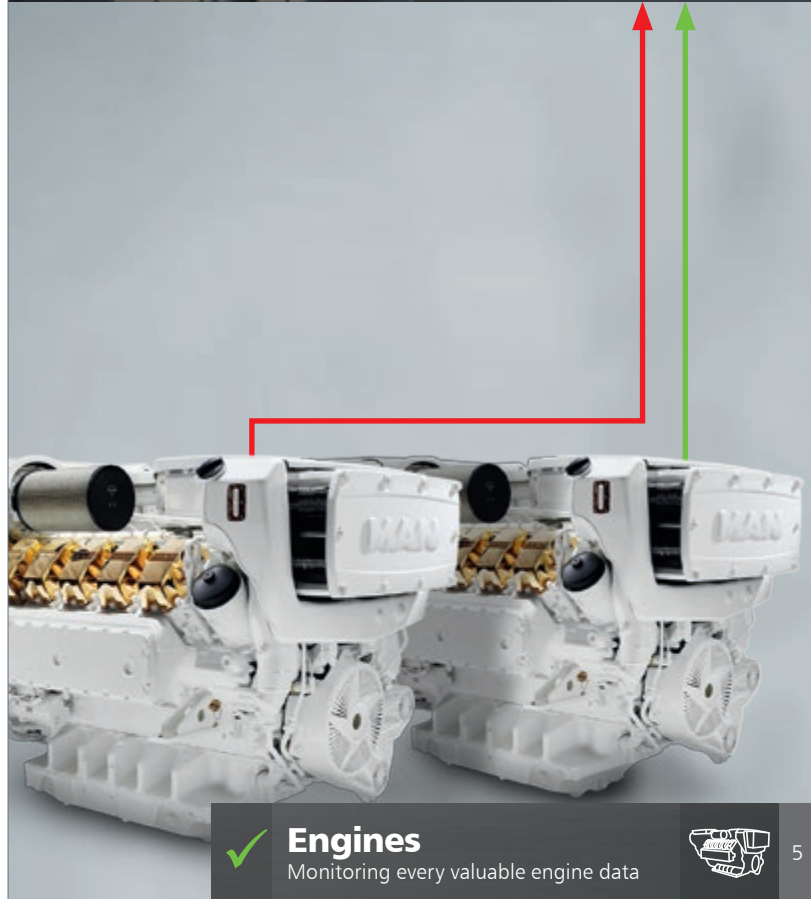Modular Alarm, Monitoring and Control System

Diesel Engine Monitoring and Ship Automation

Expansions for Commercial Vessels

Böning

SHIP AUTOMATION

Engines
Monitoring every valuable engine data

Integrated Alarm, Monitoring and Control System

Böning ship electronics are not only extremely well-suited for initial installations of engines in new vessels or engine retrofits, but also refit measures for used ships.
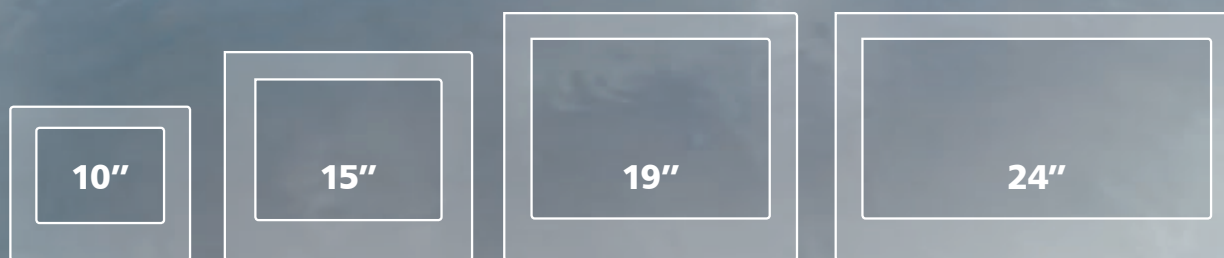
Using state of the art technology, Böning manufactures durable, modular products. This allows ships to be outfitted in an individualized, reaction-free manner, matched precisely to the customer's needs and requirements. As you'll see on the following pages, we are able to offer initial outfit and retrofit solutions that can be expanded when needed.

