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This document describes WV-SUD638(B), WV-SUD638-H and WV-SUD638-T firmware upgrade Info.
1. Release version: Version 5.02
2. Release Note Reference Number: SUD638-019

March 1, 2023
i-PRO Co., Ltd.

WV-SUD638, WV-SUD638-H, WV-SUD638-T and WV-SUD638B Firmware Release Note

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.

VER (ActiveX Ver) Release Date		Priority Rank Level					Contents		
WV-SUD638	WV-SUD638H	A	B	C	U	Issue (Phenomenon)	Occurrence condition	Correspondence
Ver2.46 (4.39.00) Sept.,'16		-				First production.		
Ver2.47 (4.39.00) Oct.,'16		C			x	-	-	Improved the performance of the stabilizer: - Improved the effectiveness of the stabilizer. - Improved by shortening the time for stabilizing (from approx. 5 sec. to 3.5 sec.) after controlling PAN/TILT.
					x	-	-	Improved the auto-focus function: - Improved the convergence speed of autofocus in low light condition. - Improved the performance of autofocus in low light condition even if the setting of AGC were in "Mid" or "Low".
				x		Fixed an issue at the CGI command as follow to receive the status of heater. /cgi-bin/check_heater	In a case starting up at temperature -30 deg. Or lower and displaying "WARMING UP".	Fixed.
					x	-	-	Improved (fixed) ONVIF® commands as follow; - IR LED lights up even if the Day & Night(IR) were switched to AUTO by OnVIF command. - Made the "Day & Night(IR)" to be switched to "Auto2(IR Light）" while the "Day & Night(IR)" were in other than "Off". - Improved IR LED Light setting to be able to set by OnVIF command.
Ver2.48 (4.39.00) Jan.,'17		C			x		Live image in 16:9 may be displaying vertically elongated.	Image capture size were either 1920x1080 or 1280x720 only.	Fixed.
					x		Replied to the "SetVideoSourceMode" command (ONVIF®).	-	Fixed.
				x		The Real-time Pull-Point Notification Interface did not conform to ONVIF®.	-	Fixed.
					x	-	-	Improved security.
				x		Pan/Tilt operation may stop, unexpectedly. （Occurrence frequency : High)	When making zooming repeatedly while moving pan/tilt continuously.	Fixed.
Ver2.50 (4.39.00) Feb.,'17		C			x		Auto pan (settings of Dwell time, Speed, Endless panning) may not work that you expected when the Image stabilization is enabled accidentally (Because this combination is not supported).	Stabilizer="On" and the range of auto panning contains a certain panning position; - Stationary or Pole installation: 175-degree - Ceiling installation: 185-degree	The Image stabilization mode will be switched to "Off" automatically during the Auto pan works.
				x		Refresh interval may be "8s", unexpectedly, by changing the transmission type of H.264 images.	If the both of following were true; 1. The settings of "Transmission of H.264 images" nor "Refresh interval" have never been changed from settings menu (including the cgi-command of "/cgi-bin/setdata"). 2. "Refresh interval" has never been changed from recorders or tools (including the cgi-command of "/cgi-bin/set_h264").	Fixed.

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VER (ActiveX Ver) Release Date WV-SUD638	WV-SUD638H	A	B	C	U	Issue (Phenomenon)	Occurrence condition	Correspondence
Ver2.51 (4.39.00) Mar.,'17 *(Added on Mar. 29,2017)*				C	x	Unable to work time adjustment function synchronizing with NTP server.	When the difference between the clock and the NTP server is within 5 seconds.	Fixed.
				x		Focus may be blurred when the autopan is activated at night.	Depending on the installation environment (subject).	Fixed.
(Added on June 6,2017)				x		Refresh interval may be switched to "8s", unexpectedly.	By changing "Transmission priority" of H.264 for the options other than "VBR", initiated by PSSCT or WJ-NV300 only if it is the first time from the installation of the camera.	Fixed.
Ver2.56 (4.39.23) Sept.,'17				C	x	-	-	Changed company name to the new company name in the plug-in (ActiveX) software.
					x	-	-	Updated the URL of support website displayed on screen.
					x	Script error may occur by clicking the "Set" button at "Recommended network setting for internet" in Configure the Internet settings [Internet].	-	Fixed.
					x	Unable to control PTZ(Pan/Tilt/Zoom) by Video Management Software with ONVIF® connection.	-	Fixed.
	Ver3.01 (4.39.23) Mar.,'18					First productio[n] **Added on June 12,2019**		
Ver2.58 (4.39.23) Mar.,'18	Ver3.02 (4.39.23) Mar.,'18			C	x	-	-	Improved security.
					x	-	-	In CGI command of "get_io2", added new parameter "3" for "format" so that possible to obtain Command alarm / i-VMD information.
					x	-	-	Added new Panasonic alarm notifications as follow; SD-MEMORY WRITE ERROR SD-MEMORY READ ERROR SD-MEMORY DELETE ERROR SD-MEMORY FILESYSTEM ERROR SD-MEMORY OTHER ERROR
					x	-	-	Discarded a restriction that only "Unicast port (AUTO)" in RTSP transmission would be available when "Transmission type" is "On".
					x	-	-	Improved PAN / TILT / ZOOM position accuracy of ONVIF® command.
					x	-	-	Improved possible to obtain PAN / TILT / ZOOM position by ONVIF® command during Panning/Tilting/Zooming.
				x		Leaked POST connection.	in a case of disconnect network in "over HTTP" for 2 and half minutes or more.	Fixed.
				x		PAN/TILT/ZOOM may not work.	By a certain range of speed parameter of ContinuosMove command of ONVIF®.	Fixed.

