

B&G

2010 CATALOG



A brand by Navico - Leader in Marine Electronics





B&G is world-leading sailing technologies for discerning yachtsmen, developed through an uncompromising approach to performance, precision and reliability.

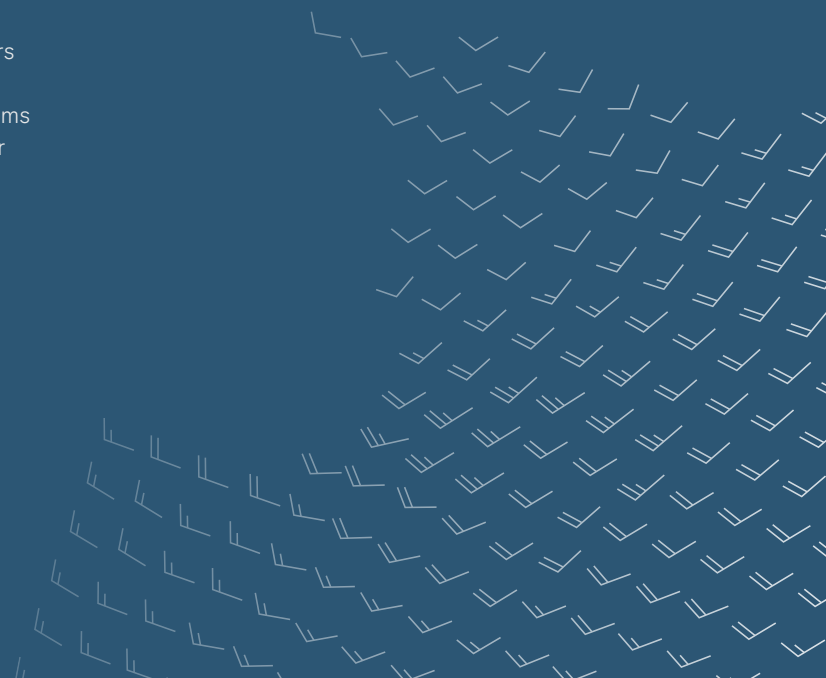
With B&G, you get only the highest standard of products and services, which is why our systems are chosen by more winning yachtsmen than any other. Sailing experts choose B&G because they need the best equipment to handle the most challenging conditions. Our accurate, durable technology and uncompromising support is available to all our customers, ensuring you maximum value from your investment in B&G equipment, whether racing or cruising.

When speaking to a member of the B&G team, you are speaking to someone who is passionate about sailing. So if you need advice about what system you should be installing on your boat or how to get the best from your Instruments, Pilot or Navigational Software, you can be confident that you are speaking to the best in the business.

B&G chosen by the world's best sailors for over 50 years

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REGATTA SUPPORT Innovator in the field of high-quality marine electronics, B&G is proud to live up to the constant demands of the yachting community by developing new technology to fulfil every sailor's needs. Listening to customer feedback and spending valuable time on the water enables us to further develop the technology and functionality of our products to the highest standard.



Marcel Van Triest

Wherever you are in the world, B&G is close by

With at least one sailing event taking place somewhere in the world almost every day of the year, B&G's record in providing comprehensive global regatta support is second to none.

The B&G extended network of national distributors, local dealers and B&G specialists ensures expert presence at hundreds of events every year. At larger regattas, you will find B&G's dedicated regatta support team providing an unequalled level of service to all B&G users - when and where they need it most.

B&G Regatta Services:

- Notification of regattas attended and activities on offer
- Courtesy pre-race dockside visits to B&G yachts
- On-the-water tuning and calibration
- System upgrade advice
- Seminars and training
- Pre-race briefings including local knowledge and tips
- On-the-water support both pre and post race
- Stock of spares
- Help and advice

Visit www.bandg.com for our full regatta support schedule.

When setting out on a transatlantic world record attempt, it is essential that your instrument system is 100% reliable and the information you display around the boat, is highly visible. At boat speeds in excess of 40 knots, it is as important to monitor the loads on the boat as it is the wind speed. The B&G WTP2 gives us the reliability we need and the flexibility to add custom sensors to monitor loads, while the 40/40HV displays ensure that we can see clear data from anywhere on deck.

Marcel van Triest Navigator onboard Banque Populaire V, holder of the Transatlantic Record and 24 hour distance record

WORLDWIDE SUPPORT Many boats race or cruise a long way from their home waters, but when you purchase B&G equipment you can be confident that you will receive a high level of support wherever you are in the world.

B&G has an experienced global team that will provide the information, service and support you need when abroad. Following the integration of B&G into the Navico group, we have combined our extensive international team of experts and substantially increased our worldwide support network. The global network of B&G support includes affiliations with professional sailors, electronics experts and yacht clubs such as the Yacht Club Costa Smeralda in Sardinia. As well as extensive travelling customers, we work with high profile partners and organisations such as Nautor's Swan and the Volvo Ocean Race.

View the list of B&G distributors at the back of this catalog or visit www.bandg.com for local dealer information.

BT's new B&G H3000 Hercules Motion system worked fantastically throughout our Rolex Fastnet Campaign and provided noticeably more stable and accurate wind information. This combined with the latest B&G Pilot software allowed us to win against our fully-crewed competitors.

Seb Josse Skipper of BT IMOCA60



AS A HIGHLY VISIBLE BRAND B&G is regularly blessed with success stories demonstrating how effective and highly regarded B&G equipment is.



**VOLVO
OCEAN
RACE**

2008 – 2009

The iconic Volvo Ocean Race, formally Whitbread Round the World Race, is the ultimate test of human and technological endurance. Over the past 10 races, B&G has been committed to supporting the race organizers and teams every step of the way. Being so involved has allowed B&G rare access to prove innovative products in the harsh and testing conditions experienced. Working with the worlds best offshore sailors, keeps B&G on the leading edge of marine electronics.

All nine Volvo 70s in the 2008-9 fleet were equipped with a WTP2 system plus custom Loadcells and custom Vertical Masthead Units. Undeniably a key element in Ericsson 4's winning campaign was preparation. The Ericsson team worked closely with B&G Specialists in the 18 months prior to the start, ensuring the instrument systems on both boats were tuned with the sailor's individual needs in mind. They also took time to learn exactly how to achieve optimum performance from the WTP2 systems aboard.

I think it's pretty clear that B&G is the major player when it comes to offshore sailing with performance instruments. They have an outstanding track record ... there's no one that can compete with them. And they are the only brand, the only instruments that can really make it in the conditions that we experience around the world.

Knut Frostad CEO of the Volvo Ocean Race

ROLL OF HONOR

TP52 AUDI MED CUP 2009 MEDITERRANEAN

All boats in the fleet use B&G Displays, Custom VMHU & Custom Loadcells

MedCup Winner – Emirates Team New Zealand, WTP, B&G Displays, Custom B&G VMHU

ACURA MIAMI GRAND PRIX USA

IRC-1 Winner – RAN, B&G WTP2 System

IRC-2 Winner – Soozal, B&G H3000 System

GIRAGLIA ROLEX CUP 2009 FRANCE / ITALY

Winner – Alegria, WTP2, B&G Displays, B&G VMHU & Custom Loadcells

ROLEX FASTNET RACE 2009 UK

Overall Winner: RAN – WTP2, B&G HVision Displays, Custom VMHU & Custom Loadcells

1st IMOCA CLASS – BT, H3000 Hercules Motion, VMHU, Custom Loadcells, Pilot

ROLEX BIG BOAT SERIES USA

Winner – Vincitore, B&G H3000 System

HAMILTON ISLAND RACE WEEK AUSTRALIA

Winner – Living Doll, WTP2 system with H3000 Pilot

MAXI YACHT ROLEX CUP 2009 ITALY

Mini Maxi Class Winner – Alfa Romeo3, WTP2, B&G Displays, VMHU, Custom Loadcell

Wally Class Winner – Y3K, WTP2, B&G HV Displays, Custom VMHU, Custom Loadcell

00 Class Winner – RAN, WTP2, B&G HV Displays, Custom VMHU, Custom Loadcells

Racer Cruising Winner – ROMA, B&G Hercules 2000

Maxi Racing Winner – Beau Geste, WTP2, B&G HV Displays, Custom VMHU, Custom Loadcell

Spirit of Tradition Winner – Velshedra, B&G Hercules 2000, Custom Loadcell

RECORD BREAKERS GLOBAL

RTW Solo – IDEC – Francis Joyon – 72d 22h 54m 22s – B&G H3000 Hercules with Pilot

Transat East to West – Banque Populaire V – Pascal Bedegorry – 3d 15h 25m 48s – WTP2 System

24hr Record – Banque Populaire V – Pascal Bedegorry – 908.2nm @ 37.84 kts – WTP2 System

Around Britain & Ireland Monohull – Aviva Open60 – Dee Caffari – B&G H3000 with Custom Pilot

24hr Monohull Record – Ericsson 4 – Torben Grael – 596.6nm @ 24.85 kts – WTP2 System

B&G CUSTOM PROJECTS develop tailor-made solutions offering one-off projects and yacht racing teams the exact system they need. Often using our high speed WTP2 (Wave Technology Processor) integrated with the latest B&G display technology and Deckman tactical navigation software, Custom Projects offer technology and expertise for ultimate performance and accuracy, like that on most America's Cup, Volvo Ocean Race and Grand Prix race boats. Deckman can be linked to all current B&G Instrument systems providing precise tactical and weather-related information, for advanced tactical decision-making.



Gabriele Olivo/Telefonica Blue/Volvo Ocean Race

The B&G name is synonymous with the superyacht industry and has supplied performance enhancing systems for the largest and most complex yachts in the world. The Custom Projects team provided custom hardware solutions to every Volvo Ocean Race team in the 2008/2009 race, and continue to provide custom software solutions to the top solo racing boats, as well as regularly providing bespoke hardware and software solutions to builders such as Nautor's Swan and Wally Yachts.

Examples of recent Custom Project work:

Ericsson Volvo Ocean Race Team

Vertical Masthead Units

Sodeb'O

Pilot development software

Safran Open 60

Custom Pilot Software

Maltese Falcon

Custom Mast Cables and connectors

We faced the unique challenge of finding an instrument system that could offer a variety of solutions to suit the complex needs of Maltese Falcon. The three self-standing, rotating masts required a unique wind solution that B&G tackled flawlessly. B&G supplied a comprehensive, bespoke performance enhancing system that has continued to deliver accurate data when and where it is most needed.

Christopher Gartner Captain of Maltese Falcon

H3000 Instrument and Pilot systems, at every level, allow you to specify performance and safety options to suit your needs.



Which H3000 system is right for me?

1 When selecting a system for your boat, you need to carefully consider what type of sailing you will be doing and under what conditions.

H3000 is split into four areas; Processors, Displays, Pilots and Sensors. First choose the base pack that suits your application, then select the most suitable sensors and displays from the guide within this catalog. These can easily be added to or changed at a later date.

H3000 **Hercules Motion** is the ideal selection for those at the top end of yacht racing, who are looking for ultimate data accuracy, but who do not require the additional power and complexity of the WTP2 system. Hercules Motion uses a Motion Sensor along with B&G's Performance Wind Filter to provide the most stable and accurate data available outside of the WTP2 processor.

The H3000 **Hercules Performance** system will be considered by those at the top end of yacht racing, who are looking for ultimate accuracy, flexibility and performance. System specialists may also consider Hercules Motion or a bespoke solution utilizing the B&G WTP2 system.

H3000 **Hercules** was designed with Grand Prix racing in mind; however, racers or cruisers who demand higher performance and accuracy from their instrument system often choose this solution.

