Rear View

100Base-TX Ethernet terminal
Standard connection to PCs and HUB.

Audio input terminals

Camera input terminals

Audio output terminal

Camera output terminals

Microphone input terminal

Switching between PAL / NTSC is possible.

The device sends out clear sound and receives inputs from external devices.

SANYO

Digital Video Recorder With Built-in QUAD Compressor

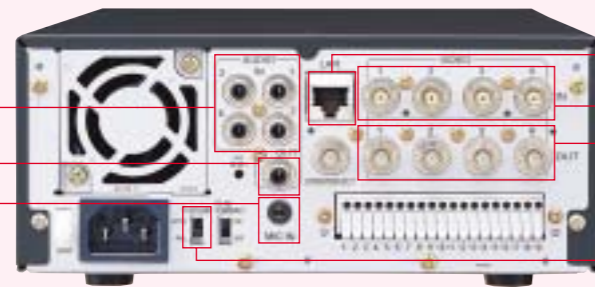## DSR-M804P 4-channel PAL/NTSC

Two-week nonstop recording with standard picture quality
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

DIGITAL NETWORK SOLUTIONS

Half Rack Width
TWO-WEEK NONSTOP RECORDING

DSR-M804P

255.2
210
391.5
380
96
86

VA-RACMK2 (option)

(Unit: mm)

MODEL		DSR-M804P
General	Hard disk Capacity	120GB or 240GB (120GB x 2)
	Picture resolution	PAL: 720 x 576 , NTSC: 720 x 480
	Compression	MPEG2 (Video), MPEG1 Audio layer2 (Audio)
	Picture quality	3 levels (Super / High / Standard)
	Recording type	Frame
	Recording speed	PAL: 25 frames/sec, NTSC: 30 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)
	Play back	Playback / Still / Search / Cue / Review / Frame advance / Slow
Search Mode	Time/Date Search	Search by time and date
	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 (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
	Non REC 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
	Series REC output	Normal 5 V, Low level active
Electrical	Power source	120 V to 240 V AC, 50 / 60Hz
	Current consumption	36 W 480 to 300mA
Physical	Operating conditions	Temperature: 5°C to 40°C [41°F to 104°F], Humidity: 10% to 80%
	Dimensions (W x H x D)	210 (W) x 96 (H) x 380 (D) mm
	Weight (Approx.)	3.7Kg [8.2 lbs.]

*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" and "Internet Explorer" 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.

ISO 14001 JACO
JAB EMS Accreditation RE 009
UKAS ENVIRONMENTAL MANAGEMENT 051
CE
ISO 9001
DNV
Accredited by the Rvb
ISO 9001 REGISTERED FIRM
DNA Certification B. V., THE NETHERLANDS

Video Imaging Systems Division of Sanyo Electric Co., Ltd. obtained Quality Management System ISO9001 and Environmental Management System ISO14001 certifications.

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

Distributed by:

Horizontal resolution 520 TV Line compatible devices

Camera

Standard

1/3" Colour CCD DSP High-resolution Camera
VCC-6572P (12 V DC type)
VCC-6574P (24 V AC type)

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

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

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

Zoom
SSP coaxial camera control compatible
1/4" Colour CCD DSP High-resolution Auto Focus Zoom Camera
VCC-ZM300P (12 V DC / 24 V AC dual type)

SSP coaxial camera control compatible
1/4" Colour CCD DSP High-resolution Day/Night Auto Focus Zoom Camera (Colour + B/W)
VCC-ZM400P New
(12 V DC / 24 V 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 (24 V AC type)
1/4" Colour CCD DSP High-resolution Day/Night Speed Dome Camera (Colour + B/W)
VCC-9400P New
(24 V AC type)
DAY NIGHT

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

1/4" Colour CCD DSP High-resolution Day/Night Vandal Proof Doom Camera (Colour + B/W)
VDC-D2185VP
(12 V DC / 24 V AC dual type)
DAY NIGHT

Monitor

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

14" High-resolution Colour Video Monitor
VMC-8614P

Recorder

16ch Digital Video Recorder
DSR-3016P New

9ch Digital Video Recorder
DSR-3009P New

1ch Digital Video Recorder
DSR-3000P New

Digital Real Time VCR
DTL-4800P

SSP compatible devices

SSP System Unit

SSP System Controller
VSP-8000 New

SSP Signal Converter
VSP-CB10 New

SSP Signal Receiver
VSP-RV200 New

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 New

1/4" Colour CCD DSP High-resolution Auto Focus Zoom Camera
VCC-ZM300P

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

1/3" Colour CCD DSP High-resolution Camera
VCC-6975P

Recorder

Digital Video Recorder **DSR-3000P** New

Digital Real Time VCR **DTL-4800P**

960-hour Recording + Real Time VCR **SRT-8960P** New
*The optional VZU-485/232C board is required