The use of modern communications media on the bridge – such as user friendly touch screen displays, powerful panel PCs, and multiple redundant safety systems – allows the crew convenient and clear access to all safety and operationally relevant data.

Pick any Module for Increased Vessel Efficiency

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Böning

Panel PC Systems

| 10" | 15" | 19" | 24" |

AHD 1224 G

24" Panel PC with glass front.

Dimensions (W x H x D)	620 mm x 384 mm x 107 mm
Display resolution	Full HD 1920 x 1080 pixels (16:9)
Viewing angle	Hor. 89/89°; Vert. 89/89°
Luminous intensity	Approx. 1,000 cd/m²

AHD 1219 G

19" Panel PC with glass front and touch screen.

Dimensions (W x H x D)	454 mm x 384 mm x 107 mm
Processor	1.3 GHz DualCore, 4 GB RAM, 4 GB Flash Disk
Display resolution	SXGA 1280 x 1024 pixels (5:4)
Viewing angle	Hor. 89/89°; Vert. 89/89°
Luminous intensity	Approx. 1,000 cd/m²

Also available with foil front and without touch screen:
AHD 1219 F

AHD 1215 G

15" Panel PC with glass front and touch screen.

Dimensions (W x H x D)	384 mm x 324 mm x 107 mm
Display resolution	XGA 1024 x 768 pixels (4:3)
Viewing angle	Hor. 70/40°; Vert. 70/70°
Luminous intensity	Approx. 1,600 cd/m² Best readability at all ambient light conditions

Also available with foil front and touch screen:
AHD 1215 F

AHD 1310 G

10" Panel PC with foil front and touch screen.

Dimensions (W x H x D)	280 mm x 240 mm x 87 mm
Display resolution	XGA 1024 x 768 pixels (4:3)
Viewing angle	Hor. 178°; Vert. 178°
Luminous intensity	Approx. 1,000 cd/m²

Also available with foil front and touch screen:
AHD 1310 F

# Engine Monitoring on a large Scale

Engines, Analog

The display provides information about the engines' state, using customary display systems. The engines' data is shown on round instruments and in numeric presentation.

Engines, Bargraphs

The bar graph presentation makes for easier reading of important engine parameters, thus allowing quick visual comparsions.
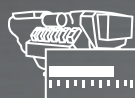
Engines, Digital

Access to all engine data at a glance often saves a trip to the engine control room.

Visible and Audible

Navigation Lights

The modular system controls and monitors up to 42 navigation and signal lanterns on board vessels. It can be tailored to customer specific requirements. Available in different versions for all conventional voltages, the system can be used with conventional or LED lanterns.

The lanterns are controlled with an operation panel, which features one operation button and one LED staus light for each lamp circuit.
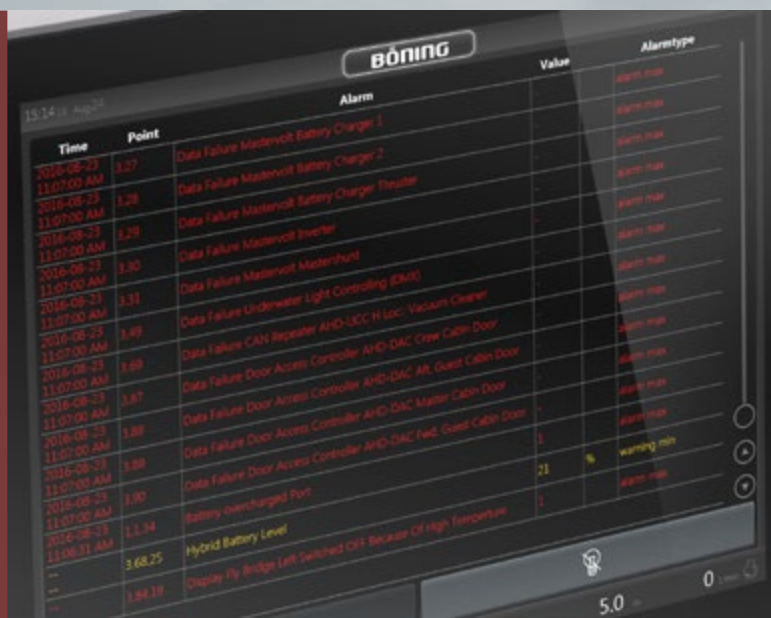

Signal Horn

Control for one or several signal horns with an operation panel. The signals comply with COLREGs collision prevention regulations.

