

**Panasonic**  
ideas for life

Digital Disk Recorders  
**WJ-RT208 Series**

WJ-RT208KP  
WJ-RT208P (500GB HDD)



DIGITAL DISK RECORDERS  
**WJ-RT208**  
SERIES

# High-definition, fine scalability with a stable support system. New Innovation Digital Disk Recorder Achieved by Panasonic.

Panasonic has developed a monitoring digital disk recorder revolutionary to the industry; the *WJ-RT208*. Consolidated in one unit the *WJ-RT208* is fundamental to a monitoring camera system promoting perfect synchronization of image and sound.

This product combines the two most sought after features in a recording system: high definition and long-period recording. The *WJ-RT208* boasts excellent scalability from an interlocking network function and Panasonic's system controller. In addition, it is designed to offer system stability for trouble free operation providing a safe, functional and fast product. Used in combination with Panasonic's high performance related devices such as the Super Dynamic III series camera, the *WJ-RT208* is the ideal Digital Disk Recorder solution. With Panasonic receiving total solution is ensured.

## Fine Picture Quality

By using the MPEG4 system which has superior compression efficiency in video images, real-time images and sound in a total of 8 channels can be recorded at a rate of 30 images per second. Furthermore, resolution, dynamic range and color reproduction recordings are faithful to the original image.

## Strong Network Function

Software making possible integrated management of a network of multiple *WJ-RT208* is standard equipment. A simultaneous live/image playback split-screen display; search, download and playback of recorded images; and control of Panasonic's dome-type camera can all be conducted from a PC.



## System Capability

With Panasonic's system controller WV-CU650 (option) as core, it is possible to develop a combination system with multiple *WJ-RT208* units and a matrix switcher.



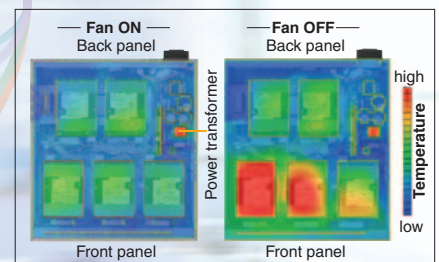
## Environment-friendly Design

Panasonic is a certified, registered company under the ISO14001 international standard. While maintaining product quality in order to pass on to future generations a bright and abundant earth, we strive to develop products that will lighten the burden on the global environment. *WJ-RT208* too, in keeping with our corporate philosophy, has eliminated from its components all harmful and toxic substances such as lead.



## System Stability

Our goal is to provide a stable system environment with heat management of the hard disk drive, stand-alone design and temporary emergency power during a blackout.



High-definition, Long-period Recording  
Every effort is made to perfect live monitoring and after-the-fact verification.

# Fine Picture Quality

## Real-time 8ch Recording of Images and Sound at a Rate of 30 Images per second

By employing the superior moving image compression of MPEG4 effectively, real-time recording of images and sounds on a total of 8 channels at a rate of 30 images per second can be realized. High-density image recording minimizes the number of missed chances at the critical moment.

- Minimizing “missed focus” image recording opportunities.



- Existing products, by advancing frame after frame, fail to record important images.

## 2 TB Large-Capacity Design

In the main body of WJ-RT208 a maximum of eight 250 GB hard disk drives can be installed. A maximum of 2 TB large-capacity systems can be built.

### HDD Installation Image



### Table of Recording Length (Approximate recording days)

(Days)

Recording mode	Image Quality	HDD capacity							
		250 GB	500 GB	750 GB	1000 GB	1250 GB	1500 GB	1750 GB	2000 GB
30 images / sec	Super Fine	7	14	21	28	35	43	50	57
	Fine	9	18	27	36	45	54	63	72
	Good	12	25	37	49	62	74	86	99
	Nomal	17	34	51	68	86	103	120	137
	Extended	39	78	117	155	194	233	272	311

\*1. Recording conditions: 8ch, Recording time: 10 hours/day, Stream type: CBR, Audio selection: Off, I frame Inter: 4 (default)  
\*2. The recording time may differ from the values in the table above, according to the selected picture quality.

