

SANYO

Digital Video Recorder With Built-in QUAD Compressor

- Simultaneous recording and playback at 100 FPS.
- With 4ch in/out terminals for a 4-screen display
- Exclusive in/out terminals for audio recording and playback
- Compact size of 210 mm width
- Remote surveillance and operation via network

DSR-M814P 4-channel PAL/NTSC

DIGITAL NETWORK SOLUTIONS

Half Rack Width

REAL TIME RECORDING



DSR-M814P 4-channel PAL/NTSC

DIGITAL
NETWORK SOLUTIONS



DSR-M814P comes in a compact package that offers new features including four-screen recording, huge capacity HDD, recording/play-back of real-time video, audio recording, and networking.

Compact, but Boasting Full Capabilities with 4ch In/Out Terminals

DSR-M814P has a compact body suitable for limited spaces of convenience stores and fast food shops. Still, its digital recording capability with four independent in/out terminals offers outstanding picture and clear sound. It also allows live video surveillance and remote control via a network*. More than 168 hours of "real-time video" recording is now possible with 720 x 576 pixels. Furthermore, recorded images can be played back simultaneously and impeccable surveillance is possible even while retrieving and playing back desired video images.

* With a DVR Utility Software.

Choose 300GB or 120GB HDD

DSR-M814P comes with two HDD bays to accommodate two 120GB or 300GB HDDs. A 120GB HDD allows two-week (336 hr) non-stop recording in the standard recording mode. The installation of two 300GB HDDs extends the recording time to ten weeks (1680 hr) in the standard recording mode. Note that the two HDDs must be of the same capacity. Mirroring is available to backup the recorded data. For further details about HDD expansion, contact the place of purchase.

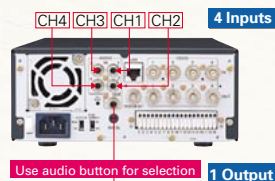
*Mirror Recording

DSR-M814P each comes with two HDD bays. By using two HDDs of the same capacity, it is possible to record the same video on two HDDs, thus allowing for a backup.

PICTURE QUALITY / CAPACITY	SUPER+	SUPER	HIGH	STANDARD
120GB	56 H	84 H	168 H (1-week)	336 H (2-week)
240GB	112 H	168 H (1-week)	336 H (2-week)	672 H (4-week)
300GB	140 H	210 H	420 H	840 H (5-week)
600GB	280 H	420 H	840 H (5-week)	1680 H (10-week)

Audio Recording with 4 Inputs

DSR-M814P comes with audio terminals for four inputs and one output. The implementation of MPEG1 Audio Layer2 allows playback of clear sound. Audio can be easily downloaded over a network, along with video images. During recording, however, CH1 and CH2 are mixed and recorded on the same track. The same applies for CH3 and CH4.



Live Audio	Playback Audio
CH1	
CH2	
CH3	
CH4	
CH1+CH2	CH1+CH2
CH3+CH4	CH3+CH4
AUTO	AUTO
OFF	OFF

Reduction of Expenses

Unlike existing VCRs, this unit uses digital HDD recording, thus saving cassette handling time and freeing up space normally needed for tape storage. In addition, its compact-size body requires less area for an installation.

Compact Size of 210 mm Width

Digital recording is now available in a compact package of 210mm in width, which makes it possible to install two DSR-M814P units side-by-side in a EIA19" rack. It is an ideal solution for the limited spaces of convenience stores, or casinos where a large number of DVRs are needed.



4-Screen Display

The unit is capable of displaying video images from 4 cameras on one monitor by splitting the screen. A full-screen display, either by using the sequential switching function or designating a channel, is also possible. The user can also select the display mode (full or split screen) for alarm situations.

Versatility in Recording

In addition to "Normal recording", which records live surveillance images, the "Timer recording" allows the user to program the recording. The unit also features a "Motion Sensor", which starts automatic recording when any movement is detected on the screen, and an "Alarm recording" that is triggered by an external alarm signal. The combinations of "Timer recording" + "Alarm recording" and "Motion Sensor" + "Alarm recording" make the DSR-M814P a versatile machine.

Motion Sensor

DSR-M814P comes with a built-in motion sensor. Different settings can be made for each camera image independently. The sensor can detect moving objects within the screen by picking up changes in brightness. The user can use this feature to trigger an alarm recording.

Auto Delete Function

The DSR-M814P allows the user to specify the storage period for each video clip, from one day up to 99 days. When the specified period expires, the data will be automatically deleted.

