

## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Issue (Phenomenon)	Occurrence condition	Correspondence
				A	B	C	U			
1.42 (4.08.00) Feb.,'12	X	X	X				X	First release version	-	-
1.43 (4.08.00) Mar.,'12	X	X	X				X	Fail to configure the camera setting by Panasonic IP setting software.	Under its IP address is "0.0.0.0" without DHCP server.	Fixed
	X	X	X				X	Unable to start auto configuration.	At initial startup.	Fixed
	X	X	X				X	Unable to get status of VMD by CGI command "get_io".	-	Fixed
	X	X	X				X	Missing extended information of VMD.	In a case connect/disconnect for stream1 and 2 repeatedly.	Fixed
1.44 (4.08.00) Apr.,'12	X	X	X				X	Unable to monitor self camera from WAN.	Through internet.	Fixed
	X	X	X				X	Focus Assist page may be displayed, unexpectedly.	At power on.	Fixed
	X	X	X				X	Error may occur at RTC initialization.	-	Fixed
	X	X	X				X	Error of exceeding limit for number of access occur.	Depends on a certain procedure while connect/disconnect network repeatedly due to network environment.	Fixed
	X	X	X				X	Unnecessary data is added onto WhiteBalance->Mode by GetVideoSourceResponse.	On ONVIF®.	Fixed
	X	X	X				X	Unable to change rtsp port number by CGI command "/cgi-bin/set_rtsp?rtsp_port=1035".	-	Fixed
	X	X	X				X	Pan/Tilt move wrong direction even if value for Pan or Tilt were set between 0 (zero) and -1 by ContinuousMove_Ptz_Cont2.	On ONVIF®.	Fixed
1.45 (4.08.00) June,'12	X	X	X				X	Hunting may occur at White Balance.	-	Fixed
	X	X	X				X	Video streaming may be stopped when receiving a command.	In a case start streaming/stop streaming in RTSP were switched, repeatedly.	Fixed not to stop streaming.
	X	X	X				X	Restart due to buffer overflow at IPv6 address.	ONVIF®	Fixed not to restart.

Priority Rank Level  
 A: Recommend to apply (Major or serious update)  
 B: When issue happened  
 C: Maintenance timing  
 U: Function /Performance improvement (Not Necessary to update)

### Contents

\*: ONVIF is a trademark of Onvif, Inc.

## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Issue (Phenomenon)	Occurrence condition	Correspondence
				A	B	C	U			
	X	X	X				X	-	-	Added a guide of face detection appears on live picture.
	-	X	X				X	-	-	Added playback function for contents in H.264 on SD memory card. Restrictions: - Unable to attach JPEG image on mail notification. - Max. bitrate for H.264 recording onto SD memory card is 2048Kbps. - Number of connectable users may be decreased than version 1.60 (or older). - Max. bitrate per client (such as viewing live picture) is 2048Kbps. - Transmission priority of streaming for recording, cannot be set to "Best Effort". - Refresh interval for recording cannot be set to "1s" or longer.
Added on May 24, 2013	X	X	X				X	-	-	Added pre-alarm recording in JPEG on SD memory card.
	X	X	X				X	-	-	Added a function to refresh images automatically on display of mobile phone.
	X	X	X				X	-	-	Added Chinese language pages for mobile phone while selecting Chinese language.
	X	X	X				X	-	-	Added choice "Default Gateway" in IPv6 network.
1.60 (4.10.02) Sept., '12	X	X	X				X	-	-	Improved video transmission controls when setting "Best Effort" at Transmission priority mode for improving performance of transmission on narrowband or wireless network environment.
	X	X	X				X	-	-	Supported Advanced mode on Viewnetcam.
	X	X	X				X	-	-	Improved data transmission to transmit smoother when selecting "Frame rate" at "Transmission priority" in H.264. *: This is effective when number of user for transmission is 1 (one).
	X	X	X				X	-	-	Improved live video smoother display (Buffering) on plug-in software. *: Motion video (H.264/MPEG-4) is displayed with 2-sec accumulation if Internet mode (over HTTP) were "ON".
	X	X	X				X	-	-	Changed not to send "RSET" command to SMTP server when sending mail notification by Alarm/Diag. to improve connectivity with a certain SMTP server.
	-	X	X				X	-	-	Improved not to skip some frames of recording at around alarm if "Recording format" at alarm occurrence were set in "H.264" and "Pre alarm" is set in "Use".
	X	X	X			X		Video may be delayed. (Occurrence frequency: Low)	In a case Smoother live video display (buffering) on plug-in software were set in "ON" under Windows XP SP3 and IE6 SP3.	Fixed not to delay video.
	X	X	X			X		Incorrect color at SD card recording in H.264 (wrong color or missing color). (Occurrence frequency: Low)	In a case the objects were changed significantly.	Fixed not to show incorrect color.
	X	-	-			X		Unable to get log after getting log by i-PRO system configuration tool (Ver3.7 or older). (Occurrence frequency: High)	Attempt to get log from cameras (Ver 1.4x) by i-PRO system configuration tool (Ver3.7 or older).	Fixed to work it properly.
	X	X	X			X		Unable to change rtsp port by cgi command "/cgi-bin/set_rtsp?rtsp_port=1035". (Occurrence frequency: High)	Attempt to change rtsp port by cgi command "/cgi-bin/set_rtsp?rtsp_port=1035".	Fixed to work the command properly.

