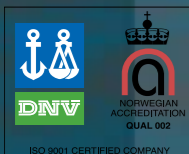




VDR2200 SVDR2200 ECDIS COMBO Power Over Ethernet



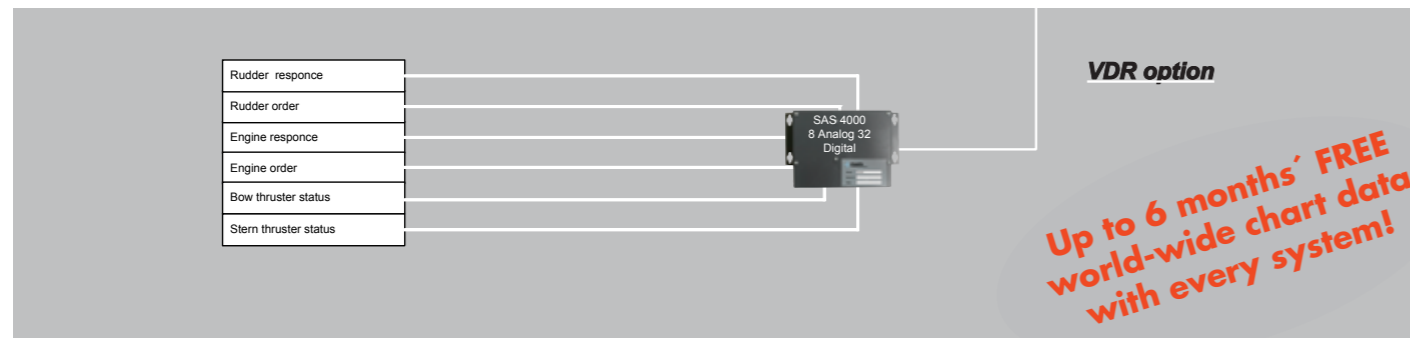
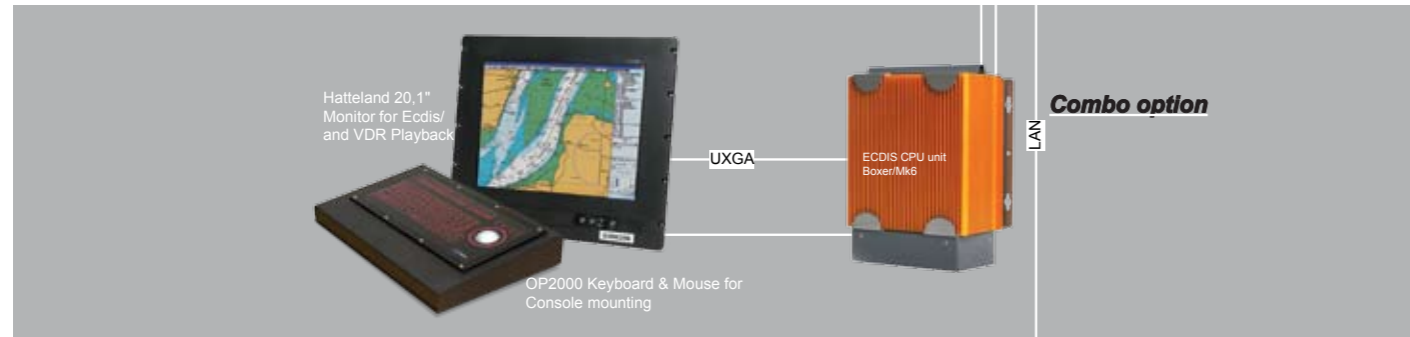
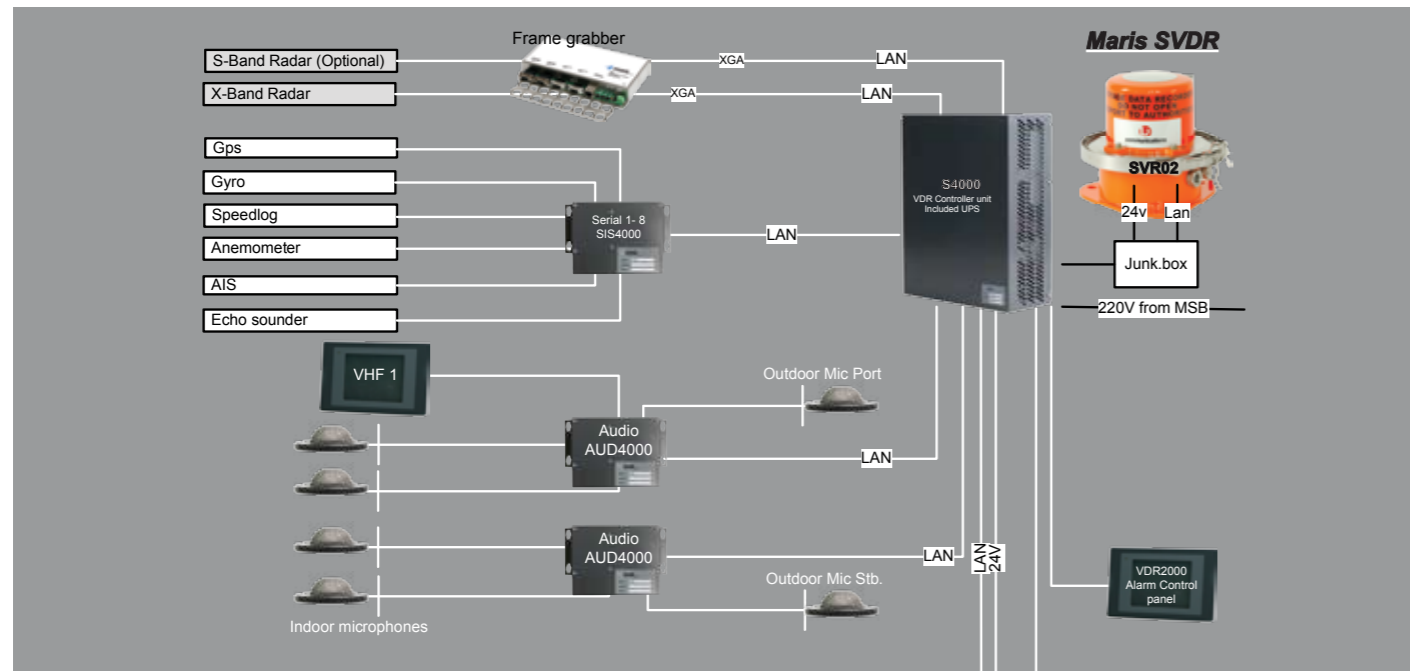
MARIS is a limited company with head office in Tonsberg, Norway a recognized centre for maritime information technology. The company has delivered thousands of navigation systems to customers all over the world. The majority owner is the Grieg Group (www.grieg.com)

