AMI | MARINE

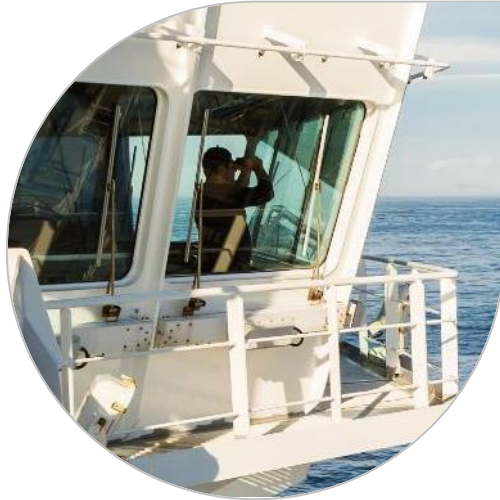## FOR EVERYTHING MARINE, THINK AMI

X2 VOYAGE DATA RECORDER

www.amimarine.com

- Founded in 1995, AMI Marine is a British manufacturer of Bridge and Navigation electronic equipment.

- We provide high quality technology ranging from docking assist systems to interfacing and data recording for vessel operators and owners of small commercial workboats to the largest VLCC Vessels.

- AMI is a ISO9001/2015 registered company and have achieved MED Type Approval on a number of our products.

Our Family of Data Recorders suit all users and all types of vessels. Our mini black box recorders are ideal for vessels which do not have to carry Voyage Data Recorders, but are optional solutions for vessel owners and operators of smaller vessels under 3000 GRT.

X-VHFR

X-MDR

X2 S-VDR

X2 VDR

Best practise for non-mandated vessels. Provides evidence in case of incident. Confirms vessel location and communications.

Mandated use of Simplified VDR. Applies if the vessel is not a passenger vessel and is over 3000GT and was built before 2002.

Mandatory for vessels over 3000GT, Plus all passenger carrying vessels in international waters.

*All AMI recording equipment is flexible and can be configured record many forms of data with and volumes of data.

Pre July 2014 VDR Regulations (IEC 61996-1 Ed1.0)

- Fixed Protective Capsule must record minimum of 12 hours data
- At least 1 radar must be recorded
- The primary VHF audio must be recorded
- Microphones must be provided to cover each coning position to continuously record bridge audio
- Access to data for Investigators must be provided

New VDR Regulations (IEC 61996-1 Ed2.0)

- Fixed and Float-free capsules are required, each must be able to hold a minimum of 48 hours of data.
- Long-term recording medium must hold a minimum of 30 days of data.
- A maximum of 2 Internal Microphones should be connected to a single recording channel
- External Microphones must be recorded on a separate dedicated channel.
- Both radars must be connected and recorded.
- The Automatic Identification System (AIS) must be recorded.
- Electronic Chart Displays (ECDIS) must be recorded is suitable output is available
- Roll and Pitch motion must be recorded, if an electronic inclinometer is installed
- BNWAS data must be recorded.

Item	Pre July 2014	Latest VDR Regulations
Final recording medium	• Fixed Protective Capsule 12 hours minimum	• Fixed Protective Capsule & Float-free 48 hours minimum • Long-term recording medium 30 days minimum
Radar & Charts	• 1 radar minimum	• 2 radars minimum • Master ECDIS
Audio	• Separate channel to VHF • 1 or more Microphones continuously recording Bridge conversion on dedicated channel.	• Separate channel to VHF • Separate channels for internal microphones and external microphones
Download	• Requirement for Investigators to have access. No requirement for ship's staff access.	• Investigators have access. A download interface available for access by ship's staff for routine management information
Alarms	• Audible alarm required for system faults	• No audible alarm required, visual caution indication required only

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FOR EVERYTHING MARINE, THINK AMI

The X2 voyage data recorder has been designed with the combination of a high-performance main processor and solid state technology, offering extremely reliable performance with a superior user experience.

