Artemis Mk6 Operator's Guide

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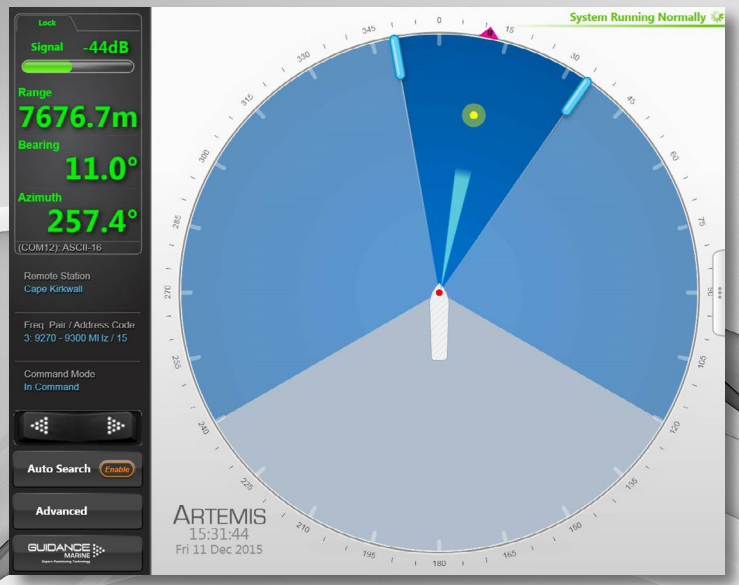

featuring
Artemis Dashboard

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Document History

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94-0440-4-A	First release of Artemis Mk6 Operator's Guide	28/06/2016

Table of Contents

Introduction

Welcome to the Artemis Mk6 Operator's Guide. It explains how to use the Artemis system once it has been fully installed. For instructions on how to install the system onto a vessel, refer to the document **94-0441-4 Artemis Mk6 Installer's Guide**.

The ***System Overview*** on page 6 describes the different components of the system and how they work together.

The ***Getting Started*** section on page 8 explains how to get the system up and running and how to shut it down again. It also details what you will see on the Dashboard screen when the system is running, and how to interpret the information.

The ***Basic Operation*** section on page 18 deals with selecting searching for and tracking the remote station.

The ***Multi-Dashboard Artemis Systems*** section on page 24 explains how two or more Dashboards operate simultaneously in an Artemis system.

Further useful information is included in the ***Support Information*** section on page 27.

Note that whilst we endeavour to describe system functionality correctly in this document, we do not guarantee that it exactly represents the version of the system that you are running, particularly after any future upgrades to the software.

RF EXPOSURE INFORMATION

This radio is intended for use in occupational/controlled conditions where users have full knowledge of their exposure and can exercise control over their exposure to meet FCC limits. This radio device is NOT authorized for general population, consumer, or any other use. This device emits radio frequency (RF) energy when transmitting. Make sure to observe all RF energy exposure standards when installing, testing and operating this radio equipment. Proper operation of this device under normal conditions results in user exposure to RF energy below standard acceptable limits. To maintain a safe distance, do not operate the equipment when a person is within 18cm (0.6 feet) of the antenna.

FCC ID: **VYMARTEMIS**

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

System Overview

The Artemis microwave-based position reference system provides accurate positional data to marine DP (dynamic positioning) control systems. It enables automated approach and station keeping relative to a rig or platform, or to another vessel.

The standard Artemis system consists of:

- Two identical Antenna Units (or Sensors), user-configurable as a Mobile Station and a Fixed Station.
- The Artemis Control PC, a Windows-based marine specification computer, running the control software.
- Artemis Client PC(s), optional computers used where more than one installation of the Artemis Dashboard software is required.
- Hand-held Operating Panel (or Pendant).

An alternative configuration - the Beacon system - involves the same components as the standard system except for a Beacon Unit instead of a Fixed Station. A Beacon Unit does not provide an Azimuth measurement.

Antenna Units

The Mobile Station is mounted on the DP-Equipped vessel, ideally at the top of the main mast. The Fixed Station is installed on a fixed platform if absolute positioning is needed or on a moving platform or structure to provide relative positioning.

Hand-held Operating Panel (Pendant)

A hand-held unit that can be connected to a station or Beacon unit to read and set system parameters during installation. It can also be used to view positional data once the system is in operation. This is an optional diagnostic aid.

