Panasonic
ideas for life

Digital Disk Recorder
WJ-RT416

480 ips with High Resolution:
The new standard in high performance
with superb picture quality at an affordable price

Preliminary

High Resolution
Real-time
Recording

With a total recording rate of 480 ips, the WJ-RT416 offers real-time recording capability in MPEG-4 format. All 16 channels can record 30 ips at a high quality 704 x 240 image with superior clarity and detail.
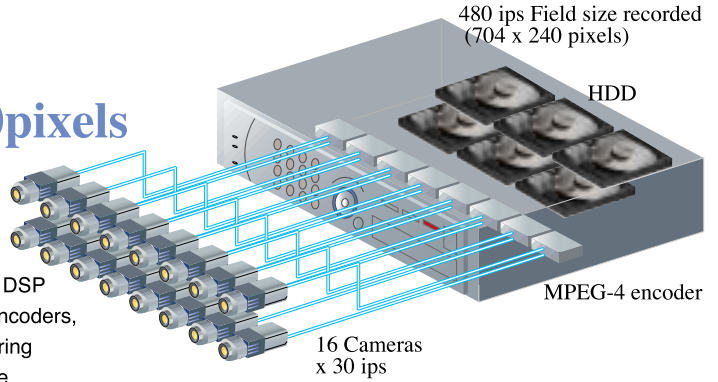
Digital Disk Recorder WJ-RT416
16 channels of video and audio in a cost effective package

480ips at 704 x 240pixels

480 ips Field size recorded
(704 x 240 pixels)

HDD
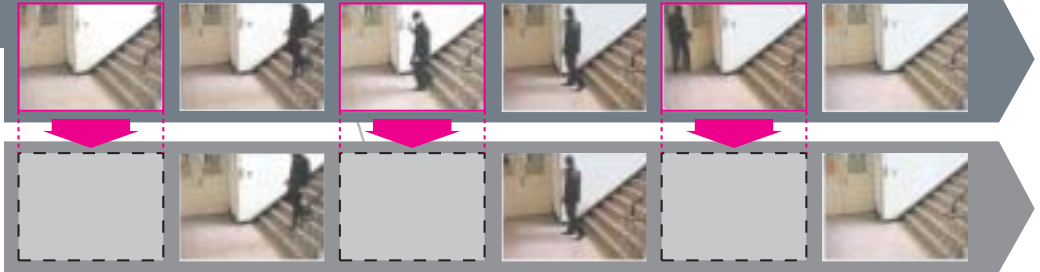
MPEG-4 encoder

16 Cameras
x 30 ips

Record all 16 cameras at 30 ips

The WJ-RT416 offers superior technology in order to maximize the encoding capability. The WJ-RT416 utilizes one MPEG-4 encoder DSP for every 2 channels --- for a total of 8 built-in encoders! With 8 total encoders, the WJ-RT416 ensures that no critical moments are missed. By capturing 30 ips, video confirmation of event and evidence are extremely precise.
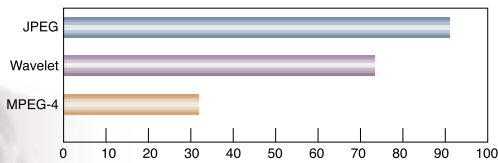
WJ-RT416

30 ips

Even with 15 ips, critical information and important scenes may be missed.

MPEG-4 is an extremely efficient compression method suitable for the recording of video as it captures the smooth movement of objects resulting in excellent video quality. The high compression efficiency capacity of the Hard Disk Drive (HDD) allows for more effective utilization and extended archiving compared with other methods. Data can be transferred over the network using a smaller bandwidth, allowing for smoother viewing of moving objects, subjects and motion with more efficient image management.