Recording mode	Image Quality	HDD capacity							
		250 GB	500 GB	750 GB	1000 GB	1250 GB	1500 GB	1750 GB	2000 GB
30 images / sec	Super Fine	3	6	9	12	15	18	21	24
	Fine	4	7	11	15	19	22	26	30
	Good	5	10	15	20	26	31	36	41
	Nomal	7	14	21	21	36	43	50	57
	Extended	16	32	48	48	81	97	113	130

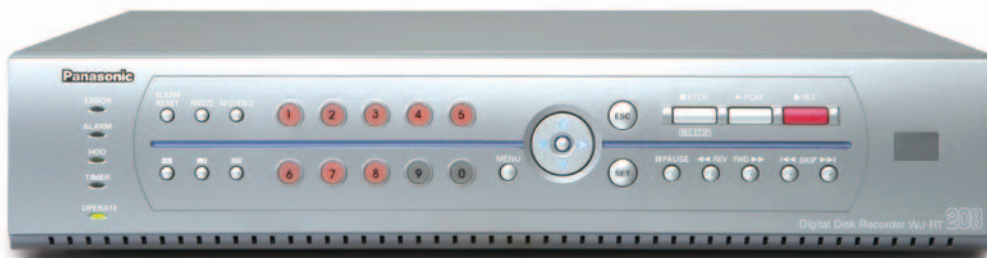
\*1. Recording conditions: 8ch, Recording time: 24 hours/day, Stream type: CBR, Audio selection: Off, I frame Inter: 4 (default)  
\*2. The recording time may differ from the values in the table above, according to the selected picture quality.

## Full-rate Live/Playback, 30 images per second Possible

A maximum of 30 images x 8ch of full-rate, live/playback displays is possible.

## Super Dynamic III Series Realizes Even Higher Quality Images

With WJ-RT208, separately purchased Super Dynamic III Series camera can be extended for maximum performance: a dynamic range of 160 times and high sensitivity of 0.5 lx - 0.6 lx. Being a Panasonic product, from image input to recording total solutions is realized.



# DIGITAL DISK RECORDERS WJ-RT208 SERIES

Using the network , images of multiple points are integrated and monitored separately.

## Strong Network Function

### Network function is made standard equipment.

By connecting WJ-RT208 and one's own PC to LAN/WAN or the internet, network function for remote monitoring becomes standard equipment.

### Integrated management of multiple WJ-RT208 making PC software compatible with the network comes as standard equipment.



#### Screen Menu

##### ① Splitting Control Area

Split display by selecting either a single image or 4/6/9

##### ② Video Channel Selection

Channel selection and display of channel operating condition

##### ③ System Control & Management

System manager can manipulate 12 different functions, including log-in/log-out, remote setting of parameter, system software remote upgrade, etc.

##### ④ Information Area

User information, operating conditions of each channel, warning signal and alarm conditions, and the remaining hard disk capacity can be displayed.

##### ⑤ Monitoring Control Bar

The monitoring control bar makes possible recorded image backup, image capturing, mute mode, full screen, PTZ and lens manipulation.

To display, double-click on Video Channel Selection.

### Major Functions

- Main unit set-up
- Live image display, recorded image playback, search, download
- Image playback of downloaded recorded images and images stored on back-up drive
- A layout of multiple WJ-RT208 images can be displayed on a split screen
- User management by password
- Map function: Displaying the location arrangement of digital recorders and cameras on a map makes it possible to manipulate them on the screen

### Operation Environment

PC	PC/AT compatible machine
OS	Windows 2000 Professional SP4 / Windows XP
CPU	Inter Pentium 4, above 2.4 GHz
Main memory	Above 512 MB
Graphic memory	Above 64 MB (independent)
Graphic accelerator	A board for displaying hardware overlay. Environment compatible with a full-color accelerator above 1024 x 768, and later model than Direct x 8.0a.
Interface	Installed with 100 Mbps network interface card

The system can be extended while maintaining simple operability

## System Capability

### System extension using System Controller

By using Panasonic System Controller WV-CU650, even without using the network it is possible to build a personal system with several WJ-RT208 units.