Searchlights

Operation panel for controlling a search-light. The functional scope includes the searchlight's orientation in any direction.

General Alarm Panel

Bridge Console Panel for signal horn operation in case of general alarms. Usual signals are prepro-grammed, manual operation button is included.
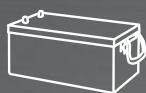
Electrical Power Supply

Generators

On-board power grid monitoring, including the generator engine data, performance values, fault alarms, and load distribution.

Battery Chargers

Display of the battery charge status, including customized generator and battery selection.

Power Distribution

Monitoring and switching of electric energy for various sub-systems. The power supply system is visualized on a graphic representation with switchable circuit-breakers.
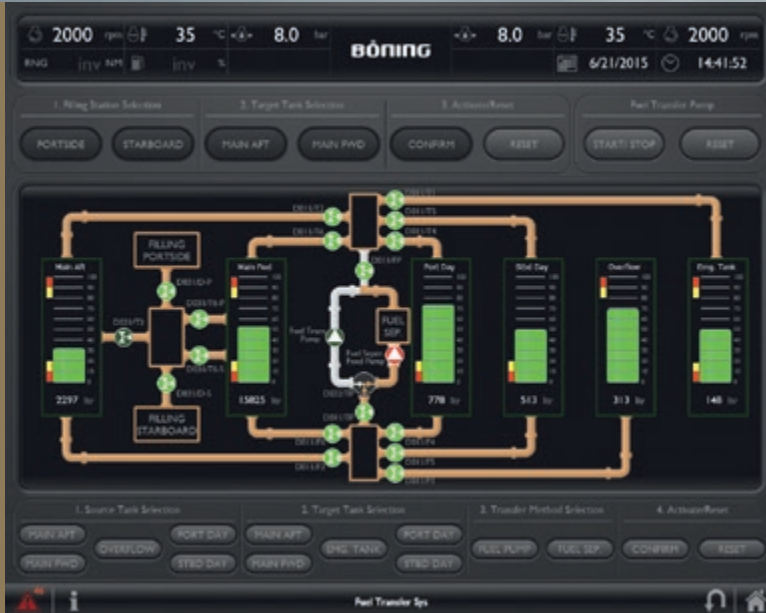
Liquid Resources Control and Monitoring

Tank Levels

Fuel, water, oil, and other resources - as well as waste water and sewage - are carried along in tanks. Bar graphs display the tanks' filling states.

Also available:
Tank spill warning gauges for outdoor installation.

Fluid Transfer

Monitoring and switching of the fluid transfer systems, including tank monitoring and pump states.
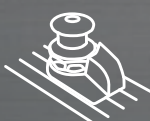
Fuel Monitoring

Comprehensive fuel consumption monitoring with flow meter data for all engines on one screen with trip data. Optionally, E-Mail reports of all fuel data are automatically transmitted.

Hydraulics

Monitoring of hydraulic pressures and states. Böning also provides an anchor control panel with convenient up and down controls for operating one or two windlasses.

Thrusters

The thruster panel AHD-TP 2 allows for convenient and individual control of two hydraulically and/or VFD (electrically) operated ABT thrusters. With integrated monitoring by an acoustic signal device.

