

SONY®

Network Surveillance Recorders

NSR Series



NSR-100

NSR-50

NSR-25

Connect Your Vision

IPELA

Stunning video and audio brought to you by the “IPELA” series of visual communication products that encompass the three-pronged concept of “Reality,” “Intelligence,” and “Usability.” “IPELA” is the identity symbolizing the Sony vision for the workplace of the future, connecting people, places, and information with reality that has never before been achieved. “IPELA” lets you share ideas and dreams as if you are collocated when your counterpart is half-way around the world, experiencing images as if you are actually there.

Reality

- High Frame Rate
- Audio Monitoring/Recording

Intelligence

- Intelligent Motion Detection
- Intelligent Setup

Usability

- Intuitive Remote Control Unit
- User-Friendly GUI
- Quick Search/Playback

Real audiovisual communication over networks – this is business communication of the future, this is business communication brought to you today, this is “IPELA.”

For Powerful and Flexible Recording, Sony Network Surveillance Recorders are the Answer

*Introducing the Sony Network Surveillance Recorder (NSR) Series^{*1} - flexible and innovative recording solutions for your security applications.*

These powerful network surveillance recorders are the ideal solution for multi-camera monitoring, recording, and playback. The NSR Series can be used in either a stand-alone system or a client/server configuration, providing flexibility from small- to large-scale operations. The NSR Series is perfect for a broad range of security applications, in locations such as banks, retail outlets, transportation centers, offices, and much more.

These network surveillance recorders offer a wide array of features, including a flexible recording and playback capability, an optional intuitive remote control unit, a user-friendly GUI (Graphical User Interface), Intelligent Motion Detection, Pan/Tilt/Zoom (PTZ) camera control, and much more.

*In addition to its sophisticated monitoring functions, the NSR Series network surveillance recorders can support a large number and wide variety of cameras^{*2}. The NSR-100 can support up to 64 IP cameras, the NSR-50 up to 32, and the NSR-25 up to 20, offering great flexibility and scalability when these units are configured in a security monitoring system. With a broad spectrum of invaluable features – including intelligent setup features, quick access to recorded images – as well as system scalability, the NSR Series is the ideal network surveillance recorder for your IP security monitoring operations.*

^{*1} In this text, the NSR Series refers to the NSR-100, NSR-50, and NSR-25 unless otherwise indicated.

^{*2} Sony network cameras

FEATURES

High-Quality Image Recording and Playback

The NSR Series supports a high frame rate, allowing high-quality images to be recorded and played back.

NSR-Series Recording Frame Rate^{*3}

NSR-100	480 fps (16 cameras x 30 fps)
NSR-50	240 fps (8 cameras x 30 fps)
NSR-25	120 fps (4 cameras x 30 fps)

^{*3} Recording frame rates shown in the table represents the total frame rate per recorder unit when recording images at JPEG, Level 5 using the SNC-RZ30, and without live image monitoring.

MPEG-4/JPEG Support

With recording and playback support for cameras that encode in both MPEG-4 and JPEG, the NSR Series provides you with more options when configuring your network monitoring system.

Large-Capacity HDDs and High Reliability

The NSR Series employs large-capacity Hard Disk Drives (HDDs) that enable them to record an extraordinary amount of image data.

NSR-100	1000 GB
NSR-50	500 GB
NSR-25	250 GB ^{*4}

^{*4} Recording capacity can be expanded up to 500 GB using an optional NSBK-HD250 HDD Kit.

In addition, the NSR Series adopts a Disk on Module (DOM) mechanism that offers quick and easy recovery in the event that HDDs are corrupted.

RAID Drives

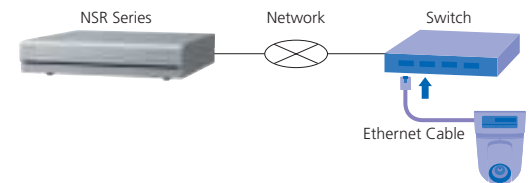
The NSR-100 and NSR-50 employ RAID drives, making these systems more reliable in the event of an HDD failure.