JPEG

Wavelet

MPEG-4

0   10   20   30   40   50   60   70   80   90   100

MPEG-4

High-quality and high-compression for economical recording

Seamless

Control of the camera, recorder and switcher can be made using only a single unit

A single unit system controller (WV-CU650) controls the WJ-RT416, PTZ cameras and Matrix switcher (WJ-SX650 series) seamlessly. (Please check latest firmware version for system capabilities, as control of WJ-SX650 will be a future upgrade.)

Digital Disk Recorder
WJ-RT416

Matrix Switcher
WJ-SX650

Compatible cameras include

Weather Proof Super Dynamic III Color Dome Camera **WV-CW964**
Super Dynamic III Color Dome Camera **WV-CS954**
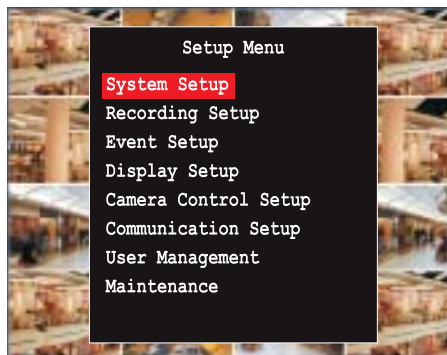Combination Color Dome Camera **WV-CS574**

* Up to 4 cameras can be controlled via coaxial cables. With the addition of an optional control board (sold separately) an additional 4 cameras can be controlled via coaxial cable (for a total of 8). Additionally, 16 cameras can be controlled by using data communication control (RS485) for channels 9~16.

Simple Operation

Simple and easy-to-use panels and on-screen set up menu

```
         Setup Menu

System Setup
Recording Setup
Event Setup
Display Setup
Camera Control Setup
Communication Setup
User Management
Maintenance
```

● Enlarged frequently used buttons
● Primary operations can be performed using the front panel cross pad and adjacent buttons (not actual size).

Easy, intuitive set up menu

Optional storage of up to 1.5TB for extended video archiving

With flexible configurations from 250GB to 1.5TB, the WJ-RT416 allows for flexibility based upon the application and number of cameras needed.

The above photographs were taken for the purpose of this explanation; actual performance and images may vary depending on environmental or other conditions.

A Full Featured system in an affordable and cost effective format --- perfect for stand-alone or system applications

Recording

16 video input channels, 16 audio input channels
Up to 16 cameras can be connected to the WJ-RT416. All 16 channels of video and audio can be recorded simultaneously.

Video recording of 30 ips per camera
The WJ-RT416 offers the ability to record video at a maximum rate of 30 ips per camera, for all 16 channels.

Overall maximum HDD capacity can grow, as the application and system needs to grow
The WJ-RT416 is designed to grow as the situation dictates. To that end, the current maximum HDD capacity of 1.5TB will be able to be expanded to 3TB in the near future. As needed, you can increase the HDD capacity by installing additional HDD's (sold separately) by simply removing the front panel of the WJ-RT416 and installing the new, larger capacity HDD.

1.5TB

3.0TB

250GB
HDD x 6

500GB
HDD x 6*

* 3.0TB (500GB x 6) will be future option.

Multiple recording functions
Timer recording : By setting up the days of the week and the time frame for each individual camera, automatic recording, recording rate and alarms, etc., can be set individually for specific time frames.
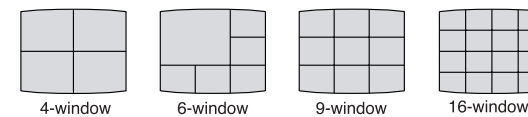**Motion detection recording :** When motion is detected in the image of the camera, recording starts automatically.
Terminal input recording : Recording is started by events such as input signals from sensors.

Live Monitoring

Multi screen display
The monitor screen is divided into multiple frames and images from multiple cameras that can be observed at the same time. The screen can be divided into 4, 6, 9 and 16 windows.