The Grieg Group has its beginnings in a long and proud maritime tradition. Today, in addition to shipowning and shipbroking, the group is engaged in fish farming and processing, global logistics, insurance broking and asset management, employing some 900 people.

MARIS roots go back to the start of the maritime information technology explosion of the mid-1960s. MARIS is a system house with world-class experience in maritime on-board systems. Innovative engineering from people in MARIS has added several "worlds first" to the global list of milestones. Among our worlds first are "Wheelmark" certified ECDIS and PC radar/ARPA, IEC 60945 certified Flat Panel Computer and S-VDR/ECDIS COMBO.

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Type Approved Combined VDR/S-VDR with optional ECDIS900



Up to 6 months' FREE world-wide chart data with every system!

Maritime Information Systems AS introduced the world's first DNV type approved VDR and S-VDR with optional ECDIS in 2005, providing, in addition to the recorded data required under IEC 61996, recording of the complete logbook database in ECDIS.

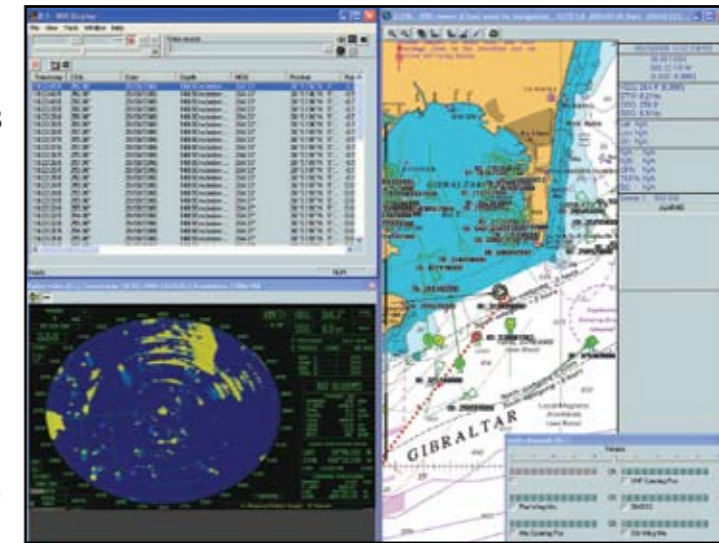
Maritime Information Systems AS now introduces its second-generation S-VDR combo utilizing power over ethernet technology making it the simplest system on the market to install and maintain due to its modular design.

