Panasonic

i-PRO SmartHD

ONVIF

WJ-NV200

FULL HD Full High Definition 1080

H.264 MPEG-4 JPEG

Video Decoder built-in 16ch Network Disk Recorder

Key Features

- H.264, MPEG-4 and JPEG multi format
- Up to 16 network cameras can be connected and recorded.
- Quick setup by automatic camera detection and simple setup wizard without the use of PC
- "Referenced recording days" is automatically calculated by frame rate, image quality and HDD capacity.
- Simple mouse operation by new GUI without the use of PC
- Quick intuitive search with calendar and timeline
- Live images from up to 16 cameras can be displayed simultaneously.
- Supports the Full HD output (HDMI) that can display recorded images and live images in high definition
- Various alarm sources include 9x Terminal inputs, 16x Camera alarm, Panasonic Alarm Protocol. Flexible alarm actions include Alarm recording, E-mail notification, Alarm message, Camera positioning, Terminal output, Panasonic alarm protocol output, Buzzer and Indicator.
- Camera Control: Pan/Tilt, Zoom, Focus, Brightness, Preset Position, Auto mode (depending on camera model)
- Audio from the i-PRO network cameras can be recorded and played back, G.726 (ADPCM) 32 kbps.
- Flexible Playback Controls: Goto Date (Jump to specific time/date), Goto Last (Jump to 30 s before the record end)
- Various Display Modes: Spot, Multiscreen (4 / 16 split screen display, 3 / 4 / 6 / 9 / 12 / 16 split screen display on a full screen)
- Various Recording Modes: Schedule, Event (Pre/Post)
- Filtered Search: Time & Date, Event Type, Camera number, Timeline
- Recorded images can be downloaded to a PC.
- Downloadable viewer software allows playback of images downloaded from the Recorder.
- Built-in network interface (10Base-T / 100Base-TX / 1000Base-T) for recording and client access
- Up to 4 clients can monitor image and control WJ-NV200 simultaneously.
- Up to 2 HDDs (3.5 inch Serial ATA) can be installed. (WJ-NV200 only)
- User authentication, 3 user levels and User level - Camera partitioning setup for user management of up to 16 user registrations
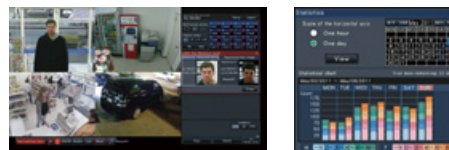
- Multi-recorder, Multi-site system can be made with optional WV-ASM200 i-PRO Management Software.
- Onvif NVC (Network Video Client), core spec Ver.1.02 conformant
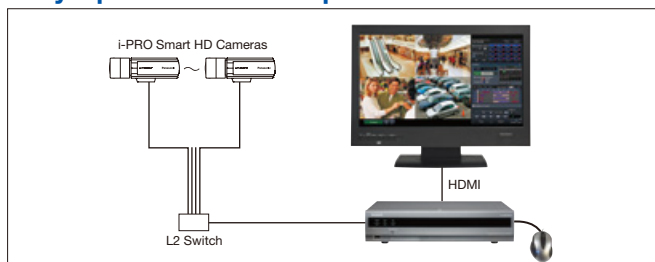- DVD drive built-in (WJ-NV200V)

Standard Accessories

• CD-ROM* .... 1 pc.	The following are for installation:
• Mouse .... 1 pc.	• Power Cord .... 1 pc.
• Installation Guide .... 1 pc.	• HDD Fixing Screw....................... 8 pcs.
• Quick Reference Guide .... 1 pc.	* The CD-ROM contains the operating instructions (PDFs).

Additional Kit

Additional Business Intelligence Kit
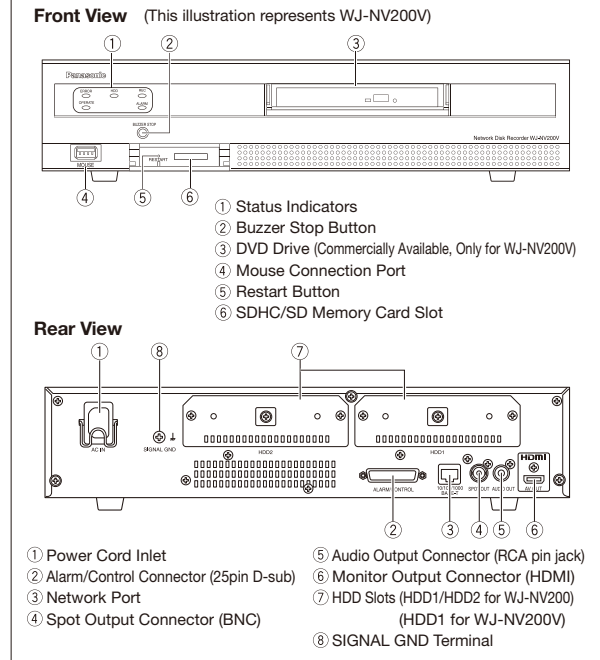WJ-NVF20

