

SANYO

SANYO Network Solutions

Network Camera

VCC-WB2000P

Network Video Server

VSP-SV2000P

Network Archiving Software

VA-SW2000

DIGITAL
.....

NEXUSAGE™



Network Camera

JPEG2000

JPEG2000 Compliant Imaging Technology



Network Video Server

**Easily Installed, Highly Functional Network Surveillance Systems
Integrated with Existing LAN and Security Systems.**

SANYO

Network Solutions

Network-based Surveillance and

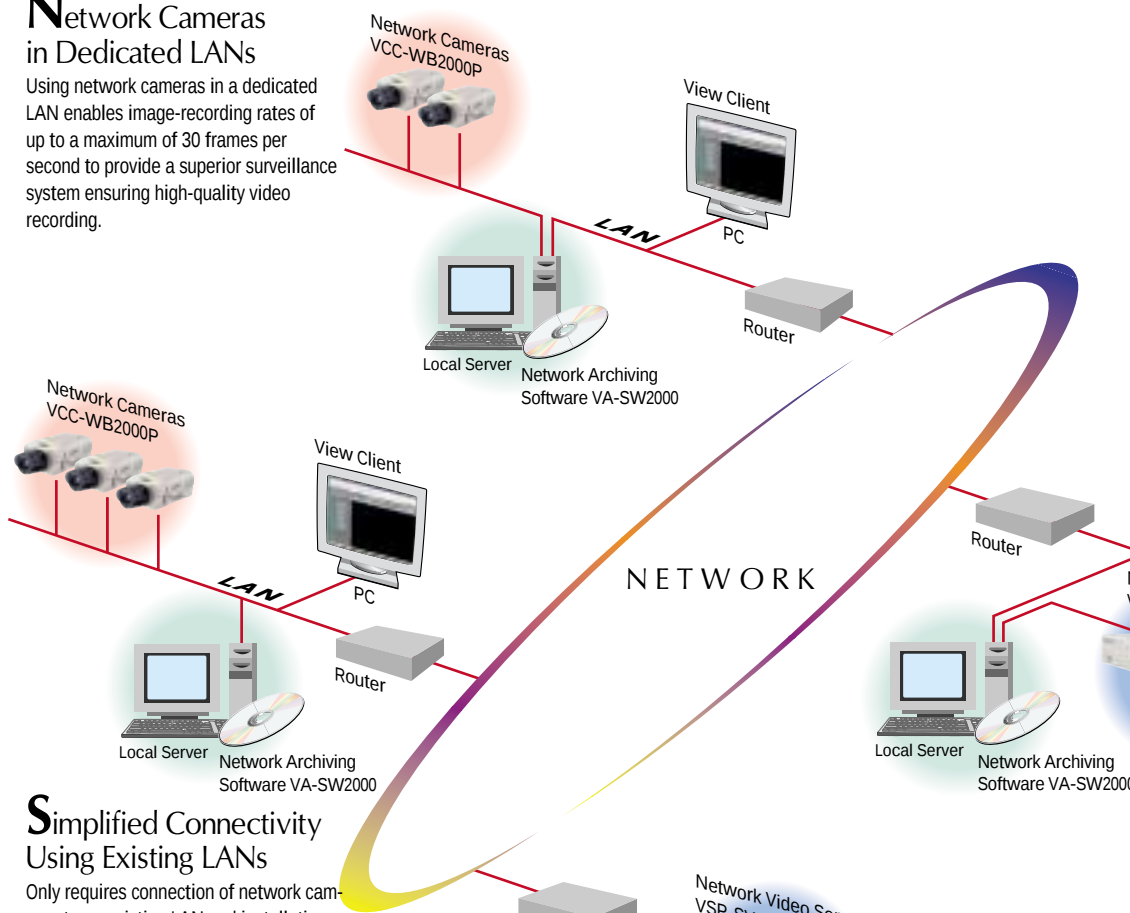
Configuring network surveillance systems with both hardware and software to meet on-site needs.

SANYO Network Solutions perform network data transmission for easy configuration of flexible surveillance systems allowing the use of an existing LAN or other networks with SANYO's Network Archiving Software.

Whether it's existing analogue devices or a digital security system, SANYO Network Solutions can be seamlessly integrated to meet a wide range of needs. All the benefits of the JPEG2000 imaging standard are available here for the first time, signalling the arrival of high-definition security systems enabling superior compression and reproduction of digital images.