Various Playback Functions

DSR-M814P features 6 playback functions: Playback, Still, Cue / Review (2x, 7.5x to 180x), Frame advance, Slow motion (1/8 to 1/2, forward and backward), and Search.

Search Functions

The two search functions — "Alarm Search" and "Date / Time Search" — call up desired images instantly.

Alarm search

Recorded alarm images are retrieved from a list of alarm events and played back.



Date/time search

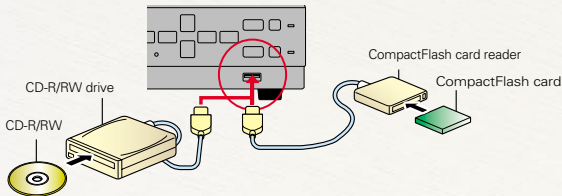
The user can designate date and time of recorded video images and play back retrieved images.



This compact DVR excels in networking and expandability.

Built-in USB Terminal

The USB terminal on the front panel gives easy access for backing up data onto a CD-R/RW or a CompactFlash card*. Downloading and uploading of setup menus by use of a CF card offer an easy option for setting up additional DSR-M814P recorders.



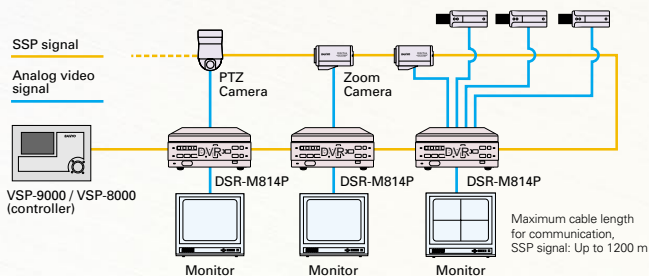
*For a validated CF reader and CD-R/RW drive consult www.sanyosecurity.com.

Series Recording

Multiple DSR-M814P recorders can be connected in a series for vastly increased recording capacity, allowing extended recording at high resolutions and easy storage of recordings.

Built-in RS-485 Terminals

The unit has built-in RS-485 terminals for SSP (SANYO Security Serial Protocol) usage. Separately sold system controller VSP-8000 / VSP-9000 can control up to 128 units of DSR-M814P.



Built-in Control Terminals

These terminals make it possible to control the DSR-M814P using Resistive Ladder Remote Controller.

Also Comes with a LAN Terminal

There is a built-in 100BASE-TX LAN terminal, allowing remote surveillance / control from PC via LAN with the DVR Utility Software.

Security Lock

There are two levels of security lock — Administrators and Users. — offering users the best option for their security needs.

Buzzer

Depending on the user's preference, the unit can be setup to emit a warning buzzer when (1) there is an alarm; (2) HDD becomes full; (3) recording suddenly stops; (4) an abnormality occurs; (5) an operation button is pressed.

TV-System Switching between PAL / NTSC

A changeover switch in the back can transfer video signals of surveillance camera input / monitor output to PAL or NTSC format. (Note: this switch only route the video signal to an appropriate circuit and does not mean that the unit converts a NTSC input to PAL format, or vice versa.) Also, the AC power source is for 120 to 240V.

DVR Utility Software for DSR-M814P

VA-SW814LITE software is included in the product package. By installing this software on a PC, it will be possible to connect the PC and DVRs over a LAN and monitor live video or control DVRs on the PC.

System environment

	Recommended	Single Monitoring
System	IBM PC / AT or Compatible	
CPU*1	Pentium® 4 3GHz or faster	Pentium® III 800MHz
Memory	256MB	
Interface	100BASE-TX, USB(1.1)	
Display	XGA (1,024 x 768 pixel), 16-million colour or greater AGP graphics card or graphic chipset with hardware overlay support*2	
Sound	Audio subsystem that supports up to 48KHz (or greater) stereo playback*3	
OS	Windows® XP Professional	

*1 For multiple split-screen monitoring, CPU clock frequency of 750MHz is required per screen.

*2 Driver software that is compatible with DirectX®9.0b must be installed.

*3 If a sound card is not installed, the sound which is recorded in "AUDIO RECORDING ON" mode cannot be played back.

A high-end software package VA-SW814 is also available (sold separately).