Easy Operation and Setup without PC

i-PRO Smart HD Cameras

HDMI

L2 Switch

Specifications

TV System		NTSC
Supported Cameras	Supported Cameras	Panasonic i-PRO series Network cameras Onvif NVT conformant camera and encoder camera
	Supported Image Format	H.264, MPEG-4, MJPEG
	Supported Image Resolution	Aspect ratio [4:3]: SXVGA (1,280 x 960), SVGA (800 x 600), VGA (640 x 480), QVGA (320 x 240)
		Aspect ratio [16:9]:1,920 x 1,080, 1,280 x 720, 640 x 360, 320 x 180* Depending on the camera
	Supported Audio Format	G.726 (ADPCM) 32 kbps
	Maximum Number of Cameras	16
Recording	Recording Mode	Event, Schedule
	Pre-alarm Recording	Up to 15 seconds (Up to 10 seconds at 1,920 x 1080 resolution)
	Scheduled Recording Mode	2 programs, 3 time zones/day, Independent setup for each day of the week
	Frame Rate/Camera	Up to 30 ips (Depending on the Camera)
Main Unit Functions	Camera Control	Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode, Click centering, Wheel zoom, Zoom reset, Auto Back Focus
	Multiscreen Mode	4 / 16 split screen display, 3 / 4 / 6 / 9 / 12 / 16 split screen display on a full screen
	Playback Control	PLAY, Rev PLAY, Pause, Stop, FF, FR, Prev Record, Next Record, Prev Image, Next Image, Goto Date, Goto Last (30 s)
	Search Mode	Search criteria: Time date, Playback by designating a timeline, VMD
	Copy	Recorded data of selected cameras and time date range can be copied to the SD (SDHC) card.
	Camera Title	Up to 14 characters
	Clock Display	Time: 12H/24H, Date: 5 formats
	Digital Zoom	Live: 2x, 4x, 8x (only for 1-screen or 4-screen) Play: 2x, 4x, 8x
	System Log	Operator access (100), Network error (100), Error (1,000), Event (750)
	System Setup	Setup page in English, French, Italian, Spanish, German, Russian, Japanese
Browser GUI	Camera Control	Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode, Click centering, Wheel zoom, Zoom reset
	Playback Control	REC, PLAY, Rev PLAY, Pause, Stop, FF, FR, Prev Record, Next Record, Prev Image, Next Image, Goto Date, Goto Last (30 s)
	Search Mode	Search criteria: Time date, Event type, VMD, Camera number
	Display Mode	1 / 4 screen
	Image Download	Recorded data of selected camera and time range can be downloaded to a PC. Viewer software can be downloaded separately.
	Copy	Recorded data of selected cameras and time date range can be copied to the SD (SDHC) card.
	Camera Title	Up to 14 characters
	Clock Display	On the browser. Time: 12H/24H, Date: 5 formats
	Digital Zoom	Live/Play: 2x, 4x (only for 1-screen)
	System Log	Operator access (100), Network error (100), Error (1,000), Event (750)
	GUI Language	English, French, Italian, Spanish, German, Russian, Japanese
	Supported OS	Microsoft® Windows® 8, Microsoft® Windows® 7, Microsoft® Windows Vista®, Microsoft® Windows® XP SP3
	Supported Browser	Windows® Internet Explorer® 10.0 (32 bit), Windows® Internet Explorer® 9.0 (32 bit), Windows® Internet Explorer® 8.0 (32 bit), Windows® Internet Explorer® 7.0 (32 bit)
	Required PC — MJPEG/MPEG-4	CPU: Intel® Core™ 2 Duo 2.66 GHz or faster, RAM: 1 GB or more, VRAM: 128 MB or more (Min. 64 MB), Microsoft® DirectX® 9.0c or later
	Required PC — H.264	CPU: Intel® Core™ i7-920 or faster, RAM: 3 GB or more, VRAM: 128 MB or more (Min. 64 MB), Microsoft® DirectX® 9.0c or later
Alarm/ Event	Alarm Source	9x Terminal inputs, 16x Camera alarms, Panasonic Alarm Protocol
	Event Mode	Off / On
	Alarm Action	Alarm recording, e-mail notification, Alarm message, Camera positioning, Terminal output, Panasonic alarm protocol output, Buzzer, Indicator
	Alarm Control	Reset
	Event Log	750
Input / Output	Spot Output Connector	1x 1 V [p-p] / 75 Ω (BNC)
	Monitor (HDMI) Connector	1x HDMI 1920x1080i / 60Hz, 720x480p / 60Hz
	Audio Output Connector	1x –10 dBv, 600 Ω, Unbalanced (RCA)
	Alarm/Control Connector (25pin D-sub) — Alarm Control	Alarm input 1 ~ 9*1, Alarm output*2, Alarm reset input*1, Time adjustment input*1, +5 V output*3
	Alarm/Control Connector (25pin D-sub) — Error/Warning	Network error output*2, HDD error output*2, Camera error output*2, Recorder error output*2, Recording error output*2
	Mouse Connection Port	1x
	Network Port	1x 10BASE-T / 100BASE-TX / 1000BASE-T (RJ-45)
	SDHC/SD Memory Card Slot	SDHC/SD memory cards applicable (miniSD cards and microSD cards not applicable)
Network	Maximum Bandwidth	Total 80 Mbps or less
	Supported Protocol	TCP/IP, UDP/IP, HTTP, FTP, SMTP, DNS, NTP, SNMP, RTP
	E-mail	Upon Alarm or Warning
	No. of Simultaneous Users	4 or less
	User Registration	Up to 16 users
	User Level	3 Levels (Programmable)
	Partitioning	User level - Camera (View & Control, No Access)
	Security Method	User authentication (ID and Password), Alteration detection
Other Functions	Time Synchronization	Terminal (Slave), NTP (Server/Client)
	Summer Time	User definable (using menu setup)
HDD	Type	WJ-NV200: 8.89 cm (3.5 inch) Serial ATA HDD, Up to 2x HDDs can be installed. WJ-NV200V: 8.89 cm (3.5 inch) Serial ATA HDD Up to 1x HDD can be installed.
DVD *WJ-NV200V only	Supported DVD disk type	DVD-R, +R (Not supported : DVD-R DL, +R DL, DVD-R for authoring. 8 cm disks)
Viewer Software	Playback Control	Play, Rev Play, FF, FR, Prev Record, Next Record, Prev Image, Next Image
	Additional Functions	Alteration detection, Save as JPEG, Two times zoom, Print, Copy
	Supported OS, Language	Same as browser GUI, Language of the software will be English
General Specifications	Safety/EMC Standard	UL (UL60065), FCC (Part15 ClassA),C-UL (CAN/CSA C22.2 No.60065), DOC (ICES003 ClassA)
	Power Source	120 V AC, 60 Hz
	Power Consumption	approx. 45 W

- All TV pictures are simulated.
- Masses and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.
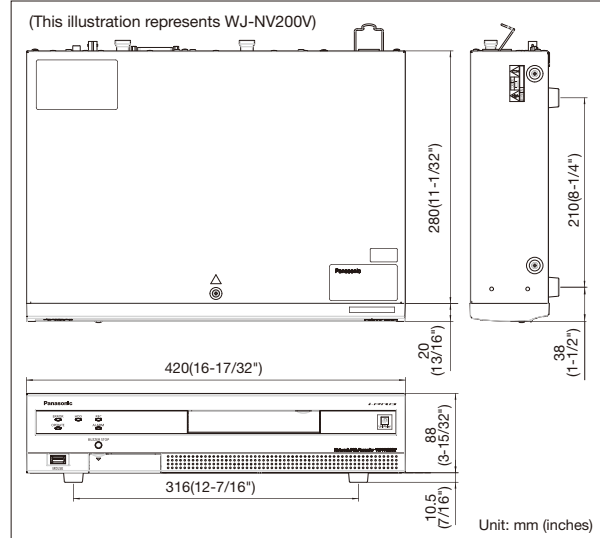- All product pictures are NTSC models.