- Fit and forget system with superior solid state technology

- 8" and 9.7" Touch screen display options

- Three wire microphones for ease of retrofit

- Adaptable cable management system

- 1TB Internal storage allows for over 30 days storage

- 64GB Float Free and Fixed Capsule for over 48 hours of data per capsule

Type Approved as Voyage Data Recorder and Simplified Voyage Data Recorder

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STANDARD SCOPE OF SUPPLY

VDR System with both Float Free and Fixed Capsule, 2x VGA inputs for ECDIS/RADAR

SYS-0061

Product No.	Qty	Description
MEU-0017	x1	**VDR X2 Main Electronics Unit**
KIT-0012	x2	**Video Capture Card**
KIT-0027	x1	**Display Unit Interconnection Cable Kit**
MIC-0006	x4	**Internal Microphone**
MIC-0005	x2	**External Microphone**
DSP-0019	x1	**8" Flat Bezel Touch Screen Display** (Optional 9.7" Display Upgrade)
PSU-0014	x1	**Battery Backed Power Supply**
BAT-0011	x2	**Backup Batteries**
CAP-0001	x1	**Fixed Hardened Capsule**
CAP-0002	x1	**AMI Marine Float Free Capsule**

MAIN ELECTRONIC UNIT

The X2 Main Electronic Unit is simple to install, has clear LED indications and a new larger cable management system to accommodate bulky VGA connectors and larger power cables. Other main features include:

- 20x NMEA Data Inputs
- 10x Audio Channels (8 Microphone and 2 VHF Audio),
- 2x Radar VGA/DVI Image Capture *
- ECDIS Ethernet Interface for Ship's Network (IEC 61162-450)
- 1TB Solid State Drive LTRM (30 Days)
- Additional Storage Options Available

POWER: 24vDC

DIMENSIONS: 500 x 570 x 160mm 12kg

Up to an additional 2x video capture cards available for ECDIS image capture

TOUCH SCREEN CONSOLE -8"

The main user interface is intuitive and user friendly, allowing seamless access to the data being recorded in real time, along with simple indications in the event of sensor loss.
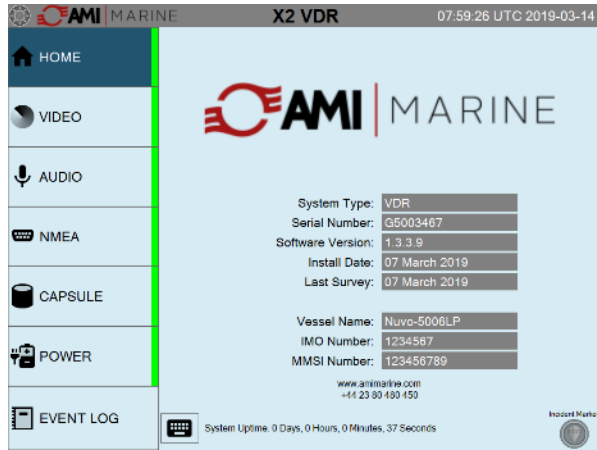
- High Resolution Touch Screen Display
- Night Mode and Brightness Controls
- View Radar, ECDIS images and Audio Channels separately
- Realtime NMEA data monitoring
- "On Demand" System Performance Test
- Ethernet Interface for Data Collection
- Console Flush Mounting
- VESA Mounting Option Available

