

# Panasonic

ideas for life

Digital Disk Recorders  
**WJ-HD316A**  
**WJ-HD309A**

Version 2.1

The Comprehensive Digital Recording Solution



DIGITAL DISK RECORDERS  
**WJ-HD300A**  
SERIES

# The WJ-HD300A Series offers high quality pictures and disk saving recording utilizing a new compression technology.

Panasonic presents the new WJ-HD300A Series with a unique new system featuring a high compression ratio of 1/30 for practical use. Under the "All-in-One Solution" concept, all the vital recording components and features are condensed into one unit. With one single unit, unprecedented, highly reliable surveillance recording is possible in a wide range of applications. The WJ-HD300A Series also features System Scalability to meet extended user needs.

## 1/30 Super Compression: Proprietary Algorithm, Core Development of the WJ-HD300A Series

- New algorithm divides entire screen into high and low frequency elements to reduce artificial distortion and noise compared to conventional compression.
- In addition, the mode-A compression data calculation within four (4) field images (called "Temporal Transforms"), outputs data according to the amount of movement: "No Movement," "Slow Speed Movement," "Medium Speed Movement," and "High Speed Movement." Redundant data can be reduced through this compression process.



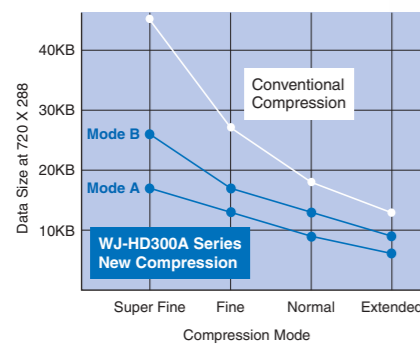
WJ-HD316A

WJ-HD309A

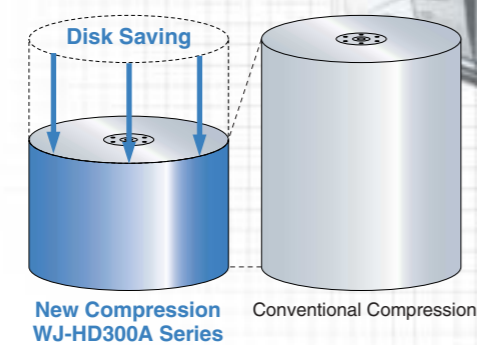
### Picture Quality & Disk Saving

Compared to a conventional algorithm, the data compression ratio has improved approximately 1.5 ~ 2, depending on object and compression mode.

#### ■ Data Size and Compression Mode



#### ■ Comparison

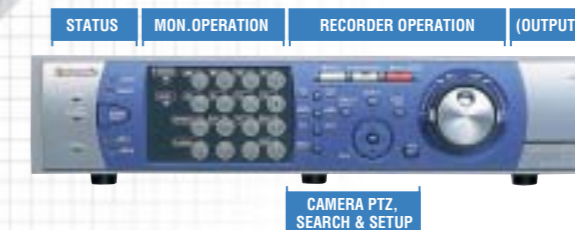


# All in One Solution

### Instinctive Operation

Simple and instinctive, the functional base layout of the WJ-HD300A Series front panel is designed for ease-of-use. Eight (8)\* directly connected Panasonic dome cameras can be controlled from the front panel. Also, the GUI based menu screen enables quick set up for flexible, more complex operations. (\* Six (6) cameras for the WJ-HD309A)

#### OPERATION BASE LAYOUT



#### GUI BASE MENU



### Value Added Features

The WJ-HD300A Series is equipped with the latest value added features to satisfy your requirements such as system reliability, operation efficiency, and cost savings.

#### Features include:

- High-density recording: 50 ips\* (100 ips\* @SIF)
- Full rate live multi screen: 50 ips\*
- Simultaneous Live/Rec./Playback/Network
- 16 independent recording profiles
- Disk partitioning: Normal, Alarm, and Copy
- RAID 5 and mirror redundant recording
- Advanced VMD (Video Motion Detector): Area, vector, and duration.
- Various Network Operations: Live, PTZ control, Recording, Playback, and Downloading
- Network and serial open architecture

(\* ips = image per second)

\*The above all photographs were taken for the purpose of explanation ; actual images may differ.

# Superior surveillance made possible by state-of-the-art digital features.

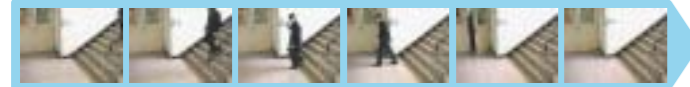


## High-Refresh Rate Recording

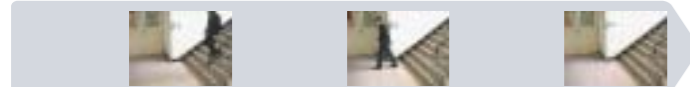
High-speed digital processing enables high-refresh rate recording — to ensure critical moments are not missed.

Max. **25** image per sec. @ 720 x 576 (FRAME/PAL)  
 Max. **50** image per sec. @ 720 x 288 (FIELD/PAL)  
 Max. **100** image per sec. @ 360 x 288 (SIF/PAL)

### WJ-HD300A Series



Conventional

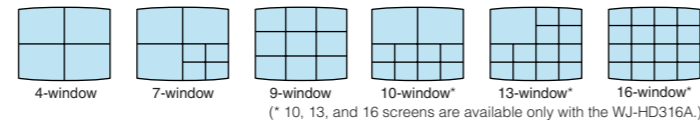


## Full Rate Live Multi-Screen

Even when images from multiple cameras are displayed on a multi-screen, live monitoring can be achieved on all cameras at a full rate of 50 ips (image per second). Experience real-time, full surveillance with full-rate video images.