	RAID 5	SPAN	RAID 1	RAID 0
NSR-100	700 GB (Default)	N/A	460 GB	940 GB
NSR-50	N/A	460 GB (Default)	210 GB	N/A

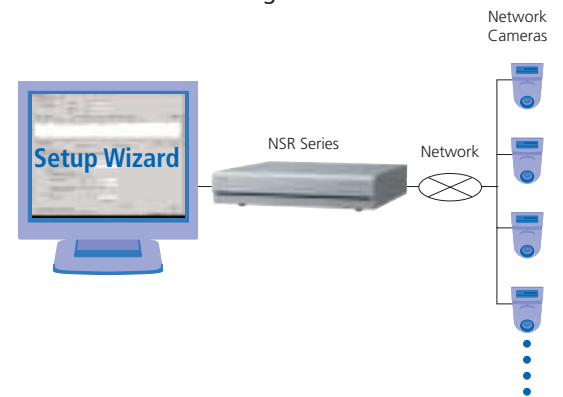
Intelligent Setup

The NSR Series can be easily configured when installing your monitoring system.

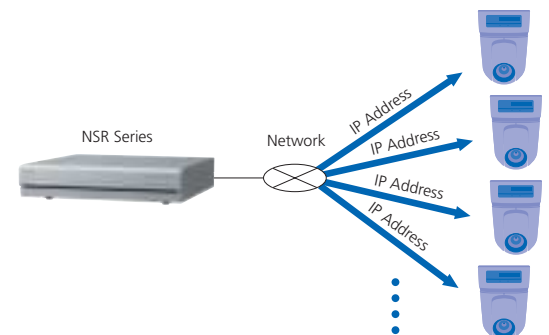
1. Connect an IP camera to a hub or switch on a network using an Ethernet cable.



2. Run the Setup Wizard, and the recorder will automatically recognize cameras installed on the same network segment.



3. IP address assignment and camera registration are performed automatically.



4. An appropriate (default) monitoring layout is automatically generated based on the number of registered cameras.



User-Friendly Operation

Easy-to-Use GUI

The NSR Series features an intuitive and user-friendly GUI that allows you to set up viewer windows in a number of combinations, from a single viewer window to an 8 x 8 matrix. (See [Fig 1](#)) These layouts can be further tailored to meet your needs: windows can be resized and a "Hot Spot" can be defined. The NSR Series also features dual-RGB outputs, allowing you to configure a system with dual monitors. This is ideal for viewing larger images, multiple viewer window variations, or assigning the "Hot Spot" to a single monitor. (See [Fig 2](#))

[Fig 1](#) Standard Monitor



4 split screen

64 split screen

[Fig 2](#) Dual Monitor



Hot Spot image



RM-NS10 Remote Control Unit

Ergonomically Designed Remote Control Unit

An optional RM-NS10 Remote Control Unit, connected to the recorder with a single USB cable, allows users to control both the recorder and the networked cameras. A wide range of operations, including camera Pan/Tilt/Zoom (PTZ) control, image search, image playback, and camera selection, can be performed from this unit. Also, because the RM-NS10 is equipped with a joystick and a feature-rich control panel, it can be operated intuitively by users familiar with CCTV remote controllers.

Flexible Recording and Playback

Manual Recording

When manual recording is selected, authorized users can initiate a recording at any time, from any selected camera. Images from that camera are then recorded at the user-defined refresh rate, resolution, and picture quality.

Scheduled Recording

This mode allows users to schedule their recording requirements for any selected camera or group of cameras. There is virtually no limit to the number of scheduling combinations that can be selected. Simply adjust the refresh rate, resolution, and picture quality to record the detail you want, when you want.

Alarm and Pre-Alarm Recording

The NSR Series supports alarm and pre-alarm recording, which is used to record additional detail when an alarm is triggered. Alarms can be triggered by a number of sensors, including internal and external sensors, or video motion detection sensors built in to the networked cameras.

Playback During Recording

Recording and playback can be performed simultaneously, allowing previously recorded images can be viewed even as recording continues.

Quick and Flexible Search Functions

The NSR Series features multiple methods for searching video, allowing you to quickly locate and review images.

Quick Search:

Users can quickly locate images recorded from a specific camera by selecting the monitoring window that corresponds to that camera and then designating the date and time to search. Multiple monitoring windows can be selected so that users can search images from multiple cameras simultaneously. (Fig 3)

Recording List Search:

Users can search recently recorded images from a recording list shown on the right-hand side of the GUI. (Fig 4)

Advanced Search:

Users can locate recorded images by designating cameras, date, time, and recording type. This feature is ideal for advanced searches of any image that has been previously recorded.