The H3000 **Hydra** system can be seen on most superyachts, as well as premium brand boats, blue water cruisers and many racer/cruisers, as its reputation is second to none. This is the system if you are considering going offshore or sail your boat regularly.

2 Once you have chosen the most suitable system, the next step is to consider where you would like controllers and displays situated for visibility and ease of use.

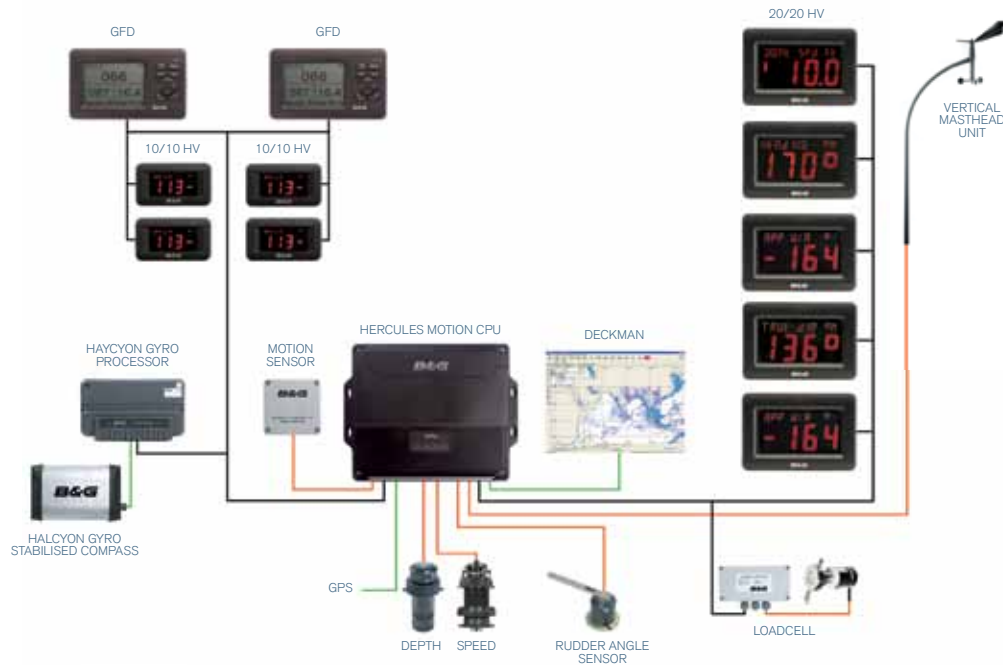
- The HVision range (pages 16-17) offers four sizes of display for highly visible information on places as the mast.
- The Graphical Function Display (page 15) and Graphical Pilot Display (page 23) are complemented by the Analogs (page 18), all of which are listed in this catalog. One of the B&G team or a specialist B&G dealer can help with numbers and positions of displays as they may already have agreed recommended layouts with your boat builder.

3 When choosing a B&G Pilot, use the table in this catalog to select the most suitable solution for your type and size of boat. All B&G Instruments and Pilots are designed to integrate with other electronics.

4 If you need control and information whilst moving around the boat, you should include a RemoteVision wireless controller.

It is important to remember that the Instruments and Pilots are an integral part of your boat's performance and safety. Do not compromise on your equipment specification. If in doubt, call B&G.

PERFORMANCE RACER Whether racing at national or international regatta level, performance racing crews are looking to be first across the line. Production one-design and custom-built racing yachts expect rugged reliability and high performance, both features that B&G delivers in the H3000 Hercules Performance system. Polar-table calculations, advanced calibration routines and tactical software combine to provide the high performance demanded by championship racers.



Benefits of this system

- The combination of H3000 Hercules Motion and a VMHU provides accurate wind data.
- Dynamic Damping allows smooth data for readability, plus rapid data update during periods of significant change, for example fast reaction to wind shifts or acceleration.
- A combination of displays ensures that all data is clearly available, day or night.
- Deckman gives all the information required for navigation and strategic decision making including charting, performance analysis, tracking of wind trends and layline calculations.

Additional options

WTP2 may be worth consideration if racing at Grand Prix level

Select HVision mast display model to suit viewing distance

Trim Tab sensor

Mast Angle sensor for raw wind data correction with rotating masts

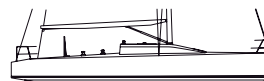
Tips

01 Accurate use of polars relies on well calibrated boat speed and wind data. Get raw functions accurate before collecting data for polars

02 Display Target Speed on 20/20 HV to give crew a reference when accelerating out of tacks

03 Use Target Boat Speed as the performance reference when sailing upwind, % Performance when reaching and Target True Wind Angle downwind

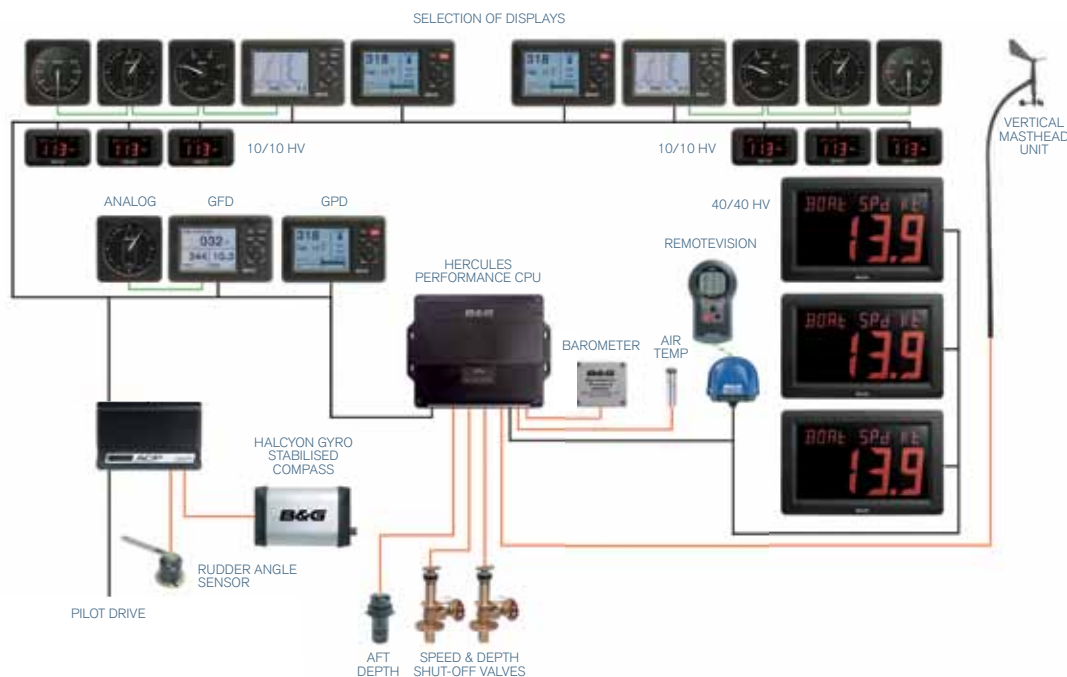
PERFORMANCE RACERS OF 30FT - 80FT+



SUPERYACHT Advanced construction technology seamlessly meets onboard luxury on superyachts along with the same standards of sophistication and flexibility that are expected from their navigation systems. Custom superyachts and luxury production yachts require a system that will integrate flexibly with other onboard systems. Traditional, unobtrusive styling ensures that design is complementary to both the bridge layout and living areas.

Benefits of this system

- The 40/40HV displays were designed specifically as a mast display for superyachts, whilst the 10/10HV provides a compact display, for use on control panels or in cabins.
- A wide sensor range is available to meet the specific requirements of larger yachts; an aft depth sensor allows permanent secondary depth reading, SOV allow retraction of sensors for maintenance and Ocean specification. VMHU's for wind measurement above mast top fittings.
- Hercules Motion provides inputs for 3rd party sensors, typical applications would be to monitor boom height or to provide draught measurement for boats with lifting keels.



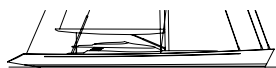
Additional options

Loadcells for safety monitoring of rigging loads

Custom Projects can assist with non-standard systems and complex applications

Expansion processor for additional sensor inputs

SUPERYACHTS OF 80FT +



Tips

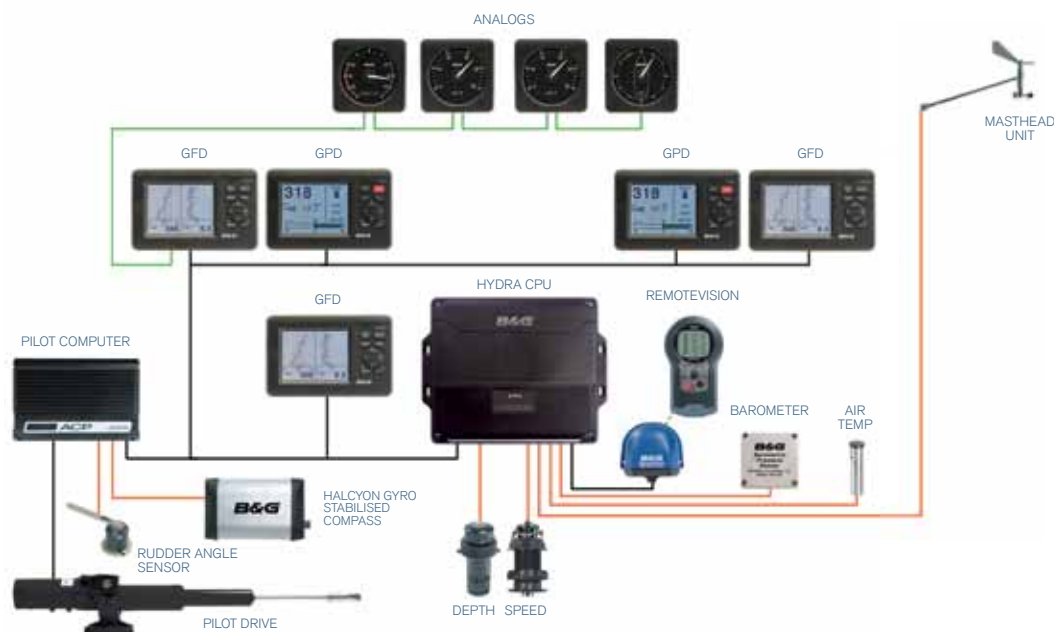
01 Fit 20/20HV displays in social areas to give guests an overview of key data

02 Install a position sensor for the vang, calibrated to read zero when the boom is positioned at the optimum mainsail furling height

03 Utilize RemoteVision to access data and configure remote displays around the yacht



BLUE WATER CRUISER Having durable, reliable instruments onboard when sailing across oceans, between islands and in some of the most remote parts of the world is incredibly important. That's why quality, comfortable cruising yachts like Swan and Oyster choose B&G. Traditional unobtrusive styling complements sleek and contemporary interiors, while the system offers integral cruising features such as alarm systems.



Benefits of this system

- Performance, reliability and durability have all been proven in some of the world's toughest ocean races and adventures. Additional safety and cruising features include extensive alarm options, logs and dead-reckoning features.
- Barometric Pressure and Air Temperature sensors monitor weather trends and RemoteVision provides access to all instruments and Pilot functions from anywhere onboard.
- The Halcyon Gyro Compass provides the best in Pilot performance.