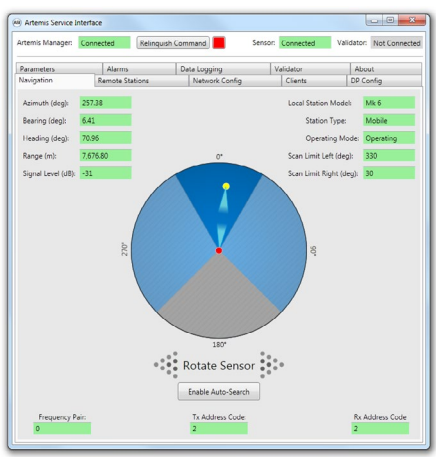
An Antenna Unit (Mobile or Fixed Station)

An Operating Panel

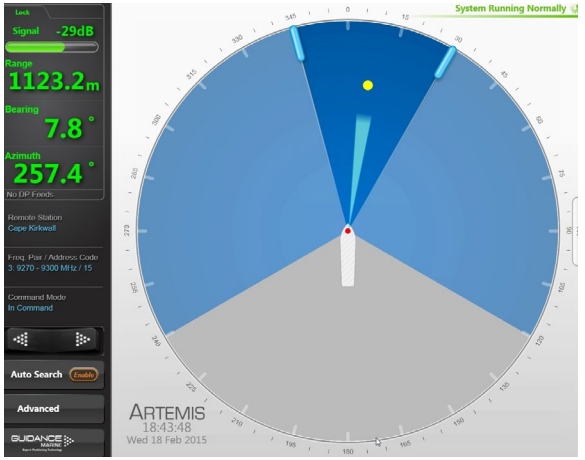
Artemis Control Software

The following applications run on the Artemis Control PC, usually mounted on the bridge near to the controls of the vessel's DP system:

- **Manager** – This Windows service running on the Artemis Control PC can be configured to run automatically after the PC powers up. It provides a single point of control for an Artemis sensor through which the other components communicate.
- **Service Interface** – Used for system installation and maintenance, it allows network communications to be configured and parameters on an Artemis Station to be viewed and set. It displays the state of connected Artemis Dashboard(s) and can be used to take basic control of the station.
- **Dashboard** – Used to control and monitor normal system operation. Up to five instances of the Dashboard can run simultaneously on the Control PC and Client PCs, but only one of these can exercise control at any given time; the others can only be used to monitor the system.



Artemis Service Interface



Artemis Dashboard

Explosion-Proof Antenna Unit/Beacon

An antenna unit or beacon can be made safe for operation in hazardous zone 2 conditions with the use of a pressurisation unit. This forces clean air into the housing of the antenna unit or beacon to prevent the ingress of explosive or flammable gases that might otherwise be ignited by electrical sparks. Contact Guidance Marine for details.

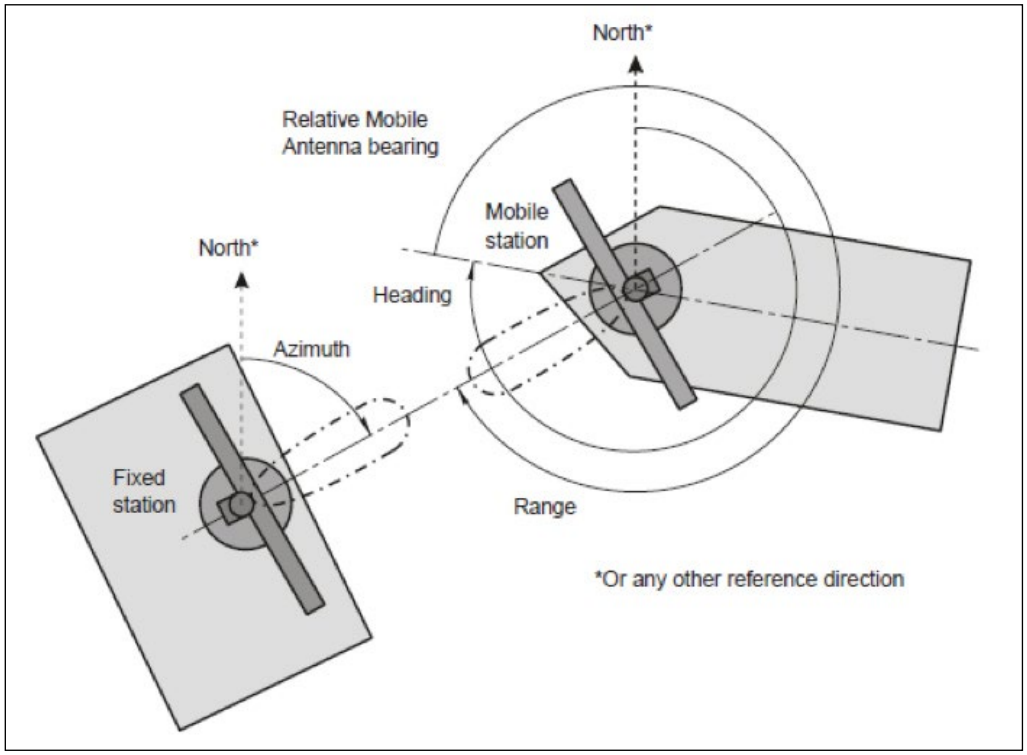
System Overview (Continued)