Search Functions

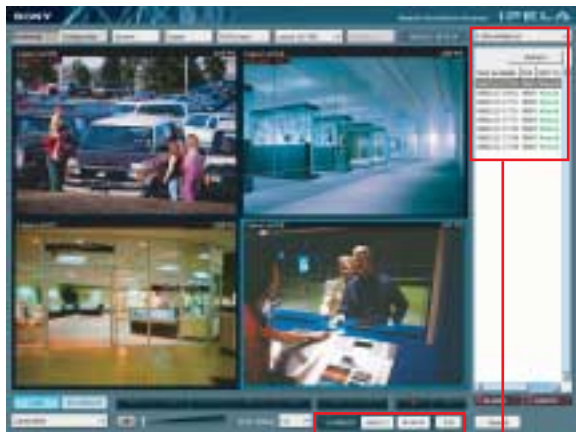


Fig 3 Quick Search

Start Available	End	REC Ty
06/01/13 17:58	06/01 Manual	
06/01/13 18:01	06/01 Manual	
06/01/13 17:55	06/01 Manual	
06/01/13 17:55	06/01 Manual	
06/01/13 17:55	06/01 Manual	
06/01/12 17:58	06/01 Manual	
06/01/12 17:58	06/01 Manual	
06/01/12 17:58	06/01 Manual	

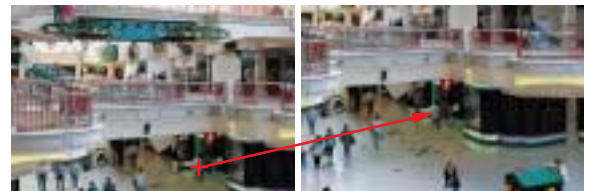
Fig 4 Recording List Search

Analog Camera Support (Optional SNT-V704)

The NSR Series can be used to monitor and record analog camera images via an optional SNT-V704 Video Network Station. This configuration also allows users to control camera PTZ functions directly from the NSR Series.

Camera Pan/Tilt/Zoom (PTZ) Control

Sony Pan/Tilt/Zoom network cameras can be remotely controlled over a network using the NSR Series. When a point in the image is clicked, the camera automatically pans and/or tilts to make that point the center of the image. And by dragging out a specified area of the image, the camera will zoom into that area.



Pan/Tilt Control



Zoom Control

Intelligent Motion Detection

The NSR Series features an intelligent motion detection function that can be used to trigger an alarm or perform a variety of other actions such as locking doors or turning on lights. Unlike conventional motion detection, unique Sony technology significantly reduces the chance of false alarms caused by noise. This function can be set for any or all cameras, and multiple detection areas can be set within each camera's field of view. In addition, the NSR Series can accept external motion-detection signals from networked cameras or the Sony Video Network Station.



■ : Motion Detection

Intelligent Motion Detection vs Conventional Motion Detection

Remote Operation

With a PC running the supplied RSM Controller software, the NSR Series can be controlled from a remote location. Basic operations such as live image monitoring, recording, playback, and image search can be performed. AVI files can be exported using this software. What's more, it also enables control of multiple recorders – up to 100 in total.

Other Convenient Features

Audio Function

The NSR Series is capable of recording, monitoring, and playing back G.711/G.726 audio. When configured with Sony microphone-equipped network cameras, the NSR Series can accept and process incoming audio.

Privacy Masking Function

With the Privacy Masking function, unwanted or private areas within an image can be masked as required. When zoom is engaged, the size of the masked areas will adjust in proportion to the zoom position.



Dynamic Masking Function

Compatibility with External Storage Systems

For additional storage capacity, the NSR Series is designed so that it can be configured with NAS (Network Attached Storage) systems.

User Privileges

Sophisticated security functions are incorporated into the software to help manage multiple users. The administrator can define user groups, add users, set privileges per user/group, and set up user access to specific camera groups.

File Export to CD-R/DVD-R/Compact Flash™ (CF) Card*5

Equipped with a built-in CD-R/DVD-R drives and CF card slot, the NSR Series allows users to export the images for later playback on a PC running the File Player Application Software.*6

*5 An audio file cannot be exported. The NSR-25 support CD-R drive only.

*6 The File Player Application is free software available from Sony Corporation.

Hot-Swap Capability

The NSR-100 supports HDD hot swapping*7, which allows for the replacement of a failed drive without powering off the unit.

