

SANYO

Digital Video Recorder

- Non-stop recording of real-time images
- Simultaneous recording and playback at 30 FPS
- Compact size of 210 mm width
- Remote surveillance and operation via network
- Provides advanced digital performance unavailable from VCRs
 - The ideal replacement for VCRs

DSR-M810 1-channel NTSC/PAL

DIGITAL NETWORK SOLUTIONS



Half Rack Width

REAL-TIME RECORDING



Made in Japan

The product introduced here is manufactured in Japan utilizing advanced technologies and quality control.

DSR-M810 1-channel NTSC/PAL

DIGITAL
NETWORK SOLUTIONS



A compact package that offers new features including a huge capacity HDD, recording/playback of real-time video with high picture quality, audio recording, extended recording time, and networking.

Solid Capabilities in Compact Appearance

The DSR-M810 has a compact body, suitable for casinos and convenience stores. Its digital recording enables outstanding picture quality and clear sound. In addition, its one-week non-stop recording comes with high-definition picture quality, and user can survey live video images and remote-control the device via a network*.

*With the VA-SW814, sold separately

Playback and Image Retrieval while Video Recording

The DSR-M810 can record at the speed of 30 frames/sec with 720 x 480 pixels (NTSC). In addition, recorded images can be played back simultaneously and impeccable surveillance is possible even while retrieving and playing back desired video images.

Choose a 300GB or 120GB HDD

The DSR-M810 with 120 GB HDD performs one-week (168 hr) of nonstop 30 frames/sec (NTSC) recording with "HIGH" mode picture quality. Moreover, the unit has an expansion bay for an additional HDD; another 120GB HDD enables more than two-week (336 hr) of nonstop recording time. The 300GB HDD model offers 2.5 weeks (420 hr) of nonstop recording and it can be still further expanded. The additional HDD can also be used for mirror recording* to backup recorded data. For further information on HDD expansion, contact the place of purchase.

*Mirror Recording

Each DSR-M810 comes with two HDD bays. By adding an optional HDD with the same capacity as the master HDD, it is possible to record the same video on two HDDs, treating one as a backup unit.

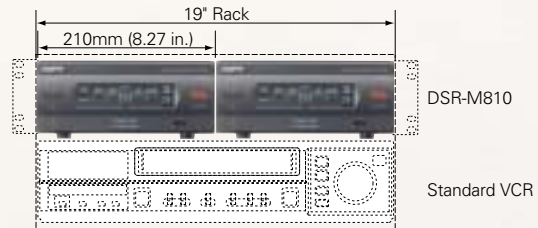
CAPACITY	PICTURE QUALITY	SUPER+	SUPER	HIGH	STANDARD
		120GB	56 H	84 H	168 H (1-week)
240GB	112 H	168 H (1-week)	336 H (2-week)	672 H (4-week)	
300GB	140 H	210 H	420 H	840 H (5-week)	
600GB	280 H	420 H	840 H (5-week)	1680 H (10-week)	

Audio Recording

MPEG1 Audio Layer2 allows recording with clear sound quality. Plus easy downloading with video images via a network.

Compact Size of 210 mm Width

The DSR-M810 incorporates advanced digital functions into a compact design that allows it to be used in locations with limited space.



Multiple Recording Methods

Available modes are "Normal recording" for surveillance images, "Timer recording" for predefined recording hours, and "Alarm recording" with an external alarm signal. The latter two can be combined to perform multiple recording functions.

Timer recording

Uniform daily programming and independent programming for each day of the week are both available.

Alarm recording

When an alarm signal is received from an external sensor, DSR-M810 will automatically start recording in the mode predetermined by the user.

Various Playback Functions

The DSR-M810 features 6 playback functions: Playback, Still, Cue / Review (7.5x to 180x), Frame advance, Slow (1/8 to 1/2, forward and backward), and Search.

Search Functions

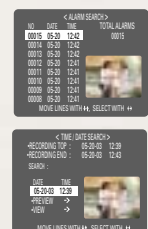
The two search functions — "Alarm search" and "Time / date search" — call up desired images instantly.

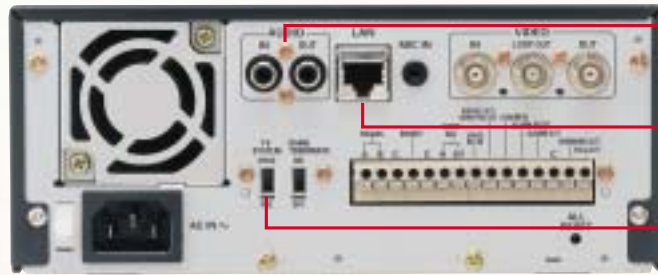
Alarm search

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

Time/date search

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





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

100BASE-TX / 10BASE-T Ethernet terminal standard connection to PCs and HUBs.

