



## 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-ASM100 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.
The following are for installation:			
• Power Cord (NTSC model) .....	1 pc.	• Handle fixing screw for Rack Mounting Bracket .....	4 pcs.
• Power Cord (PAL model) .....	2 pcs.	• Washer .....	4 pcs.
• Key .....	2 pcs.	• HDD canister .....	9 pcs.
		• HDD fixing Screw for HDD canister...	54 pcs.

### Optional Accessory

Hard Disk Extension Unit <b>WJ-HDE400</b>	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				
<b>Supported Cameras</b>	Panasonic i-Pro series Network cameras (Contact Panasonic for BB series and Axis® cameras)					
<b>Supported Image Format</b>	H.264, MPEG-4, JPEG, M-JPEG					
<b>Supported Image Resolution</b>	2,048 x 1,536, 1,280 x 960, 960 x 720, 640 x 480, 320 x 240 (Depending on the camera)					
<b>Supported Audio Format</b>	G.726 (ADPCM) 32 kbps					
<b>Maximum Number of Cameras</b>	64					
<b>Recording Mode</b>	Manual, Schedule including Event (Pre/Post), Emergency					
<b>Pre-Event Recording</b>	Up to 15 minutes with dedicated HDD for Pre-Event. Shorter Pre-Event recording is possible without dedicated HDD.					
<b>Scheduled Recording Mode</b>	8 programs, 6 time zones/day, Independent setup for each day of the week					
<b>Frame Rate/Camera</b>	Up to 30 ips (Depending on the Camera)					
<b>Browser GUI</b>	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 and Browser Combination: Microsoft® Windows® 7 Professional 64 bit/32 bit & Windows® Internet Explorer® 8.0 32 bit, Microsoft® Windows Vista® 32 bit SP1 & Windows® Internet Explorer® 7.0, Microsoft® Windows® XP Home/Professional SP3 & Windows® Internet Explorer® 6.0 The language of OS must be the same as selected GUI language. Required PC: <table border="1"> <tr> <td>JPEG/MPEG-4</td> <td>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</td> </tr> <tr> <td>H.264</td> <td>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</td> </tr> </table>		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	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
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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					
<b>Alarm/Event</b>	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					
<b>Network</b>	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)					
<b>External Interface</b>	Alarm Connector (D-sub25pin) Alarm: Alarm input 1 - 7, 17 - 32 <sup>1</sup> Alarm/Control Connector (D-sub25pin) Alarm: Alarm input 8 - 16 <sup>1</sup> , 1x Alarm output <sup>2</sup> , 1x Alarm reset input <sup>1</sup> , 1x Alarm suspend input <sup>1</sup> Control: Emergency recording input <sup>1</sup> , Power outage detection input <sup>1</sup> , External recording mode switching <sup>1</sup> , Power outage recovery completion output <sup>3</sup> , Time adjustment input/output <sup>4</sup> , +5 V output <sup>5</sup> Error/Warning: Network error output <sup>2</sup> , Available disk space warning output <sup>2</sup> , HDD error output <sup>2</sup> , Camera error output <sup>2</sup> , Error output <sup>2</sup> External Storage: High-speed serial interface 1.5 Gbps (theoretical value) Only for WJ-HDE400 Extension Unit					
<b>Other Functions</b>	Time Synchronization: Terminal (Master or Slave), NTP (Server/Client) Summer Time: User definable (using menu setup)					
<b>HDD</b>	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					
<b>Viewer Software</b>	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					
<b>General Specifications</b>	Safety/EMC Standard: UL (UL60065), FCC (Part15 ClassA), CE (EN60065, EN55022 ClassB, C-UL (CAN/CSA C22.2 No.60065), EN55024), GOST (GOST R 51558) DOC (ICES003 ClassA)					

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- "Super Dynamic", "SDII", "SDIII" and "i-Pro" logos are trademarks or registered trademarks of Panasonic Corporation.

### 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.

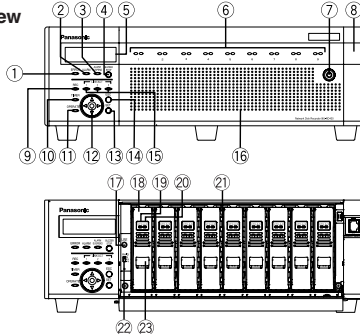


TV System	NTSC	PAL
<b>General</b>	Power Source: 120 V AC, 60 Hz	220 - 240 V AC, 50 Hz
<b>Specifications</b>	Power Consumption: approx. 170 W	
	Ambient Operating Temperature: +5 °C ~ +45 °C (41 °F ~ 113 °F)	
	Ambient Operating Humidity: 5 % ~ 90 % (no condensation)	
	Maximum Operating Altitude: 2,000 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: Non-voltage make contact, +5 V pull-up 150 Ω \*2: Open collector output, 24 V max., -100 mA  
\*3: High (+5 V, +12 V, 6.3 mA maximum) \*4: 52 kΩ, 5 V pull-up, -100 mA / make contact \*5: 200 mA at maximum

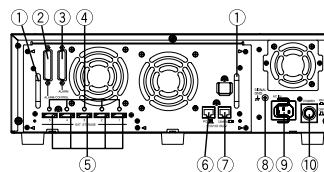
## Part Names and Functions

Front View



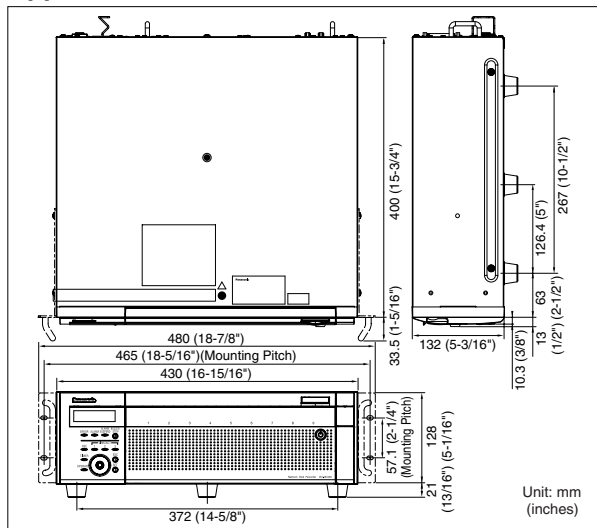
- ① Error Indicator
- ② Alarm Indicator
- ③ Alarm Suspension Indicator
- ④ Buzzer Stop Button
- ⑤ LCD
- ⑥ HDD Indicators
- ⑦ Key Hole
- ⑧ Maintenance Port
- ⑨ Recording Indicator
- ⑩ Timer Indicator
- ⑪ Operate Indicator
- ⑫ Arrow Buttons
- ⑬ SET Button
- ⑭ Escape Button
- ⑮ Link Indicators
- ⑯ USE Button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

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



- 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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Printed in Japan (2A-036EA)