System Controller  
WV-CU650

With Panasonic's rich line-up, system total coordination is easy.

### Optional Components

<b>Cameras</b> Super Dynamic III Color Dome Camera <b>WV-CS954</b> 	Super Dynamic III Color Surveillance Cameras <b>WV-CP480</b> Series 	Super Dynamic III Color Dome Camera <b>WV-CW964</b> 
Weather Proof Color Camera <b>WV-CW374</b> 	Vandal Proof Color Dome Cameras <b>WV-CW474A</b> Series 	<b>Color Monitors</b> LCD AV Monitors •WV-LC1710 (17" LCD) •WV-LD2000 (20" LCD) •WV-LD1500 (15" LCD) 

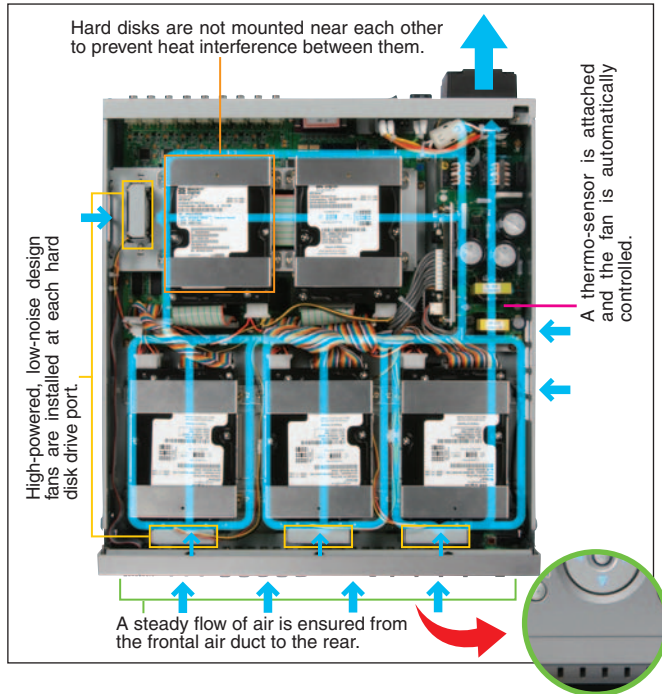
Basic premise for high-function maximum performance. The real merit of Panasonic products originates here.

# System Stability

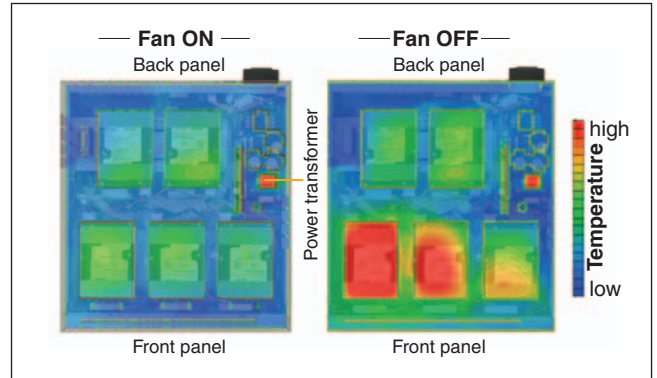
## Strengthened Hard Disk Drive Heat Management

WJ-RT208 is designed to prevent hard disk trouble caused by heat, paying close attention to heat management of the main unit.

### WJ-RT208 Panoramic View



### Comparison of Thermo-graphs of Hard Disk Drive Ports



## Realizing Operation Stability with the Stand-alone Design

WJ-RT208 uses the RTOS stand-alone design. This is more stable than that of the PC base model.