### Multi-screen in versatile variations



## 16 Independent Recording Profiles

### Flexible recording setup

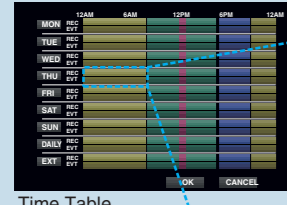
Independent recording settings (recording mode/recording rate/picture quality) for each camera\* enables flexible setup.  
 (\*16 cameras for the WJ-HD316A and 9 cameras for the WJ-HD309A.)

- **Recording mode:** Manual / Schedule / Event / Emergency
- **Recording rate:** Set the ips (image per second) as needed.
- **Picture quality:** Super Fine / Fine / Normal / Extended

### User-friendly setup

The user friendly GUI supports easy and smooth setup while confirming current status graphically.

### GUI Setup Menu



Time Table

Recording Program 1

Resolution: FIELD  
 Recording Table: 50 ips  
 Total REC Rate: 48 ips

	MANUAL		SCHEDULE		PRE EVENT		POST EVENT			
	RATE	QUALITY	RATE	QUALITY	RATE	QUALITY	RATE	QUALITY		
CAM1	2ips	EXA	1ips	EXA	1ips	FOB	5s	4ips	EXB	30s
CAM2	2ips	NQA	1ips	NQA	1ips	FOB	5s	4ips	NQB	30s
CAM3	2ips	FQA	1ips	FQA	1ips	FQB	5s	4ips	FQB	10s
CAM4	2ips	SFA	1ips	SFA	1ips	SFB	5s	4ips	SFB	20s
CAM5	2ips	NQA	1ips	EXA	1ips	EXB	5s	3ips	EXB	30s
CAM6	2ips	FQA	1ips	NQA	1ips	NQB	5s	3ips	NQB	30s
CAM7	2ips	SFA	1ips	FQA	1ips	FQB	5s	3ips	FQB	30s
CAM8	2ips	SFA	1ips	NQA	1ips	SFB	5s	3ips	SFB	30s
CAM9	2ips	EXA	OFF	EXA	1ips	EXB	5s	2ips	EXB	30s
CAM10	2ips	NQA	OFF	NQA	1ips	NQB	5s	2ips	NQB	30s
CAM11	2ips	FQA	OFF	FQA	1ips	FQB	5s	2ips	FQA	30s
CAM12	2ips	SFA	OFF	SFA	1ips	SFB	5s	2ips	SFB	30s
CAM13	2ips	EXA	1ips	EXA	1ips	SFB	5s	4ips	EXB	10s
CAM14	2ips	NQA	1ips	NQA	1ips	SFB	5s	3ips	NQB	30s
CAM15	2ips	FQA	1ips	FQA	1ips	FQB	5s	3ips	FQB	30s
CAM16	2ips	SFA	1ips	SFA	1ips	SFB	5s	2ips	SFB	30s

(ips = image per second)

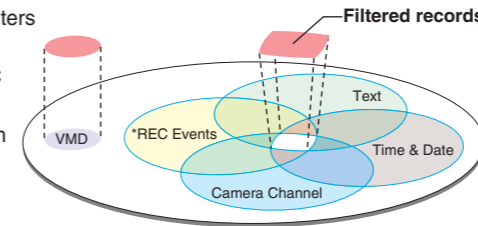
### Actual recording result (Example)

	Manual	Schedule	Event
CAM1	1ips EXA	4ips EXB	1ips EXA
CAM2	1ips NQA	4ips NQB	1ips NQA
CAM3	1ips FQA	4ips FQB	1ips FQA
CAM4	1ips SFA	4ips SFB	1ips SFA
CAM5	1ips EXA	2ips NQA	1ips EXA
CAM6	1ips NQA	2ips FQA	1ips NQA
CAM7	1ips FQA	2ips SFA	1ips FQA
CAM8	1ips NQA	2ips SFA	1ips NQA
CAM9	2ips EXA	OFF	2ips EXA
CAM10	2ips NQA	OFF	2ips NQA
CAM11	2ips FQA	OFF	2ips FQA
CAM12	2ips SFA	OFF	2ips SFA
CAM13	1ips EXA	4ips EXB	1ips EXA
CAM14	1ips NQA	3ips NQB	1ips NQA
CAM15	1ips FQA	1ips FQB	1ips FQA
CAM16	1ips SFA	1ips SFB	1ips SFA

## Instant Search and Playback

### Filtered Search

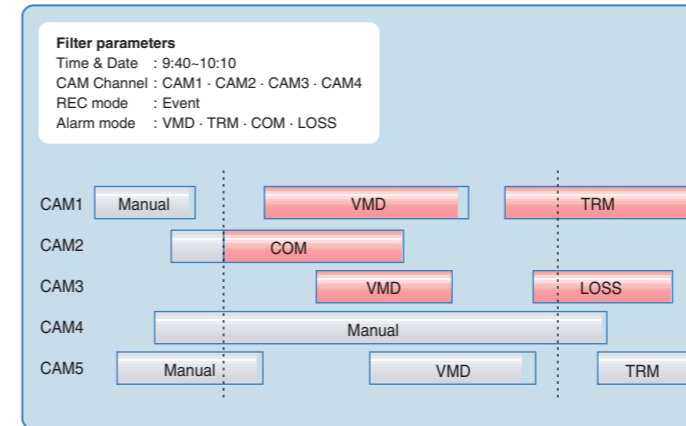
Various parameters/filters such as time & date, camera channel, REC events, text and VMD enables instant search and playback from mass recorded data.



### \* REC Event filter

REC mode	Emergency, Event, Schedule, Manual
Alarm mode	VMD, Terminal, Command, Video loss

### Filtered Search (Example)



### Thumbnail Display

In addition to search result by "list", "thumbnail" display is available for visual confirmation.