Network Cameras in Dedicated LANs

Using network cameras in a dedicated LAN enables image-recording rates of up to a maximum of 30 frames per second to provide a superior surveillance system ensuring high-quality video recording.



Shopping centres

Simplified Connectivity Using Existing LANs

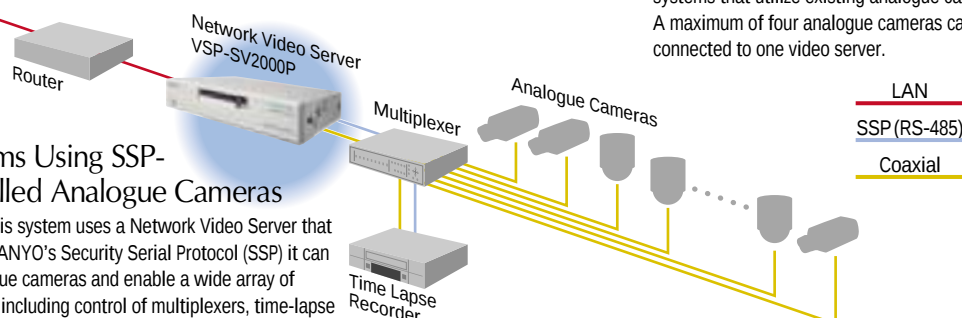
Only requires connection of network cameras to an existing LAN and installation of the VA-SW2000 Network Archiving Software on a personal computer. Allows establishment of a SANYO Network Solutions system for easily-managed video transmission, recording and playback.

Systems Using SSP-Controlled Analogue Cameras

Because this system uses a Network Video Server that supports SANYO's Security Serial Protocol (SSP) it can use analogue cameras and enable a wide array of operations including control of multiplexers, time-lapse recorders and pan-tilt-zoom cameras.

Systems Using Analogue Surveillance Cameras

Addition of the Network Video Server enables systems that utilize existing analogue cameras. A maximum of four analogue cameras can be connected to one video server.



LAN
SSP(RS-485)
Coaxial

Security Systems

NEXUSAGE™



Plant facilities

Monitoring, Recording and Device Control: Integrated Security Solutions for Far-Reaching Functionality

SANYO Network Solutions don't just handle monitoring; they perform a whole range of functions that extend from recording and playback of digital images to the control of security system devices. Making effective use of existing systems, SANYO Network Solutions hold the promise of enabling 24-hour-a-day monitoring and recording capabilities at multiple remote sites for a vast array of applications including schools, research facilities, plant facilities, shopping centres, chain stores, parking lots, hospitals, day-care centres, elderly care facilities, and more.



Parking lots



Day-care centres



Hospitals



Supporting effective network system operation with built-in Web servers and digital image processing

SANYO

Network Solutions

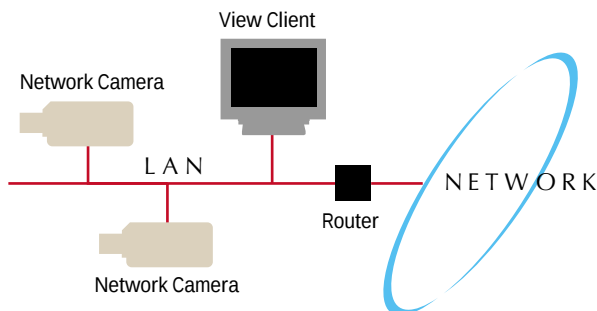
High-Definition Cameras for Demanding Surveillance Applications

Network Camera
VCC-WB2000P



Easily Connected to LANs via Ethernet Interface

Images are transmitted through a fully functional Web server built in to the camera. This means that as long as a power source can be secured, installation is easy and requires no video cabling because data is transmitted over the Internet or a LAN via an Ethernet interface. Moreover, this a full-fledged surveillance camera, so it's built to handle the temperature changes, humidity and other extremes of outdoor applications.



Camera images as seen on Web browser



Adoption of the JPEG2000 Standard

SANYO Network Solutions deliver the first security systems to utilize JPEG2000 as their image data format. Now with even higher image quality in even smaller files than the prior JPEG standard, JPEG2000 also eliminates "blocking artefacts" that can occur during compression.



JPEG2000

JPEG

30 fps of High Image Quality

When compressed using the JPEG2000 format, images the size of 640 x 480 pixels can be transmitted at maximum rate of 30 frames per second.