Additional options

Vertical Masthead Unit for more stable wind readings, enhancing Pilot performance

Loadcells for safety load monitoring

Additional displays for owner's cabin

Deckman software for weather routing on offshore voyages

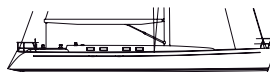
Tips

01 Keylock function on displays prevents accidental changes

02 Preset pages on displays will show your most useful data. Power down when your favorite pages are showing, and they will become the system start-up defaults

03 Ensure heading and boat speed are well-calibrated to ensure good Pilot performance

BLUE WATER CRUISERS OF 40FT - 80FT



CRUISER / CLUB RACER B&G understands the requirements of the dual-purpose yacht that is competitive on the race track and comfortable for family cruising. This flexible system is capable of winning a regatta, yet can be easily operated by an enthusiastic cruising crew. Accurate and reliable racing functionality combines with integral fundamentals for cruising. Typical yachts require an easy-to-use, intuitive system without breaking the bank, and at the same time expect the high level of quality and reliability found in B&G's more advanced systems.

Benefits of this system

- Accurate and repeatable data is always important. Safety decisions such as whether to take out a reef while cruising need to be made with the same level of confidence as calling a layline when racing – this system allows the skipper to make the right decisions, cruising or racing.
- H3000 Hydra combined with quality sensors provide accurate data, displayed to the crew on practically placed displays.
- The 20/20HV mast displays provide a clear view of key data.
- The GFD allows graphical representations of wind trends or depth, while the clarity of an Analog is easier to "read" for less experienced crew members, such as Wind Angle.



Additional options

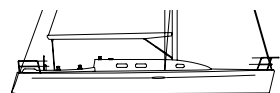
Hercules CPU for more race oriented functionality

Linear Rudder Feedback

RemoteVision

GRC or HGSC compass

CRUISER RACERS
OF 30FT - 60FT



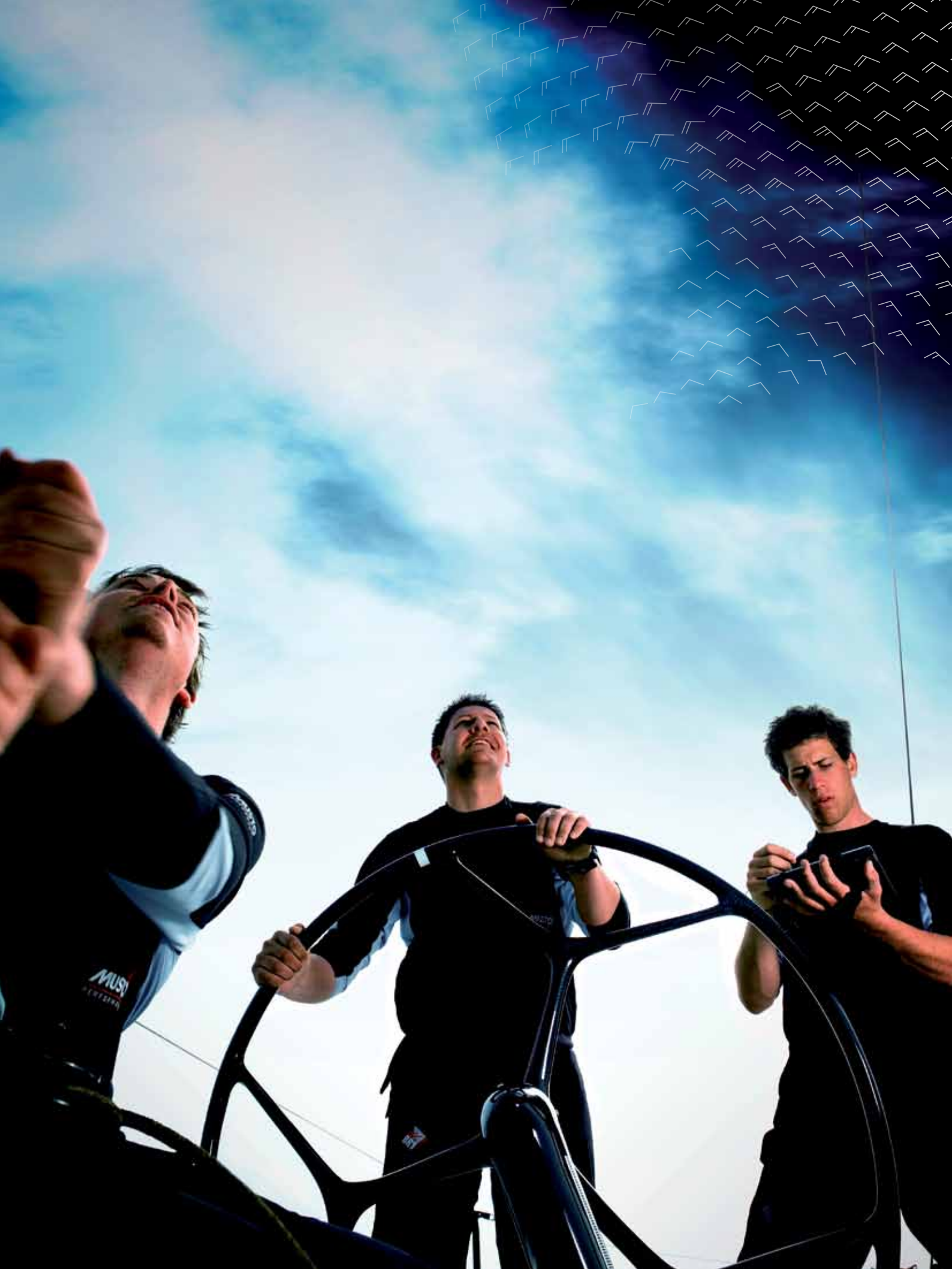
Tips

01 Configure the display pages to your preference, so that your favorite data is only a click away

02 The AutoCal routines are simple to use: take the time to use them and benefit from more accurate information

03 When racing use a 20/20 HV to display the race timer in the starting sequence for all the crew to see





H3000 INSTRUMENT PACKS make specifying your system quicker and easier, enabling you to start with the basics and build on this to suit your specific needs.

Club Race Pack

PART NO. GH300021

The Club Race Pack is a ready-made instrument pack designed for the expert racing sailor.

- H3000 GFD
- 3 x H3000 20/20 HV displays
- 20/20 HV Mast Bracket
- H3000 CPU: Hydra
- Masthead Unit: Standard Pack
- Speed Sensor
- Depth Sensor
- Halcyon 2000 Compass Sensor
- Installation accessories and documentation

Cruise Pack

PART NO. GH300022

The Cruise Pack allows you to buy a pre-prepared pack that has been specifically designed for the cruising sailor.

- H3000 GFD
- H3000 Analog: AWA 360
- H3000 Analog: Magnified AWA
- H3000 CPU: Hydra
- Masthead Unit - Standard Pack
- Speed Sensor
- Depth Sensor
- Halcyon 2000 Compass Sensor
- Installation accessories and documentation

Cruise with Pilot Pack

PART NO. GH300023

The Cruise with Pilot Pack is the perfect solution for anyone wishing to cruise and enjoy the added bonus of a performance Pilot system.

- As the BGH300022 Cruise Pack plus
- H3000 ACP1 Pilot Pack
- Rudder Reference Unit, Rotary Type
- Hydraulic Ram - Size 1, 12 Volt
- Installation accessories and documentation

WARRANTY All H3000 systems offer two-year warranty as standard with the option of FREE Gold Card registration, which extends the warranty up to a maximum of three years when installed by a authorized B&G Dealer.



Hydra Base Pack

PART NO. BGH300001

- H3000 GFD
- H3000 CPU: Hydra
- Installation accessories and documentation

Hercules Base Pack

PART NO. BGH300002

- H3000 GFD
- H3000 CPU: Hercules
- Installation accessories and documentation

Hercules Performance Base Pack

PART NO. BGH300003

- H3000 GFD
- H3000 CPU: Hercules Performance, incl. Deckman
- Installation accessories and documentation

Hercules Motion Base Pack

PART NO. BGH300004

- H3000 GFD
- H3000 CPU: Hercules Motion, incl. Deckman
- Motion Sensor
- Installation accessories and documentation



THE GRAPHICAL FUNCTION DISPLAY (GFD) acts as both a flexible display unit and a controller for the H3000 system.



The high-resolution graphical display allows the use of both graphical data representation and a very intuitive user interface. The screen detail is sharp and clear for on-deck use and viewing from a distance. Clarity is equally effective in short range applications when viewing at nav stations, in cabins and on pedestal mounts.

High-resolution graphical display provides intuitive user interface and improved ways of visualising sailing data and pilot control

AutoCal screens to aid speed and wind calibration

Bonded display technology for improved contrast and zero condensation

High-integrity mechanical construction including toughened glass display window

TECHNICAL SPECIFICATIONS

Dimensions: 178 x 114 x 56mm/7 x 4.5 x 2.2"

Weight: 0.7kg/1.5lbs

Construction: Moulded ABS with aluminium rear case

Supply Voltage: 12V (10 -1 vDC range)

Power Consumption lights on/off: 90mA / 40mA

Sealing: IP67

Display Resolution: 320 x 240 pixel

Operating Temperature: -10 to 55°C/14 - 131°F

Humidity Range: Up to 95% rh

Compass Safe Distance: 200mm/7.9"

PRODUCT

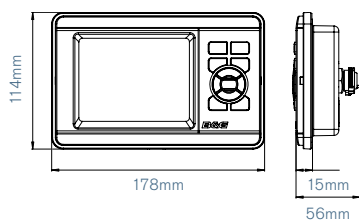
H3000 Graphical Function Display (GFD)

WTP Graphical Function Display (GFD)

PART NO.

BGH210001

BGH210003



Accurate calibration of your instrument system will optimize the accuracy of information, helping you to measure and improve the performance of your yacht



Accessories

GFD Bezels & Suncover

PRODUCT	PART NO.
H3000 GFD Bezel	BGH211004
WTP GFD Bezel	BGH211024
GFD Sun Cover	BGH214015



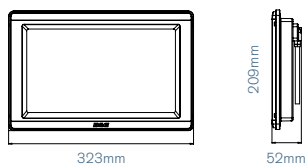
HVISION revolutionizes the design of instrument displays, presenting the clearest information through unique display technology. The brand new 10/10 HV is joined by the 20/20 HV, 30/30 HV and 40/40 HV to offer a lightweight, high-performance data display for every application. Bonded screen technology is used throughout the range, providing high-contrast, wide viewing angles and zero condensation. The high-integrity mechanical construction including toughened glass provides ultimate reliability and performance.

40/40 HV display



- New HVision display technology
- Optimal data clarity both day and night
- Addresses the data display requirements of large yachts
- Ideal for yachts of 70ft and above

TECHNICAL SPECIFICATIONS
Dimensions: 323 x 209 x 52mm/12.8 x 8.2 x 2"
Weight: (w/standard cable): 2.3kg/5.1lbs
Construction: Molded ABS w/aluminium rear case
Supply Voltage: 12 vDC
Power Consumption lights on/off: 50mA/25mA
Sealing: IP67
Display Resolution: Custom Segmented HVision
Operating Temperature: -10 to 55°C/14 to 131°F
Humidity Range: Up to 95%
Compass Safe Distance: 200mm/7.9"
Interfaces: FastNet

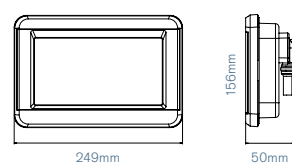


30/30 HV display



- New HVision display technology
- Mast and cockpit repeater
- Providing larger yachts with optimum data clarity in all conditions
- Ideal for yachts in the 50ft to 90ft range

TECHNICAL SPECIFICATIONS
Dimensions: 249 x 156 x 50mm/9.8 x 6.1 x 2"
Weight (w/standard cable): 1.2kg/2.7lbs
Construction: Molded ABS w/aluminium rear case
Supply Voltage: 12 vDC
Power Consumption lights on/off: 50mA/25mA
Sealing: IP67
Display Resolution: Custom Segmented HVision
Operating Temperature: -10 to 55°C/14 to 131°F
Humidity Range: Up to 95%
Compass Safe Distance: 200mm/7.9"
Interfaces: FastNet



Accessories

HVision Bezels

PRODUCT	PART NO.
10/10 HV Bezel	BGH321011
20/20 HV Bezel	BGH291011
30/30 HV Bezel	BGH241011
40/40 HV Bezel	BGH281011
20/20 HV White Bezel	BGH291017
20/20 HV Red Bezel	BGH291018
20/20 HV Green Bezel	BGH291019
20/20 HV Blue Bezel	BGH291020
20/20 HV Yellow Bezel	BGH291021



HVision Sun Covers

PRODUCT	PART NO.
10/10 HV Sun Cover	BGH324014
20/20 HV Sun Cover	BGH214015
30/30 HV Sun Cover	BGH244014
40/40 HV Sun Cover	BGH284014

Mast Brackets

PRODUCT	PART NO.
3-Way Mast Bracket	BGH220013
4-Way Mast Bracket	BGH220014
5-Way Mast Bracket	BGH220015

MAST BRACKET



Remote Button

Remote Display Control for all Hvision displays.