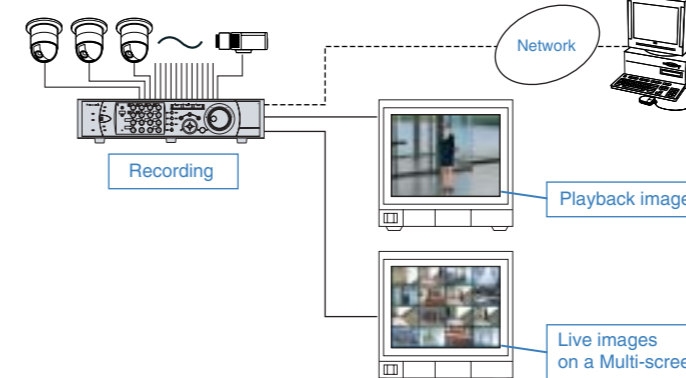
Camera channel/Recording event

Time and date

Number of listed data

## Live / Recording / Playback / Network Simultaneous Performance

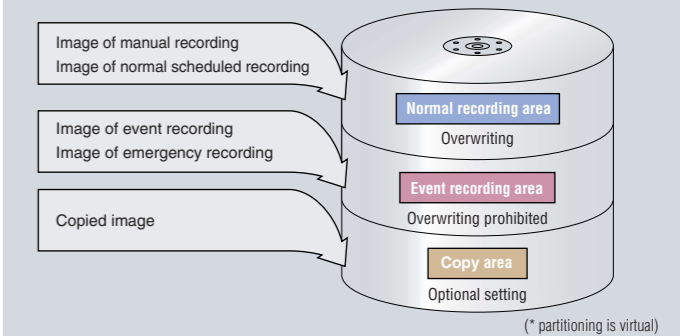
By adopting high speed signal processing, live / recording / playback / network can be operated simultaneously.



## Disk Management

### Hard Disk Partitioning Function\* automatically selects the partition to be recorded.

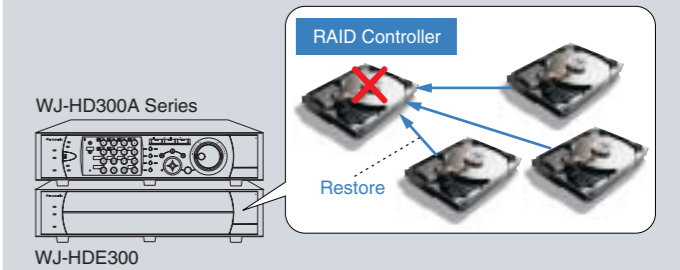
The hard disk is divided into three partitions: "Normal Recording," "Event Recording," and "Copy." Image data is automatically recorded to the appropriate partition according to the recording mode. For the normal recording partition, the data is overwritten when the capacity is full. The event recording partition prohibits overwriting to protect data. Copy partition prepares data for retrieval to external medium.



(\* partitioning is virtual)

### RAID5 / Mirroring Function

RAID5 distributes image data to multiple hard disks in the extension unit. Upon hard disk breakdown, lost data can be restored from other hard disks. When using one WJ-HD300A Series unit, mirroring function is available for data backup.



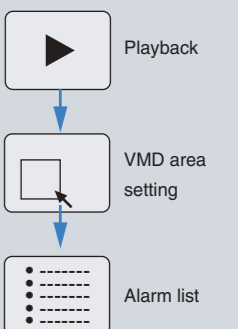
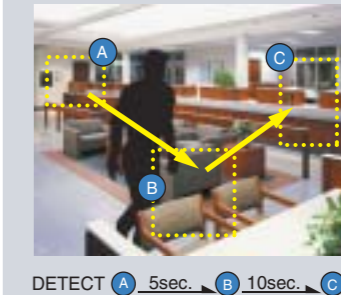
## Advanced VMD

### A new mode is added for sophisticated VMD detection.

### Playback VMD

One VMD area can set one playback image for motion search.

### DETECT VECTOR & DURATION



\*The above all photographs were taken for the purpose of explanation ; actual images may differ.