### Contents

\*: ONVIF is a trademark of Onvif, Inc.

For more details, please refer to "New functions and addendum (Firmware Ver. 1.60)".

## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Contents		
				A	B	C	U			
<b>Priority Rank Level</b> A: Recommend to apply (Major or serious update) B: When issue happened C: Maintenance timing U: Function /Performance improvement (Not Necessary to update)								*: ONVIF is a trademark of Onvif, Inc.		
1.60 (4.10.02) Sept., '12	X	X	X			X		Unable to download recorded contents on SD memory card, properly. (Occurrence frequency: High)	Attempt to download recorded contents from SD memory card.	Fixed to download properly.
	X	X	X			X		Unable to restart recording on SD memory card. (Occurrence frequency: Low)	In a case camera was restarted while recording onto SD memory card.	Fixed to restart recording onto SD memory card.
	X	X	X			X		Remaining capacity notification is made when the remaining capacity is more than specified. *: It is made at "Less than 50%" although "Less than 20%" is set. (Occurrence frequency: High)	In a case "Less than 20%" is set at "Notification of the remaining capacity of the SD memory card" in remaining capacity notification.	Fixed to notify properly.
	-	X	X			X		No way for making TCP connection. (Occurrence frequency: Low)	After attempting to send video for a certain FTP server (ex. Microsoft IIS).	Fixed to make TCP connection.
	Added on May 24, 2013			-	X	X		x	-	-
1.61 (4.10.02) Sept., '12	X	X	X				X	-	-	Add a function not to be updated by wrong firmware between wired LAN models (SW175/SW172/ST165/ST163) and wireless LAN model (SW174W).
	X	X	X				X	-	-	Improved VMD sensing more accurate by sensing areas to be smaller after setting it by accessing a certain HTML.
	X	X	X			X			In RTSP connection, opposing device does not include session parameters in RTSP packet of OPTIONS that is used in keep-alive.	Fixed not to stop the streaming.
	X	X	X			X		Video streaming may be stopped.	In RTSP connection, opposing device sent RTSP packet for TEARDOWN.	
	X	X	X			X			When camera attempt to start/end encoding for the video streaming.	
1.65 (4.10.02) Dec., '12	-	X	X			X		On ASM200, receive an error when attempting to receive recording log list from cameras. (Occurrence frequency: High)	Recording compression format is set in either H.264(1) or H.264(2).	Fixed to get the list, properly.
	X	X	X			X		Back Light Compensation (BLC) does not work well as expected. (Occurrence frequency: Low)	On firmware version 1.64.	Improved BLC to work well.
	X	X	X			X		-	-	Improved reliability for video streaming not to stop streaming.
1.66 (4.10.02) Jan., '13	-	X	X				X	-	-	Added new Panasonic Alarm Notifications about life time of SD memory card. To activate, choose ALARM - NOTIFICATION - Panasonic Alarm Notification and turn Diag to be ON. 1. A message will be sent after a year. 2. A message to recommend replacing the SD memory card after 6 years. 3. Messages over-written every 200 times. 4. A message to recommend replacing the SD memory card after over-written 2000 times.

## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Contents
				A	B	C	U	
Priority Rank Level								*: ONVIF is a trademark of Onvif, Inc.
A: Recommend to apply (Major or serious update)								
B: When issue happened								
C: Maintenance timing								
U: Function /Performance improvement (Not Necessary to update)								
				Issue (Phenomenon)		Occurrence condition		Correspondence
1.66 (4.10.02) Jan., '13	-	X	X				X	In cases of use with Panasonic alarm notifications, the following new Panasonic Alarm Notifications will be sent by e-mail; 1. Message after a year: SD memory card is used for long-term. (over 1 years) (*% of the estimated life). 2. After 6 years, the message recommend to replace the card: It is time to replace the SD memory card as it is used long-term. (over * years). Or, it may be a cause of deterioration. 3. Messages when usage time exceeds 50% and 70% of estimated life time: Usage counter of SD memory card exceeded *% of estimated life. 4. Messages when usage time exceeds 90% of estimated life time: Usage counter of SD memory card exceeded *% of estimated life. Replacing the SD memory card is recommended, shortly. 5. Message to recommend the card when usage time reached estimated life time: It is time to replace the SD memory card as usage counter reached its estimated life. Or, it may be a cause of deterioration.
	X	X	X				X	Supported the cgi commands as follows; - /Set,Get?Func=ImageTransfer to set alarm notifications and to receive setting values - /Get?Func=Pan,Tilt to receive available Pan/Tilt ranges - /Set?Func=Network to set network - /Set,Get?Func=Upnp to set Upnp and to receive setting values - /ImageViewer - /Set?Func=Network to add dns parameters
	X	X	X				X	Added cgi commands to receive the capability information as follows from camera: 1. Aspect ration of image sensor 2. Possibility of SSL 3. Capable ranges to set Pan and Tilt by absolute degree. 4. Possibility of Super Dynamic Range/Wide Dynamic Range
	X	X	X				X	Added parameters with the cgi command "/cgi-bin/camposiset" so that responses of cgi registration can be simplified.
	X	X	X				X	Supported available to call "Image adjust" setup menu by URL directly.
	X	X	X				X	More improved live picture to be smoothed.
	X	X	X			X		Minimum intervals between VMD alarms to be 10 sec., unexpectedly. (Occurrence frequency: High) On firmware version 1.60. Fixed to be 5 sec.
	X	X	X			X		Unable to Pan/Tilt control from CU950. In a case, WV-CU950 is connected with WV-ASM200. Fixed to control.
	X	X	X				X	Revised how to give time-stamp while re-streaming SD recorded data in double-speed.

## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Contents	
				A	B	C	U		
1.67 (4.10.02) Mar., '13	X	X	-				X	-	Improved an issue that picture swings left-right while panning in slow by certain cgi command.
1.80 (4.17.01) Jul., '13	X	X	X				X	-	Added Advanced VBR (Variable Bit Rate) as choice for H.264 transmission and H.264 recording.
	X	X	X				X	-	Changed to an optional function of "Face detection outline display" and "Advanced func."effective from newly production units in July, 2013.This is effective from newly production units only and nothing influences existing units (which the function is already usable) even if the firmware version 1.80 would be installed.
	X	X	X				X	-	Added a message of "Time past from the date of manufacture" in the page of Upgrade (Maintenance).
	X	X	X				X	-	Added "Auto" as choice in language selection.
	X	X	X				X	-	Changed the settings about "Time zone" and "Summer time" from NTP (Server) to Basic (Basic).
	X	X	X				X	-	Added setting for "Monitor out" (NTSC/PAL switching) onto Basic (Basic).
	X	X	X				X	-	Added "Area" selection to the "DDNS" setting.
	X	X	X				X	-	Added "HTTP alarm notification".
	X	X	X				X	-	Supported SSL Mail Server.
	X	X	X				X	-	Added "Forcible black & white mode", "Forcible Super Dynamic" and "Forcible WDR" to the schedule.
	X	X	X				X	-	Added "Pan/Tilt limitation settings".
	X	X	X				X	-	Supported missing "/" (slash) at the end of "HTTP" in path or header "Host:".
	-	X	X				X	-	Added displaying the "Log" in live and "Permission level of viewing logs" settings.
	-	X	X				X	-	Changed the name of "List" button on the "Live" page to "List/Play".
	X	X	X				X	-	Added "Initial display stream on the browser" setting.
	X	X	X				X	-	Added Internet function.
X	X	X				X	-	Added the following returned values of CGI that is to receive built-in functions of the camera; 1) Type of license for Key Management System. 2) Advanced VBR" 3) Fog compensation	
X	X	X				X	-	Removed version information about ONVIF® as returned value of CGI that is to receive built-in functions of the camera.	
-	X	X				X	-	Improved speed of retrieving data for playing back H.264 video recorded on SD memory card.	
X	X	X				X	-	Improved response time for HTTPS access.	

\*: ONVIF is a trademark of Onvif, Inc.

## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Contents		
				A	B	C	U			
1.80 (4.17.01) Jul., '13	X	X	X				X	-	-	Supported the combination of Windows 8 and Internet Explorer 10.
	X	X	X				X	Concerning with CGI commands, unable to receive the values of zooming.	CGI commands as follows on the models. (1) /Get?Func=Zoom&Kind=1&Option=1 (2) /nphPtf?Func=Get	Fixed to receive values.
	X	X	X				X	-	-	Fixed an issue that it took some time for showing authentication error when connecting with Digest authentication.
	-	X	X				X	-	-	Fixed an issue that Cancel may not be accepted while downloading video from the page of playing back video on IE9.
	-	X	X				X	Schedule recording may not be started even if "Use" were selected at setting of SD Memory Card.	Switching it to "Use" within scheduled period.	Fixed to start recording, properly.
	-	X	X				X	Changing Frame rate may not become effective.	Changing frame rate while "H.264(1)/H.264(2)" is selected at "Recording format".	Fixed to become effective, properly.
	-	X	X				X	Backup recording may be made onto SD memory card without network connection failure.	In a case, H.264 backup recording onto SD memory card were set while connecting with WJ-ND400.	Fixed not to record, unexpectedly.
	X	X	X				X	Unable to access the camera.	In a case UPnP is set to "ON".	Fixed to access the camera, properly.
	-	X	X				X	FTP image transmission does not work.	In a case, "SD memory card" is set in "Not use" and "Alarm trigger" is set in either "Alarm input" or "Manual".	Fixed it works, properly.
	-	X	X				X	The "log_delete" of PS-API does not erase the log of SD memory card recording (H.264).	Attempting to send "log_delete" for erasing it from PS-API.	Fixed to delete the log, properly.
Added on Oct. 25, 2013	X	X	X				X	-	-	Changed archive file format for installation file from executable file to cabinet file that is to install ActiveX upon accessing browser.
	X	X	X				X	System controller (Model WV-CU950) moves Pan/Tilt on the camera all the way although the joystick released right after moving it with desired direction slightly.	-	Fixed .
1.81 (4.17.01) Aug., '13	-	X	X				X	Recording onto SD memory card may be stopped even if overwrite were in effective.	Using with SD memory card (for Industry Use) on firmware version 1.66 and 1.80.	Fixed not to stop recording, unexpectedly.
	X	X	X				X	Concerning with "Auto mode" operation, "script error" is shown by selecting either "360 map shot" or "Preset map shot" and click "Stop" without clicking "Start".	In live picture.	Fixed not to be error.
	-	X	X				X	Playback on WJ-ND400 may be collapsed.	While connecting with WJ-ND400 and recording H.264 onto SD memory card as backup.	Fixed.
	X	X	X				X	Transmission may be stopped by sending the CGI (get_io) to obtain the status of alarm terminals and VMD.	In a case, sending the CGI (get_io) to obtain the status of Alarm terminals and VMD repeatedly.	Fixed not to stop transmission.