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WV-SUD638, WV-SUD638-H, WV-SUD638-T and WV-SUD638B Firmware Release Note

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WV-SUD638	WV-SUD638H	A	B	C	U			*: ONVIF is a trademark of Onvif, Inc.
						Issue (Phenomenon)	Occurrence condition	Correspondence
Ver2.58 (4.39.23) Mar.,'18	Ver3.02 (4.39.23) Mar.,'18			C	x	Unable to work manual focus function.	By ONVIF® command.	Fixed.
					x	Appeared red vertical bar.	When setting "Auto slow shutter" in settings relating to image quality ("Image adjust" setup menu) to anything other thank "Off(1/30s)".	Fixed.
					x	Slowest speed of Panning/Tilting was 0.09 deg/s although it should be 0.065 deg/s according to the specifications.	-	Fixed. Note: Please make sure if the view angle on the patrol function covered enough after the upgrading firmware.
					x	Image capture size may become incorrect.	By setting Image capture size from Image Viewer.	Fixed.
					x	Administrator password may be deleted.	-	Fixed.
Ver2.60 (4.39.23) Jun.,'18	Ver3.10 (4.39.23) Jun.,'18			C	x	-	-	Changed factory default setting for Authentication method; Previous: "Digest or Basic" New: "Digest" For more details: security_upgrade_June2018.pdf
					x	-	-	Changed password policy that it must include at least 3 types of characters among "upper case letters / lower case letters / numbers / symbols". For more details, click here. Note: Original passwords and authentication method of products on the system are kept unchanged even firmware and software have been updated. For more details: security_upgrade_June2018.pdf
					x	-	-	Added user authentication at host authentication.
					x	-	-	Became saving history of login failure into system log.
	-				x	-	-	Changed saving setting data with encryption. Note: unable to restore the setting data if you would downgrade the firmware.
					x	-	-	Made some other security measures enhanced.
					x	-	-	Added "Drawing method", "Decoding options" and "Frame Skip Options (When PC is Heavy Processing Load)" onto plug-in software.
	Ver3.10 (4.39.23) Jun.,'18				x	-	-	Changed factory default setting for transmission rate: Previous: Unlimited New: 51200kbps
				x		The front glass froze	Use in cold climates.	Fixed.
				x		Maximum speed of PAN / Tilt did not meet specifications (200deg/s).	-	Fixed.
					x	-	-	Added a function by ONVIF® command to get position while in PTZ.
				x		Focus did not work.	-	Fixed.

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WV-SUD638, WV-SUD638-H, WV-SUD638-T and WV-SUD638B Firmware Release Note