TV System		NTSC
General Specifications	Ambient Operating Temperature	Main body: +5 °C ~ +45 °C (41 °F ~ 113 °F)
		Mouse (provided): +5 °C ~ +40 °C (41 °F ~ 104 °F)
	Ambient Operating Humidity	WJ-NV200 : 5 % ~ 90 % (without condensation)
		WJ-NV200V : 10 % ~ 80 % (without condensation)
	Maximum Operating Altitude	2,000 m (6,562 feet) above sea level
	Dimensions	420 mm (W) x 88 mm (H) x 300 mm (D) (16-17/32" (W) x 3-15/32" (H) x 11-13/16" (D)) (excluding rubber feet and projections)
	Mass (approx.)	4.8 kg (10.6 lbs.) without HDD 5.6 kg (12.36 lbs.) with 1 HDD 6.4 kg (14.13 lbs.) with 2 HDDs (WJ-NV200 only)

*1: Non-voltage make contact input, 50 kΩ +5 V DC pull-up
*2: Open collector output, 24 V DC, 100 mA max. *3: 200 mA max.

Part Names and Functions

Front View (This illustration represents WJ-NV200V)

① Status Indicators
② Buzzer Stop Button
③ DVD Drive (Commercially Available, Only for WJ-NV200V)
④ Mouse Connection Port
⑤ Restart Button
⑥ SDHC/SD Memory Card Slot

Rear View

① Power Cord Inlet
② Alarm/Control Connector (25pin D-sub)
③ Network Port
④ Spot Output Connector (BNC)
⑤ Audio Output Connector (RCA pin jack)
⑥ Monitor Output Connector (HDMI)
⑦ HDD Slots (HDD1/HDD2 for WJ-NV200) (HDD1 for WJ-NV200V)
⑧ SIGNAL GND Terminal

Appearance

(This illustration represents WJ-NV200V)

280(11-1/32")
210(8-1/4")
20 (13/16")
420(16-17/32")
88 (3-15/32")
38 (1-1/2")
316(12-7/16")
10.5 (7/16")

Unit: mm (inches)

i-PRO SmartHD

ONVIF S

FULL HD Full High Definition 1080/60p

H.264 JPEG

Video Decoder built-in 32ch[*1] Network Disk Recorder

Key Features

- H.264 and JPEG multi format
- 16 network cameras can be connected and recorded as default. Up to 32[*1] network cameras can be connected and recorded.
- Quick setup by automatic camera detection and simple setup wizard without the use of PC
- "Referenced recording days" is automatically calculated by frame rate, image quality and HDD capacity.
- Simple mouse operation by new GUI without the use of PC
- Quick intuitive search with calendar and timeline
- Live images from up to 32[*1] cameras can be displayed simultaneously.
- Supports the Full HD output (HDMI) that can display recorded images and live images in high definition
- Various alarm sources include 9x Terminal inputs, 32x Camera alarm, Panasonic Alarm Protocol. Flexible alarm actions include Alarm recording, E-mail notification, Alarm message, Camera positioning, Terminal output, Panasonic alarm protocol output, Buzzer and Indicator.
- Camera Control: Pan/Tilt, Zoom, Focus, Brightness, Preset Position, Auto mode (depending on camera model)
- Audio from the i-PRO network cameras can be recorded and played back, G.726 (ADPCM) 32 kbps.
- Flexible Playback Controls: Go to Date (Jump to specific time/date), Go to Last (Jump to 30 s before the record end)
- Various Display Modes: Spot, Multiscreen (4 / 16 split screen display, 4 / 6 / 9 / 12 / 16 / 24 / 32[*1] split screen display on a full screen)
- Various Recording Modes: Schedule, Event (Pre/Post)
- Filtered Search: Time & Date, Event Type, Camera number, Timeline
- Recorded images can be downloaded to a PC.
- Downloadable viewer software allows playback of images downloaded from the Recorder.
- Equipped with a SD memory card slot and USB memory I / F. It realizes a simple local copy.
- Built-in network interface (10Base-T / 100Base-TX / 1000Base-T) for recording and client access
- Up to 8 clients can monitor image and control WJ-NV300 simultaneously.
- Up to 2 HDDs can be installed. (8.89 cm (3.5 inch) Serial ATA HDD)
- HDD capacity is expandable up to 20 HDD slots (2 HDD slots in the main unit and 2 optional WJ-HDE400 Hard Disk Extension Units each with 9 HDD slots).
- RAID5/6 redundant recording for data security (with WJ-HDE400)

- User authentication, 3 user levels and User level - Camera partitioning setup for user management of up to 16 user registrations
- Multi-recorder, Multi-site system can be made with optional WV-ASM200 i-PRO Management Software.
- ONVIF client, conformance to ONVIF Profile S.

*1 Two Additional Camera Kits WJ-NVE30 are necessary.

