



## 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.

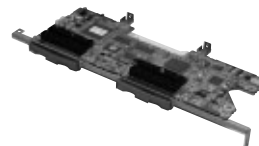
- Images recorded on the SD memory card in the i-Pro series cameras can be downloaded to the recorder manually. In addition, recordings upon network failure can be transferred automatically when the recorder is in non-recording status.
- Alarm notification by E-mail.
- User/Host authentication, 4 user 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   |         |
| The following are for installation: |        | (w/sleeve and damper) .....  | 12 pcs. |
| • Power Cord (NTSC model) .....     | 1 pc.  | * The CD-ROM contains the operating instructions (PDFs) and the setup tools (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)



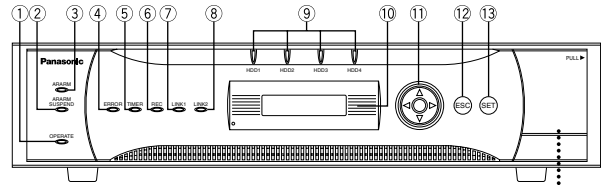
## Specifications

TV System	NTSC	PAL
<b>Supported Cameras</b>	Panasonic i-Pro series Network cameras. (Contact Panasonic for BB series and Axis cameras)	
<b>Supported Image Format</b>	MPEG-4 (Specific cameras), JPEG, M-JPEG	
<b>Supported Image Resolution</b>	1,280 x 960, 960 x 720, 640 x 480, 320 x 240 (Depending on the camera)	
<b>Maximum Number of Cameras</b>	32	
<b>Recording</b>	<b>Recording Mode</b> Manual recording, Scheduled recording, Emergency recording, External timer recording, Event recording <b>Pre-alarm Recording</b> Up to 60 minutes. Dedicated HDD for Pre-alarm is required <b>Scheduled Recording Mode</b> 4 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 and Network)	
<b>Browser GUI</b>	<b>Camera Control</b> Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode. <b>REC/Playback Control</b> 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. <b>Search Mode</b> Search criteria: Time date, Event type, Camera number, Text ON/OFF. <b>Display Mode</b> Spot/Quad (8 patterns)/Spot Sequence/Quad Sequence (Live, Playback) <b>Camera Grouping</b> 8 groups each with 16 characters title. <b>Image Download</b> Recorded data of selected camera and time range (up to 20 min.) can be downloaded to a PC. Viewer software can be downloaded separately. <b>SD Memory Data Download</b> Image data in the SD memory installed in the selected camera can be transferred to the recorder. <b>Copy</b> Recorded data of selected cameras and time date range can be copied to the COPY partition. <b>Camera Title</b> On the browser, Up to 16 Characters. <b>Clock Display</b> On the browser. Time: 12H/24H, Date: 3 formats <b>Alarm Control</b> Reset, Suspend <b>Digital Zoom</b> Up to 4 times <b>Text Attachment</b> Free comment can be attached for each record and reviewed at later time. Up to 200 characters <b>System Log</b> Operator access (100), Network error (1,000), Error (100), Event (750) <b>Time Synchronization</b> Terminal (Master or Slave), NTP (Client) <b>Summer Time</b> User definable (using menu setup) <b>GUI / System Setup Language</b> English, French, Italian, Spanish, German, Russian, Chinese, Japanese <b>Supported OS</b> Windows®2000 Professional SP4, Windows®XP Home/ Professional SP2 English, German, French, Italian, Spanish. <b>Supported Browser</b> Internet Explorer 6.0 SP1, SP2	
<b>Alarm/Event</b>	<b>Alarm Source</b> 16 x Terminal inputs, 16 x Camera alarms, Panasonic Alarm Protocol <b>Event Mode</b> Alarm/Activity/OFF <b>Alarm Action</b> Alarm recording, E-mail notification, Alarm message, Camera positioning, FTP image transfer, Terminal output, Panasonic alarm protocol output, Buzzer, LED. <b>Alarm Control</b> Reset, Suspend <b>Event Log</b> 750	
<b>Network</b>	<b>Network Interface</b> Camera port: 10Base-T/100Base-TX (RJ-45) Client port: 10Base-T/100Base-TX (RJ-45) Maintenance port: 10Base-T (RJ-45) <b>Maximum Band Width</b> Total 97 Mbps <b>Bandwidth Control (Client Port)</b> 32 k / 64 k / 128 k / 256 k / 512 k / 1,024 k / 2 M / 5 M / 10 M (bps) and unlimited. <b>Supported Protocol</b> TCP/IP, UDP/IP, HTTP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, RTP <b>Email</b> Upon Alarm or Warning <b>No. of Client at a Time</b> 8 <b>User Registration</b> Up to 32 users <b>User Level</b> 4 Levels (Programmable) <b>Partitioning</b> User - Camera (View only, View & Control, No Access) <b>Security Method</b> User authentication (ID and Password), Host authentication (IP address), Alteration detection	
<b>External Interface</b>	<b>Alarm Connector (25pin D-sub)</b> Alarm Alarm input 1 ~ 16 <sup>1</sup> , Alarm output 1 ~ 7 <sup>2</sup> <b>Alarm/Control Connector (25pin D-sub)</b> 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> <b>Error/Warning</b> 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> <b>EXT Stage</b> High-speed serial interface 480 Mbps (theoretical value) for WJ-HDE300 Extension Unit. <b>RS-232C</b> For servicing purpose only.	
<b>HDD</b>	<b>Type</b> 1 x 3.5-type 250 GB HDD (Factory default), Up to 4 x 500 GB HDDs can be installed. (Contact Panasonic for detail) <b>Maximum Capacity</b> 14 TB (with 6 x WJ-HDE300 Extension Units, 4 x 500 GB HDDs installed in each unit) <b>RAID</b> RAID5 supported (with WJ-NDB301 RAID5 Board) <b>Partitioning</b> Normal/Event/Copy	
<b>Viewer Software</b>	<b>Playback Control</b> Play, Rev Play, Pause, FF, REW, Prev Record, Next Record, Prev Image, Next Image <b>Additional Functions</b> Alteration detection, Save as JPEG, Two times zoom, Print <b>Supported OS, Language</b> Same as browser GUI, Language of the software will be English	
<b>Admin Software</b>	Supported OS, Language Same as browser GUI, Language of the software will be English	
<b>Quick IP Setup Software</b>	Supported OS, Language Same as browser GUI, Language of the software will be English	
<b>General Specifications</b>	<b>Safety/EMC Standard</b> UL (6500 Edition2), FCC (Part15 ClassA), CE (EN60065, EN55022, EN55024, ClassB), C-UL (E60065), DOC (ICES003 ClassA), GOST (R 51558) <b>Power Source</b> 120 V AC, 60 Hz 220 ~ 240 V AC, 50 Hz <b>Power Consumption</b> approx. 85 W <b>Ambient Operating Temperature</b> +5 C ~ +45 C (41 F ~ 113 F) <b>Ambient Operating Humidity</b> 5 % ~ 90 % (no condensation) <b>Maximum Operating Altitude</b> 2,000 m (6,500 feet) above sea level <b>Dimensions</b> 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) <b>Weight</b> 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