The system may be delivered as a standard S-VDR in full compliance with IEC 61996 or as a combo with fully type approved ECDIS and extended recording capability. The additional ECDIS capability may be installed at any time in the future if the system is initially supplied as a pure S-VDR.

Additional analogue and serial modules are available to extend the capabilities to those of a full VDR and beyond.

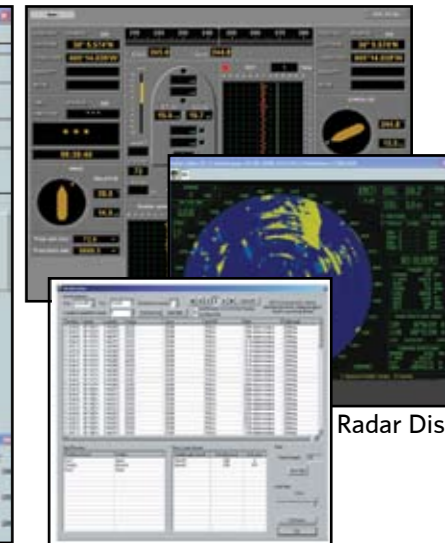
The SVDR-2200 offers a complete new generation of Voyage Data Recorders providing unmatched flexibility, stability, ease of installation and maintenance together with unmatched record and playback capability.

The MARIS ECDIS900 logbook, which complies with SOLAS regulation V/28 for records of navigational activities, provides navigator textual notes, route-monitoring information, including reference to the displayed charts, its updating, ship's track, heading, speed, alarms and acknowledgements and all other settings of the MARIS ECDIS900. The past twelve hours of this data is recorded to the hardened storage device, fixed or float free, together with the obligatory VDR or S-VDR data.



ECDIS Display

Conning Display



Radar Display

General Data Display



The VDR2200/S-VDR2200 replay system allows the data to be "burnt" to CD ROMs, and in doing so an ECDIS reader heads the data, such that replay reconstructs the actual ECDIS displayed data. This in addition to the display of recorded raw data, audio, VHF, radar etc., which can be displayed in raw form, as radar image or in the form of a conning display. The CD with recorded data may be replayed on any Windows compatible PC.

With the increased use of ECDIS, impending compulsory carriage and the move to paperless navigation, traditional plotting of ships position on paper charts will be significantly reduced. In most cases it will not be executed at all, when ECDIS is used as primary aid to navigation.

It means that the logbook database in ECDIS is left as the only source of route monitoring information, including reference to displayed charts, its updating, ships track, heading, speed and all settings of ECDIS. Existing standards do not contain requirements for the registration and recording of this information in VDR and S-VDR systems, now required for compulsory carriage on all SOLAS registered vessels between 2006 and 2010. Phase in compulsory carriage of ECDIS is expected to commence toward the end of the S-VDR phase-in.

Ship-owners are faced with investing, first in either a VDR or S-VDR, and then an ECDIS. Neither a VDR nor S-VDR records the complete navigational picture. Whilst an ECDIS with logbook

function compliant with the SOLAS requirements for records of navigational activities under regulation V/28 does - it does not record this data to a hardened removable storage media.

MARIS has developed options for both its VDR2200 and S-VDR2000 to enable integration of its ECDIS900 system in one and the same unit, providing complete ECDIS900 logbook recording and replay. The combined units are less than the cost of an ECDIS900 and separate VDR2000 or S-VDR2000, and likewise the double installation costs of fitting both independent of one another are halved since one installation provides both systems.

An addition of a single ECDIS workstation enables the ship-owner to move toward paperless navigation or, dependent on flag state, a reduction of the paper chart portfolio otherwise required to be carried.

- ECDIS as playback unit included
- ECDIS logbook included
- Real time, RAW data network broadcast enable display on any multimedia computer connected
- Loading of Voyage Data Recordings and logbook to DVD-Recorder
- Maritime Digital Services (MDS)

All Maris ECDIS and ECS systems are fully compatible with MDS for the uptake of electronic charts, publications and other services.