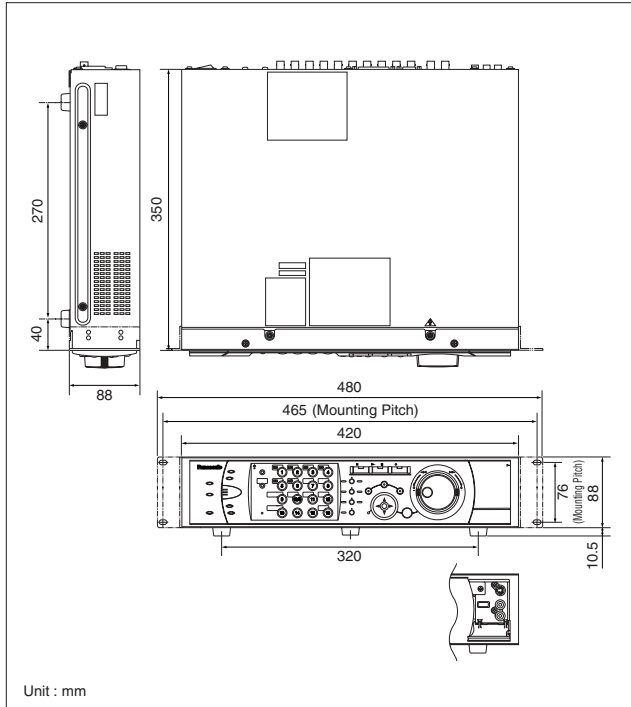
**MAJOR OPERATING CONTROLS: WJ-HD316A**

**Front View**

**Rear View**

<ul style="list-style-type: none"> <li>27 Operate Indicator</li> <li>28 Alarm Suspension Indicator</li> <li>29 Alarm Indicator</li> <li>30 Alarm Reset Button</li> </ul>	<ul style="list-style-type: none"> <li>11 Pan, Tilt, Latest Recorded Image Playback Button</li> <li>12 Zoom, Focus, A - B Repeat Button</li> <li>13 Iris, Listing Button</li> <li>14 Preset, Auto Pan Button</li> <li>15 Stop Button</li> <li>16 Play/Pause Button</li> <li>17 Record Button</li> <li>18 Slow Button</li> <li>19 Search Button</li> <li>20 Setup, Escape Button</li> </ul>	<ul style="list-style-type: none"> <li>21 Busy Indicator</li> <li>22 Arrow Buttons</li> <li>23 Set Button</li> <li>24 Jog Dial</li> <li>25 Shuttle Ring</li> <li>26 Connectors Cover</li> <li>27 Copy Port</li> <li>28 S-Video Output Connector</li> <li>29 Video Output Connector</li> <li>30 Audio Output Connector</li> </ul>	<ul style="list-style-type: none"> <li>1 Audio Input Connectors</li> <li>2 Audio Output Connector</li> <li>3 Video Input Connectors</li> <li>4 Video Output Connectors</li> <li>5 Monitor Output Connector</li> <li>6 Cascade In Connector</li> <li>7 Serial Connector</li> <li>8 Monitor Connector</li> <li>9 Alarm Connector</li> <li>10 Alarm/Control Connector</li> <li>11 PS-Data Ports</li> <li>12 Mode Switches</li> <li>13 RS485 Ports</li> <li>14 Network Port</li> <li>15 Copy Port</li> <li>16 Extra Storage Port</li> <li>17 Power Switch</li> <li>18 Signal Ground Terminal</li> <li>19 Power Cord Inlet</li> </ul>
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**DIMENSIONS: WJ-HD316A**



**SPECIFICATIONS: WJ-HD316A [PAL]**

<b>General</b>		
Power Source	220 V - 240 V AC, 50 Hz	
Power Consumption	85 W	
Ambient Operating Temperature	+5°C - +45°C	
Ambient Operating Humidity	Less than 90 %	
Dimensions	420 mm (W) x 88 mm (H) x 350 mm (D) (excluding rubber feet and projections)	
Weight	9.5 kg	
<b>Input/Output</b>		
Video	Video Input Connectors	1 V [P-P] / 75 Ω, with auto termination loop-thru, vertical timing pulse multiplexed, x8 (1 to 8 CH) (BNC) 1 V [P-P] / 75 Ω, with auto-termination loop-thru, x8 (9 to 16 CH) (BNC)
	Cascade Input Connector	1 V [P-P] / 75 Ω (BNC)
	Video Output Connectors	1 V [P-P] / 75 Ω, active loop-thru output, x8 (1 to 8 CH) (BNC)*1
		1 V [P-P] / 75 Ω, active loop-thru output, x8 (9 to 16 CH) (BNC)
	Monitor Output Connectors	1 V [P-P] / 75 Ω, x2 (BNC)
	Monitor Output Connector (VGA)	RGB output, x1 (15-pin D-sub)
S-Video Output Connector	Y = 1 V [P-P] / 75 Ω, C = 0.3 V [P-P] / 75 Ω, x1 (S-video output connector)	
Video Output Connector (Front Panel)	1 V [P-P] / 75 Ω, x1 (RCA pin)	
Audio	Audio Input Connectors	-10 dB, 10 KΩ, x4 (RCA pin)
	Audio Output Connectors	-10 dB, 600 Ω, unbalanced, x2 (RCA pin)
Others	Expansion Connector	High-speed serial interface, 480 Mbps (theoretical value), x1
	Copy Connectors	High-speed serial interface, 480 Mbps (theoretical value), x2
	Control Connectors	Emergency recording input <sup>2</sup> , additional space warning output <sup>3</sup> (for devices connected to copy connectors), HDD trouble output <sup>3</sup> , camera trouble output <sup>3</sup> , trouble output <sup>3</sup> , electricity failure recovery completion output <sup>4</sup> , time adjust input/output <sup>5</sup> , sequence switching input/output <sup>5</sup> , electricity failure detection input <sup>2</sup> , external recording mode switching <sup>2</sup> (25-pin D-sub), +5 V output <sup>7</sup>
	Alarm Port	1 to 8 CH alarm input <sup>6</sup> , 1 to 16 CH alarm input <sup>2</sup> , 1 to 16 alarm output <sup>3</sup> , alarm recovery input <sup>2</sup> , alarm suspension input <sup>5</sup> (25-pin D-sub)
RS-485 Ports	RS-485 (full duplex/half duplex <sup>8</sup> ), x2 (RJ-11)	
DATA Ports	RS-485, x2 (RJ-11)	
SERIAL Connector	RS-232C, x1 (9-pin D-sub)	
Ethernet Port	10 Base-T/100 Base-TX (RJ-45)	

\*1. When power is not supplied, video output signal was not sent from the unit even if video input signal is supplied.  
 \*2. Non-voltage N.O. Contact, 100 mA, +5 V pull-up \*3. Open collector output, maximum under conditions of 24 V DC and 100 mA or less \*4. High (+12 V, 6.3 mA) \*5. 30 KΩ, 5 V pull-up, -100 mA, N.O. Contact \*6. 5 V pull-up, -100 mA, Non-voltage N.O. Contact input \*7. 240 mA at maximum \*8. Changeable with the mode switch

**DISK DATA REFERENCE CHART**

• PAL colour video signal • Recording images from a single camera channel • 250GB HDD • Auto mode • Manual recording • Audio OFF

**COLOUR FINE Field Mode (Sampling Pixel Size: 720 x 288)**

One Camera ch (ips*)	SFB	FQB	NQB	EXB
0.1	14,900	22,350	29,800	44,700
0.5	2,980	4,470	5,960	8,940
1	1,490	2,235	2,980	4,470
5	290	440	590	890
6.3	230	350	470	700
12.5	110	170	230	350
25	50	80	110	170
50	20	40	50	80

(Hours)

**COLOUR STD Field Mode (Sampling Pixel Size: 720 x 288)**

One Camera ch (ips*)	SFB	FQB	NQB	EXB
0.1	19,870	29,800	39,740	59,610
0.5	3,970	5,960	7,940	11,920
1	1,980	2,980	3,970	5,960
5	390	590	790	1,190
6.3	310	470	630	940
12.5	150	230	310	470
25	70	110	150	230
50	30	50	70	110

(Hours)