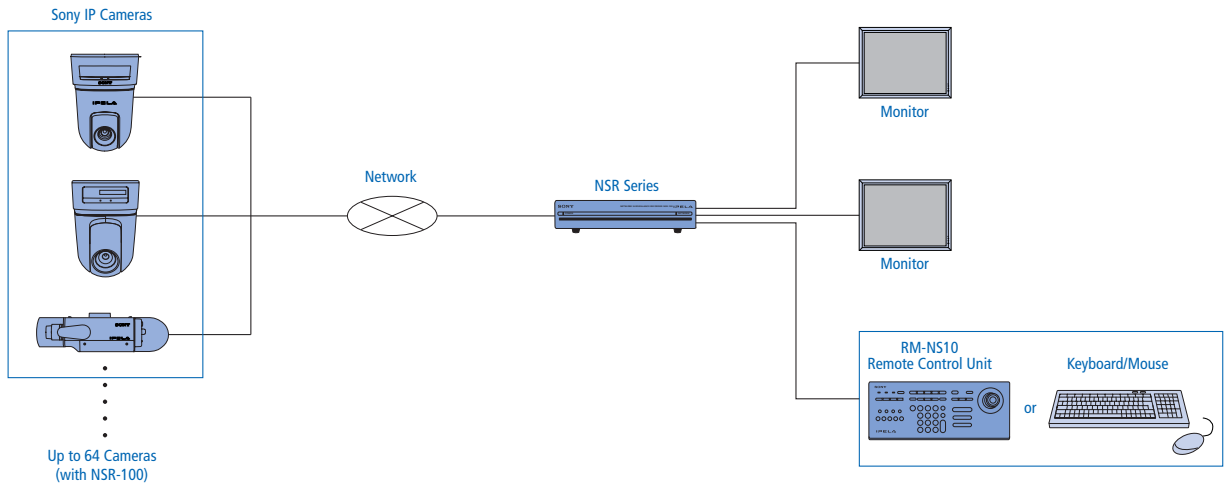
*7 HDDs can be hot swapped when the unit is set to RAID 5 or RAID 1.

UPS Support

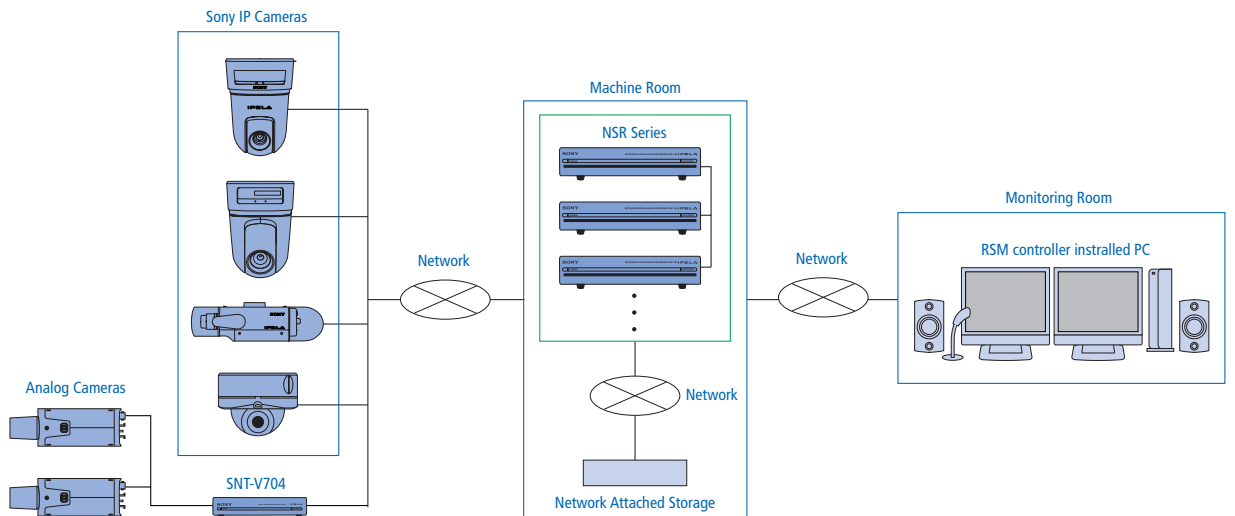
The NSR series can be connected to an Uninterruptible Power Supply (UPS) via the RS-232C interface. This configuration can help prevent data corruption and system shutdown in the event of a power outage.

