



## Network Disk Recorder with expandable capacity for digital image data from up to 32 Network Cameras

### Key Features

- MPEG-4 and JPEG multi format.
- Up to 32 network cameras can be connected and recorded.
- Various Recording Mode: Manual, Schedule, Event (Pre/Post), Emergency, External Timer.
- Various alarm sources such as 16x Terminal inputs, 16x Camera alarms, Panasonic Alarm Protocol, and flexible alarm actions such as Alarm recording, E-mail notification, Alarm message, Camera positioning, FTP image transfer, Terminal output, Panasonic alarm protocol output, Buzzer and LED.
- Panasonic Camera control: Pan/Tilt, Zoom, Focus, Brightness, Preset Position, Auto mode (depending on Camera model).
- Cameras may be assigned to one of the eight groups to meet application requirements.
- Flexible Playback Controls: A-B Repeat, Goto Date (Jump to specific time/date), Goto Last (Jump to 5 sec. ~ 5 min. before the record end).
- Various display mode: Spot, Quad (8 patterns), Spot Sequence, Quad Sequence.
- Eight Quad screens are fully programmable. Any of the 32 cameras can be assigned to any area of the Quad screens.
- Filtered Search: Time & Date, Event Type, Camera number, Text.
- Recorded images can be downloaded to a PC.
- Downloadable viewer software allows playback of images downloaded from the Recorder.
- Two setup modes available, Quick/Advanced at users' preference.
- Two built-in network interfaces (10Base-T / 100Base-TX) for camera access and client access. Operation by one port is also possible.
- Quick IP Setup for Panasonic i-Pro series network cameras.
- Bandwidth control: 32 k / 64 k / 128 k / 256 k / 512 k / 1,024 k / 2 M / 5 M / 10 M (bps) and unlimited.
- Up to 8 clients can monitor images and control WJ-ND300A simultaneously.
- Image transfer to FTP server: Recorded image upon alarm and/or live image periodically.
- Performance measurement function for appropriate recording frame rate setup.

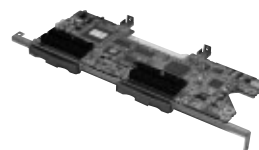
- Images recorded on the SD memory card in the i-Pro series cameras can be downloaded to the recorder manually. In addition, recordings upon network failure can be transferred automatically when the recorder is in non-recording status.
- Alarm notification by E-mail.
- User/Host authentication, 4 user levels and User-Camera View/Control partitioning set up for sophisticated user management of up to 32 user registrations.
- Multi-recorder, Multi-site system can be made with optional WV-AS65 or WV-ASM100 management software.
- Front panel LCD screen for status display.
- HDD capacity is expandable with four HDD bays in the main unit and up to six WJ-HDE300 optional Extension Units each with four bays.
- Disk partitioning for flexible record management: Normal, Event, Copy
- HDD Safety Mode to protect HDDs during the installation of WJ-ND300A.
- RAID5 capability with optional WJ-NDB301 RAID5 Board.

### Standard Accessories

- |                            |       |   |         |
|----------------------------|-------|---|---------|
| • CD-ROM* .....            | 1 pc. | • Rack Mount Bracket Fixing Screw ...                         | 4 pcs.  |
| • Installation Guide ..... | 1 pc. | • Hard Disk Drive Fixing Screw<br>(w/sleeve and damper) ..... | 12 pcs. |
- The following are for installation:
- |                                 |        |  |
|---------------------------------|--------|--|
| • Power Cord (NTSC model) ..... | 1 pc.  | * The CD-ROM contains the operating<br>instructions (PDFs) and the setup tools<br>(Panasonic IP setup software, etc.). |
| • Power Cord (PAL model) .....  | 2 pcs. |  |
| • Rack Mount Bracket .....      | 2 pcs. |  |

### Optional Accessories

RAID5 Board  
WJ-NDB301



Extension Unit  
WJ-HDE300

(4 drive bays for optional HDD units)