PRODUCT	PART NO.
Remote Button	302-00-007

20/20 HV display



20/20 HV PART NO: BGH290001

New HVision display technology

Mast and cockpit repeater

Extremely clear display for maximum visibility of key information

Ideal for yachts in the 30ft to 50ft range

TECHNICAL SPECIFICATIONS

Dimensions: 178 x 114 x 56mm/7" x 4.5" x 2.2"

Weight: (w/standard cable) 0.9kg/1.9 lbs

Construction: Molded ABS w/aluminium rear case

Supply Voltage: 12 vDC

Power Consumption lights on/off: 50mA/25mA

Sealing: IP67

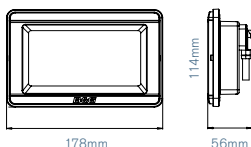
Display Resolution: Custom Segmented HVision

Operating Temperature: -10 to 55°C/14 to 131°F

Humidity Range: Up to 95%

Compass Safe Distance: 200mm/7.9"

Interfaces: FastNet



10/10 HV display



10/10 HV PART NO: BGH320001

New HVision display technology

Ultimate clarity in a compact display

Providing numbers where they're needed. Ideal display for focus areas such as pedestals and trimming positions

TECHNICAL SPECIFICATIONS

Dimensions: 114 x 66 x 54mm/ 4,4" x 2,5" x 2,1"

Weight (w/ standard cable): 0.3kg/0.6 lbs

Construction: Molded ABS

Supply Voltage: 12 vDC

Power Consumption lights on/off: 50mA/25mA

Sealing: IP67

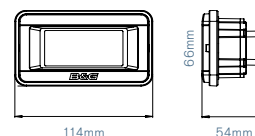
Display Resolution: Custom Segmented HVision

Operating Temperature: -10 to 55°C/14 to 131°F

Humidity Range: Up to 95%

Compass Safe Distance: 200mm/7.9"

Interfaces: FastNet



H3000 ANALOGS Available to repeat the most common functions, the H3000 Analogs retain the classic appearance for which B&G Analog displays are famous, while improving accuracy and durability.



TWS 0-50KT PART NO: BGH230004



BOAT SPEED 25KT PART NO: BGH230008



MAGNIFIED AWA PART NO: BGH230005



DEPTH 200M PART NO: BGH230011



AWS 0-50KT PART NO: BGH230003



AWA 360 PART NO: BGH230001

Analogs utilize the simple and reliable installation of the SimNet databus, further improving the ease of installation of the H3000 system as a whole.

Front-mounted, low-profile design

Wide range of display options

Daisy-chain system for ease of installation

Clear night lighting

High-integrity mechanical construction including toughened glass display window

TECHNICAL SPECIFICATIONS

Dimensions: 115 x 115 x 68mm/4.53 x 4.53 x 2.7"

Construction: Molded ABS with cast alloy rear case and toughened glass window

Weight: 0.5kg/1.1lbs

Sealing: IP67

Operating Temperature: -10 to 55°C/14-131°F

Humidity Range: Up to 95% rh

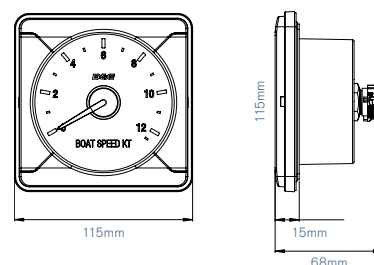
Supply Voltage: 12 vDC

Interfaces: SimNet

Humidity Range: Up to 95% rh

Compass Safe Distance: 200mm/7.9"

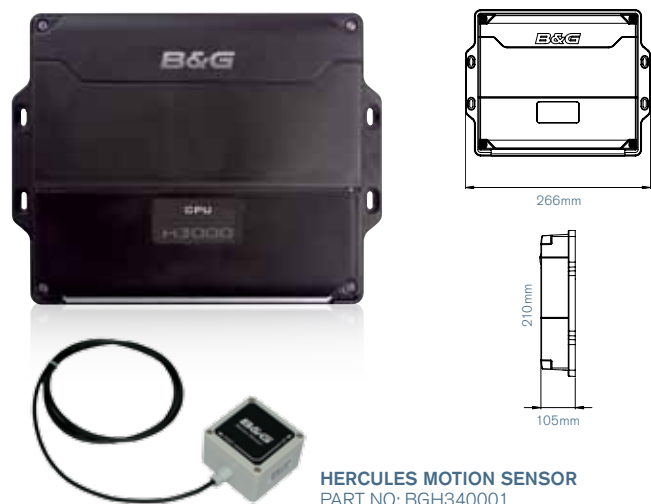
PRODUCT	PART NO.
TWS 0-50KT	BGH230004
Boat Speed 25KT	BGH230008
Magnified AWA	BGH230005
Depth 200M	BGH230011
AWS 0-50KT	BGH230003
AWA 360	BGH230001
TWA 360	BGH230002
Boat Speed 12.5KT	BGH230006
Depth 200m	BGH230007
Heading	BGH230009
Rudder Angle	BGH230010



Accessories

PRODUCT	PART NO.
Analog Sun Cover	BGH234017
Simnet Power Cable, terminated	BGH301001
Simnet Cable 0.35m 90°/90° connectors	BGH301035
Simnet Cable 3m 90°/0° connectors	BGH301300

THE H3000 CPU is the core of the system, taking the majority of sensor inputs and using a dedicated processor to rapidly calculate and calibrate further functions for distribution to display units and external devices.



HERCULES MOTION SENSOR
PART NO: BGH340001

PRODUCT	PART NO.
H3000 CPU - Hydra	BGH250001
H3000 CPU - Hercules	BGH250002
H3000 CPU - Hercules Performance	BGH250003
H3000 CPU - Hercules Motion	BGH250004

UPGRADES	PART NO.
Hydra-Hercules	BGH250012
Hydra-Hercules Performance	BGH250013
Hercules-Hercules Performance	BGH250023
Hercules-Hercules Motion	BGH250024
Hercules Perf-Hercules Motion	BGH250034

Accessories

PRODUCT	PART NO.	PRODUCT	PART NO.
USB Cable Pack	BGH250010	Hercules Motion sensor	BGH340001
RS232 Cable Pack	BGH251011	Fastnet Cable, 10m (other lengths available)	135-0A-130
Audible Alarm Pack	130-PK-10		

Enhances ease of installation with its plugged connections while the connectors are firmly retained by locking screws to ensure reliability in all conditions

Upgradeable to allow additional functionality at any time

USB interface allows connection of a PC for either NMEA 0183 communications or the optional H-Link™ communication protocol

*H-Link is an advanced B&G protocol for communication with external PC applications

TECHNICAL SPECIFICATIONS

Dimensions: 266 x 210 x 105mm/10.5 x 8.3 x 4.1"

Construction: Molded ABS

Sealing: IP65

Operating Temperature: -10 to 55°C/14 - 131°F

Supply Voltage: 12V (10 – 16 vDC range)

Operating Current: 400mA

Interfaces: Fastnet, NMEA 0183 in/out, USB 2.0, RS232

Humidity Range: Up to 95% rh

Compass Safe Distance: 200mm/7.9"

CPU Software Features:

Hydra

- Update rates to 4Hz
- AutoCal calibration routines
- USB port for NMEA interfacing with PCs
- NMEA 0183 input and output

Hercules (additional functions)

- Update rates up to 6Hz
- Wind data corrected for Heel Angle
- Advanced True Wind Speed Calibration
- Dynamic Damping
- Secondary Pulse input for second boat speed sensor
- Boat Speed Heel/Linearity correction

Hercules Performance (additional functions)

- H-Link communications
- Polar Functions to optimise sailing performance
- Polar Table storage
- Deckman Software

Hercules Motion (additional functions)

- Dual-axis Motion Sensor
- Wind data measurement corrected for pitch and roll motion of yacht
- Performance Wind Filter provides the most accurate and stable wind data available

Expansion Processor and Gyro Processor



In addition to the H3000 CPU we also produce a number of optional Processors to enhance your system. These are compatible with any H3000 system and can be specified as part of a new installation or added as a retrofit upgrade to an existing system.

Gyro Processor

The Halcyon Gyro Processor is a Heading interface which can be used in several different modes to suit the application.

Interface for B&G Halcyon Gyro-Stabilized Compass sensor

10Hz NMEA Heading output for RADAR North-Up and ARPA stabilization

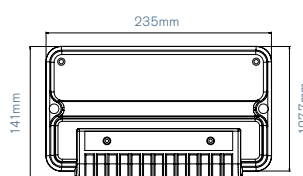
200ms AD10 Heading output

NMEA Input to allow use of external NMEA Heading Sources

Expansion Processor

The Expansion Processor is for systems requiring additional Linear inputs.

Twelve additional linear inputs



TECHNICAL SPECIFICATIONS

Dimensions: 235 x 140 x 82mm/9.3 x 5.5 x 3.2"

Weight: 0.6kg/1.3lbs

Construction: Molded ABS case

Supply Voltage: 12V nominal (10-16 vDC)

Operating Current: 50mA

Sealing: IP54

Operating Temperature: -10 to 55°C/14 - 131°F

PRODUCT	PART NO.
Halcyon Gyro Processor	BGH061001
Expansion Processor	340-00-009



B&G PILOTS have long been recognized for their superior performance and unbeatable reliability. Used on all sizes of cruising and racing yachts, there is a B&G Pilot solution to suit you. With the new enhanced Pilot computers come improved response rates that apply rapid and intelligent response to changes in wind and sea conditions.

Example of a typical Pilot System

This system shows key Pilot elements and system options.

There is compass to suit every need. Choose the Halcyon 2000 for accuracy at all normal angles of heel. Choose the Gimballed Rate Compass (GRC) for the advantage of a single axis gyro for accurate heel and trim.

See page 30 for more details on all of our Compasses.



GRAPHICAL PILOT DISPLAY (GPD) provide easy control of your Pilot system. Install multiple units for dual control.



Additional displays include the Graphical Function Display (GFD), a wide range of Analogs and HVision displays for a lightweight, high performance data display for every application

See page 18 for more details on Analog displays and pages 16 to 17 for HVision.



REMOTEVISION is a wireless link to your Pilot system. View data and alter course from anywhere onboard



THE HALCYON GYRO STABILIZED COMPASS is a 3 axis heading sensor providing highly accurate heading, heel and trim data. This sensor activates more advanced control algorithms in the Pilot, enhancing performance



ACP is the record breaking, performance Pilot Computer at the center of the Pilot system.



THE RUDDER ANGLE SENSOR allows for a variety of configurations.