SYSTEM CONFIGURATION

Stand Alone Configuration



Client-Server Configuration



OPTIONAL ACCESSORIES



RM-NS10
Remote Control Unit

Dimensions (WxHxD): 387 x 121 x 165 mm
(15 1/4 x 4 7/8 x 6 1/2 inches)
Mass: 860 g (1 lb 14 oz)



NSR-RM1
Rack Mount Kit



NSBK-250
HDD Expansion Unit
(for NSR-25)



SNT-V704
Video Network Station

Dimensions (WxHxD): 210 x 42 x 202 mm
(8 3/8 x 1 11/16 x 8 inches)
Mass: 1.2 kg (2 lb 10 oz)

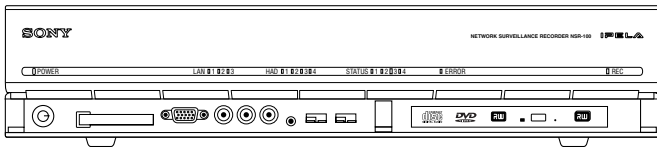
SPECIFICATIONS

	NSR-100	NSR-50	NSR-25
Video/Recording			
Number of IP Cameras Supported	64 Max.	32 Max.	20 Max
Video Compression	MPEG-4 or JPEG		
Maximum Recording Rate*1	480 fps	240 fps	120 fps
Hard Disk Drives	Physical Capacity	1,000 GB (250 GB x 4)	500 GB (250 G x 2)
	Interface	Serial ATA	
	RAID Level/Recording Capacity (approx.)	Hardware RAID (Hot Swappable when set to RAID 5 or RAID 1)	
	RAID 5 (Default) 700 GB	RAID 1 460 GB	RAID 0 940 GB
		SPAN (Default) 460 GB	RAID 1 210 GB
Network File System (for NAS)	Supports NFS Version 3 protocol		
Video Interface			
Monitor OUT	#1	RGB connector x2 (Front and Rear Panel, cannot be used simultaneously)	
	#2	RGB connector x1	
Video Output	S-Video x1		–
Analog Composite OUT	RCA-pin x2 (Front and Rear Panel, cannot be used simultaneously)		–
Audio Interface			
Mic IN	Mini jack x1(front), x 1(rear)		Mini jack x 1(rear)
Line OUT	RCA-pin, L/R x1 stereo pair, (front and rear panel)		RCA-pin, L/R x1 stereo pair (rear)
Sensor/Alarm			
Sensor in	8-channel photo-coupler (DC3.3-24V)		
Alarm out	8-channel relay (Max. 24V 1A)		
Other Interfaces			
Ethernet	1000Base-T/100Base-TX/10Base-T x3 (automatic switching)		1000Base-T/100Base-TX/10Base-T x1
USB	Front x2, Rear x2		Rear x 2
Serial interface	RS-232C x1 (for UPS)*2		
General			
Dimensions (W x H x D)	430 x 87 x 417 mm (17 x 3 1/2 x 16 1/2) excluding protrusions		
Mass	Approx. 13 kg (28 lb 11 oz)	Approx. 12 kg (26 lb 7 oz)	11 kg (24 lb 4 oz)
Voltage	100 to 127/200 to 240 V AC		
Current consumption	2.77 A / 1.39 A	1.93 A / 0.99 A	1.6 A/0.9 A
Operating temperature	5 to 40° C (41 to 104° F)		
Operating humidity	10 to 80% (inon-condensing)		
Supplied accessories	Front panel key, Installation guide, Remote control unit operation card, Recovery CD, Manual/Tool/ Source codes CD, Rubber feet (4)		

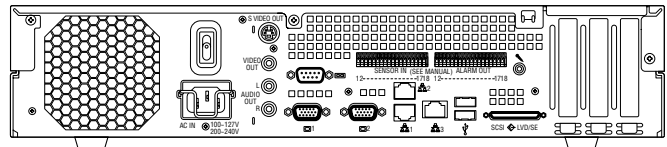
*1 Recording frame rates shown in the table represents the total frame rate per recorder unit when recording images at JPEG, Level 5 using the SNC-RZ30, and without live image monitoring.

*2 Please contact your local Sony sales office for a list of recommended UPS systems.

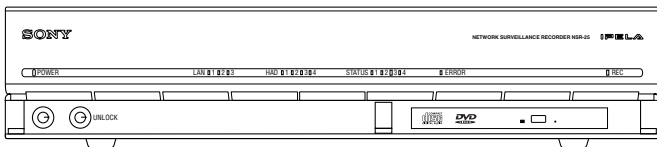
PANEL LAYOUT



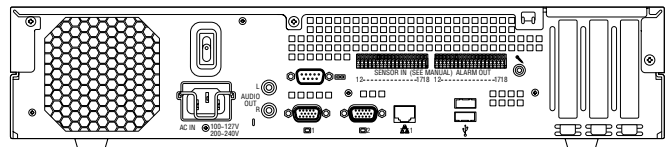
NSR-100/NSR-50 Front panel (Panel open)



NSR-100/NSR-50 Rear panel



NSR-25 Front panel (Panel open)



NSR-25 Rear panel

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