System Operation

In order to provide positional data to the vessel's DP system, the Artemis system needs to be "locked". In this state, the antennae of the Fixed and Mobile Stations are facing each other and automatically tracking by maintaining a continuous microwave link.

The distance between the sensors is obtained from the travel time of the microwave signal, measured by means of coded interruptions in the continuous wave. The bearing of the Fixed Station, with respect to the centre line of the vessel, is measured using a precision shaft encoder.

The Fixed Station measures the Azimuth and reports it to the Mobile Station. The Azimuth is the horizontal angle between a reference direction and the Mobile Station, with its vertex at the Fixed Station.



Layout of a Standard Artemis System

The beam width of an antenna unit (Fixed or Mobile Station) is approximately 2°.

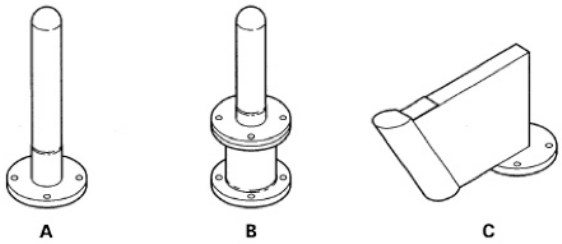
Beacon Unit

Used instead of a standard rotating Fixed Station on a fixed platform for absolute positioning, or on a moving platform or structure for relative positioning. The antenna of a Beacon unit does not rotate, and three types of antenna are available for different situations:

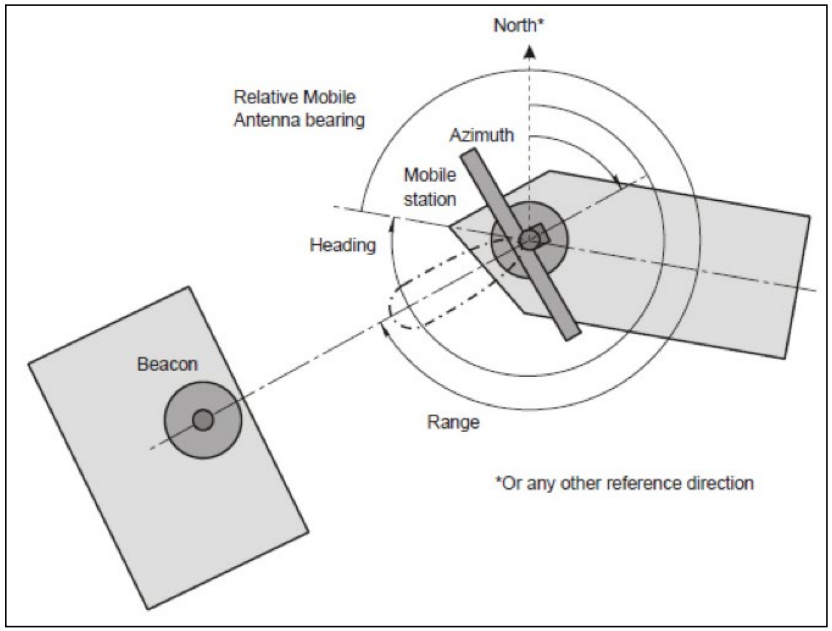
A. Omni directional antenna with 360° beam width