Optional Accessory
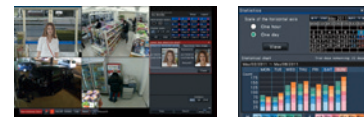
Hard Disk Extension Unit
WJ-HDE400

Power Source	: 120 V AC, 60 Hz (NTSC)
Power Consumption: approx. 130 W	
Dimensions	: 430 mm (W) x 132 mm (H) x 400 mm (D) (16-15/16" (W) x 5-3/16" (H) x 15-12/16" (D)) (excluding rubber feet and projections)
Weight	: 13.5 kg (29.8 lbs.) (When no HDD exist) 20 kg (44.15 lbs.) (When 9 HDDs are installed)

Additional Kit

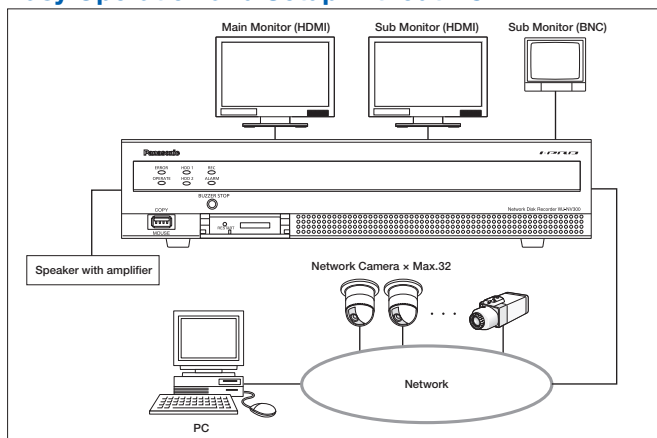Additional Camera Kit
WJ-NVE30

Additional Business Intelligence Kit
WJ-NVF30

Easy Operation and Setup without PC

Main Monitor (HDMI) Sub Monitor (HDMI) Sub Monitor (BNC)

Speaker with amplifier

Network Camera × Max.32

Network

PC

Specifications

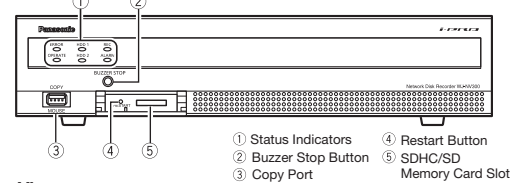| TV System		NTSC
Supported Cameras	Compatible vendor	Panasonic i-PRO series Network cameras Onvif NVT conformant camera and encoder camera
	Supported Image Format	H.264, MJPEG
	Supported Image Resolution	Aspect ratio [4:3] : QXGA (2048x1536), SXVGA (1,280 x 960), SVGA (800 x 600), VGA (640 x 480), QVGA (320 x 240) Aspect ratio [16:9]:1,920 x 1,080, 1,280 x 720, 640 x 360, 320 x 180)* Depending on the camera
	Supported Audio Format	G.726 (ADPCM) 32 kbps
	Maximum Number of Cameras	MAX. 32 *1 (Default Number of Cameras : 16)
Recording	Recording Mode	Event, Schedule
	Pre-alarm Recording	Up to 15 seconds (Up to 10 seconds at 1,920 x 1080 resolution and up to 5 seconds at QXGA)
	Scheduled Recording Mode	4 programs, 3 time zones/day, Independent setup for each day of the week
	Frame Rate/Camera	Up to 60ips (Depending on the Camera)
Main Unit Functions	Camera Control	Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode, Click centering, Wheel zoom, Zoom reset, Auto Back Focus
	Multiscreen Mode	MainMonitor 4/16 split screen display, 4/6/9/12/16/24/32* split screen display on a full screen (*24-/32-multiscreen is available when sub monitor isn't on.) SubMonitor 1 screen sequence / 4 split screen sequence / 9(16) split screen display
	Playback Control	PLAY, Rev PLAY, Pause, Stop, FF, FR, Prev Record, Next Record, Prev Image, Next Image, Go to Date, Go to Last (30 s)
	Search Mode	Search criteria: Time date, Playback by designating a timeline, VMD
	Copy	Recorded data of selected cameras and time date range can be copied to the SD (SDHC) card and USB media.
	Camera Title	Up to 14 characters
	Clock Display	Time: 12H/24H, Date: 5 formats
	Digital Zoom	Live: 2x, 4x, 8x (only for 1-screen or 4-screen) Play: 2x, 4x, 8x
	System Log	Operator access (100), Network error (100), Error (1,000), Event (750)
	System Setup	Setup page in English, French, Italian, Spanish, German, Russian, Portuguese, Japanese
	360 Camera Dewarp	Only 1ch display mode.
	re-encoding	1Client
	Real Time Face Matching	Camera 1Ch, 100 registered face images
Browser GUI	Camera Control	Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode, Click centering, Wheel zoom, Zoom reset
	Playback Control	REC, PLAY, Rev PLAY, Pause, Stop, FF, FR, Prev Record, Next Record, Prev Image, Next Image, Go to Date, Go to Last (30 s)
	Search Mode	Search criteria: Time date, Event type, VMD, Camera number
	Display Mode	1 / 4 screen
	Image Download	Recorded data of selected camera and time range can be downloaded to a PC. Viewer software can be downloaded separately.
	SD Memory Data Download	N/A
	Copy	Recorded data of selected cameras and time date range can be copied to the SD (SDHC) card.
	Camera Title	Up to 14 characters
	Clock Display	On the browser. Time: 12H/24H, Date: 5 formats
	Alarm Control	Reset
	Digital Zoom	Live/Play: 2x, 4x (only for 1-screen)
	System Log	Operator access (100), Network error (100), Error (1,000), Event (750)
	GUI Language	English, French, Italian, Spanish, German, Russian, Portuguese, Japanese
	Supported OS	Microsoft® Windows® 8.1, Microsoft® Windows® 7, Microsoft® Windows Vista®,
	Supported Browser	Windows® Internet Explorer® 11 (32 bit), Windows® Internet Explorer® 10 (32 bit), Windows® Internet Explorer® 9 (32 bit), Windows® Internet Explorer® 8 (32 bit), Windows® Internet Explorer® 7 (32 bit)
	Required PC	CPU: Intel® Core™ i7-920 or faster, RAM: 3 GB or more, VRAM: 128 MB or more (Min. 64 MB), Microsoft® DirectX® 9.0c or later
Alarm/ Event	Alarm Source	9x Terminal inputs, 32x Camera alarms (Panasonic Alarm Protocol), 128x Command alarms
	Event Mode	Off/On
	Alarm Action	Alarm recording, e-mail notification, Alarm message, Camera positioning, Terminal output, Panasonic alarm protocol output, Buzzer, Indicator
	Alarm Control	Reset
	Event log	750
Input / Output	Spot Output Connector	1x 1 V [p-p] / 75 Ω (BNC)
	Monitor (HDMI) Connector	2x HDMI 1920x1080p /60Hz, 1920x1080p /50Hz, 1920x1080i /60Hz, 1920x1080i /50Hz, 720x576p /50Hz, 720x480p /60Hz
	Audio Output Connector	1x −10 dBv, 600 Ω, Unbalanced (RCA)
	Alarm / Control Connector / D-sub 25pin	**Alarm** Alarm input 1 ~ 9*2, Alarm output*3, Alarm reset input*2
		Control Time adjustment input*2, +5 V output*4
		Error/ Warning Network error output*3, HDD error output*3, Camera error output*3, Recorder error output*3, Recording error output*3
	Mouse Connection Port	1x
	Network Port	2x 10BASE-T / 100BASE-TX / 1000BASE-T (RJ-45)
	USB Memory	Only USB2.0 Memory
	SDHC/SD Memory Card Slot	SDHC/SD memory cards applicable (miniSD cards and microSD cards not applicable)
	External Storage	2x HDE400
Network	Network Interface	2x 10BASE-T / 100BASE-TX / 1000BASE-T (RJ-45)
	Maximum Recording Rate	128 Mbps or less
	Maximum Band Width	Total 160 Mbps or less
	Supported Protocol	TCP/IP, UDP/IP, HTTP, FTP, SMTP, DNS, NTP, SNMP, RTP
	E-mail	Upon Alarm or Warning
	FTP Client	1
	No. of Simultaneous Users	8 or less
	User Registration	Up to 16 users
	User Level	3 Levels (Programmable)
	Partitioning	User level - Camera (View & Control, No Access)
	Security Method	User authentication (ID and Password), Alteration detection

