file

An abnormal frame existed in the event file. This problem has been fixed.

(Problem since Ver. 1.22)

### 28.4. Area zoom

When operating the camera with the image size set to 800x600 and the operation mode of the camera set to "Area zoom", the operation was disabled. This problem has been fixed.

(Problem since Ver. 1.30)

## 29. Newly Added Functions in Ver. 1.30

### 29.1. Language

Use of Portuguese is newly supported.

### 29.2. Supported OS and browsers

64 bit Windows 7 is newly supported.

Operation certified edition

- Windows 7 Professional

### 29.3. ONVIF

ONVIF Core Spec Version 1.02 is newly supported.

### 29.4. Image size

800 x 600 is newly added to the image size.

### 29.5. Letter box

Letter box function is newly added.

Letter box function is a function to resize maintaining the aspect ratio when the aspect ratio of the input video is different from the aspect ratio of the image to be streamed.

### 29.6. Edge Storage

Following functions are added to the Edge Storage function

- Millisecond is now supported for the time  
Start and stop time of the recording is represented in millisecond unit.
- Volume display of recording data (1 Stream) with Search cgi  
Size of the recording data is represented in kbyte unit.
- On-Recording display of recording data with Search cgi  
Currently recording data and recorded data are distinguished as Recording and Recorded respectively.

### 29.7. Addition of frame rate

Following frame rates are added.

- 12 fps
- 16 fps

## 30. Changed or improved Functions in Ver. 1.3

### 30.1. Preset name

Double-byte characters are allowed to be used with the preset name.

However, double-byte characters are not displayed in the superimpose.

## 31. Newly Added Functions in Ver. 1.25

### 31.1. RTSP Multicast streaming

The request of multicast streaming by RTSP is newly supported.

## 32. Newly Added Functions in Ver. 1.22

### 32.1. Language

The following languages are newly supported.

- Chinese (Traditional Chinese character)
- Korean

### 32.2. HPoE LLDP support (SNC-RH124/RS46N/RS46P/RS44N/RS44P)

The power adjustment function by LLDP (Link-Layer-Discovery-Protocol ) based on IEEE802.3at is newly supported.

### 32.3. Video & PT drive refresh function.

Video & PT drive refresh function is to avoid image distortion due to poor contact of the spring ring, or to initialize the pan/tilt position.

## 33. Changed or improved Functions in Ver. 1.22.

### 33.1. Privacy masking

The refresh rate of privacy masking is improved.

### 33.2. Assigning the IP address to the camera using ARP commands

ON/OFF of the function of assigning the IP address to the camera using ARP commands are added.

Please refer to CGI manual for details.

### 33.3. Addition of image size

The image size of 720x480 and 720x576 are newly supported regardless of the setting in the initialize tab of the system menu. (SNC-RH124/RH164)

## 34. Functions

### 34.1. Audio Upload Tool

When Proxy Server is set, Audio Upload Tool may not be connected with the camera depending on the Proxy Server in use.

Please connect the camera without using Proxy Server if connection fails.

### 34.2. Motion Detection

The motion detection function has been stopped while you control PTZ or move to the preset position. The motion detection function restarts after it waits for a while after the PTZ control stopped or the camera moved to preset position.

### 34.3. Camera tampering detection alarm

When no motion detection setting is configured, configure the motion detection area so that it is equal to almost the whole screen, or the camera tampering detection capability is reduced in some cases.

### 34.4. VMF function

The object might not be able to be detected correctly according to the use condition.

Please use this function after confirming the object is correctly detected in actual use conditions enough.

### 34.5. Thumbnails in the Preset Position Panel

Firmware upgrade does not take over the thumbnails for the registered preset positions.

### 34.6. SSL

When the SSL communication is established using the Windows Vista or Windows 7, you may not open the Active X Viewer or motion detection menu. To work around this, proceed as follows:

1. Select [(T)ools] and then click [Internet (O)ptions]
2. Go to [Security] tab
3. Click [Trusted sites] and then press [Sites] button
4. In [Add this website to the zone], enter the camera's address as follows  
https://<camera's address>
5. Press [OK] to finish configuration

### 34.7. RTSP Streaming

The following settings are recommended on the RTSP Streaming, because the RTSP has restriction of the performance.