40-hour Recording + Real Time VCR **SRT-8040P** New
*The optional VZU-485/232C board is required

960-hour Recording S-VHS/VHS Time Lapse VCR **TLS-S8000P** New

960-hour Recording Time Lapse VCR **TLS-1960P** New
* The optional VZU-485/232C board is required

24-hour Recording Time Lapse VCR **TLS-9924P** New
The optional VZU-485/232C board is required

24-hour Recording Time Lapse VCR **TLS-4024P** New
The optional board is required

SANYO

SANYO
DIGITAL VIDEO RECORDER DSR-M804

POWER
1 2 3 4
MENU REVIEW CUE EXIT/OSD
PLAY/STOP TIMER ALARM
QUAD/SEQUENCE AUDIO SEARCH
IR STILL REC/STOP LOCK/REMOTE
FULL
MENU RESET
USB
LAN (LINK/ACT.)
DIGITAL NETWORK SOLUTION

DSR-M804P 1-channel PAL/NTSC

DIGITAL
NETWORK SOLUTIONS

A DVR with four-screen recording function. Digital processing allows for quick retrieval. Features two-week nonstop recording with standard picture quality. Comes with audio in/out terminals and supports networking as well.

Compact, but boasting Full Capabilities with 4ch In/Out Terminals
DSR-M804P has a compact body, suitable for convenience stores and casinos. Its digital recording with four independent in/out terminals enables outstanding picture quality and clear sound. It allows one-week nonstop recording in high-definition quality and two-week nonstop in standard quality. Supports live video image surveillance and remote control via a network*.
*With the VA-SW804, sold separately.

Playback and Image Retrieval while Video Recording
DSR-M804P can record at 25 frames/sec (PAL) and allows more than 168 hours of recording time with 720 x 576 pixels (PAL). In addition, recorded images can be played back simultaneously and impeccable surveillance is possible even while retrieving and playing back desired video images.

Built-in 120GB HDD
The drive offers enough space for two-week (336 h) nonstop recording with standard picture quality. An expansion bay allows installation of another HDD. Adding a 120GB HDD enables more than four weeks (672 h) of nonstop recording. Added HDD can also be used for mirror recording* for data back-up. For further details about HDD expansion, contact the place of purchase.

*Mirror Recording
DSR-M804P each come with one HDD unit. By adding an optional HDD of the same capacity, it is possible to record the same video on two HDDs, thus allowing for a backup.

PICTURE QUALITY CAPACITY	SUPER 720 x 576 pxl	HIGH 720 x 576 pxl	STANDARD 720 x 576 pxl
120GB	84 h	168 h (1-week)	336 h (2-week)
240GB	168 h (1-week)	336 h (2-week)	672 h (4-week)
Bit Rate (Average)	2.6Mbps	1.2Mbps	0.5Mbps

Audio Recording with 4 Inputs
DSR-M804P comes with audio terminals for 4 inputs and one output. The implementation of MPEG1 Audio Layer2 allows recording and playback of clear sound. Audio can be easily downloaded over a network, along with video images.

	Input	Audio Recoding
Recording	CH1, CH2 CH3, CH4	CH1+CH2 CH3+CH4

|	Input	1Audio Output (Select from Audio Key)
Live	CH1 CH2 CH3 CH4	CH1+CH2 CH3+CH4 CH1 CH2 CH3 CH4 OFF
Playback	CH1, CH2 CH3, CH4	CH1+CH2 CH3+CH4 OFF

Playback of a single channel is not possible.

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-M804P 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.

EIA 19" Rack
210mm
DSR-M804P
Standard VCR
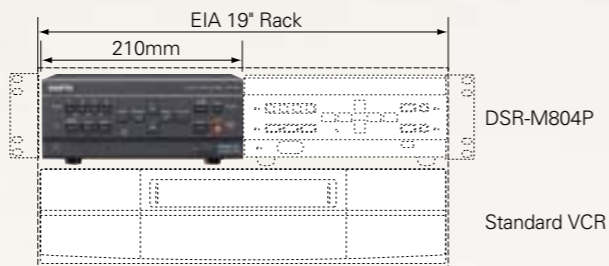
Versatility in Recording
In addition to "Normal recording", which records live surveillance images, the "Timer recording" allows the user to program the recording. The unit also features a "Motion Sensor", which starts automatic recording when any movement is detected on the screen, and an "Alarm recording" that is triggered by an external alarm signal. The combinations of "Timer recording" + "Alarm recording" and "Motion Sensor" + "Alarm recording" make the DSR-M804P a versatile machine.