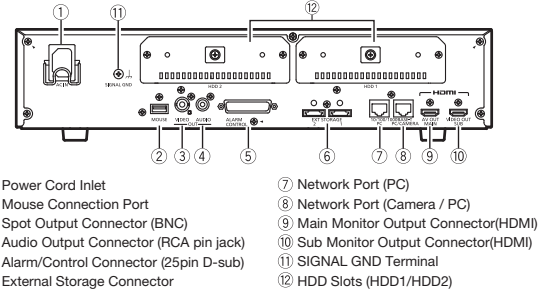| TV System		NTSC
Other Functions	Time Synchronization	Terminal (Slave), NTP (Server/Client)
	Summer Time	User definable (using menu setup)
	Remote Monitoring on Smartphone/Tablet	1Client *Panasonic Security Viewer v.2.1 or later is required on smartphone/tablet PC.
HDD	Type	WJ-NV300: 8.89 cm (3.5 inch) Serial ATA HDD, Up to 2x HDDs can be installed.
	Maximum Capacity	4TB*5
	RAID	Single, RAID1, 5*6, 6*6
Viewer Software	Playback Control	Play, Rev Play, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image
	Additional Functions	Alteration detection, Save as JPEG, Two times zoom, Print, Copy
	Supported OS, Language	Language of the software will be English
General Specifications	Safety / EMC Standard	UL (UL60065), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60065),DOC (ICES003 ClassA)
	Power Source	120 V AC, 60 Hz
	Power Consumption	approx. 55 W (with 4TBHDDx2)
	Ambient Operating Temperature	Main body: +5 °C ~ +45 °C (41 °F ~ 113 °F) Mouse (provided): +5 °C ~ +40 °C (41 °F ~ 104 °F)
	Ambient Operating Humidity	5 % ~ 90 % (without condensation)
	Maximum Operating Altitude	2,000 m (6,562 feet) above sea level
	Dimensions	420 mm (W) x 88 mm (H) x 300 mm (D) (16-17/32" (W) x 3-15/32" (H) x 11-13/16" (D)) (excluding rubber feet and projections)
	Mass (approx.)	5.3 kg (11.70 lbs.) without HDD 6.0 kg (13.25 lbs.) with 1 HDD, 6.7 kg (14.79 lbs.) with 2 HDDs

*1: Two Additional Camera Kits WJ-NVE300 are necessary. *2: Non-voltage make contact input, 50 kΩ +5 V DC pull-up
*3: Open collector output, 24 V DC, 100 mA max. *4: 200 mA max. *5: Please check the following URL for the latest information.
< http://security.panasonic.com/pss/security/library/library.html > *6: Hard Disk Extension Unit WJ-HDE400 is necessary.
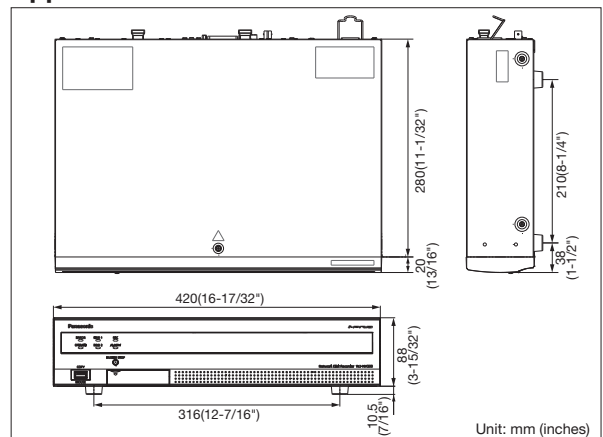
Part Names and Functions

Front View

① Status Indicators ④ Restart Button
② Buzzer Stop Button ⑤ SDHC/SD
③ Copy Port Memory Card Slot

Rear View

① Power Cord Inlet ⑦ Network Port (PC)
② Mouse Connection Port ⑧ Network Port (Camera / PC)
③ Spot Output Connector (BNC) ⑨ Main Monitor Output Connector(HDMI)
④ Audio Output Connector (RCA pin jack) ⑩ Sub Monitor Output Connector(HDMI)
⑤ Alarm/Control Connector (25pin D-sub) ⑪ SIGNAL GND Terminal
⑥ External Storage Connector ⑫ HDD Slots (HDD1/HDD2)