VER (ActiveX Ver) Release Date		Priority Rank Level				Contents		
WV-SUD638	WV-SUD638H	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.
		A	B	C	U	Issue (Phenomenon)	Occurrence condition	Correspondence
Ver2.60 (4.39.23) Jun.,'18 Added on Feb. 5, 2019	Ver3.10 (4.39.23) Jun.,'18	C			x	-	-	Improved PTZ control system.
					x	If an RTSP header contains two or more User-Agent headers. no HTTP400(Bad Request) error returned and ignore the second and subsequent User-Agentheaders.	-	Fixed.
				x		When obtaining absolute angle by the command of "/cgi-bin/absget" after moving by "/cgi-bin/absctrl", the absolute angle acquisition value of PAN does not match with the value of the above absolute angle setup command.	At stationary installation・・・ Install on a concrete stand, etc. (Side wiring)	Fixed.
Added on Feb. 5, 2019			x			Temperature compensation at lens may not work correctly and the focus sometimes shifts little by little.	-	Fixed.
Ver2.70 (4.39.23) Sept.,'18	Ver3.11 (4.39.23) Sept.,'18	C			x	Revised on Nov. 7, 2018 Frame rate and bit rate may drop.	By transmitting JPEG live images continuously over 1 year without being rebooted.	Fixed.
Ver4.00 (4.39.23) Feb.,'19	Ver4.00 (4.39.23) Feb.,'19	C			x	-	-	Added a function of Overlay image
				x		May not be able to change the save destination at the time of FTP periodical transmission error.	-	Fixed.
				x		ONVIF RTSP Multicast transmission may not work.	-	Fixed.
					x	-		Improved to link HTTP alarm function with "HTTP max segment size" setting in "Network setting"
					x	-		ONVIF: Supported DTT v18.06.
	-				x	-	-	Enhanced security.
	Ver4.00 (4.39.23) Feb.,'19				x	-	-	Changed the URLs of hype-link destination according to change of support page URL (from "http" to "https").
-	Ver4.00 (4.39.23) Feb.,'19					-	-	Changed factory default settings as follow; - Internet mode (over HTTP) from "On" to "Off" - Image capture mode from 30fps to 25fps, SD from "Off" to "On" - Date/time display format　from "DD/MM/YYYY" to "YYYY/MM/DD" - Time zone　　from "GMT+00:00" to "GMT+08:00"
Ver4.00 (4.39.23) Feb.,'19		C			x	The recorded data of the log one before the relevant time might be downloaded when downloading the recorded data from the log list.	-	Fixed.
				x		Camera may restart unexpectedly while receiving ONVIF command continuously.	-	Fixed.
					x	-		Changed the response of "/cgi-bin/get_io2?format=3&"; It became not to notify CGI response each time even if detecting command alarm continuously.

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i-PRO Co., Ltd.

WV-SUD638, WV-SUD638-H, WV-SUD638-T and WV-SUD638B Firmware Release Note

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WV-SUD638	WV-SUD638H		A	B	C	U		*: ONVIF is a trademark of Onvif, Inc.
							Issue (Phenomenon)	Occurrence condition	Correspondence
Ver4.00 (4.39.23) Feb.,'19	Ver4.00 (4.39.23) Feb.,'19	C				x	Camera may restart when a file which cannot be deleted were created during JPEG overwrite recording on the SD memory card.	-	Fixed.
						x	When deleting SD card data on the log list screen, data that can not be deleted may be left while displaying the play window.	-	Fixed.
						x	Communication error may occur while connecting with WJ-NX series recorders. (Occurrence frequency: Rare)		Fixed.
						x	Transmission type (H.264/H.265) and image capture size of stream may not be changed (transmission type and image capture size hold before change).	If those were changed within 2 minutes after the network had been disconnected with over RTSP connection.	Fixed.
						x	Solid black screen may appear during sequencing with the network disk recorder due to it takes time to output the video.	-	Fixed.
						x	Camera may reboot, unexpectedly.	When sequencing the network disk recorder or the video management software (WV-ASM series)	Fixed.
						x	For WV-SUD836B only. Camera may reboot, unexpectedly.	By downloading the SD memory backed up data with the network disk recorder	Fixed.
					x		-	-	Improved accuracy of Drug-and-Zoom function.
					x		May not reach 90-degree by Click-and-Centering.	-	Fixed.
Ver4.01 (4.39.23) Apr.,'19	-	C				x	Setting change of JPEG / H.264 screen on Internet Explorer (IE8) may not be done due to "500 Internal Server Error".	-	Fixed.
Ver4.10 (4.39.23) June,'19	Ver4.10 (4.39.23) June,'19	C				x	-	-	Security has been enhanced.
						x	Audio may not output by attempting to connect two sessions simultaneously and failure to authenticate one of them.	-	Fixed.
					x		-	-	Added a note in the window of DDNS setting page when using "Dynamic DNS Update", "Dynamic DNS Update(DHCP)".
					x		-	-	Display the license of open source software (OSS) on upgrade screen.
						x	ONVIF communication may become a cause of destroying resources.		Fixed.
					x		-	-	Fixed Session Description Protocol/SDP (IPv6) on ONVIF.
						x	Unable to find ONVIF search.	-	Fixed.