High Functionality Designed for Fail-Proof Security Systems

Designed for the high level of functionality demanded by security applications with features that include a motion-detector function that responds when it senses the movement of objects in the scene, and super sensitivity enabling image capture under lighting conditions as low as 1.0 Lux.

Alarm Images Recorded Right in the Camera

These Network Cameras are loaded with enough recording media to store 16MB. When an alarm is detected, they can swiftly respond to record and play back images unaffected by network conditions.

Pre- and Post Alarm Recording

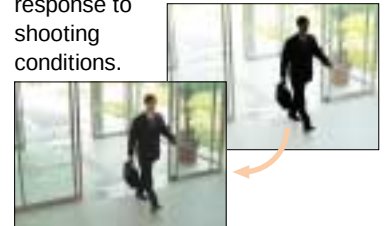
When an alarm is triggered, video images prior to the event (pre-alarm) and those following the event (post alarm) can be recorded and played back.

Store Monitored Images to PCs

Images captured during monitoring can be saved to a PC as still shots in JPEG2000 file format.

Two Modes of Backlight Compensation

Optimal imaging is achieved even under backlit conditions with a choice of Centre or Multi modes in response to shooting conditions.



PCMCIA Slot for Powerful Expandability

The PC card slot on the back panel enables additional memory capacity or wireless LAN connectivity by simply inserting a wireless LAN card.



Recommended PC Card
Compact Flash Card (16MB or higher)
Wireless LAN Standard IEEE802.11b
Recommended Wireless LAN Card Z-COM XI-325
Recommended Access Point Z-COM XI-1000

For Systems Configured with Analogue Cameras

Support for Standard Web Browser

Images monitored at each point can be viewed using Internet Explorer when the JPEG2000 plug-in software bundled with the camera is installed.

Access Rights Restricted via Three-Tier Hierarchy

A maximum of 16 users can access one Network Camera or Video Server at a time. Access is limited by passwords designating three access levels: an administrator with access to all menu settings; operators with limited access to menu settings; and users with monitoring rights only.

User-Defined Image Frame Settings

Scalable from a maximum size of 720 x 480 pixels to a minimum of 120 x 160 pixels, resolution, compression ratio and transmission rate parameters of image frames are adjustable in five steps. Images can be enlarged without increasing data volume with the expansion function and further tailored with such functions as colour / monochrome switching to suit the purposes of the user and the system environment.

Other Camera Features

- 420,000 Pixels CCD
- CS Lens Mount
- Four Types of White Balance (Auto / Indoor / Outdoor / Manual)
- Electronic Iris
- Electronic Shutter

Network Video Server VCC-SV2000P



Network Video Server Enables Analogue Cameras and SSP Control

The Network Video Server simultaneously performs digital processing of images from a maximum of four analogue cameras and transmits data via the Internet or a LAN. Moreover as SSP is supported, compatible devices can be remotely controlled over a network.

View from Web browser using the Video Server



Other Network Video Server Functions

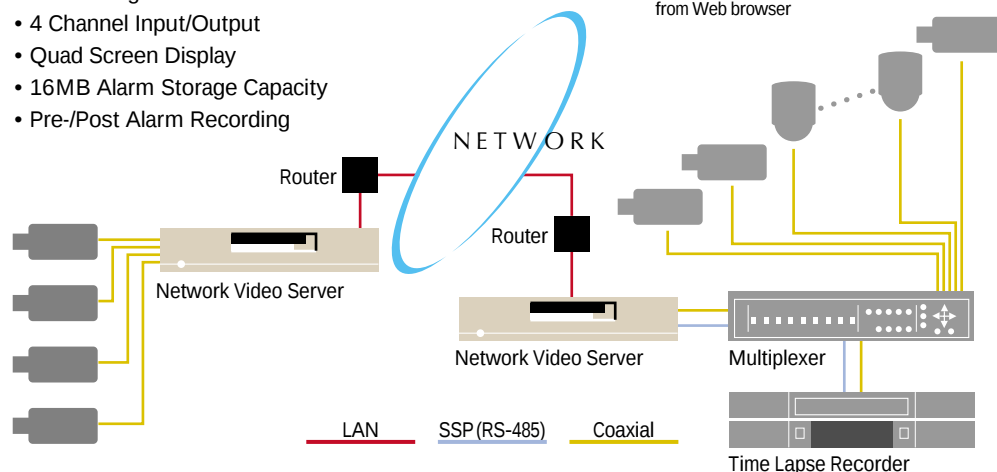
- PCMCIA Slot



- Supports Standard Web Browser (Internet Explorer)
- Access Rights Limitation
- 4 Channel Input/Output
- Quad Screen Display
- 16MB Alarm Storage Capacity
- Pre-/Post Alarm Recording