Timer recording
Uniform daily programming and independent programming for each day of the week are both available. Moreover, holidays can be input by specifying the date and month for which Sunday programming is applicable.

Alarm recording
When an alarm signal is received from an external sensor, DSR-M804P will automatically start recording in the mode pre-determined by the user.

Motion Sensor
DSR-M804P 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.

Various Playback Functions
DSR-M804P features 6 playback functions: Playback, Still, Cue / Review (7.5x to 180x), Frame advance, Slow motion (1/8 to 1/2, forward and backward), and Search.

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.

4-screen display   Full-screen
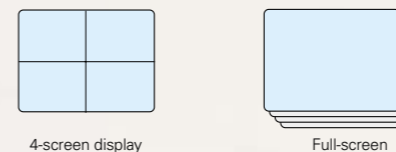
Search Functions
The two search functions — "Alarm search" and "Date / time search" — call up desired images instantly.
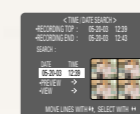
Alarm search
Recorded alarm images are retrieved from a list of alarm events and played back.

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

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.

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)

This compact DVR excels in networking and expandability.

Built-in USB Terminal
The unit has a built-in USB terminal in the front. A CF card reader* allows the user to upload/download menu items and set up other DSR-M804P units.
*For a validated CF reader, consult www.sanyosecurity.com.

Built-in Control Terminals
These terminals make it possible to control the DSR-M804P using Resistive Ladder Remote Controller.
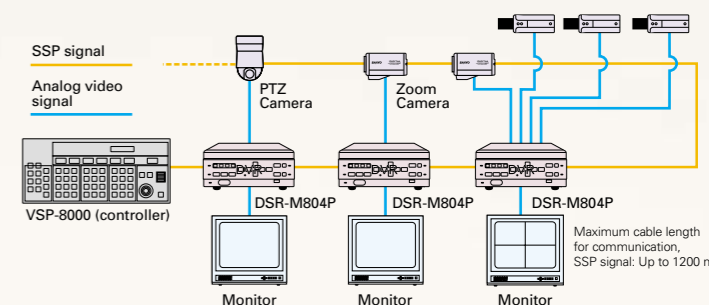
Also Comes with a LAN Terminal
There is a built-in 100Base-TX LAN terminal, allowing remote surveillance / control from PC via LAN with the VA-SW804 (sold separately).

HUB
DSR-M804P
PC
DVR
PC
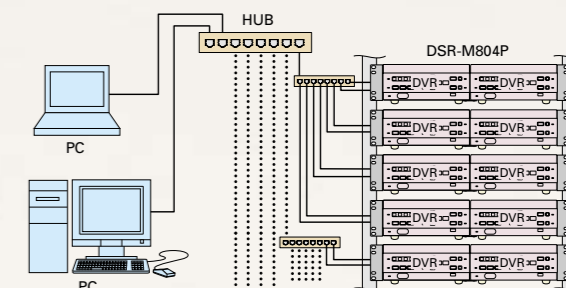
Built-in RS-485 Terminals
The unit has built-in RS-485 terminals for SSP (Sanyo Security Serial Protocol) usage. Separately sold system controller VSP-8000 can control up to 128 units of DSR-M804P.

SSP signal
Analog video signal
PTZ Camera
Zoom Camera
VSP-8000 (controller)
DSR-M804P   DSR-M804P   DSR-M804P
Maximum cable length for communication, SSP signal: Up to 1200 m
Monitor   Monitor   Monitor

Remote surveillance/control available
DVR Utility Software
VA-SW804 (sold separately)
By installing VA-SW804 in PCs, the user can build a remote surveillance system that links DVRs and PCs via LAN. In addition to each setup, recording, retrieval, playback and live surveillance are available. Moreover, up to 1000DVRs in a network can be controlled by a PC. Complete security involves an ID-password, regulating operational limits in 4 steps. In addition, the software features a function that verifies original data by detecting any alteration to recorded images.

System environment

	Multi Monitoring	Single Monitoring
System	Pentium® 4 3GHz or faster	Pentium® III 800MHz
CPU*	IBM PC / AT or Compatible	
Memory	256MB	
Interface	100Base-TX	
Display	XGA (1,024 x 768 pixel), 16-million colour or greater	
OS	Windows® XP Professional	

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