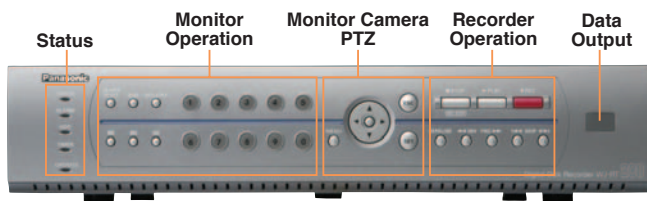
## Temporary Emergency Power

During an emergency power stoppage, WJ-RT208 continues to operate.

# More Features

## User-friendly Panel Layout

On the front panel of the WJ-RT208, there is a systematic area layout for each function resulting in superior operability.



## Independent Image Recording Setting

From the WJ-RT208, image quality and recording rate of each channel can be set separately. Also the recording mode can be selected according to the desired use: from timer recording, alarm recording, to video motion detector function.

## All 4 Operations Capable of Being Run Simultaneously

When several different requests are received from clients at the same time, four different operations—recording, search, playback and live monitoring—can be conducted simultaneously without omitting anything.

## Perfect Synchronization of Image and Sound\*

There is no time lag between image and sound.\*

\* Exception: In case of images through the network, at times there is a time lag.

## Creating Operation History Log Data

WJ-RT208 creates a system operation history by storing log data. Parameter changes, alarms, start-up of video motion detector function, access through the network, video loss, etc. as many as 300 items are stored in an "Event Log." System errors in the main unit of WJ-RT208 or the hard disk drive, along with lighting up the error LED on the front panel, records up to 300 items in the "System Log." Logged data can be confirmed by network software and system management can be conducted by remote.

No.	Time & Date	Event
1	2009-01-24 10:43:22	Ch=3 VMD alarm
2	2009-01-24 9:43:22	Ch=3 line signal
3	2009-01-24 8:43:22	Port=2 Thermal alarm
4	2009-01-24 7:43:22	Ch=3 get signal
5	2009-01-24 6:43:22	Port=2 Thermal alarm
6	2009-01-24 5:43:22	Ch=3 line signal
7	2009-01-24 4:43:22	Port=2 Thermal alarm
8	2009-01-24 3:43:22	Ch=3 line signal
9	2009-01-24 2:43:22	Ch=3 line signal
10	2009-01-24 1:43:22	Ch=3 VMD alarm

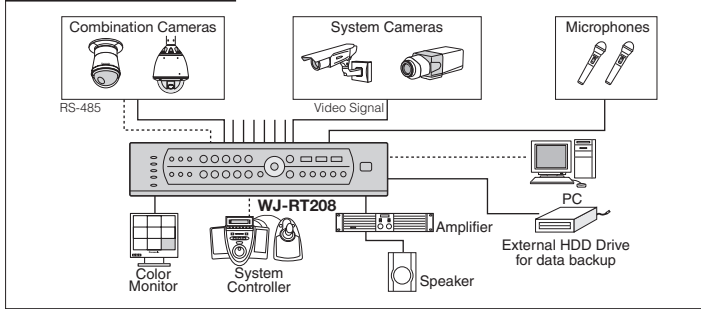
Event Log

No.	Time & Date	Event
1	2009-01-24 10:43:22	Modify Network
2	2009-01-24 9:43:22	(PASSWORD) Login
3	2009-01-24 8:43:22	[[Modify Time
4	2009-01-24 7:43:22	Modify Timer Res.
5	2009-01-24 6:43:22	Modify VMD Sen.
6	2009-01-24 5:43:22	Modify Operator Res.
7	2009-01-24 4:43:22	Modify Manager Res.
8	2009-01-24 3:43:22	Restore Default Sen
9	2009-01-24 2:43:22	Power On/Off
10	2009-01-24 1:43:22	[[Reset System