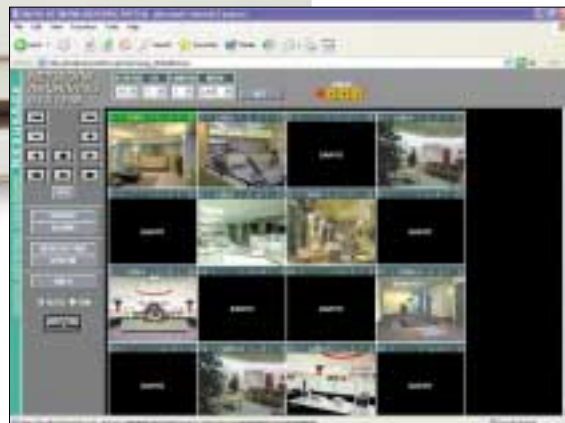
SSP compatible devices controlled from Web browser



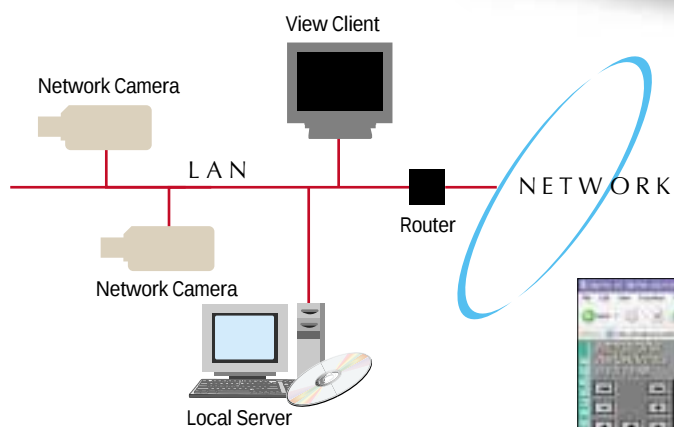
Quad-screen display



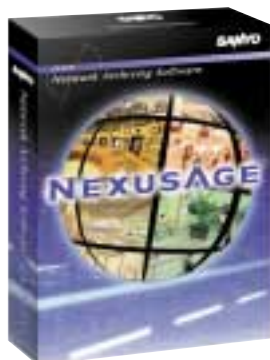
16-screen display



Alarm search screen



VA-SW2000 Network Archiving Software



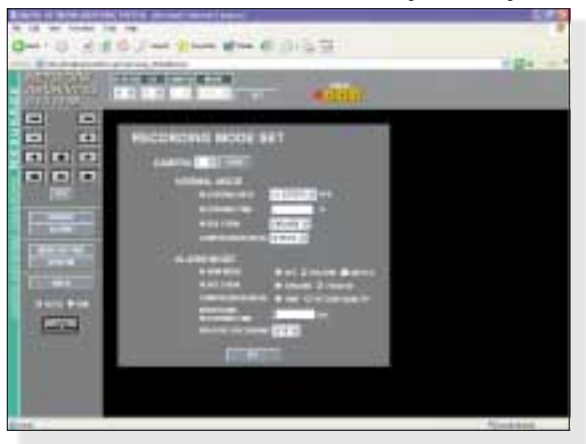
Effortless Recording and Playback of High-Quality Surveillance Images

The high-definition and exacting reproducibility demanded of video applications in the security sector. The VA-SW2000 brings it all under your control. Designed specifically for security applications, this archiving software allows anyone to easily manage the recording and playback of image data from SANYO Network Cameras linked via existing local or wide area networks, or the Internet. Installation on the hard drive of a networked computer enables it to be used as the local server of a video surveillance system equipped with an array of functions allowing a diverse range of executable operations.

Performance Features

NEXUSAGE™

Recording-mode setting screen



Simultaneous Recording of Images from Up to 16 Cameras

Enabling simultaneous recording of scenes from up to 16 cameras, VA-SW2000 displays its considerable powers by allowing detailed analysis of recorded images thanks to the ability to record high-resolution images at 30 fps. (30 fps is the best possible speed with a system connected with 4 cameras.)

