Digital Video Recorder
With Built-in QUAD Compressor

- Two-week nonstop recording at 30 frames/sec
- With 4ch in/out terminals for a 4-screen display
- Exclusive in/out terminals for audio recording and playback
- Side-by-side installation in a 19" rack
- Remote surveillance and operation via network

Half Rack Width
TWO-WEEK NONSTOP RECORDING

Made in Japan
The product introduced here is manufactured in Japan utilizing advanced technologies and quality control.
A DVR with four-screen recording function. Digital processing allows for quick retrieval. Features two-week nonstop recording at 30 frames/sec. Comes with audio in/out terminals and supports networking as well.

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

DSR-M804 has a compact body suitable for stores and offices with limited space, such as convenience stores, fast food stores, etc. 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 a DVR Utility Software.

**Playback and Image Retrieval while Video Recording**

DSR-M804 can record at the speed of 30 frames/sec (NTSC) and allows more than 336 hours of recording time 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.

**Built-in 120GB HDD**

DSR-M804 performs one-week (168 h) 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 h) of nonstop recording time. The user can also use the optional HDD for mirror recording* to back up important data. (For further details about HDD expansion, contact the place of purchase.)

*Mirror Recording

DSR-M804 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.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>SUPER 128 h</th>
<th>HIGH 168 h (1-week)</th>
<th>STANDARD 336 h (2-week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>120GB</td>
<td>84 h</td>
<td>168 h (1-week)</td>
<td>336 h (2-week)</td>
</tr>
<tr>
<td>240GB</td>
<td>168 h (1-week)</td>
<td>336 h (2-week)</td>
<td>672 h (4-week)</td>
</tr>
</tbody>
</table>

**Audio Recording with 4 Inputs**

DSR-M804 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.

**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 half rack width**

Digital recording is now available in a compact package of 210mm (8.27 inches) in width, which makes it possible to install two DSR-M804 units side-by-side in a 19” rack. It is an ideal solution for the limited spaces of convenience stores, or casinos where a large number of DVRs are needed.

**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. 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-M804 will automatically start recording in the mode predetermined by the user.

**Motion Sensor**

DSR-M804 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-M804 features six playback functions: Playback, Still, Cue / Review (7.5x to 180x), Frame advance, Slow (1/8 to 1/2, forward and backward), and Search.

4-Screen Display
The unit is capable of displaying video images from four 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. In addition, a separate display setting is available for exclusive use at the time an alarm is triggered.

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.

Time/date search
The user can designate time and date 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 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 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.

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-M804 units.


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-M804.

Built-in Control Terminals
These terminals make it possible to control the DSR-M804 using Resistive Ladder 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 DVR Utility Software.

DVR Utility Software for DSR-M804
VA-SW804 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

<table>
<thead>
<tr>
<th>Multi Monitoring</th>
<th>Single Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>System CPU¹</td>
<td>Pentium® 4 3GHz or faster</td>
</tr>
<tr>
<td>Memory</td>
<td>256MB</td>
</tr>
<tr>
<td>Interface</td>
<td>100Base-TX, USB(1.1)</td>
</tr>
<tr>
<td>Display</td>
<td>XGA(1,024 x 768 pixel), 16-million color or greater</td>
</tr>
<tr>
<td>ALG graphics card or graphic chipset with hardware overlay support*²</td>
<td></td>
</tr>
<tr>
<td>Sound</td>
<td>Audio subsystem that supports up to 48Khz or greater stereo playback*²</td>
</tr>
<tr>
<td>OS</td>
<td>Windows® XP Professional</td>
</tr>
</tbody>
</table>

¹ For multiple split-screen monitoring, CPU clock frequency of 750MHz is required per screen.
² Driver software that is compatible with DirectX8.1 must be installed.
² 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-SW804 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 / Spanish
- Built-in time date generator
- Auto repeat recording
- Alarm counter
- Automatic daylight saving time adjustment
- Lifetime counter
- Through output of video
- Push-lock terminals for easy installation (refer to the rear panel photo)
Remote surveillance/control available

DVR Utility Software VA-SW804 (sold separately)

By installing VA-SW804, the user can build a remote surveillance system that links DVRs and PCs via a LAN. In addition to features included in VA-SW808LITE, one can realize simultaneous upload of timer and menu settings to multiple units of DSR-M804 and DSR-M800 that are connected in series, plus data alteration detection for verifying the authenticity of data. Also included is the Multi-Monitor feature that makes it possible to display images from several DSR-M804/DSR-M800 units (max. four units) on one PC monitor. Complete security is provided by ID-password protection with four-levels of accessibility.

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<tr>
<td>System</td>
<td></td>
</tr>
<tr>
<td>CPU*1</td>
<td>Pentium® 4 3.0GHz or faster Pentium® III 800MHz</td>
</tr>
<tr>
<td>Memory</td>
<td>256MB</td>
</tr>
<tr>
<td>Display</td>
<td>Mark S. 0.4 x 0.6 pixel, 16M color or greater ACP graphics card or graphic chipset with hardware overlay support*2</td>
</tr>
<tr>
<td>Sound</td>
<td>Audio subsystem that supports up to 48kHz (or greater) stereo playback*3</td>
</tr>
<tr>
<td>OS</td>
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</tbody>
</table>

* Specifications subject to change without notice

**WARNING:** 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 its electrical specifications 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 "IMO/Excel" are registered trademarks of Microsoft Corporation in the United States and/or other countries.
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*Caution: please consult the instruction manual to ensure safe and proper operation of the product.

Distributed by:

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