Switching between NTSC / PAL is possible.

Security Lock

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

Buzzer

Depending on the user's preference, the unit can be set up 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 NTSC / PAL

A changeover switch in the back directs video signals of surveillance camera input / monitor output to NTSC or PAL circuit.

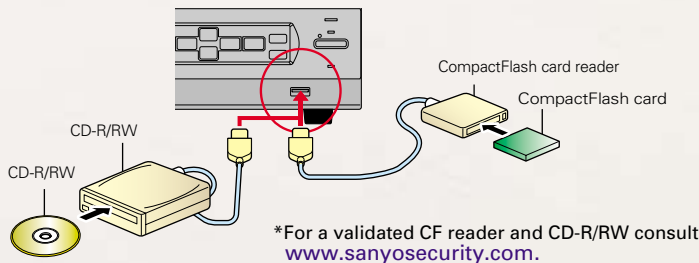
(Note: this switch only routes the video signal to an appropriate circuit and does not mean that the unit converts an NTSC input to PAL format, or vice versa.)

Also, the AC power source is for 120 to 240V.

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 CF card reader*. Downloading and uploading of setup menus by use of a CF card offer an easy option for setting up additional DSR-M810 recorders.

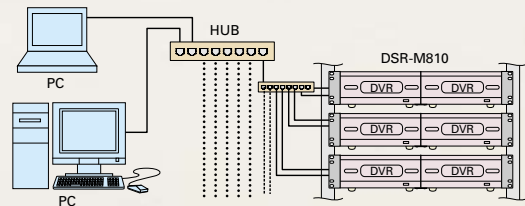


Built-in Control Terminals

These terminals make it possible to control the DSR-M810 using the separately sold VA-RMN01 Remote Controller.

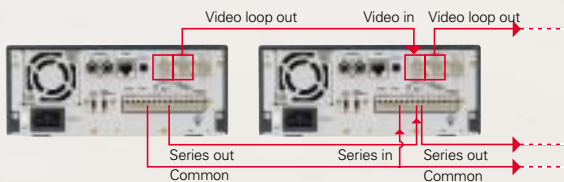
Also Comes with a LAN Terminal

There is a built-in 100BASE-TX / 10-BASE-T LAN terminal, allowing remote surveillance / control from PC via LAN with the VA-SW814 (sold separately).



Series Recording

Multiple DSR-M810 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

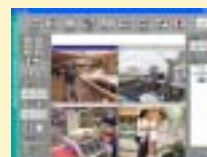
The unit has built-in RS-485 terminals for SSP (SANYO Security Serial Protocol) usage. Separately sold system controller VSP-8000 can control up to 128 units of DSR-M810.

Remote surveillance/control available

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 LAN. In addition to each setup, recording, retrieval, playback and live surveillance are available. Moreover, up to 4000 DVRs 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

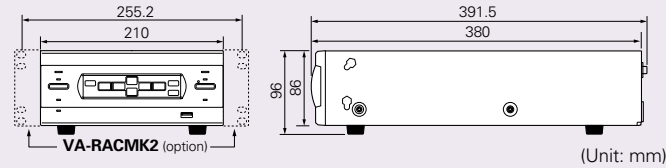
	Multi Monitoring	Single Monitoring
System	IBM PC / AT or Compatible	
CPU*	Pentium® 4 3GHz or faster	Pentium® III 800MHz
Memory	256MB	
Interface	100BASE-TX, USB(1.1)	
Display	XGA (1,024 x 768 pixel), 16-million color or greater AGP graphics card for hardware overlay	
Sound	Sound card that supports 48 kHz stereo playback (PCI connection recommended)	
OS	Windows® XP Professional	

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

Other Features

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

DSR-M810



(Unit: mm)

