

**Preliminary**



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

### Key Features

- 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 up to 64 **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 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 LED.
- 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.
- 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.
- Equipped with a 500 GB Serial ATA HDD. Up to 9 Serial ATA HDDs can be installed with the provided canisters. With hot plug support, the HDDs can be removed without interrupting the recording.
- HDD capacity is expandable up to 27 TB with 9 HDD slots in the main unit and five 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

### 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)			
The following are for installation:			
• Power Cord (NTSC model) .....	1 pc.	• Handle for Rack Mounting Bracket ...	2 pcs.
• Power Cord (PAL model) .....	2 pcs.	• Handle fixing screw for	
• Key .....	2 pcs.	Rack Mounting Bracket .....	4 pcs.
		• Washer .....	4 pcs.
		• HDD canister .....	8 pcs.
		• HDD fixing Screw for HDD canister ...	48 pcs.

### Optional Accessory

Hard Disk Extension Unit  
**WJ-HDE400**



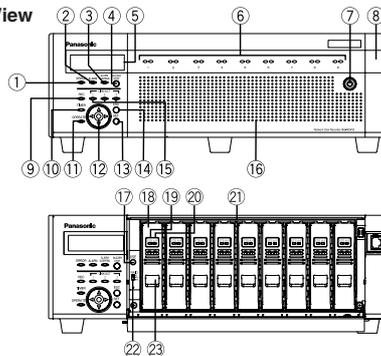
## Specifications

TV System	NTSC	PAL
<b>Supported Cameras</b>	Panasonic i-Pro series Network cameras (Contact Panasonic for BB series and Axis® cameras)	
Supported Image Format	MPEG-4, JPEG, M-JPEG	
Supported Image Resolution	1,280 x 960, 960 x 720, 640 x 480, 320 x 240 (Depending on the camera)	
Supported Audio Format	G.726 (ADPCM) 32 kbps	
Maximum Number of Cameras	64	
<b>Recording</b>	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)	
<b>Browser GUI</b>	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.), Area select	
Search Mode	Filtered search: Time date, Event type, Camera number VMD search: one detection areas per search (works with 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	
Supported OS	Microsoft® Windows Vista® Business 32 bit Microsoft® Windows® XP Home Edition SP2 Microsoft® Windows® XP Professional SP2 The language of the OS must be same as selected GUI language.	
Supported Browser	Windows® Internet Explorer® 7.0 Microsoft® Internet Explorer® 6.0 SP2	
<b>Alarm/Event</b>	Alarm Source: 32x Terminal inputs, 64x 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	
<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>	
EXT 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: 1x 3.5 inch 500 GB Serial ATA HDD (Factory default), Up to 9x 500 GB HDDs can be installed. Maximum Capacity: 27 TB (with 5x WJ-HDE400 Extension Units, 9x 500 GB 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/CSAC22.2 No.60065), DOC (ICES003 ClassA) Power Source: 120 V AC, 60 Hz 220 - 240 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: 14 kg (30.9 lbs.) with 1 HDD (Factory default) 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

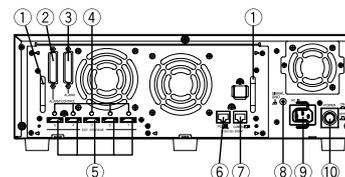
## Part Names and Functions

Front View



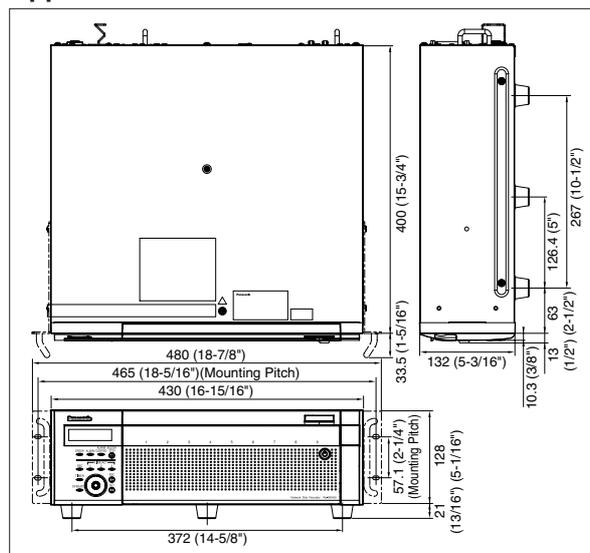
- ① Error Indicator
- ② Alarm Indicator
- ③ Alarm Suspension Indicator
- ④ Buzzer Stop Button
- ⑤ LCD
- ⑥ HDD Indicators
- ⑦ Key Hole
- ⑧ Maintenance Port
- ⑨ Recording Indicator
- ⑩ Timer Indicator
- ⑪ Operate Indicator
- ⑫ Arrow Buttons
- ⑬ SET Button
- ⑭ Escape Button
- ⑮ Link Indicators
- ⑯ USE Button
- 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



### Trademarks and registered trademarks

– Microsoft, and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.  
– Axis is a registered trademark of Axis Communications AB.  
– "Super Dynamic", "SDII", "SDIII" and "i-Pro" logos are trademarks or registered trademarks of Matsushita Electric Industrial Co., Ltd.

### 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 are simulated.
- Weights 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.

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