**COLOUR FINE SIF Mode (Sampling Pixel Size: 360 x 288)**

One Camera ch (ips*)	SFB	FQB	NQB	EXB
0.1	29,800	44,700	59,610	89,410
0.5	5,960	8,940	11,920	17,880
1	2,980	4,470	5,960	8,940
5	590	890	1,190	1,780
6.3	470	700	940	1,410
12.5	230	350	470	710
25	110	170	230	350
50	50	80	110	170

(Hours)

**COLOUR STD SIF Mode (Sampling Pixel Size: 360 x 288)**

One Camera ch (ips*)	SFB	FQB	NQB	EXB
0.1	39,740	59,610	79,480	119,220
0.5	7,940	11,920	15,890	23,840
1	3,970	5,960	7,940	11,920
5	790	1,190	1,580	2,380
6.3	630	940	1,260	1,890
12.5	310	470	630	950
25	150	230	310	470
50	70	110	150	230

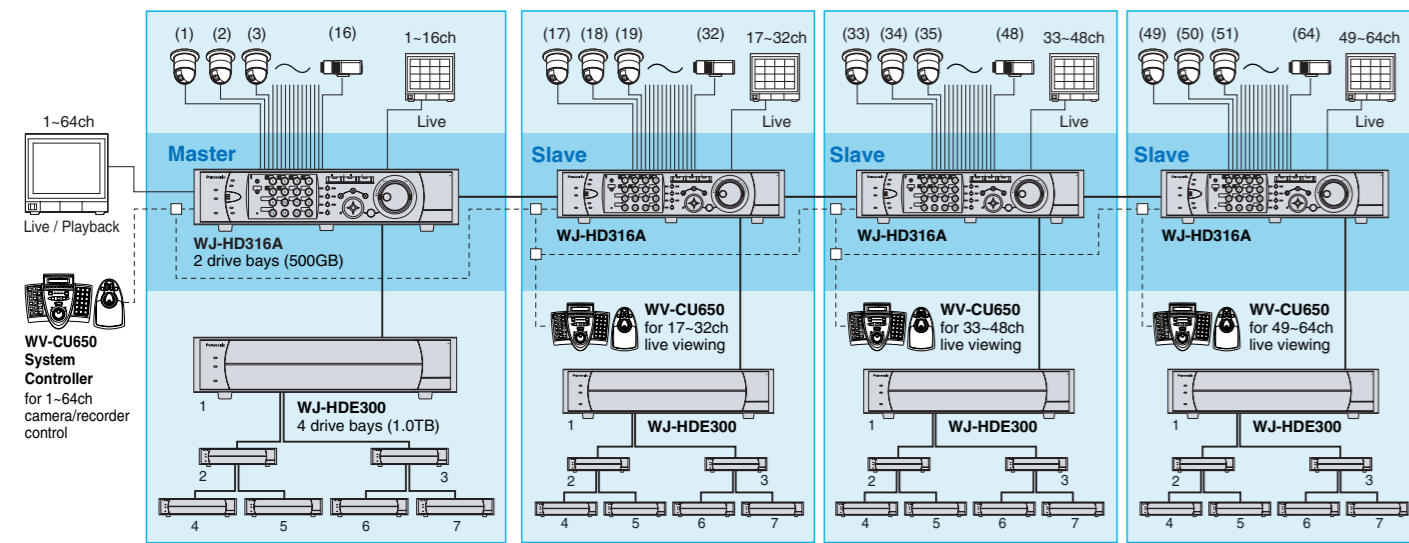
(Hours)

(above figures are approximate, actual recording time may differ depending on picture imaging under the conditions) \*The above all photographs were taken for the purpose of explanation ; actual images may differ. 7

## System Scalability:

### Viewing cascade connection (up to 4 main units)

Up to four (4) WJ-HD316A units can be cascaded to increase maximum 64 video inputs. All 64 cameras can be switched and viewed in live and playback from the master, while each slave unit has its own live viewing monitor.

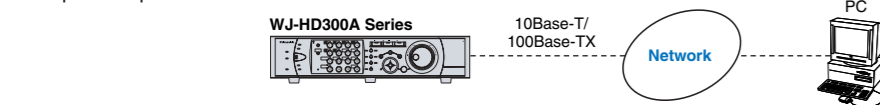


### Expandable to 7.5 Terabytes (TB) storage

In addition to a total 500 GB capacity of the main unit WJ-HD316A/309A, one WJ-HDE300 extension unit provides up to 1.0 TB (1,000 GB). With seven (7) extension units, the maximum capacity can be extended up to 7.5 TB to satisfy long recording requirements.

## Built-In Network Interface:

Network functions include live image monitoring through multi-screen display, camera PTZ control, recording/search/playback, downloading image/log data, e-mail notification, and setup data upload/download.



### Network Operating Menu



### Control Tab

The switcher function for live monitoring is operable.



### Cam Tab

Remote control the camera selected on control tab page. (Only for 1-8ch Panasonic PTZ dome cameras)



### HDD Tab

Operation for recorded images such as playback or downloading (saving) to PC.



### Setup Tab

Setup of WJ-HD300A Series can be performed.



## System Controller

# WV-CU650



### KEY FEATURES

- Controller for the WJ-HD300A Series of Digital Disk Recorders

### Integrated System Control

#### Camera Control

- Detached joystick controls Pan/Tilt and Zoom, allowing seamless tracking.
- Larger numeric keypad provides direct access to cameras.