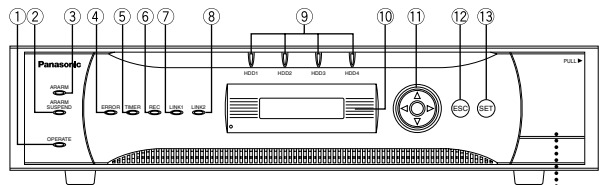
## Specifications

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: MPEG-4 (Specific cameras), JPEG, M-JPEG	
	Supported Image Resolution: 1,280 x 960, 960 x 720, 640 x 480, 320 x 240 (Depending on the camera)	
Maximum Number of Cameras: 32		
Recording	Recording Mode: Manual recording, Scheduled recording, Emergency recording, External timer recording, Event recording	
	Pre-alarm Recording: Up to 60 minutes. Dedicated HDD for Pre-alarm is required	
	Scheduled Recording Mode: 4 programs, 6 time zones/day, Independent setup for each day of the week.	
	Frame Rate/Camera: Up to 30 ips (Depending on the camera and Network)	
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, A-B Repeat, Goto Date, Goto Last (5 sec. ~ 5 min.), Text display.	
	Search Mode: Search criteria: Time date, Event type, Camera number, Text ON/OFF.	
	Display Mode: Spot/Quad (8 patterns)/Spot Sequence/Quad Sequence (Live, Playback)	
	Camera Grouping: 8 groups each with 16 characters title.	
	Image Download: Recorded data of selected camera and time range (up to 20 min.) can be downloaded to a PC. Viewer software can be downloaded separately.	
	SD Memory Data Download: Image data in the SD memory installed in the selected camera can be transferred to the recorder.	
	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: 12H/24H, Date: 3 formats	
	Alarm Control: Reset, Suspend	
	Digital Zoom: Up to 4 times	
	Text Attachment: Free comment can be attached for each record and reviewed at later time. Up to 200 characters	
	System Log: Operator access (100), Network error (1,000), Error (100), Event (750)	
	Time Synchronization: Terminal (Master or Slave), NTP (Client)	
Summer Time: User definable (using menu setup)		
GUI / System Setup Language: English, French, Italian, Spanish, German, Russian, Chinese, Japanese		
Supported OS: Windows®2000 Professional SP4, Windows®XP Home/Professional SP2 English, German, French, Italian, Spanish.		
Supported Browser: Internet Explorer 6.0 SP1, SP2		
Alarm/Event	Alarm Source: 16 x Terminal inputs, 16 x Camera alarms, Panasonic Alarm Protocol	
	Event Mode: Alarm/Activity/OFF	
	Alarm Action: Alarm recording, E-mail notification, Alarm message, Camera positioning, FTP image transfer, Terminal output, Panasonic alarm protocol output, Buzzer, LED.	
Alarm Control: Reset, Suspend		
Event Log: 750		
Network	Network Interface: Camera port: 10Base-T/100Base-TX (RJ-45) Client port: 10Base-T/100Base-TX (RJ-45) Maintenance port: 10Base-T (RJ-45)	
	Maximum Band Width: Total 97 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	
	Email: Upon Alarm or Warning	
	No. of Client at a Time: 8	
	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	
External Interface	Alarm Connector (25pin D-sub)	Alarm: Alarm input 1 ~ 16 <sup>1</sup> , Alarm output 1 ~ 7 <sup>2</sup>
	Alarm/Control Connector (25pin D-sub)	Alarm: Alarm output 8 ~ 16 <sup>2</sup> Alarm suspension input <sup>1</sup> , Alarm reset 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>
EXT Strage: High-speed serial interface 480 Mbps (theoretical value) for WJ-HDE300 Extension Unit. RS-232C		For servicing purpose only.
HDD	Type: 1 x 3.5-type 250 GB HDD (Factory default), Up to 4 x 500 GB HDDs can be installed. (Contact Panasonic for detail)	
	Maximum Capacity: 14 TB (with 6 x WJ-HDE300 Extension Units, 4 x 500 GB HDDs installed in each unit).	
	RAID: RAID5 supported (with WJ-NDB301 RAID5 Board)	
	Partitioning: Normal/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	
Admin Software	Supported OS, Language: Same as browser GUI, Language of the software will be English	
Quick IP Setup Software	Supported OS, Language: Same as browser GUI, Language of the software will be English	
General Specifications	Safety/EMC Standard: UL (6500 Edition2), FCC (Part15 ClassA), CE (EN60065, EN55022, EN55024, ClassB), C-UL (E60065), DOC (ICES003 ClassA), GOST (R 51558)	
	Power Source: 120 V AC, 60 Hz / 220 ~ 240 V AC, 50 Hz	
	Power Consumption: approx. 85 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: 420 mm (W) x 88 mm (H) x 350 mm (D) (16-9/16" (W) x 3-7/16" (H) x 13-3/4" (D)) (excluding rubber feet and projections)	
	Weight: 8.3 kg (18.3 lbs.)	