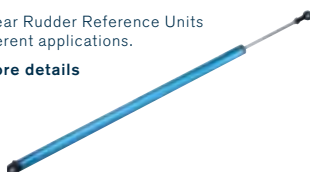


PILOT DRIVE UNIT provides high power, reliable efficiency.



Both Rotary and Linear Rudder Reference Units are available for different applications.

See page 31 for more details on all RRUs.



SYSTEM CORE



GFD

H3000 CPU

SPEED SENSOR

WIND SENSOR

Choose from a wide range of self-contained hydraulic drive systems to suit either cable, rod or hydraulic steering.

See page 23-24 for more details on all drive units.



B&G PILOTS have long been recognized for their superior performance and unbeatable reliability. Used on all sizes of cruising and racing yachts, there is a B&G Pilot solution to suit you. With the new enhanced Pilot computers come improved response rates that apply rapid and intelligent response to changes in wind and sea conditions.



The H3000 Pilot Packs make specifying your Pilot system quicker and easier, enabling you to start with the basics and build on this to suit your specific needs.

H3000 ACP1 Pack

PART NO. BGH300031

- H3000 Graphical Pilot Display GPD
- H3000 ACP1 Pilot Processor
- Installation accessories and documentation
- Junction Box - 7 Terminal

H3000 ACP2 Pack

PART NO. BGH300051

- H3000 Graphical Pilot Display GPD
- H3000 ACP2 Pilot Processor
- Installation accessories and documentation
- Junction Box - 7 Terminal

H3000 Graphical Pilot Display (GPD)



GRAPHICAL PILOT DISPLAY (GPD) PART NO: BGH210021

The Pilot takes into account the heading, boat speed, wind speed and wind angle, so that the boat can be safely steered at optimum wind angles

The H3000 Graphical Pilot Display (GPD) adds the graphical abilities and construction of the GFD to Pilot control. A clear, easy-to-use Pilot controller with dedicated control keys allows confident control of the Pilot system.

All common functions accessible from the main screen

Bonded display technology for improved contrast and no misting

High-integrity mechanical construction including toughened glass display window

TECHNICAL SPECIFICATIONS

Dimensions: 178 x 114 x 56mm/7 x 4.5 x 2.2"

Weight: 0.7kg/1.54lbs

Construction: Molded ABS with Aluminium rear case

Supply Voltage: 12V (10 -16 vDC range)

Power Consumption lights on/off: 90mA / 40mA

Sealing: IP67

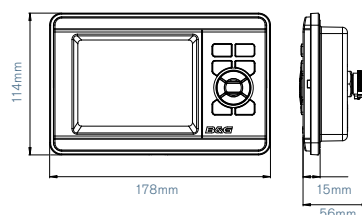
Display Resolution: 320 x 240 pixel

Operating Temperature: -10 to 55°C/14 - 131°F

Accessories

GPD Bezels & Suncover

PRODUCT	PART NO.
H3000 GPD Bezel	BGH211034
GPD Sun Cover	BGH214015



THE B&G PILOT COMPUTERS have been proven in the world's most testing environments - used by bluewater cruisers, single-handed racers and record breakers



The B&G H3000 Pilot is designed to meet the specific requirements of sailing yachts. Features and algorithms are developed to provide a safe and fast Pilot.

Steer-to Compass

Steer-to Apparent or True Wind Angle

Steer-to Waypoint

Power Steer mode

SmartTack and SmartGybe

Enhanced Response, Recovery and Auto Response features for optimum course keeping (requires Halcyon Gyro-Stabilised Compass BGH060001 or BGH060004)

Compatible with a wide range of common drive types

TECHNICAL SPECIFICATIONS

Dimensions: 207 x 135 x 90mm

Weight: 3.1kg/6.8lbs

Construction: Powder Coated/Zinc casing

Supply Voltage: 12V (12-24 vDC Drive)

Power Consumption (electronics): 100mA

Maximum Current: 20A (ACP1) - 40A (ACP2)

Sealing: IP65

Operating Temperature: -10 to +55°C/14 to 131° F

Humidity Range: Up to 95% rh

Compass Safe Distance: 100mm/4in

PRODUCT

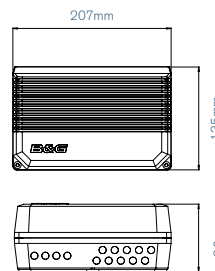
ACP 1 Pilot Computer

ACP 2 Pilot Computer

PART NO.

BGH171001

BGH171002



Accessories

PRODUCT

MOB Button

Audible Alarm Pack

PART NO.

302-00-007

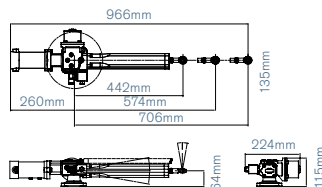
130-PK-10



Hydraulic Rams



12V HYDRAULIC RAM PART NO: RAM-T1-12V



A wide range of self-contained hydraulic drive systems to suit yachts with either cable or rod steering systems.

High-power, efficient drive units for maximum power with minimum consumption

Ram drives allow the Power Steer mode on the Pilot to be used in cases of manual steering failure

Fully Integrated (T1 and T2 units) hydraulic system, no external hoses, reservoirs, etc

T3 drives have a separate hydraulic pump to allow for greater mounting flexibility on this larger cylinder

Type 4 systems utilize a constant running hydraulic pump and two steering cylinders for the best performance, reliability and efficiency on larger vessels. (For a detailed drawing of the Type 4 Ram System please contact B&G)

Yacht size range up to approximately 100ft (30m)

TECHNICAL SPECIFICATIONS

PART NO.	RAM-T1-12V	RAM-T2-12V	RAM-T2-24V	RAM-T3-24V**	RAM-T4-24V**
Weight	7.5kg/16.5lbs	7.5kg/16.5lbs	7.5kg/16.5lbs	10.3kg/22.7lbs	25kg/55lbs
Construction	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Supply Voltage	12 vDC	12 vDC	24 vDC	24 vDC	24 vDC
Power Consumption*	2-4A	2-4A	2-4A	2-4A	8-12A
Peak Current	15A	25A	17A	17A	30A
Peak Thrust	425kg/937lbs	680kg/1499lbs	680kg/1499lbs	1062kg/2341lbs	2000kg/4409lbs
Max Stroke	254mm/10"	254mm/10"	254mm/10"	305mm/12"	305mm/12"
Coupling Radius	214mm/8.4"	214mm/8.4"	214mm/8.4"	257mm/10.1"	257mm/10.1"
Max Torque	892Nm	1427Nm	1427Nm	2688Nm	5232Nm

*Typical average cruising consumption **Diagram not shown

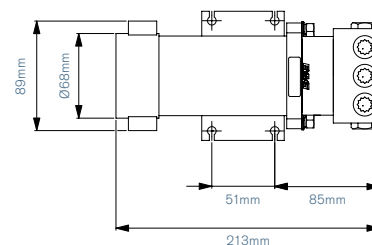
HYDRAULIC PUMPS Where a manual hydraulic steering system already exists, the simplest installation is to fit a Hydraulic Pump into the existing system.



12V HYDRAULIC PUMP PART NO: PUMP-T1-12V

Compact, powerful pump units

Options to suit steering cylinder volumes from 100 - 1500cc



TECHNICAL SPECIFICATIONS

PART NO.	PMP-T1-12V	PMP-T2-12V	PMP-T2-24V	PMP-T3-24V**	PMP-T4-24V**
Dimensions in mm	225x88x78mm	227x88 x 76mm	227x88x76mm	223x112x100mm	332x224x240mm
Dimensions in inches	8.9 x 3.5 x 3"	8.9 x 3.5 x 3"	8.9 x 3.5 x 3"	8.8 x 4.4 x 4.3"	13.1 x 8.8 x 9.5"
Weight in kg	2.4kg	2.4kg	2.4kg	3.4kg	12Kg
Weight in lb	5.3lbs	5.3lbs	5.3lbs	7.5lbs	26.5lbs
Construction	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium
Supply Voltage	12 vDC	24 vDC	4 vDC	24 vDC	24 vDC
Power Consumption*	2-4A	2-4A	2-4A	2-4A	7-10A
Cylinder Capacity	100-300cc	275-550cc	275-550cc	525-750cc	1500cc

*Typical average cruising consumption **Diagram not shown

Pilot Selection Guide

This section helps you select the correct Pilot for your boat



CABLE / ROD STEERING SYSTEMS

Typical LOA	20-30m	16-22m	15-18m	15-18m	<16m
Typical Yacht Displacement	30-50 tonnes	16-32 tonnes	8-18 tonnes	8-18 tonnes	5-9 tonnes
Recommended Pilot Drive	RAM-T4-24V	RAM-T3-24V	RAM-T2-24V	RAM-T2-12V	RAM-T1-12V
Recommended Pilot Computer	ACP2	ACP2	ACP1	ACP1	ACP1

HYDRAULIC STEERING SYSTEMS

Cylinder Capacity	1500cc	525-750cc	275-550cc	275-550cc	100-300cc
Recommended Pilot Drive	PMP-T4-24V	PMP-T3-24V	PMP-T2-24V	PMP-T2-12V	PMP-T1-12V
Recommended Pilot Computer	ACP2	ACP2	ACP1	ACP1	ACP1



RemoteVision



REMOTEVISION PART NO: BGH120000

The RemoteVision is a wireless link to your instrument system and a Pilot controller in the palm of your hand. This lightweight, palm-sized unit is linked to the instrument and Pilot network through a small wireless port and secure wireless connection, suitable for use on both small and large vessels.

View data from your system, including Boat Speed, Wind, Heading or Depth information and check your Heading and Bearing to Waypoint, then alter course from anywhere onboard up to 50m/184ft from the wireless port. An alarm answer mode is built-in for safety purposes. RemoteVision also makes instrument calibration easy and has simple control buttons based on mobile phone logic.

TECHNICAL SPECIFICATIONS

Dimensions (Handheld): 133 x 81 x 35mm/
5.2 x 3.2 x 1.4"

Dimensions (Wireless Port): 111 x 104 x 75mm/
4.4 x 4.1 x 3"

Weight (Handheld): 300g/0.7lbs

Weight (Wireless Port): 600g/1.3lbs

Construction (Handheld): Tough molded acrylic case with a waterproof rating of IP67

Construction (Wireless Port): Molded ABS, waterproof rating of IP66

Transflective LCD display with three levels of lighting

High-brightness white LED torch

Battery power from standard AA or rechargeable batteries

Wireless communication

Internal, gimballed, fluxgate compass

Secure communication

50m/184ft communication range

Compatible with H2000 or H3000 system

Standard two-year worldwide warranty

Pilot Joystick



PILOT JOYSTICK & CONTROL BUTTON
PART NO: 545-00-060

The Pilot Joystick control allows the helmsman to control the rudder position remotely using the Power Steer functionality of the Pilot.

Ideal for deck saloon type yachts where the nav station can double as a compact second helm position

Simple Push-to-Engage and Push-to-Disengage remote button control

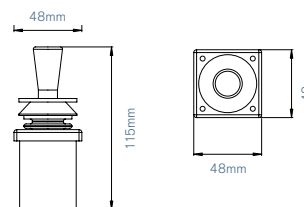
Proportional or Normal steering modes

TECHNICAL SPECIFICATIONS

Dimensions: 115 x 48 x 48mm/4.5 x 1.9 x 1.9"

Weight: 0.5kg/1.1lbs (with cable)

Construction: Molded ABS with neoprene gaiter



Pilot Remote



HANDHELD PILOT CONTROLLER
PART PLHH-ACP

The Handheld Pilot Controller ensures that control and safety is always to hand.