#### Recorder Control

- Jog Dial and Shuttle Ring for smoother control
- Dedicated Record, Play, and Search buttons

#### Switcher Control

- Image switching and sequencing buttons for Matrix System150

### Easy to Operate While Focused on Surveillance

#### Universal Design for Right or Left Hand Use

- Detached joystick pad
- Layout with Jog Dial and Shuttle Ring in centre

#### More Comfortable Extended Surveillance

- Soft padding on joystick
- Adjustable joystick height for large or small hands
- Designed with a low centre of gravity and adjustable angle to minimize strain

#### Instinctive Operation

- Cockpit style button layout

### System Management Capability

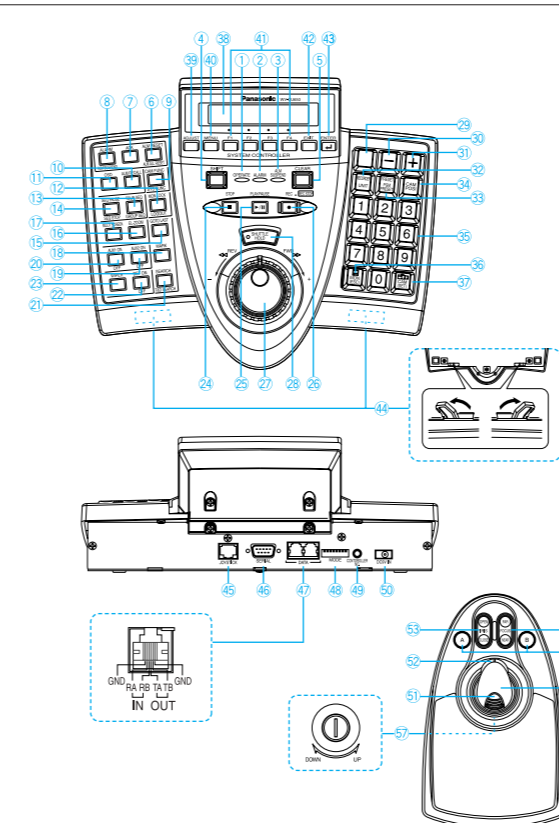
- User level management for registered users
- User assignable buttons: four in main unit plus three in palm rest
- Setup data can be transferred via RS485 to another WV-CU650.

### SPECIFICATIONS [PAL] (for WJ-HD300A Series)

<b>Power Source</b>	9 V DC, 300 mA (using the supplied AC adapter)
<b>Power Source (supplied AC adapter)</b>	230 V AC, 50 Hz, 150 mA
<b>Data Output/Input Port</b>	6-conductor modular jack (RS-485, Full duplex) x2
<b>Serial Port</b>	9-pin D-sub connector
<b>Controller Number</b>	1 to 8 (rotary switch)
<b>Ambient Operating Temperature</b>	-10°C to +50°C
<b>Unit Number Selection</b>	Up to 16 (PS-Data)
<b>Monitor Number Selection</b>	1 to 2
<b>Camera Number Selection</b>	1 to 256 (up to 16 WJ-HD316A)
<b>Dimensions (W x H x D)</b>	Main Unit: 290 x 111 x 221 mm 3D Joystick Unit: 134 x 146 x 218 mm
<b>Weight (without the AC adapter)</b>	Main Unit: 1.3 kg 3D Joystick Unit: 0.8 kg

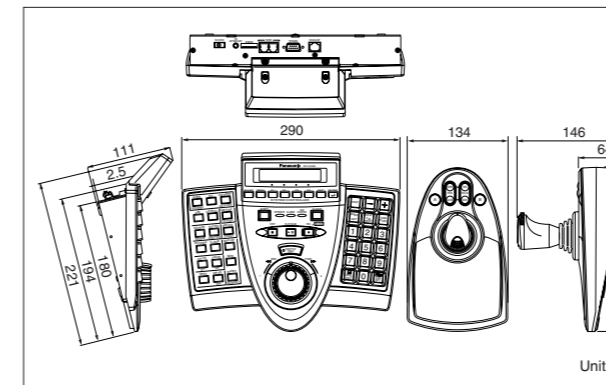
## The Surveillance Cockpit for Total Control of the WJ-HD300A Series

### MAJOR OPERATING CONTROLS



- |  |  |                             |
|--|--|-----------------------------|
| 1 Operation Indicator                    | 18 Mark Button                             | 32 LCD                      |
| 2 Alarm Indicator                        | 19 Auxiliary 2 ON/OFF Button               | 33 Adjustment Button        |
| 3 Alarm Suspend Indicator                | 20 Auxiliary 1 ON/OFF Button               | 34 Menu Button              |
| 4 Shift Button                           | 21 Search Time and Date Search Button      | 35 Function Buttons         |
| 5 Clear Button                           | 22 Defroster Button                        | 36 Exit Button              |
| 6 Alarm Reset/Alarm All Reset Button     | 23 Wiper Button                            | 37 Enter Button             |
| 7 Alarm Acknowledge Button               | 24 Stop Button                             | 38 Feet                     |
| 8 Alarm/Alarm Suspend Button             | 25 Play/Pause Button                       | 39 Joystick Connector       |
| 9 Camera Function/System Function Button | 26 Recording Button                        | 40 Serial Port              |
| 10 Alarm Recall Button                   | 27 Shuttle Ring (Outside)/JogDial (Inside) | 41 Data Ports               |
| 11 On-Screen Display Button              | 28 Shuttle Hold Button                     | 42 Mode Selection Switches  |
| 12 Monitor Lock/Layout Button            | 29 History Button                          | 43 Controller Number Switch |
| 13 Tour Sequence/Group Sequence Button   | 30 - Button                                | 44 DC 9V Input Jack         |
| 14 Sequence Pause/Sequence Stop Button   | 31 + Button                                | 45 Top Button               |
| 15 Go To Last Button                     | 32 Recorder/Unit Selection Button          | 46 Zoom Wheel Controller    |
| 16 Electronic Zoom Button                | 33 Preset/Program Preset Button            | 47 Iris Control Buttons     |
| 17 Multiscreen Selection Button          | 34 Camera Position Button                  | 48 Focus Control Buttons    |
|  | 35 Numeric Buttons                         | 49 A and B Buttons          |
|  | 36 Monitor/Escape Button                   | 50 3D Joystick              |
|  | 37 Camera/Set Button                       | 51 Adjusting Screw          |