Added on Sept. 11, 2013

**Important Information to upgrade/downgrade the firmware.**  
 You can install any firmware version for the products manufactured prior to July 2013.  
 But only firmware version 1.80 and newer can be installed for the products manufactured in July 2013 and after (Serial Number "MGxxxx", "MHxxxx", "MIxxxx" and so on).

## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Contents		
				Priority Rank Level						
				A	B	C	U			
1.82 (4.17.01) Nov., '13	X	X	X				X	-	-	Added a function for TV System to switch from NTSC to PAL by pressing RESET button within one second.
	X	X	X				X	-	-	Language of E-mail notification in Notification tab is selected to either Japanese (if language selection were Japanese) or English (if language selection were non Japanese) automatically.
	X	X	X				X	-	-	Added Portuguese as a choice at [Select language] pull-down menu.
	X	X	X			X		The browser showed "500 Internal Server Error".	<PAL models only> When setting 3fps in MOTION JPEG by CGI command.	Fixed.
	X	X	X			X		Incorrect PAN/TILT absolute angle values were returned.	When it was acquired by cgi command "get_capability" from VMS etc.	Fixed returning correct values.
	X	X	X			X		Time difference between on-screen and NTP of RTCP was bigger and bigger.	-	Fixed.
	X	X	X			X		Playback screen of System log may be closed and backed to live picture.	While using under Internet Explorer (IE) 10.	Fixed.
	X	X	X			X		Camera moved into Safe mode.	In a case upgrading the driver firmware after registering ONVIF®.	Fixed to start up, properly.
	X	X	X			X		The System log may showed incorrect reasons for errors at "Not found Panasonic alarm protocol notification".	-	Fixed.
2.00 (4.17.01) Feb., '14	X	X	X				X	-	-	Added FTP transmitting Pre alarm picture.
	X	X	X				X	-	-	Added hyper-link to the "Support Information on network camera (WV Series)" in the page of firmware upgrade.
	X	X	X				X	-	-	Changed the name of "Direction setting" to "Direction/Angle setting". Added "Panning 0-deg direction setting".
	X	X	X				x	-	-	Supported a function to receive the direction (position) from analog cameras.
	X	X	X				x	-	-	Added Audio Output Duration setting so that various durations of audio transmission (such as 1/2/3/5/10/20/30/60min) can be set (instead of 5-min fixed).
	X	X	X				x	-	-	Added "High Light Compensation (HLC)" function.
	X	X	X				x	-	-	Added "Alarm deactivation time" setting so that various deactivation time (such as 5s/10s/30s/1min/3min/5min/10min) can be set (instead of 5-sec fixed).
	X	X	X				x	-	-	Made possible to choose "BASELINE" or "HIGH" as H.264 Profile by CGI command.
	X	X	X				x	-	-	Improved sensitivity for VMD by CGI command.
	X	X	X				x	-	-	Improved outputting frame rate while setting Max. bit rate were lower value in Advance Variable Bit Rate (AVBR).
	X	X	X				x	-	-	E-mail notification can attach an image when recording video is in use.
X	X	X				x	-	-	In ONVIF®, supported as follows; (1) Video Source Mode (Image Capture Mode) command. (2) Audio Back Channel over HTTP	

\*: ONVIF is a trademark of Onvif, Inc.

## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Contents	*: ONVIF is a trademark of Onvif, Inc.		
				A	B	C	U				
Priority Rank Level											
A: Recommend to apply (Major or serious update)											
B: When issue happened											
C: Maintenance timing											
U: Function /Performance improvement (Not Necessary to update)											
				Issue (Phenomenon)				Occurrence condition		Correspondence	
2.00 (4.17.01) Feb., '14	X	X	X			X		By CGI command, unable to obtain the desired MP4 file(s) only but also all associated MP4 files will be obtained. (Occurrence frequency: High)	In a case, the subject were a certain specific brightness.	Fixed only desired MP4 file(s) to be obtained.	
	X	X	X				X	-	-	Improved the camera position after restart. Retain camera position after restart although it was out of preset position.	
	X	X	X			X		Unable to set durations of pre-alarm and post-alarm recordings.	Set H.264(2) to "OFF" while recording H.264(1) onto SD memory card.	Fixed to set the durations.	
	X	X	X			X		Time stamp information may not be on the stream. (Occurrence frequency: Low)	When error occurred at H.264 video transmission.	Fixed to the stream contains time stamp information.	
	X	X	X				X	-	-	Improved the returning of CGI command (/cgi-bin/find_recording_seqs) would contain "Content-Length".	
2.01 (4.17.01) Apr., '14	X	X	X				X	-	-	Added a recommendation for enabling CompatibleView setting on IE10 and IE11 if it were NOT enabled.	
	X	X	X				X	-	-	Added a hyper-link for the page of Support Information on title bar at the top of the Live picture.	
2.02 (4.17.01) Jun., '14	-	X	X				X	SD memory card error indicator (or SD recording status indicator) may light red, unexpectedly. (Occurrence frequency: Low)	Power ON if SD Memory Card were in the slot.	Fixed.	
2.10 (4.27.02) Nov., '14	X	X	X				X	-	-	Supported displaying H.264/JPEG images on Safari (v5.1.7), Firefox (v32.0.3) and Google Chrome (v38.0.2125). Notes: there are some restrictions as follows; 1. To display H.264 images, required installing QuickTime plug-in (v7.7.6). 2. H.264 supports Unicast only and delays approx. 3 seconds. 3. Audio is available only in H.264 (is NOT available in JPEG) and supports G.711 only. Furthermore, it supports only "Audio reception" (receive audio from camera). 4. Full screen opens new window, So, it must be within the maximum number of concurrent access user.	
	X	X	X				X	-	-	Improved displaying live picture even if the setting of the Compatibility View on Internet Explorer11 were "Off".	
	-	X	X				X	-	-	For SD memory card, added warning output, usage information and error information. Notes: 1. The model number of SD memory card is displayed according to the information retrieved from SD memory card. 2. The "Total use time" is Not updated real-time but is updated every 1-hour.	
	-	X	X				X	-	-	Added "SD memory card warning output" at the "Alarm output terminal".	
	-	-	-				X	-	-	Supported time and camera title can be displayed by separation. Note: it must be sent a cgi command.	
	X	X	X				X	-	-	Changed indication order of ONVIF® Profile when obtaining them; Previous: Ascending order of resolution in JPEG New: Descending order of resolution in H.264	
	X	X	X				X	-	-	Reviewed and updated the Time Zone values	





## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Contents		
				A	B	C	U			
Ver2.30 (4.27.0.2) Feb., 2016	X	X	X				x	-	-	Improved not to access unnecessary memory. ----- Changing configuration settings by CGI commands as follow for Capture size, Bit rate and Frame rate, will be stored onto Flash-ROM. But it will be done if the CGI command contains another parameter. Also, it will be done if the command contains 2 or more parameters.  /set_h264?nr_framerate /set_h264?nr_h264_quality /set_h264?nr_h264_resolution /set_h264?nr_h264_bandwidth /set_h264_2?nr_framerate /set_h264_2?nr_h264_quality /set_h264_2?nr_h264_resolution /set_h264_2?nr_h264_bandwidth /setdata?H264NRFRAMERATE /setdata?H264NRFRAMERATE_2
	X	X	X				x	-	-	Added a notice for each screen that alarm notification will not be appeared while displaying VMD.
	X	X	X				x	-	-	Regarding the header (WS-Addressing) which is attached with ONVIF® commands, supported WS-Addressing in August 2004, used to be the one in August 2005 only.
Ver2.40 (4.27.0.4) Apr., 2016	X	X	X				x	-	-	1. Changed factory default setting value at User Authentication from "OFF" to "ON". 2. Deleted pre-registered User name (admin), and Password (12345). 3. All users must register User name(s) and Password(s) at initial access. - User name: 1 to 32 characters - Password; 8 to 32 characters, two or more types of characters among alphabets, numbers and symbols. Note: Currently registered User name(s) and Password(s) will NOT be deleted by upgrading firmware, however, you have to register them under the new policy (above "3") after initializing (default reset) by the INITIAL SET button or by the setup menu.
2.41 (4.27.02) Jun,'16	-	X	X				x	Backup of recorded picture (in JPEG) from SD memory card to WJ-ND400 may be solid black.	-	Fixed.
							x	Unable to download video by "500 Internal Server Error".	When downloading video from browser during overwrite deletion.	Fixed.
							x	H.264 video within the latest log on SD memory card may not be able to download by web browser.	-	Fixed.
							x	Video on SD memory card may not be able to playback become a solid black.	Depending on the subjects.	Fixed.
							x	A log of exceeding 1 hour may be created.	By downloading video while recording.	Fixed.