POWER: 24vDC supplied from the MEU

DIMENSIONS: 188 x 245 x 56mm 1.5kg, *based on 8" Display*
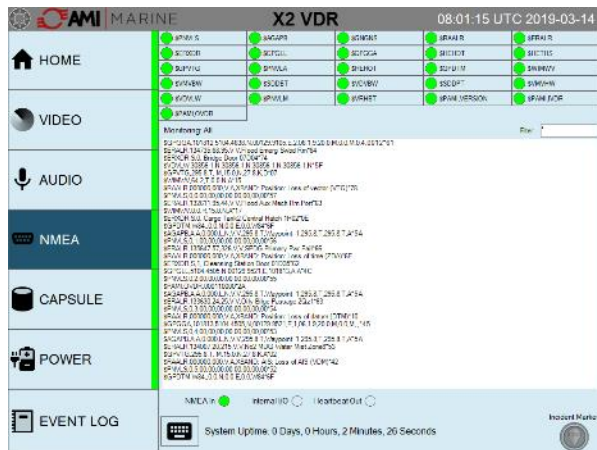
HOME PAGE

RADAR AND ECDIS VIDEO PAGE

AUDIO AND VHF PAGE

SERIAL DATA PAGE

SERIAL DATA PAGE – NIGHT COLOURS

CAPSULE AND STORAGE STATUS PAGE

UNINTERRUPTED POWER SUPPLY

The smart UPS will support you system when you lose power, it has an automatic change-over to battery backup when mains fail or drop.

- 110 to 230vAC 50,60Hz
- Battery Backed for 2 Hours Continuous Operation
- AC Status Monitoring
- Battery Health Monitoring

POWER: 24vDC Output

DIMENSIONS: 400 x 300 x 210mm 9.8kg Without Batteries / 22.8kg with Batteries

FLOAT FREE CAPSULE

The AMI Float Free Capsule is a Cospas-Sarsat and MED approved float free capsule which combines an Emergency Position Indicating Radio Beacon (EPIRB) and a 64GB float free storage medium to meet the MSC.333(90) and IEC 61996-1 Ed 2.0 VDR regulations.

- 64GB Solid State storage
- Holds in excess of 48 hours of recorded data
- Simple Ethernet connection

POWER: 24V DC Supplied from the MEU

DIMENSIONS: 293 x 197 x 140mm 1.1kg

AMI FIXED CAPSULE

The AMI Marine fixed capsule combines high mechanical security with simple operation. With excellent build quality the equipment was designed with reliability and durability in mind.

- 64GB Solid State storage
- Holds in excess of 48 hours of recorded data
- Supplied with 15m Cable
- Supplied with PT9 Ninety ULB (*90 Days Operational Life*)

POWER: 24vDC supplied from the MEU

DIMENSIONS: 153 x 180 x 236mm 12kg

EXTERNAL MICROPHONE

INTERNAL MICROPHONE

EXTERNAL AND INTERNAL MICROPHONES

The X2's three wire microphone solution allows for the existing cabling from previous VDR/S-VDR systems to be incorporated, removing the requirement for new cable runs.

EXTERNAL MICROPHONE
- IP67 Waterproof
- Built in Self-Test
- Environmental controls for audio optimisation

POWER: 12vDC supplied from the MEU
DIMENSIONS: 110 x 80 x 65mm 100g

INTERNAL MICROPHONE
- Compact Design
- 3 Wire Connection
- Built in Self-Test

POWER: 12vDC supplied from the MEU
DIMENSIONS: 47 x 39 x 25mm 80g

ANALOGUE INTERFACE - INT-0024

- 16x Input channels up to +/- 30V
- NMEA Data Output
- Data Pass Through Option
- Accepts AC or DC Input Signals

POWER: Nominal 24vDC

DIMENSIONS: 180 x 300 x 70mm 1.5kg

DIGITAL INTERFACE - INT-0025

- 32x Input Channels
- Data Pass Through Port
- Input and Output LEDs for Performance Monitoring

POWER: Nominal 24vDC

DIMENSIONS: 275 x 175 x 70mm 1.3kg

TOUCH SCREEN CONSOLE -9.7" - DSP-0020

- High Resolution Touch Screen Display
- "On Demand" System Performance Test
- Ethernet Interface for Data Collection
- VESA mounting option