Other Features

- 30-day memory back-up
- Resume function
- End-of-medium alarm
- On-screen mode setting, menu languages built in: English / French / German / Spanish
- Built-in time date generator
- Auto repeat recording
- Monitor masking
- Alarm counter
- Automatic summer time adjustment
- Lifetime counter
- Through output of video
- Push-lock terminals for easy installation (refer to the rear panel photo)

High-end software package

DVR Utility Software VA-SW814 (sold separately)



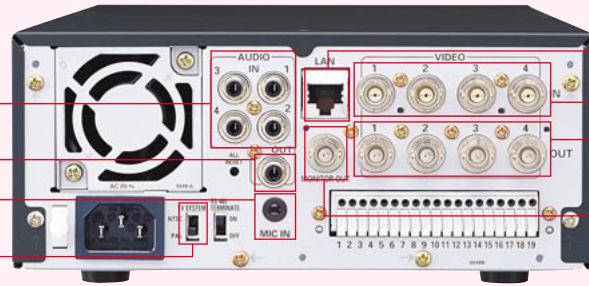
By installing VA-SW814 in PCs, the user can build a remote surveillance system that links DVRs and PCs via a LAN. In addition to setting up each recorder, recording, retrieval, playback and live surveillance options are available. Moreover, up to 4000 DVRs in a network can be controlled by a PC. Complete security is provided by ID-password protection with four levels of accessibility. In addition, the software features a function that verifies the authenticity of data by detecting any alteration made to recorded images.



NOTE: Refer to the required system environment shown above.

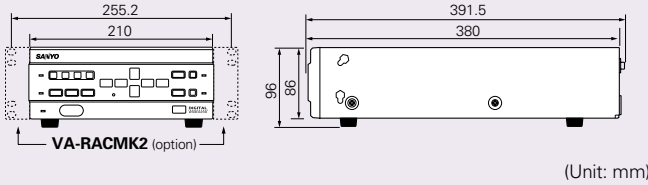
Rear View

- Audio input terminals
- Audio output terminal
- Microphone input terminal
- Switching between PAL / NTSC is possible.



- 100BASE-TX Ethernet terminal
Standard connection to PCs and HUB.
- Video input terminals
- Video output terminals
- Video monitor out terminal
Output terminal that displays quad screen on a single monitor.

DSR-M814P



(Unit: mm)

MODEL	DSR-M814P
General	
Hard disk Capacity	120GB, 240GB, 300GB or 600GB
Picture resolution	PAL: 720 x 576 pixels, NTSC: 720 x 480 pixels
Compression	MPEG2 (Video), MPEG1 Audio layer2 (Audio)
Picture quality	4 levels (Super+ / Super / High / Standard)
Recording type	Frame
Recording speed	PAL: 100 (25x4) frames/sec, NTSC: 120 (30x4) frames/sec
Screen display	1-screen display / 4-screen display
Number of cameras	4
Menu language	English / French / German / Spanish
Clock setup	Day / Month / Year / Hour / Minute / Second
Signal format	PAL / NTSC colour signal standard (Switchable)
Playback	Playback / Still / Search / Cue / Review / Frame advance / Slow
Search Mode	
Date/time search	Search by date and time
Alarm search	Search by alarm event list
Video	
Video input	1.0 V p-p / 75 Ω unbalanced (BNC x 4)
Video output	1.0 V p-p / 75 Ω unbalanced (BNC x 4)
Monitor output	1.0 V p-p / 75 Ω unbalanced (BNC x 1)
Audio	
Audio input	-8dBs, 27 kΩ unbalanced (RCA pin jack x 4)
Audio output	-8dBs, 600 Ω unbalanced (RCA pin jack x 1)
Microphone input	-60dBs, 10 kΩ unbalanced (3.5mm mini jack)
Interface	
LAN terminal	100BASE-TX (RJ-45)
USB terminal	For CompactFlash reader and CD-R/RW drive (Front)
Control signal	
RS-485	3 terminals: A / B / GND
Remote control in	External switch connection
Clock adjust input	Normal open, Low level active
Clock adjust output	Normal 5 V, Low level active
Alarm input	Normal open, Low level active x 4
Alarm output	Normal 5 V, Low level active
Alarm reset input	Normal open, Low level active
Warning output	Open collector (500mA), Low level active
Full output warning	Open collector (50mA), Low level active
Series REC input	Normal open, Low level active
Non / Series REC output	Normal 5 V, Low level active
Electrical	
Power source	120 V to 240 V AC, 50 / 60Hz
Current consumption	480 mA
Physical Operating conditions	
Temperature	5°C to 40°C [41°F to 104°F], Humidity: 10% to 80%
Dimensions	210(W) x 96(H) x 380(D) mm [8.27(W) x 3.78(H) x 14.96(D) in.]
Weight (Approx.)	3.7 kg [8.2 lbs.] (with one HDD unit)

NOTE: Specifications subject to change without notice

Warnings regarding HDDs

- Do not attempt to install or replace a HDD on your own. You cannot use these HDDs on PCs.
- The unit may be damaged if it is exposed to an impact or vibration, or the power plug is disconnected during operation.
- Sanyo will not be held liable for any data loss due to an HDD error or a failure during recording.

