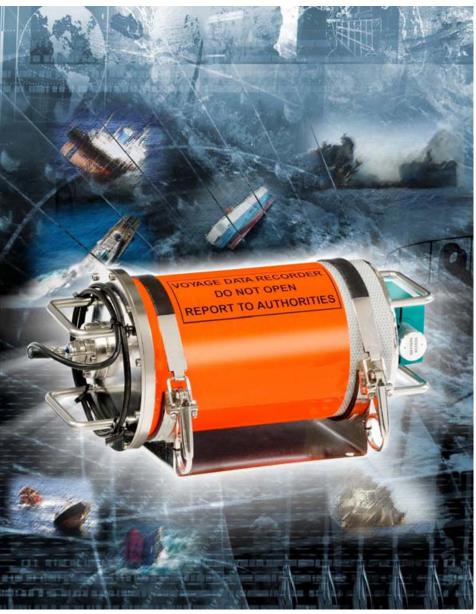


VoyageMaster[™]III VDR Voyage Data Recorder



Sperry Marine

VoyageMaster III VDR

VDR Highlights:

- NEW lighter compact Data Acquisition Unit (DAU) redesigned to provide smaller, more compact unit
- NEW removable USB flash drive
 replaces the mechanical hard drive found on the VoyageMaster II, allows quicker and easier data retrieval
- NEW no moving parts replacement of the mechanical hard drive means no moving parts, making it a more reliable and cost effective system
- Mission critical design designed to allow continued operation even during module failure(s)
- Twelve hour save feature saves and protects 12 hours of navigational data onto USB flash drive, useful for recording incidents
- Pre-configured system allows quick and easy installation and commissioning
- Maritime ruggedness specifically designed to withstand the marine environment
- Playback and analysis software user friendly software offers viewing of navigational, audio and video data in the office or on-board
- "Live" data monitoring capability to monitor on-board data at optional workstations
- **Beyond IMO requirement applications** - additional video, audio and signal recording are possible
- Service friendly maintenance, if necessary, is simplified minimizing repair time and cost
- One stop provider for all your installation, servicing and annual performance testing
- Supported by one of the largest worldwide service networks

VoyageMaster III VDR

Sperry Marine's new third generation Voyage Data Recorder (VDR) is an enhanced compact design with the latest solid state technology that is focused on improved robustness and easier data retrieval via a removable USB flash drive.

The fully type approved system has a flexible modular design that not only conforms to IMO requirements, but provides additional video, audio and signal capabilities. In addition, the new generation VDR is designed without losing sight of low life-cycle costs or the high standards demanded of Sperry Marine products.

Sperry Marine: Your Preferred VDR Solution Provider

Even more important in today's global climate, your choice of supplier is just as important as your choice of VDR.

With thousands of navigation electronics delivered and installed annually, Sperry Marine is an expert in providing high-value navigation solutions. With over 100 years experience in design, development, installation, servicing and support, Sperry Marine has become a world leader in the marine electronics industry.

IMO Carriage Requirements

Voyage Data Recorders (VDRs) are now mandatory equipment on passenger and Ro/Ro vessels engaged in passages within the EU and international waters. In addition, all new vessels over 3000 GRT are now required to fit approved VDR units.

Playback Software

The VoyageMaster III VDR provides a wealth of data for crew, engineers, and the office.

Real-time analysis — Playback software provides the operator with real-time monitoring and analysis. Designed to be intuitive, the software takes only minutes to be mastered.



Playback Screens

Customization capability — The operator has the flexibility to customize the conning pages to the user's preference.

Training tool — The playback function is an excellent tool for crew training. It can be used to set up scenarios showing recordings of best practice navigation.



New Removable USB Flash drive

Data capture — Data can be extracted from the VDR system via PC's LAN line or from the removable USB flash drive. This data can easily be imported into a WindowsTM program for analysis both onboard and on shore.

Additional security – Limited data access can be maintained through the ability to set passwords.

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VoyageMaster III VDR Standard Configuration



Standard Configuration

The basic VDR package consists of the following:

Data Acquisition Unit (DAU):

- 2 VHF inputs
- 2 radar inputs
- Removable USB flash drive
- UPS (2 hour)
- · Lockable, wall mounted

4 indoor microphones

2 outdoor microphones

Protected data capsule (12 hour)

Mount for capsule with 50m cable

Bridge Alarm Unit (BAU) Sensor Interface Unit (SIU)

- 16 Serial (IEC 61162)
- 16 Analogue
- 16 Digital

Playback Software Manuals on CD

Optional:

- Remote Video Unit (2 additional channels)
- Bridge and water-tight microphones
- Extended memory storage device
- 24 hour capsule
- Second SIU (for additional signals)

Mandatory VDR Signal List:

- Data and time (GPS)
- Latitude and longitude (GPS)
- Speed (speed log)
- Heading (gyro)
- Bridge and VHF audio
- Main radar
- Depth beneath the keel
- All IMO mandatory alarms
- Rudder order and response
- Engine order and response
- Hull operating status
- Watertight and fire doors
- Wind speed and direction
- Hull stress monitor (if fitted)

Type Approval

VoyageMaster III fully complies with the following type approval requirements:

- MSC 163 (78)
- IEC61996
- IEC60945
- EU MED Wheelmark
- MSC 214 (81)

Annual Certification

SOLAS V Regulation 18 requires all VDR units to have an annual performance test. Sperry Marine has been certified by ABS, Lloyds, GL, USCG and DnV to carry out the annual performance testing and recertification.



Training

Sperry Marine supports the VoyageMaster III VDR and all of its products with certified maintenance, support and operator training classes. Students may attend training in Copenhagen, Denmark; New Malden, U.K.; or Charlottesville, VA U.S.A. Alternatively, on-board training may be arranged.

Additional Information

Please go to Sperry Marine's website for additional information regarding Voyage Data Recorders and a downloadable VDR Guide.

www.sperrymarine.northropgrumman.com

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VDR System Components

Data Capsule



Width: 420mm	16.5"
Height: 208mm	8.2"
Depth: 241mm	9.5"
Weight: 14kg	31 lbs

Data Acquisition Unit



Width: 525mm	20.7"
Height: 332mm	13.1"
Depth: 336mm	13.2"
Weight: 23kg	51 lbs

Sensor Interface Unit



Width: 525mm	20.7"
Height: 342mm	13.5"
Depth: 332mm	13.1"
Weight: 20kg	44 lbs

Bridge Alarm Unit



Width:	144mm	5.7"
Height:	144mm	5.7"
Depth:	50mm	2"
Cut out:	100 x 100mm	3.9 x 3.9"

Water-tight **Microphone**



	0.011
Width: 96mn	า 3.8"
Height: 96mn	n 3.8"
Depth: 84mn	n Max 3.3"

Bridge Microphone



Width:	84mm	3.3"
Height:	84mm	3.3"
Depth:	56mm	2.2"

Global Support Network

Sperry Marine maintains a globally supported service organization with authorized service at more than 200 locations worldwide.



Sperry Marine, with worldwide headquarters in Charlottesville, VA, and major engineering and support offices in Melville, NY; New Malden, England; and Hamburg, Germany, is part of the Northrop Grumman Electronic Systems sector.