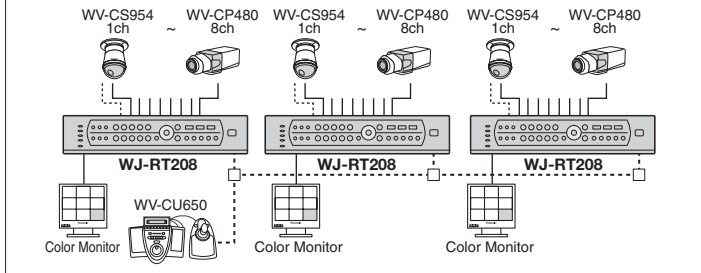
System Log

## SYSTEM EXAMPLES

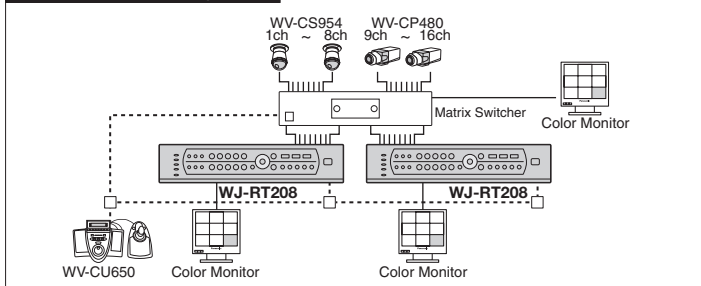
### Basic System Configurations



### With Several WJ-RT208 Units

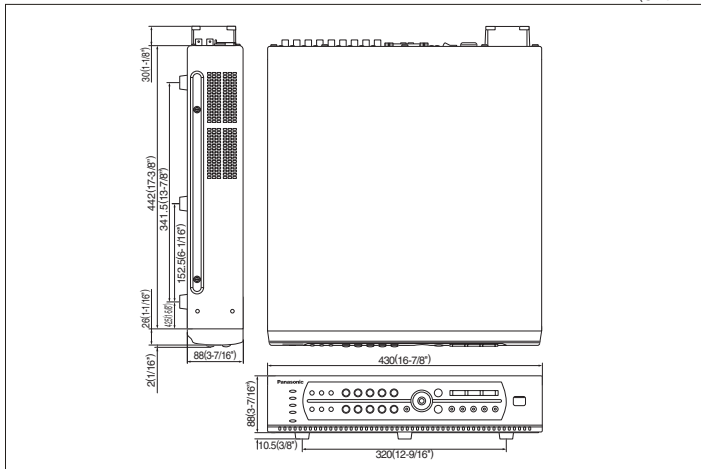


### With Matrix System Configurations



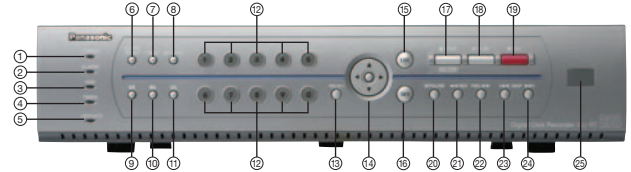
## APPEARANCE

(Unit : mm)



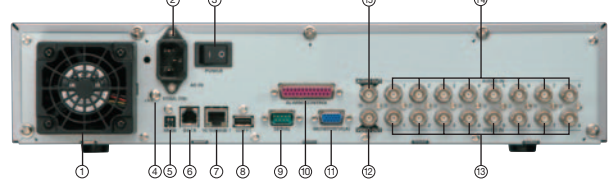
## MAJOR OPERATING CONTROLS

### Front View



- ① Error Indicator ② Alarm Indicator ③ HDD Access Indicator ④ Timer Recording Indicator ⑤ Operate Indicator ⑥ Alarm Reset Button
- ⑦ Still Button ⑧ Sequence Button ⑨ 4-split Screen Button ⑩ 6-split Screen Button ⑪ 9-split Screen Button ⑫ Camera Selection Buttons
- ⑬ Menu Button ⑭ Direction Button ⑮ Cancel Button ⑯ Set Button ⑰ Stop Button ⑱ Play Button ⑲ Recording Button
- ⑳ Pause Button ㉑ Fast Reverse Play Button ㉒ Fast Forward Play Button ㉓ Skip Playback Button ㉔ Copy Connector