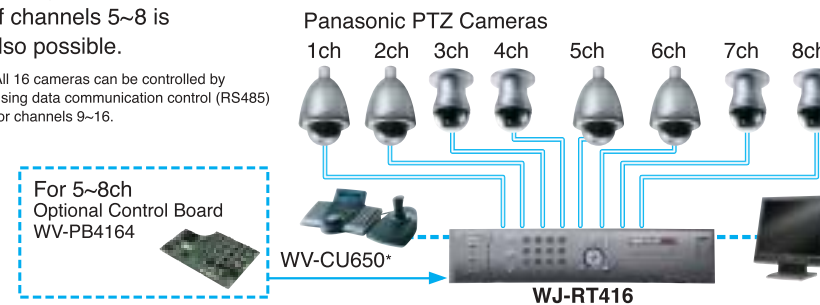4-window   6-window   9-window   16-window

Coaxial control of the camera
By connecting the system controller (WV-CU650*), PTZ cameras connected to channels 1~4 of the WJ-RT416 can be directly controlled.
Through installation of the WV-PB4164 board (sold separately) control of channels 5~8 is also possible.

* All 16 cameras can be controlled by using data communication control (RS485) for channels 9~16.
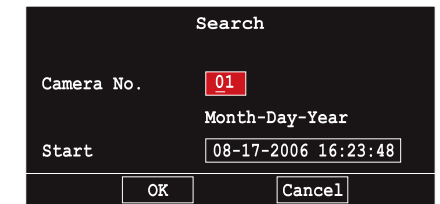
Panasonic PTZ Cameras
1ch 2ch 3ch 4ch   5ch   6ch   7ch   8ch

For 5~8ch
Optional Control Board
WV-PB4164

WV-CU650*

WJ-RT416

* Please check latest firmware version for system capabilities, as control from WV-CU650 will be a future upgrade.

Search and play back

Direct (Time & Date) Search
By entering a specific date and the time, the recorded images closest to that date and time are displayed.

Search

Camera No.   01
Month-Day-Year
Start   08-17-2006 16:23:48
OK   Cancel

List search
By entering a specific date and the time, a list of the recorded images closest to that date and time is displayed and selection and play back can be made from the list through a simple operation.

		SEARCH RESULT	
CH	Quality	Start	End
2	NQ	2006-09-14 15:09:03	2006-09-14 15:24:03
2	NQ	2006-09-14 14:54:01	2006-09-14 14:09:01
2	NQ	2006-09-14 14:38:59	2006-09-14 14:53:59
2	NQ	2006-09-14 14:23:57	2006-09-14 14:38:57
2	NQ	2006-09-14 14:08:55	2006-09-14 14:23:55
2	NQ	2006-09-14 13:53:53	2006-09-14 14:08:53
2	NQ	2006-09-14 13:38:51	2006-09-14 13:53:51
2	NQ	2006-09-14 13:23:49	2006-09-14 13:38:49

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Full Network Capability

With the WJ-RT416 connected to a network and the included software installed on a PC, monitoring and a variety of setting adjustments can be made from the PC.

Major Operational Functions via PC

Monitoring of camera image
Live image of the camera can be monitored

Play back of the recorded image
Images recorded in the HDDs of the WJ-RT416 can be played back and monitored