B. Semi-omni antenna with waveguide, 100° beam width

C. Horn antenna with 66° beam width



Different Types of Beacon Antenna



Layout of an Artemis Beacon System

Getting Started

This section covers the basics of using the Artemis system.
It contains the following pages:

Start Up and Shut Down

Start Up

To Start Artemis Dashboard

1. Ensure that the local station is powered on.
2. Double-click on the Artemis Dashboard icon. (A)

   (Or run the Artemis Dashboard application from:
   Start > All Programs > Guidance Marine Ltd > Artemis > Artemis Dashboard).
3. The Dashboard display screen will appear. If the sensor is currently suspended, the main part of the screen will be greyed out. Click on the **Resume** button in the side bar in order for the sensor to begin transmitting and for the results to be displayed on the screen. If the sensor was already transmitting, any remote station to which it is locked will be displayed straight away.

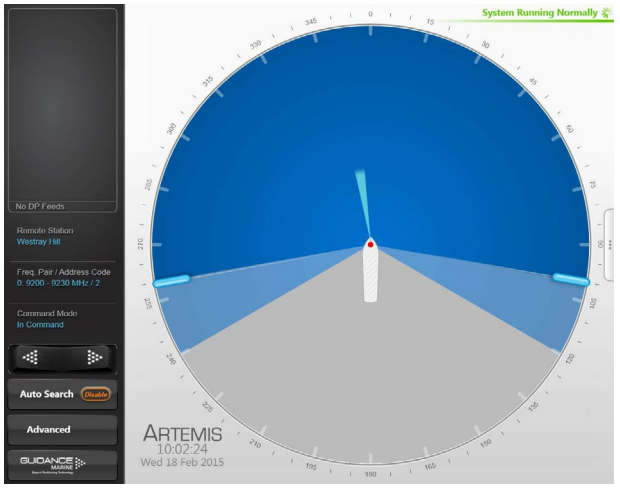
Dashboard screen with local station suspended

Shut Down

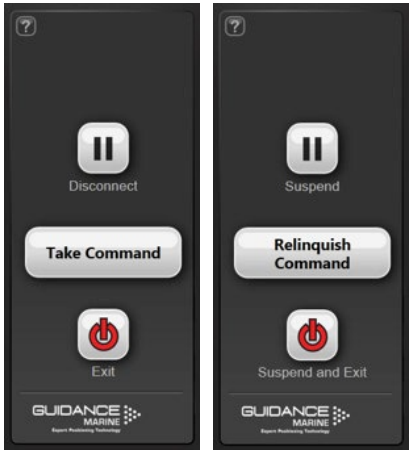
To Disconnect, Exit or Suspend

(Click on the Guidance button in the lower left corner of the screen. This reveals the Guidance Home Menu, which contains different sets of buttons depending whether the Dashboard is in command, and whether it is tracking a remote station. Buttons are explained below.

- **Disconnect** - Ceases communications between the local station and the Dashboard computer. The local station is unaffected and if tracking is in progress, it will continue.
- **Exit** - Closes the Dashboard without affecting the sensor.
- **Suspend** – Only available when the Dashboard is in command and the local station is not tracking a remote station. Places the local station into a 'sleep mode' in which it ceases to transmit. The Dashboard remains active and connected to the sensor ready for operations. This mode is suitable for use when travelling between locations.
- **Suspend and Exit** – Same as Suspend, except that it closes the Dashboard program.