Multiple Video Streams from 1, 4, 9 or 16 Cameras

Live and recorded images from one camera displayed full-screen or up to a maximum of 16 camera images displayed simultaneously can be randomly selected and arranged on-screen.

Simultaneous Recording and Playback

Simultaneous recording and playback capabilities enable playback of video images to be monitored from the same point.

Security Provided by Passwords

Network Archiving Software can be simultaneously accessed by a maximum of 16 users. Access by users is restricted passwords designating two access groups: an administrator with full viewing and configuration control; and users with viewing control only.

Alarm Alerting via E-mail

Notification regarding camera alarm events and images can be sent to pre-set e-mail addresses. A maximum of five addresses can be set for alarm alerting.

Recording Modes

Recording rates and resolutions during normal and alarm recording can be set, and settings for real-time and time-lapse recording can be made at will.

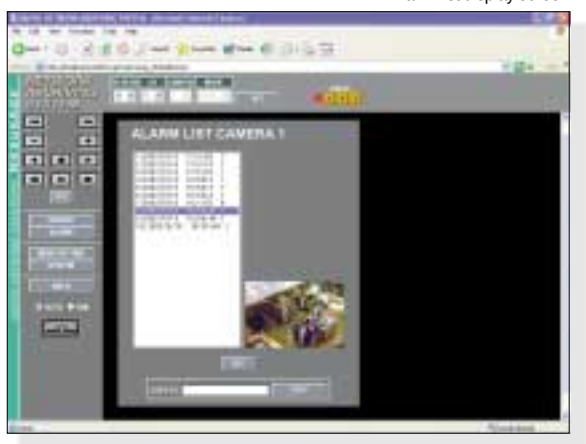
User-Friendly Graphic Interface

On-screen functions have all been designed for user-friendliness that extends from image search functions, record and play button operation and all the way through to camera and network settings, and adjustable parameters such as backlight and white balance.

Other Functions

- Time / Date Search
- Alarm Search
- Timer Recording

Alarm-list display screen



Network Archiving Software System Requirements

Software System Requirements	Local Server PC		View Client PC	
	(minimum)	(recommended)	(minimum)	(recommended)
CPU	Pentium® III 800MHz	Pentium® IV 2GHz	Pentium® III 800MHz	Pentium® IV 2GHz
Memory	256MB	512MB	128MB	256MB
OS	Windows® 2000 Server Windows® 2000 Professional Windows® XP Professional		Windows® 98SE/Windows® Me/ Windows® 2000 Windows® XP	
Browser	Internet Explorer 5.5 SP2 or above		Internet Explorer 5.5 SP2 or above	

Note: Whether or not an operating system can be used is dependant on the number of PCs connected to the local server PC. Check your system configuration and Microsoft® license to ensure that the operating system you choose is in compliance with the conditions stated in the license.

SANYO Network Solutions

Network Camera and Network Video Server Specifications

Model	Network Camera VCC-WB2000P	Network Video Server VSP-SV2000P
Image sensor	1/3" 420,000 pixel CCD, interline transfer method	BNC connector x4 PAL / NTSC composite video: input / output
Effective pixels	768(H) x 494(V)	
Minimum object illumination	1.0 Lux (F=1.2)	
Brightness	5 steps	
Backlight compensation	Off / Multi / Centre	
White balance	Auto / Indoor / Outdoor / Manual	
Gain control	Auto / Off	
Gamma	0.3 / 0.45 / 0.6 / 0.8 / 1	
Electronic shutter	1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	
Lens mount	CS mount	
Flange back	12.5mm ±0.5mm adjustment	Alarm in: 4 (NO/NC) Alarm out: 1 (with motion detector)
Electronic iris	ON / OFF, 1/60–1/10000 sec.	
Auto iris	DC drive, 4-pin	
External alarm	Alarm in: 1 (NO/NC) Alarm out: 1 (with motion detector)	
Resolution	720 x 480, 720 x 240, 640 x 480, 320 x 240, 160 x 120 pixels	
Image compression method	JPEG2000	
Image compression ratio	5 steps (more than 5KB)	
Frame rate	Max. 30 fps (640 x 480 pixels)	
Monitor output	1 (composite, PAL)	
Others function	Colour / Monochrome imaging	
Ethernet interface	10/100BaseT (RJ45)	Alarm in: 4 (NO/NC) Alarm out: 1 (with motion detector)
RS-232C	D-SUB 9-pin	
PC card slot	PCMCIA Type II (5V power supply only)	
Pre-post alarm buffer	16MB	
Network protocol	TCP/IP, PPP, FTP, HTTP	
Software	Plug-in browser (Internet Explorer compatible)	
Operating environment	Temperature: -10°C to +50°C [+14°F to +122°F], Humidity: within 90% RH	
Power requirement	AC24V/DC12V	
Power consumption	10W	
Weight (approx.)	470g [16.6oz.]	