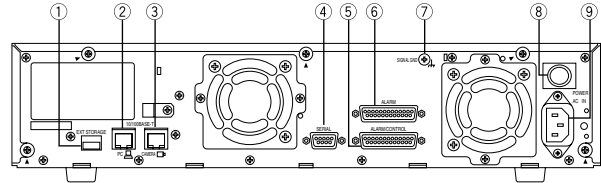
## Major Operating Controls & Terminals

### Front View



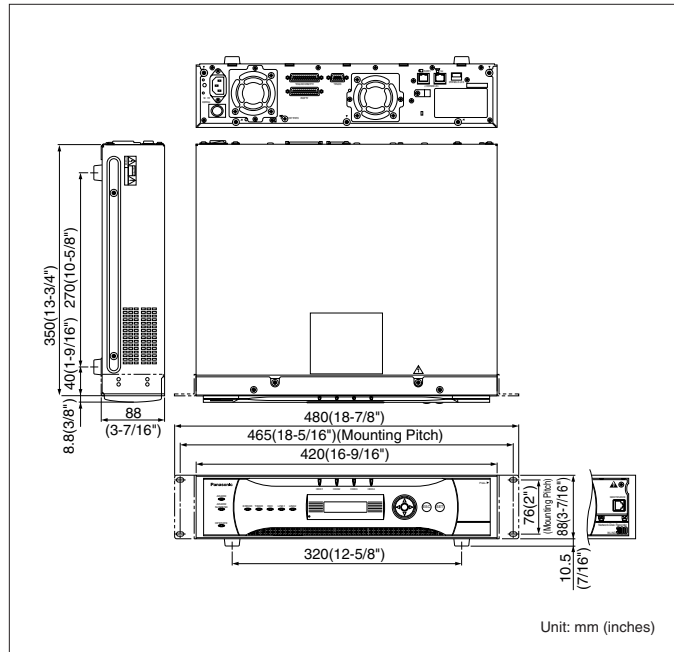
- ① Operate Indicator
- ② Alarm Suspension Indicator
- ③ Alarm Indicator
- ④ Error Indicator
- ⑤ Timer Indicator
- ⑥ Recording Indicator
- ⑦ Camera Link Indicator
- ⑧ PC Link Indicator
- ⑨ HDD Access Indicators
- ⑩ LCD
- ⑪ Arrow Button
- ⑫ Escape Button
- ⑬ Set Button
- ⑭ Maintenance Port

### 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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