MODEL	DSR-M810
General	
Hard disk capacity	120GB or 300GB (One HDD can be added.)
Picture resolution	NTSC: 720 x 480 (Super+ / Super / High), 352 x 480 (Standard) PAL: 720 x 576 (Super+ / Super / High), 352 x 576 (Standard)
Compression	MPEG2 (Video), MPEG1 Audio Layer2 (Audio)
Picture quality	4 levels (Super+ / Super / High / Standard)
Recording type	Frame
Recording speed	NTSC: 30 frames/sec. PAL: 25 frames/sec
Menu language	English / French / Spanish
Clock setup	Month / Day / Year / Hour / Minute / Second
Signal format	NTSC / PAL color signal standard (Switchable)
Playback	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)
Video output	1.0 V p-p / 75 Ω unbalanced (BNC)
Audio	
Audio input	-8db, 27 kΩ unbalanced (RCA pin jack)
Audio output	-8db, 600 Ω unbalanced (RCA pin jack)
Microphone input	-60dBs, 10 kΩ unbalanced (3.5mm mini jack)
Interface	
LAN terminal	100BASE-TX / 10BASE-T (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	VA-RMN01 remote control or External switch connection
Clock adjust input	Normal open, Low level active
Clock adjust output	Normal 5 V, Low level active
Series REC input	Normal open, Low level active
Non REC output	Normal 5 V, Low level active
Series REC output	Normal 5 V, Low level active
Alarm input	Normal open, Low level active
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
Electrical	
Power source	120 V to 240 V AC, 50 / 60 Hz
Current consumption	310 mA to 440 mA
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 86 (H) x 380 (D) mm [8.27(W) x 3.78(H) x 14.96(D) in.]
Weight (approx.)	3.6 kg [7.9 lbs.]

*Specifications subject to change without notice

Horizontal resolution 520 TV line cameras

1/3" Color CCD DSP High-sensitivity/resolution Camera
VCC-6594



1/4" Color CCD DSP High-resolution Day/Night Speed Dome Camera
VCC-9400 **DAY NIGHT**



1/3" Color CCD DSP High-sensitivity/resolution Camera
VCC-5984



1/4" Color CCD DSP High-resolution Speed Dome Camera
VCC-9300



1/3" Color CCD DSP High-resolution Camera
VCC-6674



1/4" Color CCD DSP High-resolution Day/Night AF Zoom Camera
VCC-ZM400 **DAY NIGHT**



1/3" Color CCD DSP High-resolution Day/Night Camera
VCC-6574A



1/4" Color CCD DSP High-resolution AF Zoom Camera
VCC-ZM300



1/3" Color CCD DSP High-resolution Day/Night Camera
VCC-4594 **DAY NIGHT**



1/4" Color CCD DSP High-resolution Day/Night Vandal Proof Dome Camera
VDC-D2184VA **DAY NIGHT**



1/4" Color CCD DSP High-resolution Weatherproof Day/Night Camera
VCC-XV400 **DAY NIGHT**



1/4" Color CCD DSP High-resolution Day/Night Vandal Proof Dome Camera
VDC-D1184VA **DAY NIGHT**



SSP compatible devices

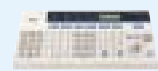
IP Product

Network Video Server
VSP-SV2000



SSP System Units

SSP System Controller
VSP-8000



SSP Coaxial Converter
VSP-CB10

Recorders

16ch Digital Video Recorder **DSR-3016**

9ch Digital Video Recorder **DSR-3009**

1ch Digital Video Recorder **DSR-300**

4ch Digital Video Recorder **DSR-M804**

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

168-hour Recording + Real Time VCR **SRT-8168**
*The optional VZU-485/232C board is required

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

40-hour Recording + Real Time VCR **SRT-4040**
The optional VZU-40485 board is required

40-hour Recording + Real Time VCR **SRT-4040DC**
The optional VZU-40485 board is required

8-hour Recording Real Time VCR **SRC-850A**

960-hour Recording Time Lapse VCR **TLS-4960**
The optional VZU-40485 board is required

72-hour Recording Time Lapse VCR **TLS-4072**
The optional VZU-40485 board is required

Cameras

1/4" Color CCD DSP High-resolution Day/Night Speed Dome Camera **VCC-9400** **DAY NIGHT**

1/4" Color CCD DSP High-resolution Speed Dome Camera **VCC-9300**

1/4" Color CCD DSP High-resolution Day/Night AF Zoom Camera **VCC-ZM400** **DAY NIGHT**

1/4" Color CCD DSP High-resolution AF Zoom Camera **VCC-ZM300**

Multiplexers

16-channel Digital Transport Multiplexer (Color) **MPX-CD163**

16-channel Duplex Multiplexer (Color) **MPX-CD162**

16-channel Duplex Multiplexer (B/W) **MPX-MD162**

9-channel Digital Transport Multiplexer (Color) **MPX-CD93**

9-channel Duplex Multiplexer (Color) **MPX-CD92**

9-channel Duplex Multiplexer (B/W) **MPX-MD92**

Warnings regarding HDDs

- Do not attempt to install or replace an 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.

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



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