Bilge System

Monitoring and switching of the bilge pumps, including alarm and operate mode selection (automatic/manual).
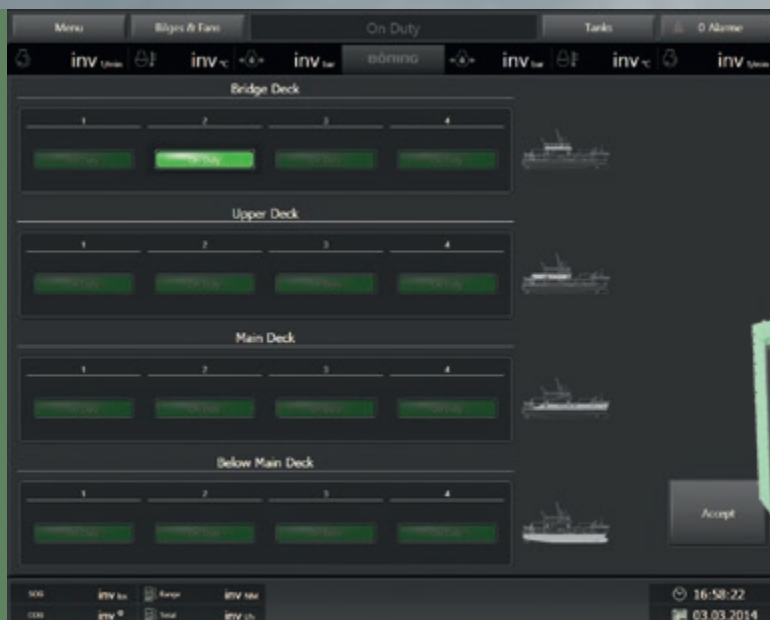

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Vessel Surveillance

Doors and Hatches Monitoring

Sensors supply data for visualizing the status of doors, hatches, ladders, and windows on a deck arrangement.

On Duty System

The type approved components of the watch standby and engineer call system are used on board ships classified for use with permanently or temporally unmanned engine rooms.

Invalid states (e. g. alarms) and status messages are assigned to alarm or indication groups and to the cabin duty alarm/ engineer call panels and if necessary, to the bridge panel or a bridge display.

Fire and Gas Detection

During a fire, time is critical. Therefore a fast and precise localization of the fire helps the operator and fire guards to take suitable measures. The display pinpoints the exact location of the detected fire.
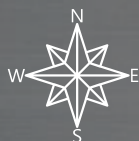
The system works with several smoke, heat, and gas detectors.

Navigation and Conning

Conning

Conning page with navigational round instruments, such as air pressure, air temperature, humidity, COG, SOG, roll-pitch-yaw angle, and water depth.

Radar and Maps

Customized design of a master page with integration of radar plots and/or sea maps, eliminating the need to switch to another device. Furthermore, the radar and maps software can be used in full-screen mode, and with a single press of a button, the user switches back to the Böning automation software.

Video Surveillance

It is good to know what happens on board or in the vessel's close vicinity. Cameras in selected places monitor the corresponding areas. Conveniently controlled from the bridge, the display shows the desired images. Up to four fields can be viewed simultaneously on the display.

Security

Watch Keeper Panel

Timer panel with key activation and adjustable watch durations with code protection. Up to four acknowledgement buttons or alarm buzzers directly connectable.

Cabin Comfort

Air Conditioning

Central remote control of the air conditioning system from a single page. Select the room in the deck view, and set the temperature and fan speed.

Lights

A centralized lighting control and monitoring is not only convenient but also efficient. For switching internal and external lights or light groups.

Crew Convenience

Windshield Wipers

Automotive system adapted to the marine world – wipers help to keep clear sight.

Engines Start/Stop

Start and stop the engines not only from the bridge but also on the fly. Key controlled starting system with emergency stop.

Blowers

Monitoring and controlling for fans and blowers from a central point.

Remote Analysis

Remote Access

Monitoring and fault detection with a web browser, allows viewing the vessel's current data and sending commands to the ship's system from any location. The Internet access is password protected. To ensure the vessel's safe operation, safety relevant functions, such as starting and stopping the engine, cannot be opened.

Already existing Böning systems can be retrofitted with this remote access system AHD-WNA.

iPad® Web and Log

AHD-WNL (Web and Log) integrates the iPad®, iPhone®, iPod®, and other clients seamlessly into the ship's Böning monitoring and control system. With the corresponding rights, the user can access and control them at any time in the Wi-Fi board network. The visualization on the clients matches the visualization on the ship's displays, thus ensuring familiar, safe operation.