Course change, Engage, Disengage and Resume Last Course functions

No need to be near the main Pilot display to control the Pilot

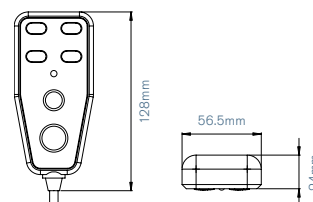
Tangle-free curly cable ensures that a wide area of the boat can be covered by the remote.

TECHNICAL SPECIFICATIONS

Dimensions: 128 x 57 x 24mm/5 x 2.2 x 1"

Weight: 1.0kg/2.2lbs with cable

Construction: Waterproof ABS molded





213 MHU



213 MASTHEAD UNIT
PART NO: 213-00-002

The 213 Type Masthead Unit has been proven over many years in applications from coastal cruising to Round the World record setting.

High performance

Rugged construction

Fully field serviceable - easily replaced bearings etc

TECHNICAL SPECIFICATIONS

Weight: 0.2kg/0.44lbs

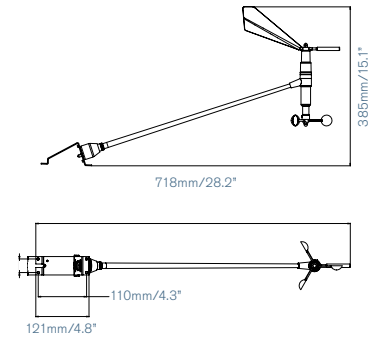
Construction: Sealed elec housing, conductive plastic

Spar Length: 530mm/21"

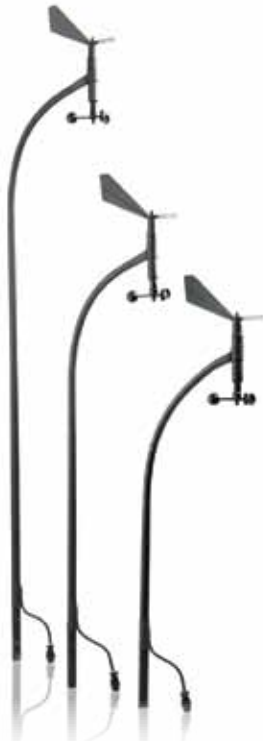
Sealing: IP66

PRODUCT	PART NO.
213 Masthead Unit Pack	213-PK-12
213 Masthead Lightweight Pk	213-PK-13

Packs include mast cable, hull cabling and junction box.



Vertical Masthead Units (VMHU)



VERTICAL MASTHEAD UNIT PACKS
PART NO: BGH030001, BGH030002, BGH030003

The Vertical Masthead Unit utilizes the proven sensing componentry from the standard 213 Masthead Unit combined with a vertical spar to elevate the wind sensor clear of the most disturbed air flow around the top of the sails, minimizing errors and allowing more accurate calibration.

Better wind information on which to base your race-winning decisions, inshore and offshore

Improves steer-to-wind performance on Pilot due to reduced turbulence around sensor

High-Modulus carbon spar for lightweight strength

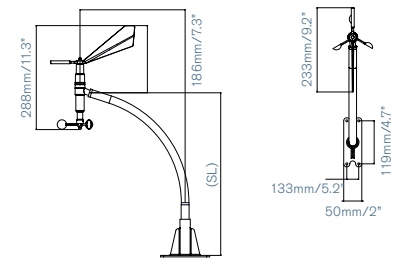
Design proven over several million offshore miles

Ocean specification available for increased strength and durability in extreme applications

Vertical Masthead Unit Packs consist of:

Required unit size plus:

PRODUCT	PART NO.
VMHU Cable 36m	BGH030006
VMHU Cable 50m	BGH030007
Mast Base to Processor Cable 9m	135-0A-097
Junction Box 7 Terminal	288-00-001

**Accessories****Bracket Mounts**

PRODUCT	PART NO.
VMHU Bracket Top Mount	BGH030008
VMHU Bracket Face Mount	BGH030009

Vanes and Cups

PRODUCT	PART NO.
Wind Vane	213-10-056
Wind Cups	213-30-027

Other Cables

PRODUCT	PART NO.
Standard MHU Cable 24m	178-0B-001
Standard MHU Cable 30m	178-0C-001
Standard MHU Cable 36m	178-0D-001
Standard MHU Cable 50m	178-0X-001
Lightweight MHU Cable 36m	178-0D-040
Lightweight MHU Cable 50m	178-0X-040

TECHNICAL SPECIFICATIONS

VMHU PART NO.	BGH031001	BGH031002	BGH031002/S	BGH031003	BGH031003/S	BGH031010
Height (SL)	0.8m/32"	1.05m/42"	1.05m/42"	1.45m/57"	1.45m/57"	1.8m/71"
Weight	0.3kg/0.67lbs	0.4kg/0.98lbs	0.5kg/1.1lbs	0.6kg/1.3lbs	0.6kg/1.3lbs	0.7kg/1.5lbs
Construction	Carbon Fiber	Carbon Fiber	Carbon Fiber	Carbon Fiber	Carbon Fiber	Carbon Fiber
Sealing	IP66	IP66	IP66	IP66	IP66	IP66
Laminate	Standard	Standard	Ocean	Standard	Ocean	Standard

SPEED SENSORS

Paddlewheel Speed Sensors



SPEED SENSOR PLASTIC
PART NO: SEN-SPD-HP

Integrated Sea Temperature sensor

Self-closing valve to enable easy removal of sensor

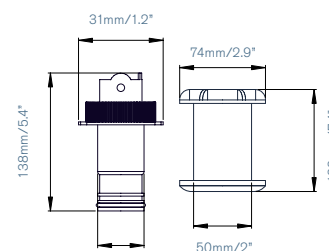
TECHNICAL SPECIFICATIONS

Dimensions: 138mm/5.4" (total) / 88mm/3.5" housing

Weight: 0.9kg/2lbs (with cable)

Construction: Plastic housing / plastic sensor

PRODUCT	PART NO.
Paddlewheel sensor w/plastic flanged housing	SEN-SPD-HP
Paddlewheel sensor w/bronze flanged housing	SEN-SPD-HM
Paddlewheel sensor w/plastic flush housing	SEN-SPD-HPF
Paddlewheel sensor w/bronze flush housing	SEN-SPD-HMF



Accessories

Speed Sensor Spares

PRODUCT	PART NO.
Spare paddlewheel kit (post 1996)	SEN-SPRS-SPD
Spare paddlewheel kit (pre 1996 & SOV)	202-00-129

SOV Speed



SOV SPEED SENSOR PACK
PART NO: 202-PK-15

Shut-Off Valve (SOV) housings enable larger vessels to safely remove Speed and Depth sensors for cleaning and maintenance

Shut-Off Valve transducer housing allows safe removal of sensors on deep draft boats

Two-stage withdrawal process ensures a dry operation

TECHNICAL SPECIFICATIONS

Dimensions: 230 x 130 x 60mm/9 x 5.1 x 2.4"

Weight: 0.8kg/1.8lbs

Construction: Molded ABS

MicroSonic Speed



MICROSONIC SPEED SENSOR PACK
PACK CONSISTS OF:
275-00-001 - SPEED & DEPTH XTL FIN
254-00-024 - MICROSONIC PROCESSOR

The MicroSonic system with XTL Fin is a 'no moving parts' sensor system, ideally suited to larger vessels

External fitting

Choice of Speed/Depth, Speed/Temp or speed only XTL Fin units

Stainless-steel or bronze mounting stud options

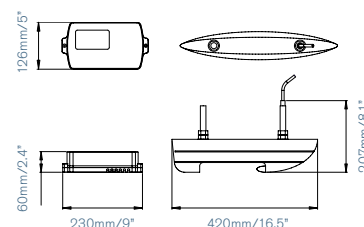
Standard or extended mounting studs

TECHNICAL SPECIFICATIONS

Dimensions: 230 x 130 x 60mm/9 x 5.1 x 2.4"

Weight: 0.8kg/1.8lbs

Construction: Molded ABS



TECHNICAL SPECIFICATIONS

XTL Fin PART NO.	275-00-001	275-00-017	275-00-031	275-00-045	275-00-046	275-00-048
Type	Speed & Depth	Speed Only	Speed & Depth	Speed Only	Speed & Depth	Speed & Temp
Weight	2kg/4.4lbs	1.9kg/4.2lbs	2.2kg/4.9lbs	1.9kg/4.2lbs	2kg/4.4lbs	2.1kg/4.6lbs
Construction	Reinforced Resin	Reinforced Resin	Reinforced Resin	Reinforced Resin	Reinforced Resin	Reinforced Resin
Stud Mtl & Lgth	Bronze Standard	Bronze Standard	Bronze Extended	St/St Standard	St/St Standard	St/St Extended
Dimensions (mm)	420 x 207 x 73	420 x 207 x 73	420 x 357 x 73	420 x 207 x 73	420 x 207 x 73	420 x 357 x 73
Dimensions (inch)	16.5 x 8.2 x 2.9"	16.5 x 8.2 x 2.9"	16.5 x 14 x 2.9"	16.5 x 8.2 x 2.9"	16.5 x 8.2 x 2.9"	16.5 x 14 x 2.9"

Depth



DEPTH SENSOR PLASTIC
PART NO: SEN-DPT-HP

TECHNICAL SPECIFICATIONS

Dimensions: 119mm/4.7" (total) / 88mm/3.5" housing
Weight: 0.9kg/2lbs (with cable)
Construction: Plastic housing / plastic sensor
Frequency: 170KHz

PRODUCT	PART NO.
Depth Sensor Plastic	SEN-DPT-HP
Depth Sensor Bronze	SEN-DPT-HM
Depth sensor w/plastic flush	SEN-DPT-HPF
Depth sensor w/bronze flush	SEN-DPT-HMF
Active 0183 Depth Sensor	SEN-DEPTH-A2

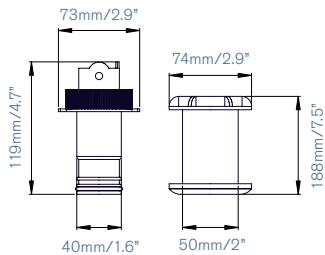
Accessories

PRODUCT	PART NO.
Gravity Switch	190-00-146



Housings

PRODUCT	PART NO.
Plastic Flanged Housing	SEN-HSG-P
Plastic Flush Housing	SEN-HSG-PF
Bronze Flanged Housing	SEN-HSG-M
Bronze Flush Housing	SEN-HSG-MF



SOV Depth



SOV HOUSING
PART NO:155-00-025



DEPTH SENSOR SOV
PART NO: 157-AA-038

Shut-Off Valve (SOV) housings enable larger vessels to safely remove sensors for cleaning and maintenance

Shut-Off-Valve transducer housing allows safe removal of sensors on deep draft boats

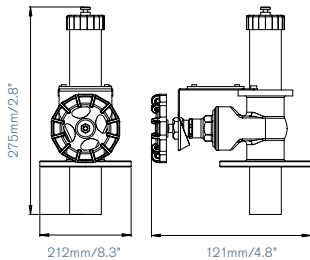
Two stage withdrawal process ensures a dry operation

TECHNICAL SPECIFICATIONS - SOV HOUSING

Weight: 3.7kg/8.2lbs
Construction: Bronze
Frequency: 170KHz

TECHNICAL SPECIFICATIONS - SOV SENSOR

Dimensions: 203mm (total)/8"
Weight: 0.7kg/1.5lbs
Construction: Bronze, plated steel & ABS
Frequency: 170KHz



Halcyon 2000 Compass



HALCYON 2000 COMPASS SENSOR
PART NO: 486-00-009

Gimballed Fluxgate sensor for accuracy at all normal angles of Heel

Simple, accurate AutoSwing calibration

Connects directly to H3000 network

TECHNICAL SPECIFICATIONS

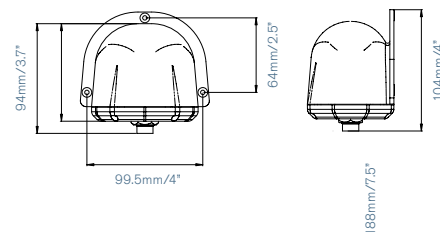
Dimensions: 111 x 104 x 75mm/4.4 x 4.1 x 3"

Weight: 0.2kg/0.44lbs

Construction: Molded ABS

Supply Voltage: 12V nominal (10 - 16 vDC)

Power Consumption: 50mA



Gimballed Rate Compass



GIMBALLED RATE COMPASS
PART NO: BGH330001

The new Gimballed Rate Compass (GRC) has been designed to bring the full advantage of single-axis rate-sensors to the sailing market.