Appearance

280(11-1/32")
210(8-1/4")
38 (1-1/2")
20 (13/16")
420(16-17/32")
88 (3-15/32")
316(12-7/16")
10.5 (7/16")

Unit: mm (inches)

Trademarks and registered trademarks
– Microsoft, and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.
– UniPhier is a registered trademark of Panasonic Corporation.
– "i-PRO SmartHD" logo is trademarks or registered trademarks of Panasonic Corporation.
– ONVIF and the ONVIF logo are trademarks of ONVIF Inc.
Important
– Safety Precaution: Carefully read the Important Information, Installation Guide and operating instructions before using this product.
– Panasonic cannot be responsible for the performance of the network and/or other manufacturers' products used on the network.

• All TV pictures are simulated. • Specifications are subject to change without notice.
• Masses and dimensions are approximate. • All product pictures are NTSC models.

DISTRIBUTED BY:

Panasonic

Panasonic

WJ-NV300

WJ-NV200

Additional Business Intelligence Kit NVF20 is a license kit intended to improve the usefulness of Network Disk Recorder WJ-NV300 / WJ-NV200.

* To use this product, it is necessary to register the license (Registration Key) for Additional Business Intelligence Kit into the WJ-NV300 / WJ-NV200 in use.

Key Features

- **New statistical processing functions such as "People counting" and "Face matching / Age & Gender judgment"**
  - The number of detected human faces can be displayed on a statistical chart separated by age & gender for a single day or a specified time period.
  - Age distribution groups are displayed by separate colors
  - The statistical data can be saved as a CSV file on a SDHC/SD memory card or on a PC connected over a network.

    * CSV file: A file that can be edited using a spreadsheet software such as Microsoft® Office Excel®.

- **Face matching function**

	WJ-NV300 with WJ-NVF30	WJ-NV200 with WJ-NVF20
The maximum number of persons to be registered	100	64
The maximum number of face images that can be used for face matching	100	32
Speed of face matching	4 faces / s*	
The number of people counting / hour	500/h	4,000/h

* In case of face matching and statistical processing work simultaneously : "2 faces / s"

System Benefits

- Business intelligence added to the current (WJ-NV300 / WJ-NV200) system with a small additional investment only
- Improved identification and video analysis thanks to the high picture quality of the Panasonic products

• All TV pictures are simulated.

DISTRIBUTED BY:

Panasonic

http://security.panasonic.com

http://www.facebook.com/PanasonicNetworkCamera

(2A-074BL)

High performance Network Disk Recorder for Megapixel i-PRO Network Cameras with 9 Serial ATA HDD slots

Key Features

- H.264, MPEG-4 and JPEG multi format
- Up to 64 network cameras can be connected without extra license fee and their images can be recorded simultaneously.
- 200 Mbps high throughput: Best match with Megapixel **i-PRO** Network Cameras
- Various Recording Modes: Manual, Schedule including Event (Pre/Post), Emergency. Schedule mode includes eight recording programs with individual recording mode for each camera, and 6 time schedules per day.
- Panasonic camera control: Pan/Tilt, Zoom, Focus, Brightness, Preset Position, Auto mode (depending on camera model).
- Audio from **i-PRO** network cameras can be recorded and played back, G.726 (ADPCM) 32 kbps.
- Cameras can be assigned to one of the 8 groups for easier browsing.
- Flexible playback controls: Goto Date (Jump to specific time/date), Goto Last (Jump to 5 sec. ~ 5 min. before the record end).
- Various display modes: Spot, Quad (16 patterns), Spot Sequence, Quad Sequence (Live).
- Filtered search: Time & Date, Event Type, Camera number.
- VMD search: Motion in a specified area in the recorded images can quickly be searched (works with supported **i-PRO** cameras and WJ-NT314).
- 2x, 4x Digital zoom (Live/Playback)
- Recorded images can be downloaded to a PC. Downloadable viewer software allows playback of images downloaded from the recorder.
- Various alarm sources include 32x Terminal inputs, 64x Camera alarms, Panasonic Alarm Protocol. Flexible alarm actions include Event recording, E-mail notification, Alarm message, Camera positioning, FTP image transfer, Terminal output, Panasonic alarm protocol output, Buzzer and Indicator.
- 2x built-in network interfaces (10Base-T / 100Base-TX / 1000Base-T) for camera recording and client access
- Up to 16 clients can monitor images and control WJ-ND400 simultaneously.
- FTP client function enables periodic live image transfer or recorded image transfer in response to an alarm.
- Performance measurement function for appropriate recording frame rate setup
- Images recorded in the SD memory card in **i-PRO** network cameras can be transferred to the recorder automatically even when the recorder is in recording status.

- Setup can be made with the user friendly browser GUI. Multilingual options include English / French / Spanish / Germany / Italian / Russian / Chinese / Japanese / Custom.
- User/Host authentication, 4 programmable user levels, 16 user priorities and User-Camera View/Control partitioning set up for sophisticated user management. Up to 32 user registrations
- Alteration detection and recorded data encryption for data security
- Multi-recorder-Multi-site-system can be made with optional WV-ASM200 i-PRO Management Software.
- Up to 9 Serial ATA HDDs can be installed with the provided canisters. By RAID mode, the HDDs can be removed without interrupting the recording with hot plug support.
- HDD capacity is expandable up to 54 HDD slots (9 HDD slots in the main unit and 5 optional WJ-HDE400 Hard Disk Extension Units each with 9 HDD slots).
- Disk partitioning including Normal, Event, Pre-Event, Copy for flexible record management
- RAID5/6 redundant recording for data security
- Superior reliability with an embedded OS compared to PC-based system
- WJ-ND400 includes RSA BSAFE Cryptographic software from RSA Security Inc.