* "Microsoft", "Internet Explorer" and "Windows" are registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
* All other company and product names are registered trademarks and/or trademarks of their respective owners.

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



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www.sanyosecurity.com

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Horizontal resolution more than 520 TV Line compatible devices

Camera

Standard

1/3" Colour CCD DSP High-resolution Camera
VCC-6585P
(12V DC / 24V AC type)

Line-operate

1/3" Colour CCD DSP High-resolution Camera
VCC-6570P / VCC-6580P
(220-230V AC type)

High-sensitivity

1/3" Colour CCD DSP High-resolution Camera
VCC-6592P (12V DC type)
VCC-6594P (24V AC type)

Day/Night

1/3" CCD DSP High-resolution Day/Night Camera (Colour + B/W)
VCC-4592P (12V DC type)
VCC-4594P (24V AC type)
DAY NIGHT

Zoom

SSP coaxial camera control compatible
1/4" Colour CCD DSP High-resolution Auto Focus Zoom Camera
VCC-ZM300PA
(12V DC / 24V AC dual type)

Line-operate

1/4" Colour CCD DSP High-resolution Day/Night Auto Focus Zoom Camera (Colour + B/W)
VCC-ZM400P
(12V DC / 24V AC dual type)
DAY NIGHT

Pan Tilt Zoom

SSP coaxial camera control compatible
1/4" Colour CCD DSP High-resolution Speed Dome Camera
VCC-9300P (24V AC type)

1/4" Colour CCD DSP High-resolution Day/Night Speed Dome Camera (Colour + B/W)
VCC-9400P
(24V AC type)
DAY NIGHT

Vandal Proof Dome Camera

1/4" Colour CCD DSP High-resolution Day/Night Vandal Proof Dome Camera (Colour + B/W)
VCC-D1185VP
(12V DC / 24V AC dual type)
DAY NIGHT

Weatherproof

1/4" Colour CCD DSP High-resolution Weatherproof Day/Night Auto Focus Zoom Camera (Colour + B/W)
VCC-D2185VP
(12V DC / 24V AC dual type)
DAY NIGHT

Weatherproof

1/4" Colour CCD DSP High-resolution Weatherproof Day/Night Auto Focus Zoom Camera (Colour + B/W)
VCC-XZ400P
(12V DC / 24V AC dual type)
DAY NIGHT

Recorder

16ch Digital Video Recorder
DSR-5016P [Available soon]

9ch Digital Video Recorder
DSR-3709P

8ch Digital Video Recorder
DSR-5009P [Available soon]

16ch Digital Video Recorder
DSR-3716P

9ch Digital Video Recorder
DSR-3709P

6ch Digital Video Recorder
DSR-3506P

1ch Digital Video Recorder
DSR-300P

Monitor

19" High-resolution Colour Video Monitor
VMC-8619PA

15" High-resolution Colour Video Monitor
VMC-8615FP

15" High-resolution Colour Video Monitor
VMC-8415FP

SSP compatible devices

SSP System Unit

SSP System Controller
VSP-8000/VSP-9000

SSP Signal Converter
VSP-CB10

SSP Signal Receiver
VSP-RV200



Camera

1/4" Colour CCD DSP High-resolution Speed Dome Camera (Colour + B/W)
VCC-9300P

1/4" Colour CCD DSP High-resolution Day/Night Speed Dome Camera (Colour + B/W)
VCC-9400P **DAY NIGHT**

1/4" Colour CCD DSP High-resolution AF Zoom Camera
VCC-ZM300PA

1/4" Colour CCD DSP High-resolution Day/Night AF Zoom Camera (Colour + B/W)
VCC-ZM400P **DAY NIGHT**

1/4" Colour CCD High-resolution Weatherproof Day/Night AF Zoom Camera (Colour + B/W)
VCC-XZ400P **DAY NIGHT**

Recorder

1ch Digital Video Recorder
DSR-M810P

1ch Digital Video Recorder
DSR-300P
*The optional VZU-COM300 communication board is required

6ch Digital Video Recorder
DSR-3506P

9ch Digital Video Recorder
DSR-3709P

16ch Digital Video Recorder
DSR-3716P

9ch Digital Video Recorder
DSR-5009P

16ch Digital Video Recorder
DSR-5016P