Normally a single-axis gyro is fixed in the plane of the boat, this means that when the boat is heeled the rate-gyro is susceptible to errors when the boat pitches fore and aft. The GRC solves this problem by gimballing the rate-sensor, ensuring that it is always measuring the true Yaw Rate, independent of any heel and trim effects. The GRC also integrates high-accuracy Heel and Trim sensors.

Lightweight, single-axis, gyro-stabilized compass.

High accuracy Heel and Trim output

Interfaces directly to H3000 ACP Pilots

Fast NMEA 0183 and SimNet outputs

TECHNICAL SPECIFICATIONS

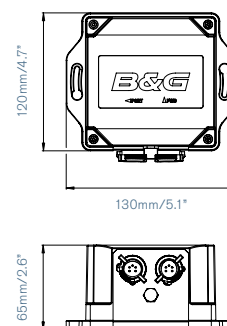
Dimensions: 120 x 130 x 65mm/4.7 x 5.1 x 2.6"

Weight: 0.3kg/0.66lbs

Construction: Molded ABS

Supply Voltage: 12V nominal (10-16 vDC)

Power Consumption: 100mA (TBC)



Halcyon Gyro Stabilised Compass



HALCYON GYRO STABILISED COMPASS
PACK PART NO: BGH060001

3-Axis, Rate-Gyro, Stabilized heading sensor

Highly accurate Heading, Heel and Trim data

Improves core data such as Wind Angle and Direction - better data to make better decisions

Improved Pilot performance with advanced functionality

Simple, accurate AutoSwing calibration

Pack includes Halcyon Gyro Processor (see page 19)

TECHNICAL SPECIFICATIONS

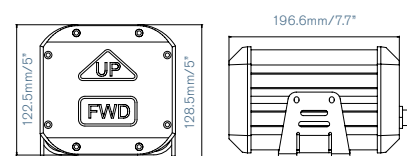
Dimensions: 197 x 128 x 128mm/7.8 x 5 x 5"

Weight: 1.6kg/3.5lbs

Construction: Aluminium

Supply Voltage: 12V nominal (10 - 16 vDC)

Power Consumption: 150mA



Loadcells



LOADCELL AMPLIFIER
PART NO: BGH040028



LOADCELL PART NO: BGH040001

Loadcells enable consistent monitoring of loads on rigs through backstays, forestays, etc. This information will be displayed on any B&G displays or logged on Deckman via H-Link™.

Shear Pin type loadcell, suitable for many applications on-board including forestay, shroud and mainsheet loads

Digital Amplifier unit provides analog, FastNet and serial interfaces

User configurable function name for easy identification of multiple loadcells

Range of standard pin sizes available from 12.7mm (0.5") to 32mm (1.25")

Custom variants available from B&G Custom Projects

TECHNICAL SPECIFICATIONS - AMPLIFIER

Dimensions: 160 x 98 x 55mm/6.3 x 3.9 x 2.2"

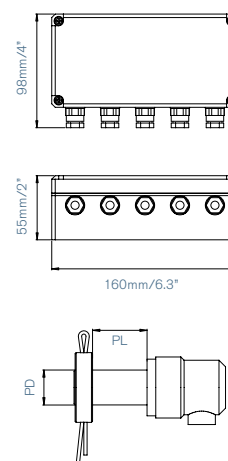
Weight: 0.4kg/0.8lbs

Construction: Molded ABS

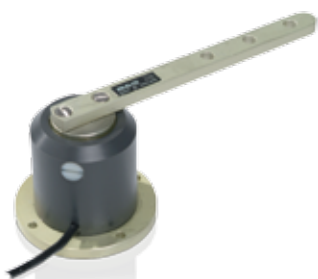
Supply Voltage: 12V nominal (10 - 16 vDC)

Power Consumption: 90mA

PART NO.	PD (mm)	PL (mm)	SWL (kg)
BGH041001	12.7	23	1.815
BGH041002	16	29	4.090
BGH041003	19	32	6.135
BGH041004	22	43	8.182
BGH041005	25	44	12.273
BGH041006	29	54	14.318
BGH041007	32	58	16.364
BGH040011	Custom specification		



Rudder



RUDDER REFERENCE UNIT (ROTARY)
PART NO: RRF-ACP

A choice of Rudder Reference sensors are available to allow for a variety of configurations.

Rotary Rudder Reference sensors can be used on all drive types

Linear Rudder Reference sensor fits directly to Type 1 and Type 2 Hydraulic Rams for minimum installation time

TECHNICAL SPECIFICATIONS - ROTARY

Dimensions: 170 x 69 x 65mm/6.7 x 2.7 x 2.6"

Weight: 0.8kg/1.8lbs

Construction: Anodized aluminium & ABS

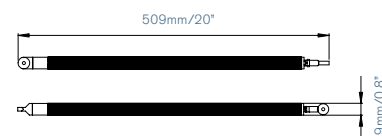
TECHNICAL SPECIFICATIONS - LINEAR

Dimensions: 509 x 19mm dia/20 x 0.8"

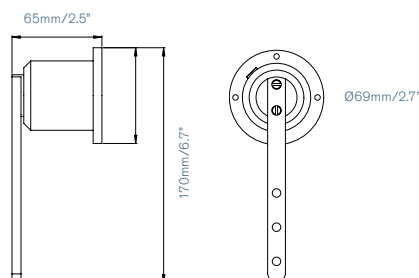
Mechanical Stroke: 329mm/13"

Weight: 0.4kg/0.88lbs

Construction: Anodized aluminium & ABS



RUDDER REFERENCE UNIT (LINEAR)
PART NO: SEN-RUD-LF2



OTHER SENSORS

Heel/Trim



CLINOMETER SENSOR
PART NO: 690-00-004

The Clinometer can be used for measurement of either Heel Angle or Trim Angle

Heel is a useful reference to determine when efficiency is being lost when overpowered

Heel and Trim values are used to correct wind data for the benefit of enhanced precision in True Wind, Apparent Wind and Pilot steering

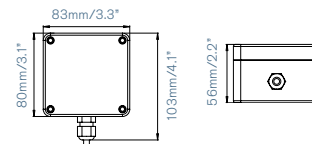
TECHNICAL SPECIFICATIONS

Dimensions: 83 x 103 x 56mm/3.3 x 4.1 x 2.2"

Weight: 0.4kg/0.88lbs with 2m/6.6ft of cable

Construction: Molded ABS

Sealing: IP65



Barometric Pressure



BAROMETRIC PRESSURE SENSOR
PART NO: 690-00-007

Accurate barometric pressure data allows the navigator to confirm the forecast weather and determine weather trends

Barometric pressure displayed in millibars

Pressure trend data displayed over user configurable timescale

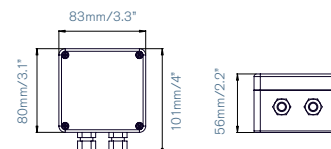
TECHNICAL SPECIFICATIONS

Dimensions: 83 x 101 x 56mm/3.3 x 4 x 2.2"

Weight: 0.3kg/0.66lbs with 2m/6.6ft of cable

Construction: Molded ABS

Sealing: IP65



Sea Temperature



SEA TEMPERATURE SENSOR
PART NO: 224-00-065

Provides accurate Sea Temperature data allowing identification of local currents, such as the Gulf Stream.

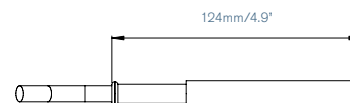
Available to display in Celsius or Fahrenheit

TECHNICAL SPECIFICATIONS

Dimensions: 124 x 12mm dia./4.9 x 0.5"

Weight: 0.5kg/1.1lbs with 9m/29.5ft of cable

Construction: Fiberglass



Air Temperature



AIR TEMPERATURE SENSOR
PART NO: 224-00-066

Accurate Air Temperature data allows confirmation of the forecast weather and warns of likely changes in the weather

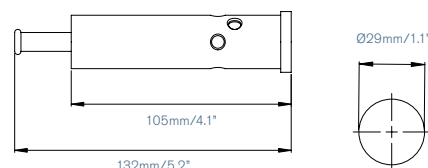
Available to display in Celsius or Fahrenheit

TECHNICAL SPECIFICATIONS

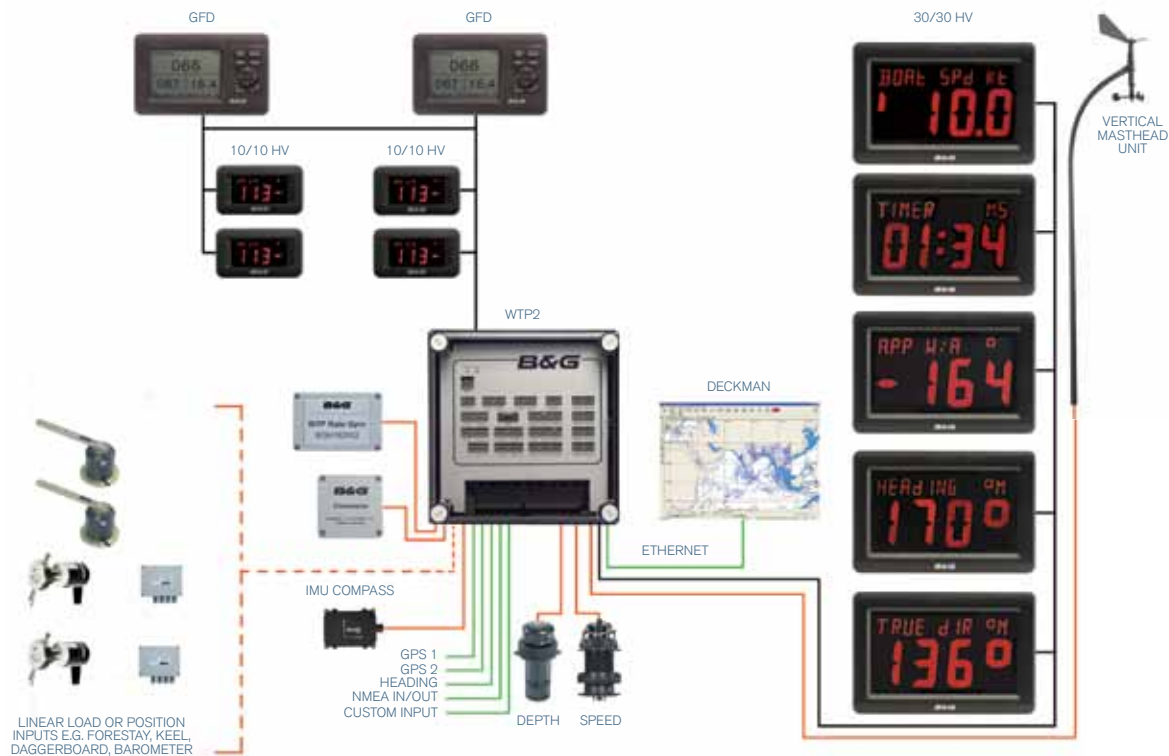
Dimensions: 132 x 29mm dia./5.2 x 1.14"

Weight: 0.6kg/1.3lbs with 9m/29.5ft of cable

Construction: Aluminium tube







The WTP2 system, with the latest generation Wave Technology Processor at its core, is the most powerful, flexible and accurate instrument system available. Wind data is corrected to remove the errors induced by the motion of the yacht, measured by a dedicated multi-axis rate-gyro sensor. Data is calculated and displayed more quickly than on any other system.