Standard Accessories

• CD-ROM*..................................... 1 pc.	• Label .... 1 pc.
• Installation Guide......................... 1 pc.	• Rack Mounting Bracket.............. 2 pcs.
• Quick Reference Guide................. 1 pc.	• Rack Mounting Bracket fixing screw... 6 pcs.
* The CD-ROM contains the operating instructions (PDFs)	• Handle for Rack Mounting Bracket... 2 pcs.
	• Handle fixing screw for
The following are for installation:	Rack Mounting Bracket............... 4 pcs.
• Power Cord (NTSC model)........... 1 pc.	• Washer....................................... 4 pcs.
• Power Cord (PAL model)............ 2 pcs.	• HDD canister............................... 9 pcs.
• Key.. 2 pcs.	• HDD fixing Screw for HDD canister... 54 pcs.

Optional Accessory

Hard Disk Extension Unit
WJ-HDE400

Power Source   : 120 V AC, 60 Hz (NTSC)
                 220 ~ 240 V AC, 50 Hz (PAL)
Power Consumption: approx. 130 W
Dimensions   : 430 mm (W) x 132 mm (H) x 400 mm (D)
             (16-15/16" (W) x 5-3/16" (H) x 15-12/16" (D))
             (excluding rubber feet and projections)
Weight   : 13.5 kg (29.8 lbs.) (When no HDD exist)
         20 kg (44.15 lbs.) (When 9 HDDs are installed)

Specifications

TV System		NTSC	PAL
Supported Cameras	Supported Cameras	Panasonic i-PRO series Network cameras (Contact Panasonic for BB series and Axis® cameras)	
	Supported Image Format	H.264, MPEG-4, JPEG, M-JPEG	
	Supported Image Resolution	Aspect ratio [4:3] : 2,048 x 1,536, 1,280 x 960, 960 x 720, 800 x 600, 640 x 480, 320 x 240	
		Aspect ratio [16:9]:1,920 x 1,080, 1,280 x 720, 640 x 360, 320 x 180 * Depending on the camera	
	Supported Audio Format	G.726 (ADPCM) 32 kbps	
	Maximum Number of Cameras	64	
Recording	Recording Mode	Manual, Schedule including Event (Pre/Post), Emergency	
	Pre-Event Recording	Up to 15 minutes with dedicated HDD for Pre-Event.	
		Shorter Pre-Event recording is possible without dedicated HDD.	
	Scheduled Recording Mode	8 programs, 6 time zones/day, Independent setup for each day of the week	
	Frame Rate/Camera	Up to 30 ips (Depending on the Camera)	
Browser GUI	Camera Control	Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode	
	REC/Playback Control	REC, PLAY, Rev PLAY, Pause, Stop, FF, REW, Prev Record, Next Record, Prev Image, Next image, Goto Date, Goto Last (5 sec. ~ 5 min.)	
	Search Mode	Filtered search: Time date, Event type, Camera number	
		VMD search: one detection areas per search (works with supported i-PRO cameras and WJ-NT314)	
	Display Mode	Spot/Quad (16 patterns) / Spot Sequence / Quad Sequence (Sequence: Live only)	
	Camera Grouping	8 groups each with 16 characters title	
	Image Download	Recorded data of selected camera and time range can be downloaded to a PC. Viewer software can be downloaded separately.	
	SD Memory Data Download	Images recorded in the SD card in the i-PRO series cameras can be transferred to the recorder automatically.	
	Copy	Recorded data of selected cameras and time date range can be copied to the COPY partition.	
	Camera Title	On the browser, Up to 16 Characters	
	Clock Display	On the browser. Time: 12 H/24 H, Date: 3 formats (YY.MM.DD, MMM.DD.YY, DD.MMM.YY)	
	Alarm Control	Reset, Suspend	
	Digital Zoom	2x, 4x	
	System Log	Operator access (100), Network error (1,000), Error (100), Event (750)	
	System Setup	Setup page in English, French, Italian, Spanish, German, Russian, Chinese, Japanese	
	GUI Language	English, French, Italian, Spanish, German, Russian, Chinese, Japanese, Custom	
	Supported OS[*1]	Microsoft® Windows® 7,Microsoft® Windows Vista®,Microsoft® Windows® XP SP3 The language of OS must be the same as selected GUI language.	
	Supported Browser	Windows® Internet Explorer® 9.0 (32 bit),Windows® Internet Explorer® 8.0 (32 bit), Windows® Internet Explorer® 7.0 (32 bit),Microsoft® Internet Explorer® 6.0 SP3	
	Required PC — JPEG/MPEG-4	CPU: Intel® Pentium® 4 3.0 GHz or faster, RAM: 1 GB or more, VRAM: 128 MB or more (Min. 64 MB), Microsoft® DirectX® 9.0c or later	
	Required PC — H.264	CPU: Intel® Core™ i7-920 or faster, RAM: 3 GB or more, VRAM: 128 MB or more (Min. 64 MB), Microsoft® DirectX® 9.0c or later	
Alarm/Event	Alarm Source	32x Terminal inputs, 64x Camera alarms, Panasonic Alarm Protocol	
	Event Mode	Off / On	
	Alarm Action	Alarm recording, e-mail notification, Alarm message, Camera positioning, FTP image transfer, Terminal output, Panasonic alarm protocol output, Buzzer, Indicator	
	Alarm Control	Reset, Suspend	
	Event log	750	
Network	Network Interface	Camera port: 10Base-T / 100Base-TX / 1000Base-T (RJ-45) Client port: 10Base-T / 100Base-TX / 1000Base-T (RJ-45) Maintenance port: 10Base-T (RJ-45)	
	Maximum Band Width	Total 200 Mbps	
	Bandwidth Control (Client Port)	32 K / 64 k / 128 k / 256 k / 512 k / 1,024 k / 2 M / 5 M / 10 M (bps) and unlimited	
	Supported Protocol	TCP/IP, UDP/IP, HTTP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, RTP	
	E-mail	Upon Alarm or Warning	
	FTP Client	Upon alarm or Periodic transfer	
	No. of Simultaneous Users	16	
	User Registration	Up to 32 users	
	User level	4 Levels (Programmable)	
	Partitioning	User - Camera (View only, View & Control, No Access)	
	Security Method	User authentication (ID and password), Host authentication (IP address), Alteration detection, HTTP Port No. (1 ~ 65,535 except for reserved numbers), FTP Port No. (1 ~ 65,535 except for reserved numbers)	
External Interface	Alarm Connector (D-sub25pin) — Alarm	Alarm input 1 ~ 7, 17 ~ 32[*2]	
	Alarm/Control Connector (D-sub25pin) — Alarm Control	Alarm input 8 ~ 16[*2], 1x Alarm output[*3], 1x Alarm reset input[*2], 1x Alarm suspend input[*2] Emergency recording input[*2], Power outage detection input[*2], External recording mode switching[*2], Power outage recovery completion output[*4], Time adjustment input/output[*5], +5 V output[*6]	
	Error/Warning	Network error output[*3], Available disk space warning output[*3], HDD error output[*3], Camera error output[*3], Error output[*3]	
	External Storage	High-speed serial interface 1.5 Gbps (theoretical value) Only for WJ-HDE400 Extension Unit	
Other Functions	Time Synchronization	Terminal (Master or Slave), NTP (Server/Client)	
	Summer Time	User definable (using menu setup)	
HDD	Type	3.5 inch Serial ATA HDD, Up to 9x HDDs can be installed.	
	Maximum Capacity	54 HDD slots (with 5x WJ-HDE400 Extension Units, 9x HDDs installed in each unit)	
	RAID	RAID 5/6 supported	
	Partitioning	Normal / Event / Pre-Event / Copy	
Viewer Software	Playback Control	Play, Rev Play, Pause, FF, REW, Prev Record, Next Record, Prev Image, Next image	
	Additional Functions	Alteration detection, Save as JPEG, Two times zoom, Print	
	Supported OS, Language	Same as browser GUI, Language of the software will be English	
General Specifications	Safety/EMC Standard	UL (UL60065), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60065), DOC (ICES003 ClassA)	CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558)