The visualizing software AHD-IAMCS is designed for AHD-WNL with many standard pages for the most common data and control functions. Freely available at the Apple App Store.
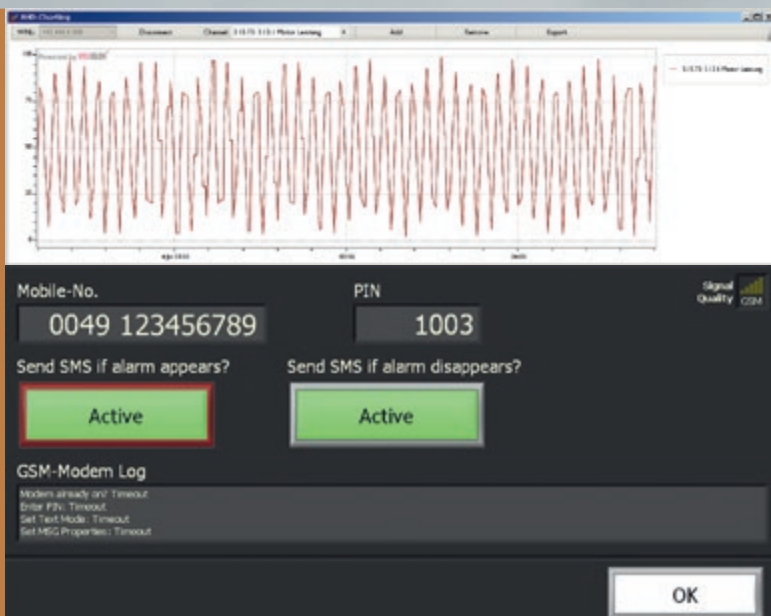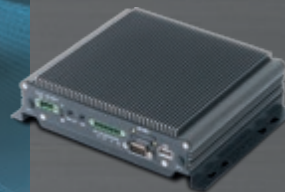
Data Logging

Graphic presentation of AHD-WNL logging data. AHD-WNL logs the data of ship system channels set up during the system configuration viewing on the vessel's displays. In the graphic presentation, the user can view individual values, move the display curve, enlarge value ranges by zooming, and export their data in XLS (MS Excel®) format.
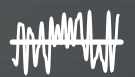
Alarm Messenger Unit

During an alarm, the GSM-Kit sends a message to a previously entered phone number with detailed alarm information.

The Company. The Staff. Your Benefit.

About us

Our company's founding stone was laid in 1977 when the the Engineering Firm Böning was formed. In 1996, it became the Engineering Firm Böning GmbH, and it was renamed to Böning Automationstechnologie GmbH & Co. KG in 2003. From the onset, the development and manufacture of electronic devices and systems for ship automation was a major focus of all company activities.

While originally rooted in commercial shipping, our involvement in the area of super and mega yachts since 1996 has also been successful. Today, our devices and systems can be found on more than 13,000 commercial ships and yachts. Incidentally, the bulk of these have been developed and manufactured in-house.

To date, a staff of approximately 100, including about 20 engineers in the area of development alone, are employed here in Ganderkesee in an area of nearly 4000 m² for office, production, and storage space.

One of our responses to the economic crisis beginning in 2008 is our continued drive toward globalization. In this context, we point to branch offices in Brazil, Italy, and Croatia, as well as representatives and distribution partners all over the world. This allows us to better meet the demands for competent service and short routes – especially by shipping companies and yacht owners.

Our recipes for success include a close cooperation with our customers. This results in the production of practice-oriented, reliable devices and systems, and this positive synergy leads to the continued growth of our expertise. Here, we point out the integrated alarm systems which affect practically all areas of ships.

As a rule, safety relevant devices and systems are type approved according to Germanischer Lloyd and other classification societies.

Our company is DIN EN ISO 9001:2008 certified.

Böning

www.boening.com

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SHIP AUTOMATION