### Rear View



- ① Power Cooling Fan ② AC Power Connector ③ Power Switch ④ Signal Ground Terminal ⑤ Mode Selection DIP Switches
- ⑥ Data Port ⑦ 10Base-T/100Base-TX Port ⑧ Copy Port ⑨ Serial Data Port ⑩ Terminal Control Port ⑪ VGA Output Port
- ⑫ Video Output Connector ⑬ Video Input Connectors ⑭ Audio Input Connectors ⑮ Audio Output Connector

## SPECIFICATIONS

General		
Power Supply	120 V AC, 60 Hz	
Power Consumption (approx.)	120 W	
Ambient Operating Temperature	+5 °C ~ +45 °C	
Ambient Operating Humidity	5 % ~ 90 % (without condensation)	
Dimensions	430 mm(W) x 88 mm(H) x 470 mm(D) [16-7/8"(W) x 3-7/16"(H) x 18-1/2"(D)]	
Weight (approx.)	WJ-RT208K 9.0 kg(19.8 lbs.) WJ-RT208KP 10.0 kg(22 lbs.)	
Input/Output		
Video	Video Input	1.0 V[p-p] / 75 Ω NTSC Composite video signal (BNC) x 8
	Video Output	1.0 V[p-p] / 75 Ω NTSC Composite video signal (BNC) x 1 RGB output (15-pin D-sub) x 1
Audio	Audio Input	-10 dB, 22 KΩ (BNC) x 8
	Audio Output	-10 dB, 22 KΩ (BNC) x 1
Alarm	Alarm Input	Voltage value alarm input (25-pin, D-sub) x 8
	Alarm Output	Switch volume output (contact output of normally ON and OFF) (25-pin, D-sub)
Ethernet Interface	10 Base-T / 100 Base-TX Ethernet port (RJ-45) x 1	
Remote Interface	RS485 x 1 (25-pin D-sub) Applies to Panasonic Camera WV-CS850B, WV-CW864A, WV-CS954	
DATA Interface	RS-485 x 1 (RJ-11) Applies to the Panasonic System Controller WV-CU650, WV-CU360C	
DATA Backup Interface	High speed serial interface (front panel x 1, rear panel x 1)	
HDD Interface	4 IDE interfaces are incorporated. (capable of installing eight hard disks)	
Function	Video Compression Mode MPEG4 [CBR(fixed bit stream)/VBR(variable bit stream)]	
	Audio Compression Mode ADPCM	
	Picture Quality (Compressed Level) Class 5 (independent setting enabled for each line)	
	Image Resolution Live aspect 704 x 480 Recording picture playback 352 x 240 (SIF)	
	Image Display 1/4/6/9 split screen display	
	Image Recording Rate Live recording of each line (1~30 images/sec. for each line, adjustable)	
	Simultaneous Operation Field multi screen monitoring, recording, playback, network monitoring	
	Recording Mode Manual / Timer / Alarm / VMD / Power ON REC mode	
	Video Motion Detection 126 items of motion detector area/motion detector sensitivity Class 99 can be independently set up for each line. (Adjustments are possible.)	

## STANDARD PRODUCT CONFIGURATIONS

WJ-RT208KP	8-channel camera inputs 8 drive bays Built-in Ethernet Port
WJ-RT208P	8-channel camera inputs 500GB HDD (250GB x 2) and 6 drive bays Built-in Ethernet Port

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.

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 manufacture 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.

# Panasonic

## Panasonic System Solutions Company

Unit Company of Panasonic Corporation of North America

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