TV System		NTSC	PAL
General Specifications	Power Source	120 V AC, 60 Hz	220 ~ 240 V AC, 50 Hz
	Power Consumption	approx. 170 W	
	Ambient Operating Temperature	+5 C ~ +45 C (41 F ~ 113 F)	
	Ambient Operating Humidity	5 % ~ 90 % (no condensation)	
	Maximum Operating Altitude	2,000 m (6,500 feet) above sea level	
	Dimensions	430 mm (W) x 132 mm (H) x 400 mm (D) (16-15/16" (W) x 5-3/16" (H) x 15-3/4" (D)) (excluding rubber feet and projections)	
	Weight	13 kg (28.6 lbs.) without Canister and HDD 20 kg (44.15 lbs.) with 9 HDDs	

*1: Microsoft® Windows® 7 Starter and Microsoft® Windows Vista® Starter are not supported. For information on the operation verification of the supported operating systems and web browsers, refer to our website at http://panasonic.net/pss/security/support/index.html.
*2: Non-voltage make contact, +5 V pull-up 150 *3: Open collector output, 24 V max., −100 mA
*4: High (+5 V ~ +12 V, 6.3 mA maximum) *5: 52 k, 5 V pull-up, −100 mA / make contact *6: 200 mA at maximum

Part Names and Functions

Front View

① Error Indicator
② Alarm Indicator
③ Alarm Suspension Indicator
④ Buzzer Stop Button
⑤ LCD
⑥ HDD Indicators
⑦ Key Hole
⑧ Maintenance Port
⑨ Recording Indicator
⑩ Timer Indicator
⑪ Operate Indicator
⑫ Arrow Buttons
⑬ SET Button
⑭ Escape Button
⑮ Link Indicators
⑯ Front Cover
⑰ USE Button
⑱ HDD Unit
⑲ HDD Status Indicator
⑳ HDD Access Indicator
㉑ HDD Bay Slots
㉒ RAID Mode Switch
㉓ Removal Knob

Rear View

① Handle for Maintenance
② Alarm/Control Connector
③ Alarm Connector
④ Cable Clamp Fixing Holes
⑤ External Storage Connector
⑥ Client PC Port
⑦ Camera Port
⑧ Signal GND Terminal
⑨ Power Cord Inlet
⑩ Power Switch

Appearance

Unit: mm (inches)

• All TV pictures are simulated.
• Weights and dimensions are approximate.
• Specifications are subject to change without notice.
• All product pictures are NTSC models.

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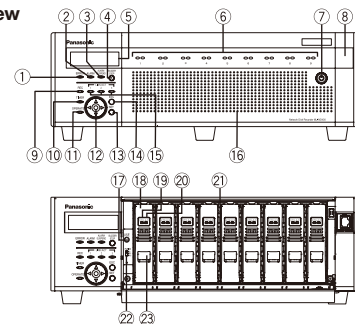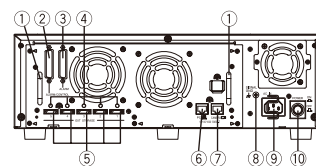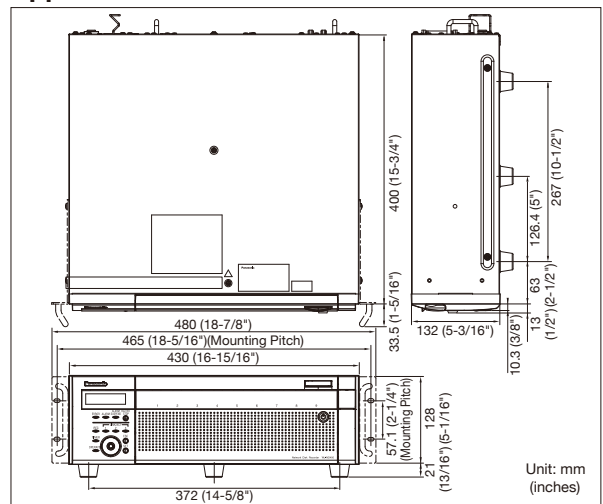 **Important**
– Safety Precaution: carefully read the operating instructions and installation manual before using this product.
– Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.

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http://panasonic.net/security/

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