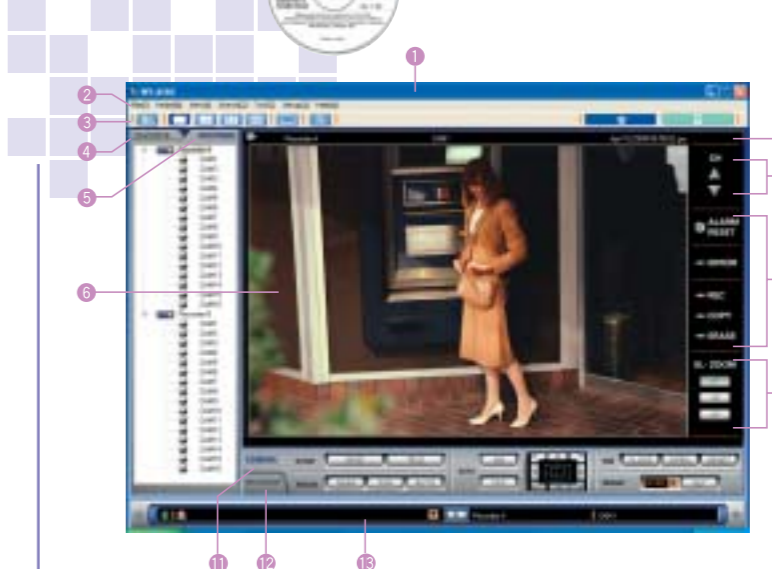
### DIMENSIONS



## Disk Recorder Management Software

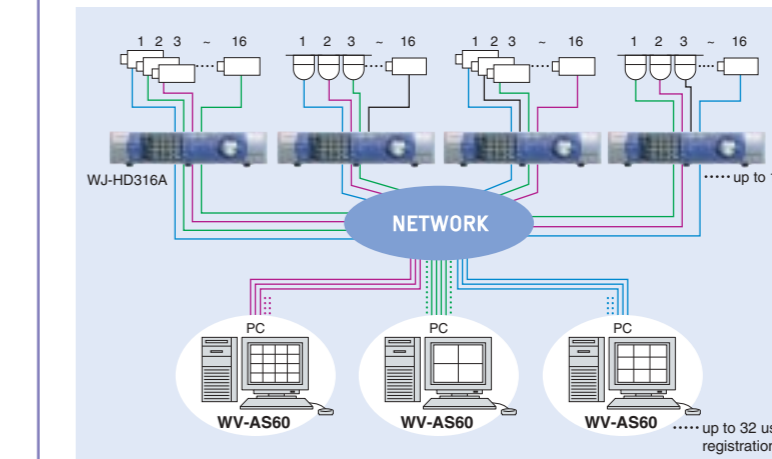
# WV-AS60

## The Software for Integrated Management of Up to 100 WJ-HD300A Series



- |                 |                             |                                   |                          |
|-----------------|-----------------------------|-----------------------------------|--------------------------|
| 1 Title Bar     | 2 RECORDER Tab              | 3 Channel Search Buttons          | 4 Camera Control Panel   |
| 5 Menu Bar      | 6 Image Display Area        | 7 Recorder Status Display Area    | 8 Recorder Control Panel |
| 9 Tool Bar      | 10 Information Display Area | 11 Electronic Zoom Operation Area | 12 Status Bar            |
| 13 FAVORITE Tab |                             |                                   |                          |

### SYSTEM DIAGRAM



### SPECIFICATIONS [PAL]

<b>WJ-HD300A Series Registration Capacity</b>	up to 100 sets
<b>User Registration Capacity</b>	up to 32 users
<b>User Types</b>	5 types
<b>Schedule Registration Capacity</b>	up to 400 schedules
<b>Favorite Registration Capacity</b>	up to 500
<b>Simultaneous Downloads</b>	up to 10 accesses
<b>Simultaneous Camera Image Displays</b>	up to 16 cameras
<b>Simultaneous File Playbacks</b>	up to 4 files

\*32 WV-AS60 users can be registered, however, accessing a single WJ-HD300A recorder at the same time, the maximum number is 4 users.

### \*Trademark and registered trademark

- Microsoft®, Windows® are registered trademarks of U.S. Microsoft Corporation or the corresponding Microsoft Corporation of another country.
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- Adobe®, Adobe logo, and Acrobat® are trademarks of Adobe Systems Incorporated (Adobe Systems Co.).
- Other company names and product names are trademarks or registered trademarks of the respective companies.

### Main Application

#### Network mode

WV-AS60 operates the WJ-HD300A Series of Digital Disk Recorders remotely via the network.

- Facilitates monitoring live images captured by cameras connected to the recorder and camera operation.
- Makes possible the recording, search and playback of recorded images from multiple recorders.

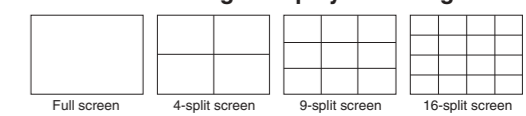
#### Local mode

WV-AS60 facilitates search, playback and management of image files downloaded on PC hard disk.

### Downloader

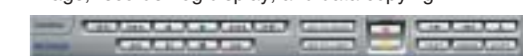
WV-AS60 downloads images recorded on the disk recorder.

Displays four patterns (1, 4, 9, 16 screens) of recorded live images or playback images.



### Main unit operation

There are a variety of operations that can be performed with the disk recorder alone: manually starting and stopping the recording, text attachment to recorded image, recorder log display, and data copying.



### Three search functions

Three types of search functions are installed: recorded event search, playback VMD search, and marking search. A number of recorders can be searched simultaneously and required images can be retrieved quickly.



### OPERATING ENVIRONMENT

This PC software can be installed in PCs with the following environments

<b>OS</b>	Microsoft® Windows® 2000 Professional SP4 Microsoft® Windows® XP Professional or Home Edition SP1
<b>Computer</b>	IBM PC / AT Compatible
<b>CPU</b>	Pentium® 4, 1.4 GHz or above
<b>Memory</b>	512MB or above
<b>Hard Disk Capacity</b>	About 40MB level is required for application installation.* (Full-colour environment is recommended)
<b>Interface</b>	10 / 100Mbps network interface card installed
<b>Web Browser</b>	Microsoft® Internet Explorer 6.0 SP1

\*It is necessary to prepare space to receive files from the recorder that is separate from the application installation.