\*1: Non-voltage make contact, -100 mA, +5 V pull-up \*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

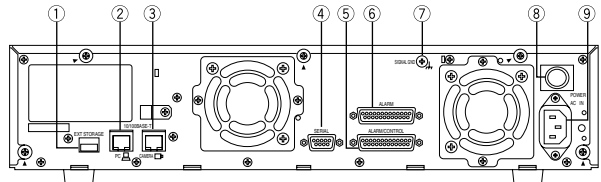
## Major Operating Controls & Terminals

### Front View



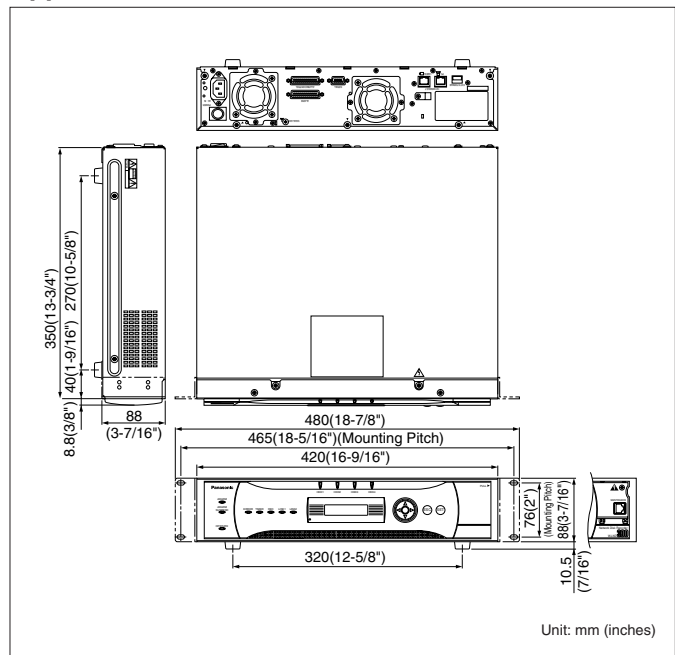
- ① Operate Indicator
- ② Alarm Suspension Indicator
- ③ Alarm Indicator
- ④ Error Indicator
- ⑤ Timer Indicator
- ⑥ Recording Indicator
- ⑦ Camera Link Indicator
- ⑧ PC Link Indicator
- ⑨ HDD Access Indicators
- ⑩ LCD
- ⑪ Arrow Button
- ⑫ Escape Button
- ⑬ Set Button
- ⑭ Maintenance Port

### Rear View



- ① External Storage Connector
- ② Client PC Port
- ③ Camera Port
- ④ Serial Connector (for maintenance purpose)
- ⑤ Alarm/Control Connector
- ⑥ Alarm Connector
- ⑦ Signal Ground Terminal
- ⑧ Power Switch
- ⑨ Power Cord Inlet

## Appearance



### Trademarks and registered trademarks

- Microsoft, and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.
- SD logo is a trademark.
- Axis is a registered trademark of Axis Communications AB.

### 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.

- All TV pictures/menu are simulated.
- Weights and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.
- Product pictures shown in this catalog are all NTSC models.

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