Various setting adjustments
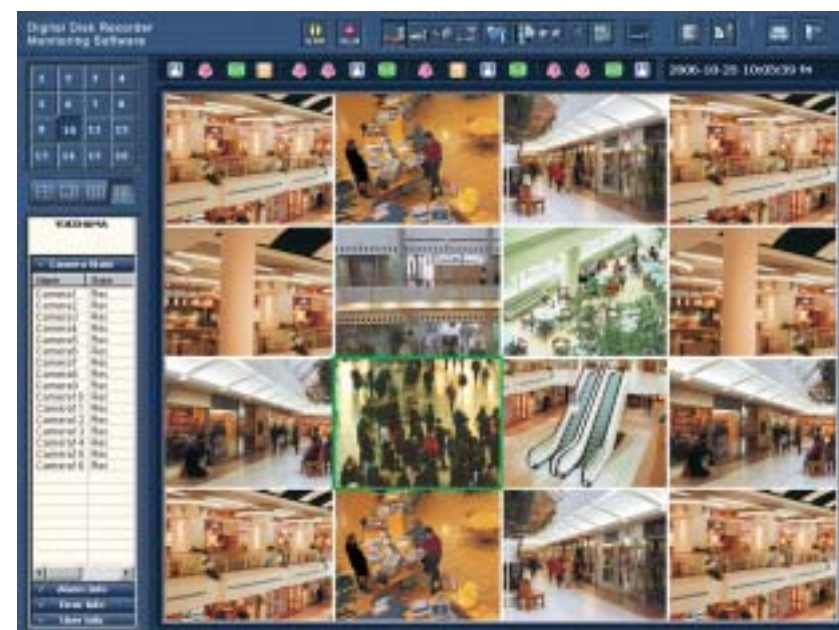Various setting adjustments, such as the recording rate, can be managed via the PC

Alarm information
Date and time when an alarm took place and type of alarm

Image download
Video displayed on the PC and audio can be saved into the PC
Video and audio recorded in the WJ-RT416 can be downloaded into the PC
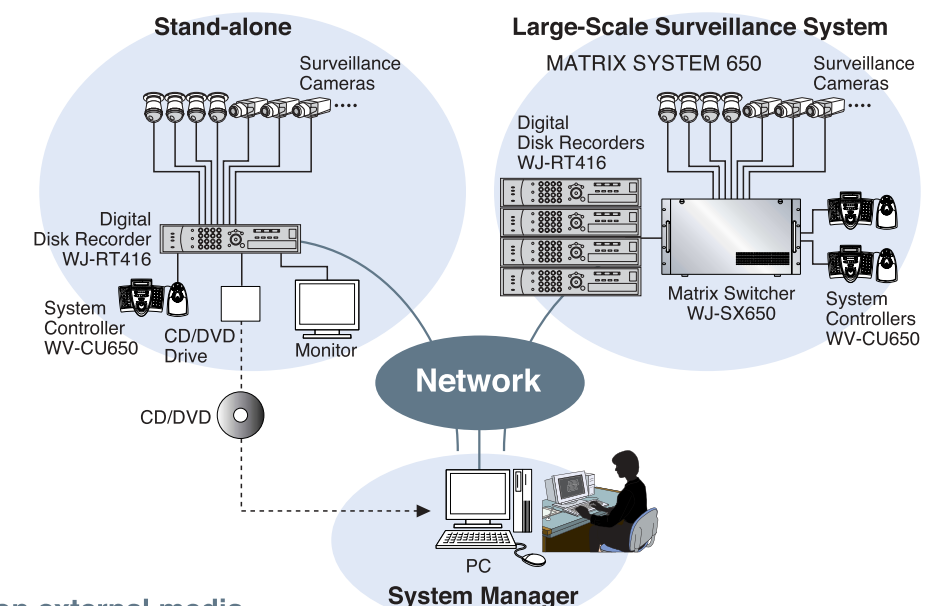
Graphical User Interface

The above photographs were taken for the purpose of this explanation; actual performance and images may vary depending on environmental or other conditions.

Connecting with the WJ-SX650 Matrix Switcher for larger-scale system applications

(Please check latest firmware version for system capabilities, as control of WJ-SX650 will be a future upgrade.)