As follows when H.264 or MPEG4 is used

- Video output is off.
- The number of sessions in which HTTP and RTP can be connected at the same time is 2.
- Total connected bit rate is 4Mbps or less

As follows when JPEG is used

- The number of sessions in which HTTP and RTP can be connected at the same time is 1.
- Frame rate: 10fps or less
- Image quality: Level 4 or less
- Image size is VGA or less.

### 34.8. Edge Storage

The Edge Storage recording stops when you change video codec while it is set as "always recording".

Please don't use Image Memory and FTP client when you use the Edge Storage function.

- Image Memory: Please turn off the Image memory of the Common Tab, turn off the Alarm recording of the Alarm recording Tab, and turn off the Periodical recording of the Periodical recording Tab.
- FTP client: Please turn off the FTP client function of the Common Tab, turn off the Alarm sending of the Alarm sending Tab, and turn off the Periodical sending of the Periodical sending Tab.

Please don't use File attachment of e-Mail function when you use the Edge Storage function.

- Please turn off the File attachment of the Alarm sending tab, and turn off the Periodical sending of the Periodical sending tab.

The following settings are recommended on the Edge Storage, because the Edge Storage has restriction of the performance.

- Video output is OFF
- Image 2 of video codec tab is OFF.
- Image size is VGA or less.
- As follows when H.264 or MPEG4 is used
  - Bit rate: 2Mbps or less
  - Frame rate: 15fps or less
- As follows when JPEG is used
  - Frame rate: 10fps or less
  - Image quality: Level 4 or less

Up to 500 video clips can be stored in a CF memory card. When the overwrite setting is set to OFF, no recording can be performed once the number of entries reaches 500. When the overwrite setting is set to ON, the oldest entry is overwritten after the number of entries

reaches 500.

#### 34.9. Shadow Tour setting

Recording of the tour during the tour was not possible for the recording of the Shadow Tour. Recording is possible by pausing (turning off) the tour once, and then turning it on again. Set in the following procedure.

- Start recording the shadow tour with the Record button.
- Perform PTZ operation and record the tour
- End recording of the shadow tour with the Stop button
- Confirm the contents of the recorded tour with the Play button
- Confirm with the OK button

### 35. Major improvements at Ver. 1.30

#### 35.1. PTZ control I/F

There was a problem with repeating parity error when the parity bit is set to even.

#### 35.2. Image disturbance in H.264

There was a problem that image with movement was disturbed when image is displayed on the ActiveX Viewer with the video codec set to H.264. It has been corrected.

(Problem from Ver. 1.10)

### 36. Major Improvements at Ver. 1.25

#### 36.1. Time

There was a problem that the setting of time was returned after a few seconds , when you changed the setting of time within 50 minutes. It has been corrected.

(Problem from Ver. 1.10)

#### 36.2. Edge Storage

There was a problem that video and audio might not be able to stream, when the audio recording setting was ON and the other settings were more than recommended setting. It has been corrected.

(Problem from Ver. 1.10)

There was a problem that audio and video recording might fail when the image codec "JPEG" was selected and the audio recording was ON. It has been corrected.

(Problem from Ver. 1.10)

There was a problem that it could not replay audio, and you could not connect since the second times, when the file that was recorded video and audio was replay with RTP/RTSP or RTP/RTSP/HTTP. It has been corrected.

(Problem from Ver. 1.10)

#### 36.3. Factory Default

There was a problem that it might take 6 minutes or more for initialization, when the camera was reset to the factory setting by pressing the reset button on the camera. It has been



corrected.

(Problem from Ver. 1.10)

#### 36.4. Auto Day/Night function

There was a problem that Auto Day/Night function didn't work in some cases. This problem might persist in case that the power was recycled with this 'Auto' mode setting. This problem has been fixed.

(Problem from Ver. 1.01)

#### 36.5. Preset Tour function

There was a problem that Preset Tour function unexpectedly skipped its first preset position when it started. This problem might persist in case that the power was recycled with this function enabled. This problem has been fixed.