• Supported OSs: Windows® 98 / Windows® ME / Windows® 2000 / Windows® XP • Supported PCs: CPU - Pentium® III 750MHz or greater (Pentium® IV 2GHz, recommended) / Memory - 128MB or greater (256MB or greater recommended)
• Supported Browser: Internet Explorer® 5.5 SP2 or later • PC Display Size: 1024 x 768 pixels or greater

Note: • Specifications subject to change without notice. • Frame rates variable dependant upon network line conditions and PC performance.

• Because products and software described in this brochure are subject to continuous improvement; SANYO reserves the right to modify product specifications, functions and design without notice.

Network Archiving Software Specifications

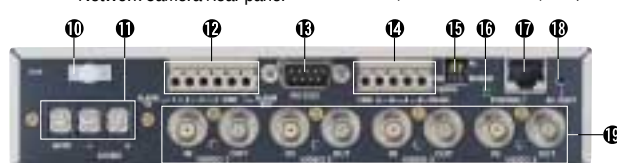
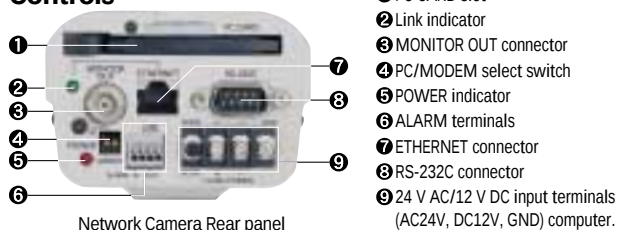
Number of streams	Up to 16 cameras
Number of simultaneous log-in users	Up to 16 users
Recording frame rate	Max. 120fps (with 4 cameras)
Recording	Function
Frame rate	0.1–30fps (15 steps)
Recording duration	HDD capacity dependent
Resolution	720 x 480 / 720 x 240 / 640 x 480 / 320 x 240 / 160 x 120
Picture quality (compression ratio)	STEP1–STEP5
Timer recording	Specify time, e.g.: 08:00–12:00/day Specify day, e.g.: Wed., Fri./week Combination of above
Overwriting	Normal recording area, On / Off Alarm recording area, On / Off

Viewing	Function
Viewing live images	Display of latest image on server (default mode)
Select camera	Camera number / Camera title
Viewing recorded images	Search and view images recorded on server
Search mode	Time / Date / Alarm
Playback modes	FF / REW / STILL / Frame Advance (forward / reverse)
Screen layout	Split screens (1 / 4 / 9 / 16)

Alarm	Function
Alarm sensor	Camera capability dependent
Action when an alarm is detected	No action Recording Notification
Alarm recording area	Alarm area setting from 0% to 99%
Additional Alarm recording area	Select between 0 to 300 seconds
Compression ratio	Time / Picture quality
Alarm recording Resolution	720 x 480 / 720 x 240
Alarm notification method	E-mail
Alarm notification locations	5 addresses

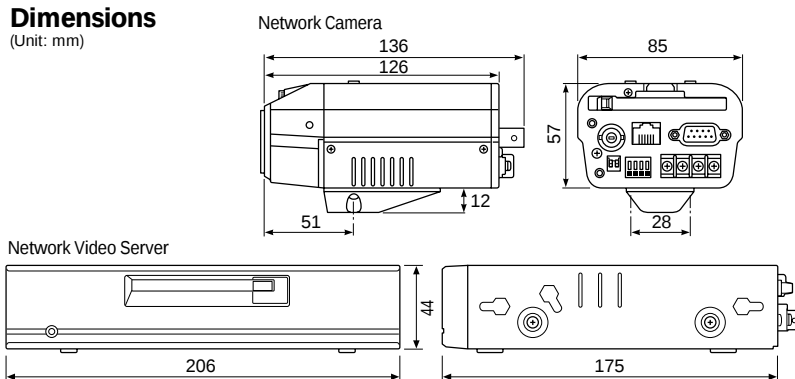
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Controls



Dimensions

(Unit: mm)



Caution: Please consult the instruction manual to ensure safe and proper operation of the product.

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