**STANDARD PRODUCT CONFIGURATIONS**

**OPTIONAL COMPONENTS & ACCESSORIES**

Digital Disk Recorders  
**WJ-HD316A** (16ch)  
**WJ-HD309A** (9ch)



- Built-in 250GB HDD unit, and 1 drive bay for optional HDD unit
- Built-in an Ethernet port

Extension Unit  
**WJ-HDE300**  
 (4 drive bays for optional HDD units)



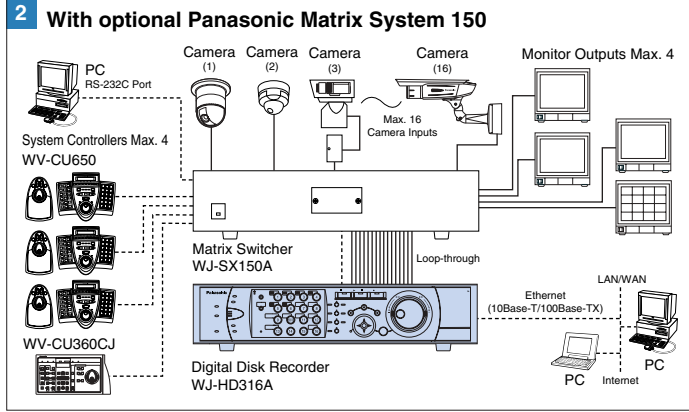
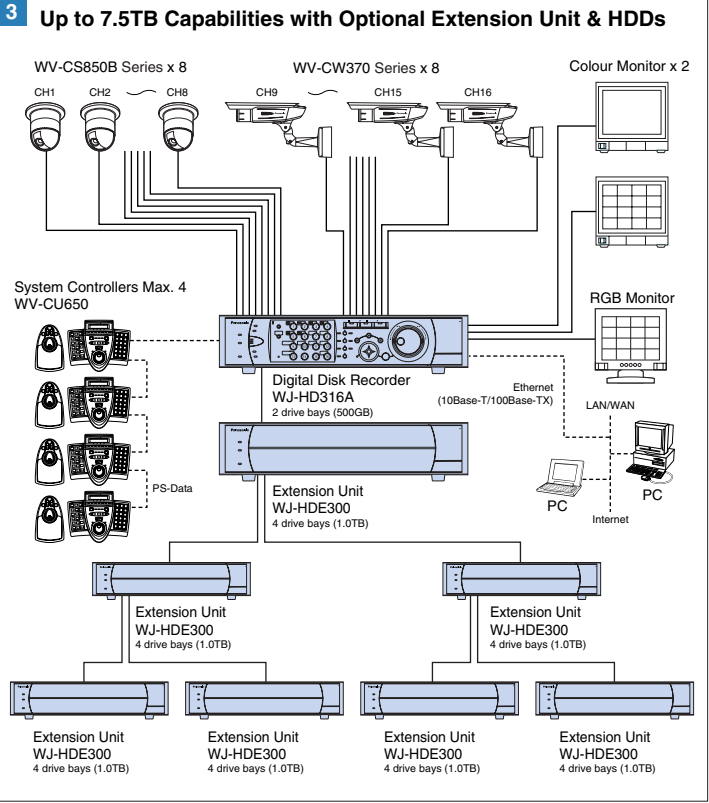
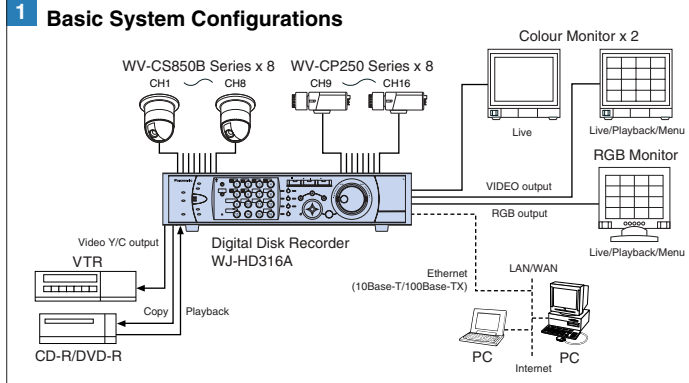
System Controllers  
**WV-CU360CJ**  
**WV-CU650**



Disk Recorder Management Software  
**WV-AS60**



**SYSTEM EXAMPLES**



**OPTIONAL SURVEILLANCE EQUIPMENTS**

**COLOUR SURVEILLANCE CAMERAS**

<p>Weather Proof &amp; Vandal Resistant Colour Dome Cameras  <b>WV-CW860A Series</b></p>  <p><b>SDII</b></p>	<p>Super Dynamic II Colour Dome Cameras  <b>WV-CS850B Series</b></p>  <p><b>SDII</b></p>	<p>Weather Proof Super Dynamic II Colour Cameras  <b>WV-CW370 Series</b></p>  <p><b>SDII</b></p>	<p>Vandal Proof Super Dynamic II Colour Cameras  <b>WV-CW470A Series</b></p>  <p><b>SDII</b></p>	<p>Colour Dome Camera  <b>WV-CF224</b></p> 
<p>1/2-type CCD Colour Surveillance Cameras  <b>WV-CL920A Series</b></p>  <p>(Lens: option)</p>	<p>Super Dynamic II Colour Surveillance Cameras  <b>WV-CP470 Series</b></p>  <p><b>SDII</b> (Lens: option)</p>	<p>Compact Colour Surveillance Cameras  <b>WV-CP250 Series</b></p>  <p>(Lens: option)</p>	<p>1/3-type DSP Colour CCD Cameras  <b>WV-CP240 Series</b></p>  <p>(Lens: option)</p>	<p><b>MATRIX SYSTEM 150</b></p> 

**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.

**DISTRIBUTED BY:**

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