## WV-SW175/SW174W/SW172/ST165/ST162 Firmware Release Note

VER (ActiveX VER) Release Date	WV-SW174W	WV-SW175/172 WV-ST165	WV-ST162	Priority Rank Level				Contents		
				Priority Rank Level						
				A	B	C	U			
Priority Rank Level A: Recommend to apply (Major or serious update) B: When issue happened C: Maintenance timing U: Function /Performance improvement (Not Necessary to update)										
*: ONVIF is a trademark of Onvif, Inc.										
								<b>Issue (Phenomenon)</b>	<b>Occurrence condition</b>	<b>Correspondence</b>
2.43 (4.27.07) July,'17	X	X	X				x	-	-	Changed company name to the new company name in the plug-in (ActiveX) software.
	X	X	X				x	-	-	Updated the URL of the support WEB site displayed on the screen.
	X	X	X				x	Screen may show solid black.	-	Fixed. Improved fail-safe processing at the occurrence of abnormality of image encoding processing unit so that to avoid displaying solid black.
	X	X	X				x	WV-SW458 unable to transmit more than 4Mbps.	On ONVIF®.	Fixed.
	-	X	X				x	Recording on SD memory card may stop when an error occurred at writing.	When selecting "H.264 recording".	Fixed.
	-	X	X				x	-	-	Added a choice, Reboot, at Schedule 5 in the schedule settings.
	X	X	X				x	Streaming may stop.	While connecting for multicast streaming.	Fixed.
	X	X	X				x	Blinked the support button (a hyper-link for the page of Support Information) on title bar at the top of the Live picture.	If the elapsed years exceeded 6 years.	Fixed.
2.44 (4.27.07) Feb.,'18	X	X	X				x	-	-	Improved security.
	X	-	-				x	-	-	Fixed the vulnerability of WPA 2.
	X	X	X				x	Zoom may not work.	When using ONVIF®.	Fixed.
	X	X	X				x	-	-	Improved PAN / TILT / ZOOM position accuracy of ONVIF® command.
Ver2.50 (4.27.07) Jun.,'18	x	x	x				x	-	-	Changed factory default setting for Authentication method; Previous: "Digest or Basic" New: "Digest"  For more details: <a href="#">security upgrade June2018.pdf</a>
	Ver2.50 (4.27.07) Jun.,'18	x	x	x			x	-	-	Changed password policy that it must include at least 3 types of characters among "upper case letters / lower case letters / numbers / symbols". <b>Note:</b> Original passwords and authentication method of products on the system are kept unchanged even firmware and software have been updated.  For more details: <a href="#">security upgrade June2018.pdf</a>
x		x	x				x	Streaming may stop at camera startup while setting in multicast streaming.	-	Fixed.
Ver2.60 (4.27.08) May.'20	-	x	x				x	Except Chinese market models, WV-SW175H, SW172H, ST165H and ST162H		
								-	-	Changed the company name in the plug-in software Active X to the new one.