(Problem from Ver. 1.01)

### 37. Major Improvements at Ver. 1.22

#### 37.1. Image quality of JPEG (without streaming)

There was a problem that the image quality of JPEG was fixed when e-Mail function, FTP client function or image memory function were used. It has been corrected.

(Problem from Ver. 1.01)

#### 37.2. Bit rate in MPEG-4

There was a problem that actual bit rate might overrun the specified rate when the image codec was set to "MPEG-4" and bitrate was set to low. It has been corrected.

(Problem from Ver. 1.10)

#### 37.3. Motion Detection area

There was a problem that when the setting detection area of the motion detection function was not rectangle, the setting detection area might not be restored correctly after you push "backup setting data" and "restore setting". It has been corrected.

(Problem from Ver. 1.01)

#### 37.4. RTSP

There was a problem that the stream of RTSP/RTP/UDP might not be able to be get when the setting of CODEC was changed. It has been corrected.

(Problem from Ver. 1.10)

There was a problem that the image might not come out when to connect and disconnect the RTSP were repeated. It has been corrected.

(Problem from Ver. 1.10)

There was a problem that the image did not come out when the image size of JPEG exceeded 280Kbyte. It has been corrected.

(Problem from Ver. 1.10)

## Release Note

There was a problem that the image might not come out when connected cutting of RTSP was done while switching the codec. It has been corrected.  
(Problem from Ver. 1.10)

### 37.5. Preset tour

There was a problem that the Preset tour didn't start when the starting position was the first position. It has been corrected.  
(Problem from Ver. 1.01)

## 38. Known issues

### 38.1. About IPv6 DHCPv6

When using Windows Server 2008 as a DHCPv6 server under the IPv6 environment, an IP address may not be assigned correctly. Use the IPv6 state address auto setting under such an environment.

### 38.2. About Safari

The usage of memory may increase and Safari may stop with an error when using JPEG as a streaming method with the Plug-in free viewer by Safari 4 or 5.

Please use JPEG Flash as a streaming method or use other browsers when continuous playback for a long time.

### 38.3. Edge Storage

When the settings are more than recommended setting, video and audio might not be able to stream.

The playback might catch up with the recording when playback while recording. At that time, the playback will stop.

Video and audio might not be synchronized when the file that is recorded video and audio was replay.

### 38.4. RTSP

The equipment may restart when used with the setting larger than the recommended one

### 38.5. SNC video player

When the last character of folder name which stored a playing file is number, on occasion SNC video player doesn't play properly.

At that time, please use the last character of folder name excluding number.

### 38.6. Long-time Viewing with Smartphone Viewer

If a large image size is set for the video codec of the camera, the viewer may stop if the viewer is open for a long time. In such a case, restart the viewer.

### 38.7. Simultaneous pressing of multiple buttons with Smartphone Viewer

With Xperia™ arc, pressing more than one PTZ button simultaneously may cause the PTZ operation of the camera to continue working. To stop the operation, press one of those buttons again.

### 38.8. Panorama creation by SNC toolbox of the versions 1.2.4.0 or before

The SNC toolbox of the versions 1.2.4.0 or before cannot create a panorama image for the firmware of Ver. 1.61 or later. To create a panorama image for the firmware of Ver. 1.61 or later, please use the SNC toolbox of Ver.1.2.5.0 or later.

(SNC-RS46N/RS46P/RS44N/RS44P/RS86N/RS86P/RS84N/RS84P)

38.9. Firmware upgrade by SNC toolbox of the versions 1.2.5.0

The version 1.2.5.0 cannot keep all of User names and Passwords which have been changed from the default parameter, so these will be reset to the factory default setting after updating of camera's firmware.

To upgrade the firmware, please use the SNC toolbox of Ver.1.2.6.0 or later.

38.10. Motion detection after position changed by calling preset position

When motion detection is working, it will stop the indicating for about 3 seconds after position changed in the reason of failure protection. And so the case of calling a same position in preset tour will cause the periodical stop of motion detection.