The IMU (Inertial Measurement Unit) provides highly accurate Heading, Heel and Trim data under dynamic sailing conditions at a 10Hz update rate.

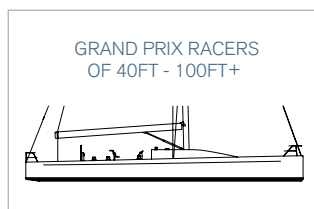
Deckman software acts as the primary interface for WTP2. Seamlessly integrated, via a direct Ethernet link, Deckman gives access to WTP2 while providing race functions to the processor and deck displays.

The compact 10/10 HV displays can be mounted almost anywhere there is a requirement for data

For mast displays choose from 20/20 HV, 30/30 HV or 40/40 HV depending on the distance from helm-to-mast

Custom loadcells, masthead units, software development and other non-standard solutions are available from B&G Custom Projects

Configure the WTP2 with data switching depending on the point of sail. This optimizes the use of the available displays. For example a 20/20 HV display unit can automatically show AWA upwind and TWA downwind.



WTP2 (WAVE TECHNOLOGY PROCESSOR) is the ultimate instrument processor for professional grand prix and ocean racing.



Every yacht in the 2008-09 Volvo Ocean Race and the majority of the TP52 MedCup fleet, including the 2009 winners, Emirates Team New Zealand, are fitted with B&G WTP systems. Version 2 of the WTP2 includes new features developed with the syndicates competing for the next America's Cup. The WTP2 is the latest generation of Grand Prix level processor from B&G and is a significant step forward from its predecessor, the highly regarded Wave Technology Processor (WTP).

In addition to the normal sensors, a WTP2 system also includes a 3-Axis Rate-Gyro sensor for measuring the pitch, roll and yaw motion of the boat. It is this sensor that gives the WTP2 its name because it allows the removal of the wave motion components from the wind measured at the masthead.

The processor is based upon an embedded PC that runs Windows CE and samples sensors at up to 100Hz while displaying the data twice as fast as even the latest H3000 system. This makes it the fastest instrument processor available. It is capable of accepting up to 16 analog inputs (with an option to expand this to 32). It also accepts multiple boat speed, heading and NMEA sources. The processor is controlled directly from the Deckman software provided.

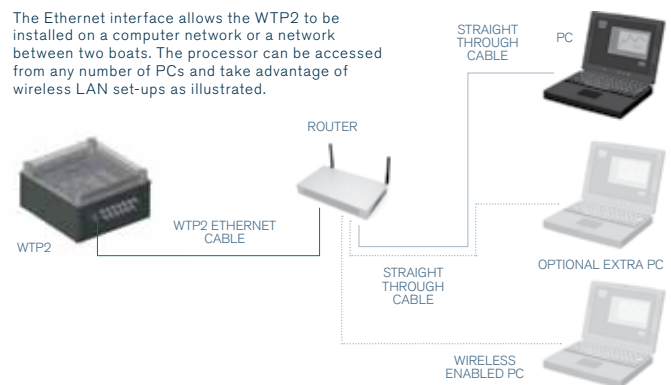
The WTP2 meets three principle objectives

To provide the most powerful and flexible instrument system for high-end race boats and super yachts

To increase the accuracy of the data provided by eliminating the effects of boat motion

To calculate and display data more quickly than any other system

The Ethernet interface allows the WTP2 to be installed on a computer network or a network between two boats. The processor can be accessed from any number of PCs and take advantage of wireless LAN set-ups as illustrated.



Key features of the WTP2

High-sensor sampling rates, up to 100 times per second

Wind calculations are corrected for yacht motion using measurements from high-resolution sensors

Compass inputs can be gyro-corrected using the rate sensors

Ethernet communications with one or more PCs running Deckman tactical software

FTP access to software and data files via LAN

Users can create custom variables based on existing data

Advanced filtering and calibration, including dependent damping between variables

Data is written to the display network at high rates (10Hz)

Users can configure the way information is displayed with intelligent data switching

Data redundancy support: use of multiple heading, speed and GPS sources

IMU sensor

The IMU is a high-performance attitude and heading reference sensor that provides the highest quality heading information available for WTP2. Using multi-axis rate gyros and accelerometers to correct for the motion of the yacht the IMU is able to perform accurately even when subject to accelerations of up to 5g.

Highly accurate heading provides significant improvements in True Wind data

Heel and Trim data can be used by WTP2 to correct wind for static angle offsets

Max accelerations up to 5g, provides accurate data even in the worst conditions

Solid State design, no moving parts to wear or damage

Very compact and lightweight

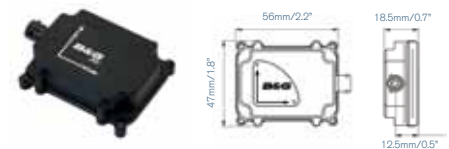
Waterproof (IP67)

Requirements

B&G instrument displays and sensors

Suitable PC for Deckman software

12 vDC 2 Amp Supply



WARRANTY Two-year worldwide warranty, with the option of FREE Gold Card registration, which extends the warranty up to a maximum of three years, when installed by a Authorized Dealer B&G Dealer



DECKMAN is the world's most advanced tactical navigation software and is used by winners in every field, from larger sports boats to the Volvo Ocean Race and the America's Cup.



Deckman

Deckman includes all the tools you need for short course round the buoys, offshore racing and boat tuning.

Deckman has numerous functions to assist the racing navigator and tactician in making the right decisions on the race course. It is also closely integrated with instrument systems and in many cases is able to output functions back to the instrument system displays for use by crew on deck.

Deckman provides the edge required to win races.

New in v9

AIS Overlay

View all boats equipped with Class A or Class B AIS transceivers. Targets are provided as a chart overlay, with options to add vectors in front of moving targets. Used for collision avoidance and competitor positioning.

Further vessel detail, including name, call-sign, course and speed, is available by clicking on the target displayed.

Weather enhancements

Deckman's weather services have been enhanced by several additions:

Weather Animation gives a clear visualization of how the weather is likely to develop

Precipitation display provides clearer identification of weather front positions

Wave Height display gives the navigator information on the likely sea-state ahead

GRIB file manager allows loading and prioritisation of multiple GRIB files, allowing local high-resolution data to be used alongside wider area.

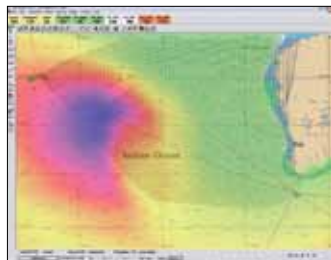
Advanced GRIB options allow the advanced user to modify GRIB files based on observations.

DECKMAN provides the best optimum routing calculations available, as used to win all the classic ocean races.



Routing

The Optimum Routing module now includes the option to avoid areas with waves larger than a user-set height – increasing speed and reducing the risk of damage to the boat offshore.



Wave Height visualisation and routing

Enhanced graphics

An enhanced graphics engine - including new layline options, like shaded limit layline sectors - helps the navigator visualize wind shift limits when approaching a mark of the course.

Deckman's wide set of features allows the navigator to optimize strategy and tactics while racing, and allow structured testing while tuning and training.



Start screen showing bias, layline and times

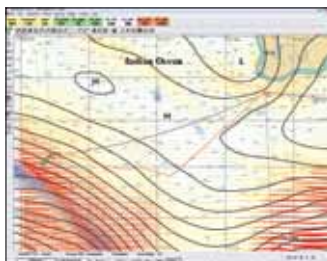
Inshore the Start screen, giving live updates of boat position, favored end, gain/loss through line bias and time to line is the key to consistently good starts. Add in the ability to quickly generate windward/leeward courses, track wind-shifts and overlay tidally adjusted laylines on the chart while assessing strategic options on future legs and you have a clear advantage on the race course.

A competitor handicap tool allows you to keep track of competitors in handicap events with race position calculations based on user input of mark rounding times.

Offshore, the navigator's focus is on the weather. Deckman provides the best optimum routing calculations available, as used to win all the classic ocean races.

Deckman allows the user to animate multiple GRIB weather files including wind, pressure, precipitation and wave height to visualize the weather forecast data. With UGRIB, OCENS Weathernet and Saildocs services integrated the navigator need never be more than a few clicks from the latest weather downloads.

Using the Optimum Routing module, the navigator can calculate the fastest route, while also using wave avoidance to route around areas with dangerous wave heights. Reverse isochrones can be used, along with competitor tracking, to determine relative positions in the fleet.



Optimum routing

Other key features for offshore use include the use of multiple polar tables, one for performance targets, one for navigation – allowing the navigator to adjust one polar to be accurate for the actual performance of the yacht, while the crew strive to attain 100% performance based on their own polar.

Performance testing is possible via a suite of integrated data logging and analysis tools to allow accurate assessment of the performance of the yacht and crew under different conditions, during or after a race.



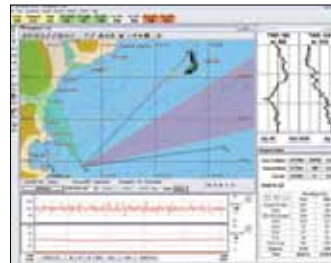
Time Plots with analysis tools

Single boat testing, such as a comparison of headsails, is accomplished by running Speed Tests to allow statistical comparison of one sail versus another, with a polar table overlay.

Multi-boat campaigns utilize Deckman's Two-Boat module to share data via a telemetry link,

allowing wind-shift compensated performance comparison between yachts.

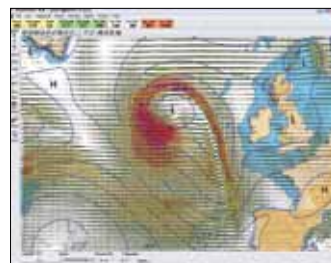
In either case Deckman's integrated database logs all available data every second for seven days, then at reduced frequency for a full year, allowing analysis of historical data against current performance.



All the tools required to win races

Advanced options

B&G Custom Projects can supply various advanced add-ins for Deckman, including Alarm Manager, T&T Reporter, Laser Range Finder and 2-Boat Telemetry modules. The Deckman Add-In interface allows 3rd party developers to integrate new functionality.



GRIB Weather view

PRODUCT	PART NO.
Deckman v9 C-Map (USB)	BGH140001
Laser Range Finder Module	BGH140025
2-Boat Telemetry module	BGH140026
T&T Reporter Add-In	BGH140027
Alarms Manager Add-In	BGH140028
SHOM Tidal Database - All Areas	BGH140030
SHOM Tidal Database 3 - Baie de Seine	BGH140031
SHOM Tidal Database 5 - Bretagne Nord	BGH140032
SHOM Tidal Database 8 - Bretagne Sud	BGH140033
SHOM Tidal Database 7 - Gascogne	BGH140034
SHOM Tidal Database 6 - Iroise	BGH140035
SHOM Tidal Database 1 - La Manche	BGH140036
SHOM Tidal Database 4 - Normand Breton	BGH140037
SHOM Tidal Database 2 - Pas de Calais	BGH140038
SHOM Tidal Database 9 - Vendee Gironde	BGH140039
Winning Tides Database - Solent & Isle of Wight	BGH140040



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