Stand-alone

Surveillance Cameras

Digital Disk Recorder WJ-RT416

System Controller WV-CU650   CD/DVD Drive   Monitor

CD/DVD

Large-Scale Surveillance System

MATRIX SYSTEM 650

Surveillance Cameras

Digital Disk Recorders WJ-RT416

Matrix Switcher WJ-SX650   System Controllers WV-CU650

Network

PC
System Manager

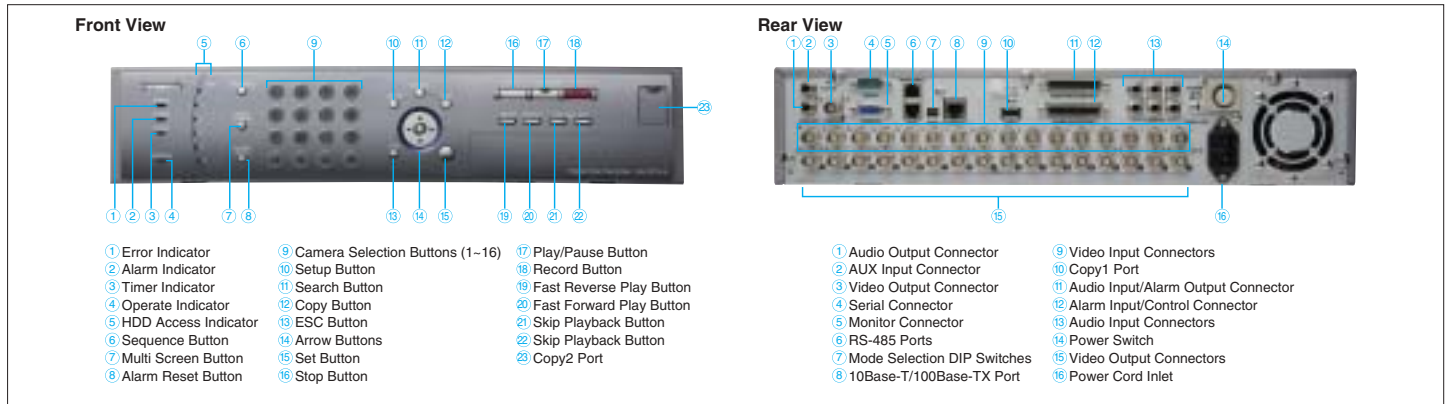### Storage on external media
Images recorded in the WJ-RT416 can be copied to external recording media.

<Recording media for making copies>
External HDD/CD/DVD : Copying is possible to external HDD, CD and DVD drives connected to the copy port.

* Please check latest firmware version, as storage on external media will be future upgrade.
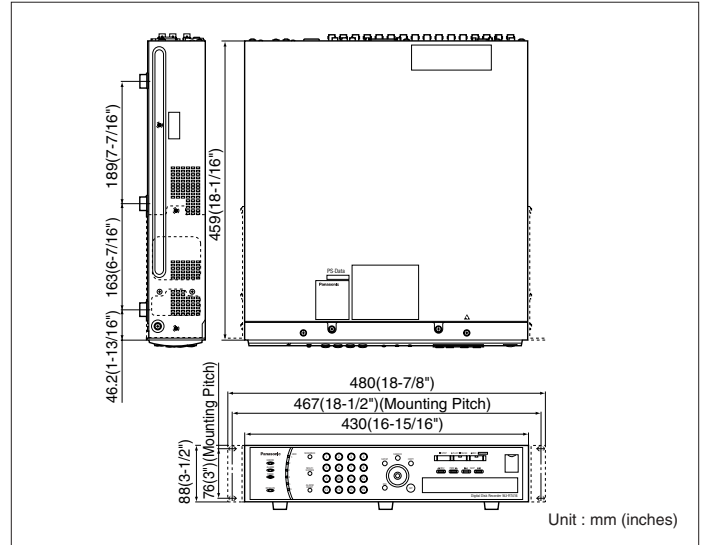
MAJOR OPERATING CONTROLS & TERMINALS

Front View

① Error Indicator
② Alarm Indicator
③ Timer Indicator
④ Operate Indicator
⑤ HDD Access Indicator
⑥ Sequence Button
⑦ Multi Screen Button
⑧ Alarm Reset Button
⑨ Camera Selection Buttons (1~16)
⑩ Setup Button
⑪ Search Button
⑫ Copy Button
⑬ ESC Button
⑭ Arrow Buttons
⑮ Set Button
⑯ Stop Button
⑰ Play/Pause Button
⑱ Record Button
⑲ Fast Reverse Play Button
⑳ Fast Forward Play Button
㉑ Skip Playback Button
㉒ Skip Playback Button
㉓ Copy2 Port