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WV-SUD638	WV-SUD638H		A	B	C	U	Issue (Phenomenon)	Occurrence condition	Correspondence
Ver4.10 (4.39.23) June,'19	Ver4.10 (4.39.23) June,'19	C				x	-	-	The file may not be found by opening the log list during overwrite recording of the SD memory card and attempt to browse.
					x		PTZ may not stop even if it received stop command in ONVIF.	-	Fixed.
						x	Unable to set the tilt angle to be -30 degrees when the camera is installed on the ceiling.	-	Fixed.
						x	-	-	Improved accuracy of Click-to-Center".
Ver4.20 (4.39.23) Sept.,'19	Ver4.20 (4.39.23) Sept.,'19	C				x	-	-	In FTP / SNMP authentication, "Authentication error" is logged in the system log by failing authentication more than a certain condition.
						x	-	-	Supported EasyIpSetup software（Ver4.31R00) and became to display serial numbers of devices.
						x	-	- (Corrected on Nov. 8, 2019)	Updated (Enhanced) SNMP MIB information. The document of i-PRO camera management information (MIB) is available at the following URL; https://security.panasonic.com/training_support/panasonic_device_integration/snmp-mib/
						x	-	-	Improved so that available to connect with HIKVision recorder by CGI command.
					x		Zoom stops momentarily for each Zoom operation by making a PTZ operation with ContinuousMove command of ONVIF.	-	Fixed.
Ver4.30 (4.39.24) May,'20	Ver4.30 (4.39.24) May,'20	B				x	The camera may show a black image on the "Live" page.	-	Fixed.
							Except Chinese market model, WV-SUD638H		
						x	-	-	Improved the response when reconnecting in HTTPS connection on Windows 10.
						x	-	-	Improved the response speed of the ONVIF command related to PTZ preset.
					x		The ONVIF command "SetHomePosition" does not work.	When the parameter in "Self return" in the [Cam. Function] tab is other than "Off".	Fixed.
						x	-	-	Changed the default value of ONVIF DefaultPTZTimeout from 2 seconds to 60 seconds.
						x	-	-	Changed the company name in the plug-in software Active X to the new one.

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WV-SUD638	WV-SUD638H		A	B	C	U	Issue (Phenomenon)	Occurrence condition	Correspondence
Ver4.70 (4.39.24) Mar.,'21		U				x	Except Chinese market model, WV-SUD638H —	—	Improved the [HTTP alarm notification] function as follows: 1. Supports Digest authentication - The camera performs either "Digest" or "Basic" authentication according to the response from the HTTP server when initially accessed without ID and password. 2. Adds an error log for the failure in HTTP server user authentication - Displays "<HTTP alarm notification> authentication error" in the system log when the authentication fails. 3. Supports HTTPS Communication - Entering "https://" in [Address] enables HTTPS communication.
						x	Except Chinese market model, WV-SUD638H —	—	Enabled both digital certificates "Digicert" and "GlobalSign". Note: Firmware upgrade does not change the certificate in a camera. Click here for further information in case of SSL communication.
						x	Except Chinese market model, WV-SUD638H —	**Modified on Oct. 14, 2021** —	Changed the behavior related to bit rate when the communication protocol is changed from "HTTP" to "HTTPS" as below. ~~Previous versions: the camera automatically sets the bit rate to 4 Mbps when the selected one is larger than 4 Mbps.~~ ~~This version or later: the camera does not change the bit rate.~~ Previous versions: - The camera automatically sets [Max bit rate (per client)*] to 4096kbps when the selected one is larger than 4096kbps. This version or later: - The camera does not change the value in [Max bit rate (per client)*]. - The following note has been added to the "Connection" field in [Setup]-> [Network] page-> [Advanced] tab-> "HTTPS" window. When "HTTPS" is selected for "Connection", the maximum bandwidth(bit rate) is limited to 16Mbps.
Ver4.80 (4.39.24) July,'21	Ver4.80 (4.39.24) July,'21	C				x	—	—	Enhanced security.
					x		The camera may show a black image. (Occurrence frequency: Rare)	When the setting in [Image capture size] or [Image capture mode] is changed repeatedly.	Fixed.

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							Issue (Phenomenon)	Occurrence condition	Correspondence
Ver5.00 (4.39.25) April,'22	Ver5.00 (4.39.25) April,'22	U					**Except for WV-SUD638B**		
						x	-	- *(Corrected in March 2023)*	~~Changed company name from "Panasonic i-PRO Sensing Solutions Co., Ltd." to "i-PRO Co., Ltd."~~ Changed company name in the plug-in (ActiveX) software to "Panasonic i-PRO Sensing Solutions Co., Ltd."
						x	-	-	Updated SNMP extended MIB: Changed the extended Object ID(OID) from Panasonic(258) to i-PRO(57501). Note: - This change applies only to the products manufactured in April, 2022* or later, and is not applied by firmware upgrade. 　*Serial number: VDxxxxxx - MIB file and manual are available at the following link: https://i-pro.com/global/en/surveillance/database/i-pro-device-integration/snmp-mib
						x	-	-	Changed the alarm name from "Panasonic alarm protocol notification" to "TCP alarm notification".
Ver5.01 (4.39.25) Oct.,'22		U					**Except for WV-SUD638B**		
						x	-	-	Changed the company name in the GlobalSign digital certificate installed on the camera to "i-PRO Co., Ltd."
Ver5.02 (4.39.25) Mar.,'23		U					**Except for WV-SUD638B**		
						x	-	-	Changed company name in the plug-in (ActiveX) software to "i-PRO Co.,Ltd."