POWER: 24vDC supplied from the MEU

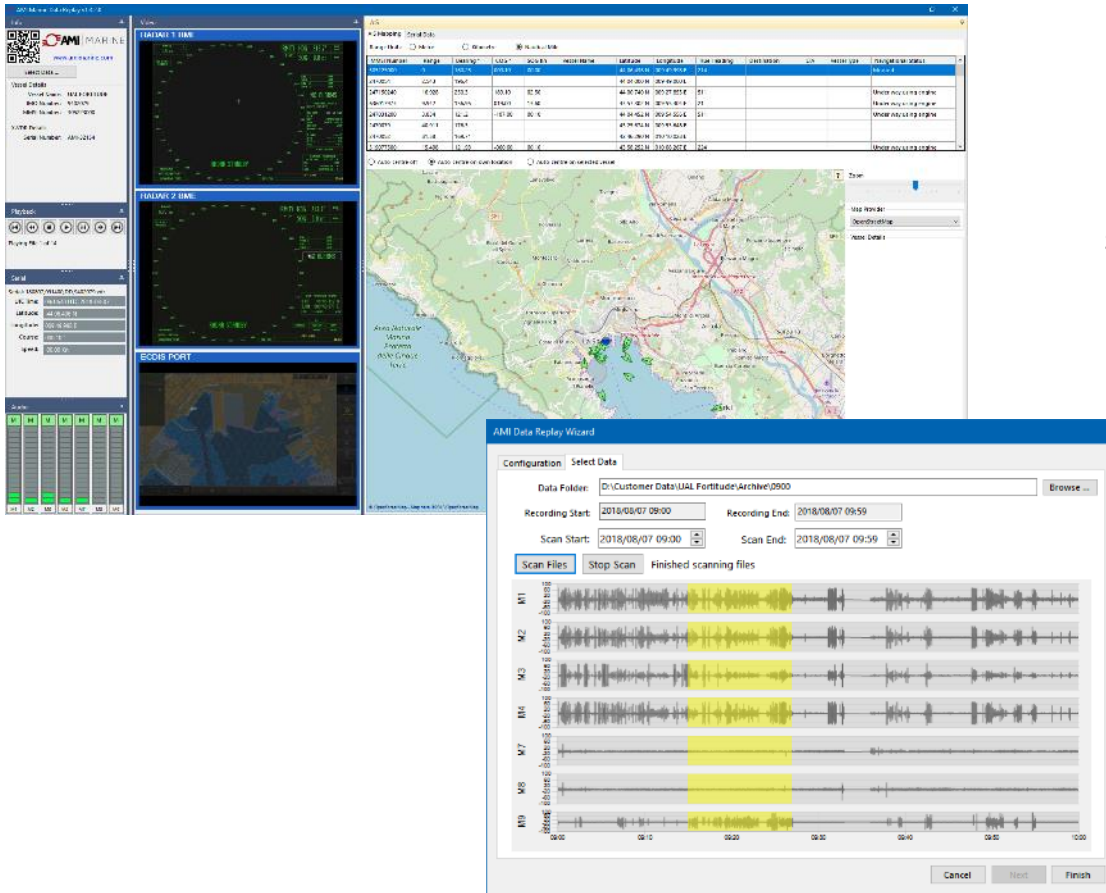**DIMENSIONS:** 280 x 219 x 38.50mm 1.8kg

VIDEO CAPTURE CARD KIT- KIT-0012

- Additional video inputs such as ECDIS or Radar
- Accepts video signal of up to 1920×1200
- Comes with required fittings, DVI to VGA converter and USB cable

DIMENSIONS: 170x140x120mm 400g

The AMI Marine Replay software is unique due to having '*Audio Scan'* and '*Jump to Incident*' functions to provide intuitive data review by engineers, ship's crew and accident investigators.

The data download process is straight forward using a laptop or Office PC connected to the Ethernet port of the touch screen display. The provided download software allows the operator to choose data from the desired time period, along with the replay software and configuration files.

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THANK YOU FOR YOUR TIME

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