Rear View

① Audio Output Connector
② AUX Input Connector
③ Video Output Connector
④ Serial Connector
⑤ Monitor Connector
⑥ RS-485 Ports
⑦ Mode Selection DIP Switches
⑧ 10Base-T/100Base-TX Port
⑨ Video Input Connectors
⑩ Copy1 Port
⑪ Audio Input/Alarm Output Connector
⑫ Alarm Input/Control Connector
⑬ Audio Input Connectors
⑭ Power Switch
⑮ Video Output Connectors
⑯ Power Cord Inlet

SPECIFICATIONS

General Specifications	
Power Supply	120 V AC, 60 Hz
Power Consumption (approx.)	110 W
Ambient Operating Temperature	+5 °C ~ +45 °C (41 °F ~ 113 °F)
Ambient Operating Humidity	5 % ~ 90 % (without condensation)
Dimensions	430 mm (W) x 88 mm (H) x 459 mm (D) (16-15/16" (W) x 3-1/2" (H) x 18-1/16" (D)) (excluding rubber feet and projections)
Weight (approx.)	12 kg (26.4 lbs.)

Input/Output		
Video	Video Input	1.0 V [p-p] / 75 Ω NTSC Composite video signal (BNC) x 16
	Video Output	1.0 V [p-p] / 75 Ω NTSC Composite video signal (BNC) x 1, RGB output (15pin D-sub) x 1
Audio	Audio Input	−10 dB, 22 KΩ x 16 (ch.1~6 RCA, ch.7~16 D-sub 25pin), Intercom (RCA) x1
	Audio Output	−10 dB, 22 KΩ (RCA) x 1
Alarm	Alarm Input	Non-voltage make contact, Pulse width 100ms or more, 16 input (D-sub 25pin)
	Alarm Output	Normaly Open / Normaly Close / Common, DC 30V 1A, 4 output (D-sub 25pin)
Ethernet Interface		10 Base-T / 100 Base-TX Ethernet port (RJ-45) x 1
Remote Interface		RS-485 x 1 (RJ-11)
DATA Interface		RS-485 x 1 (RJ-11)
DATA Backup Interface		High speed serial interface (front panel x 1, rear panel x 1)

Function	
Video Compression Mode	MPEG-4
Image Resolution	Field (704 x 240 pixels), SIF (352 x 240 pixels)
Image Display	1/4/6/9/16 split screen display
Image Recording Rate	Max. 480 ips / system (30 ips x 16 ch)

DIMENSIONS

189(7-7/16")
163(6-7/16")
46.2(1-13/16")
459(18-1/16")
480(18-7/8")
467(18-1/2")(Mounting Pitch)
430(16-15/16")
88(3-1/2")
76(3")(Mounting Pitch)

Unit : mm (inches)

OPTIONAL COMPONENTS & ACCESSORIES

Control Board
WV-PB4164

MATRIX SYSTEM 650

Weather Proof Super Dynamic III Color Dome Camera
WV-CW964

SDIII *Super Dynamic*

Super Dynamic III Color Dome Camera
WV-CS954

SDIII *Super Dynamic*

Weather Proof Super Dynamic II Color Camera
WV-CW374

Vandal Proof Super Dynamic III Color Dome Cameras
WV-CW484 Series

SDIII *Super Dynamic*

Super Dynamic III Color Surveillance Cameras
WV-CP480 Series

SDIII *Super Dynamic*

Compact Color CCTV Camera
WV-CP254H

Lens: optional

Color Surveillance Cameras
WV-CP280 Series

Lens: optional

Color Dome Cameras
WV-CF294/284 Series

Lens: optional

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• 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.

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