Dashboard screen with local station scanning

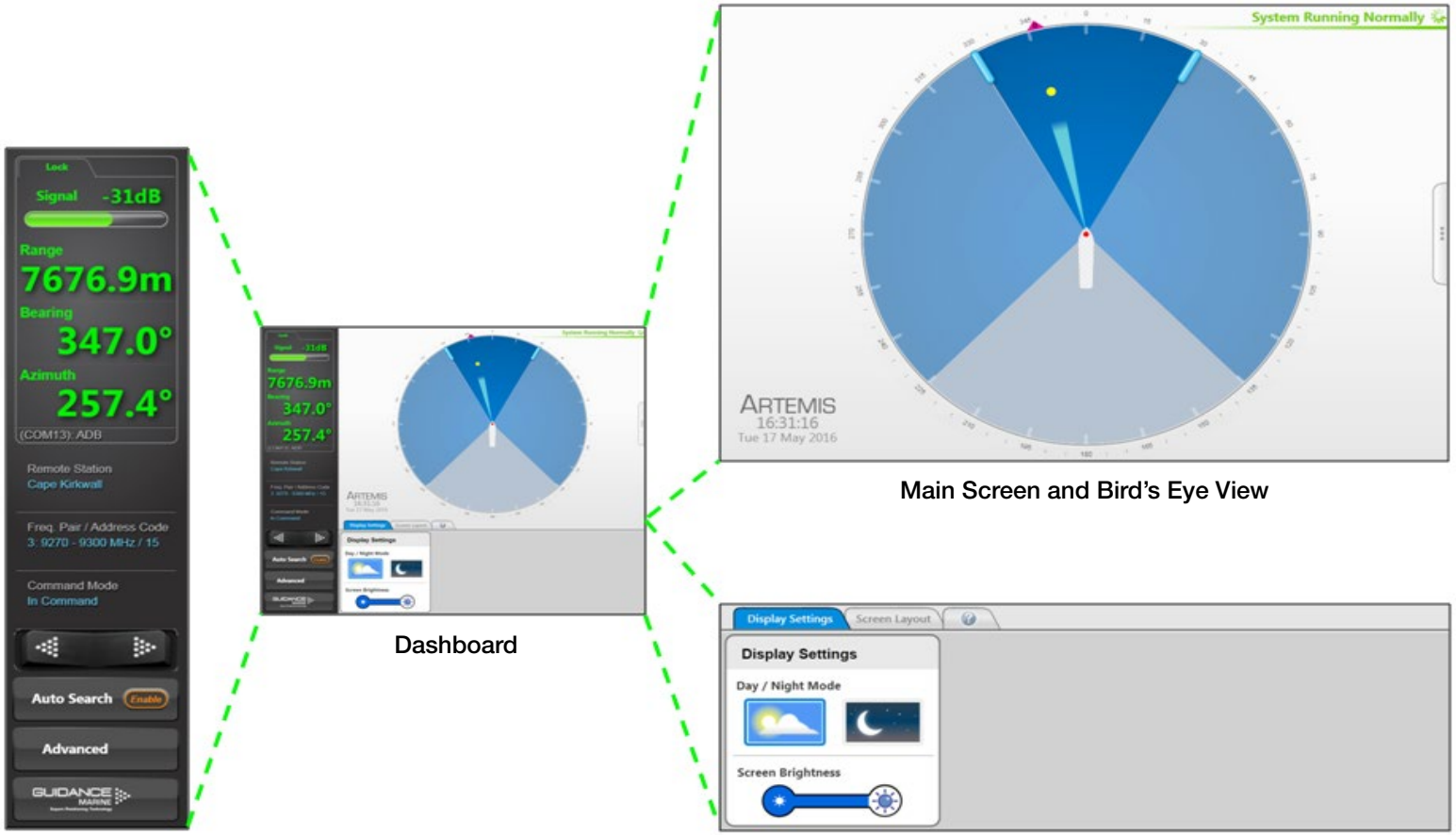


Guidance Home Menu in different contexts

Screen Contents

The Artemis Dashboard screen is split into three distinct sections, these are:

- ***Main Screen and Bird's Eye View (BEV)*** (see page 11)
- ***Side Bar*** (see page 13)
- ***Menu Pane*** (see page 15)



Side Bar

Dashboard

Main Screen and Bird's Eye View

Menu Pane

Screen Contents (Continued)

Main Screen and Bird's Eye View (BEV)

The circular BEV depicts the operational area of the Artemis system from above. The red dot at the centre represents the local Antenna Unit mounted on its vessel and the arc through which it can rotate corresponds to the combined blue areas. A grey exclusion zone can be configured (using the End Limit parameters) if there is a physical obstruction that prevents the antenna from turning through 360°.

The current direction and movement of the radar beam is indicated by the slim, light blue triangle. If the local station is locked onto a remote station, this is represented by a yellow dot. If the remote station is configured as “Floating” rather than “Fixed”, the outline of its vessel is also shown (with its bow aligned to 0° azimuth).

Vessel Outlines

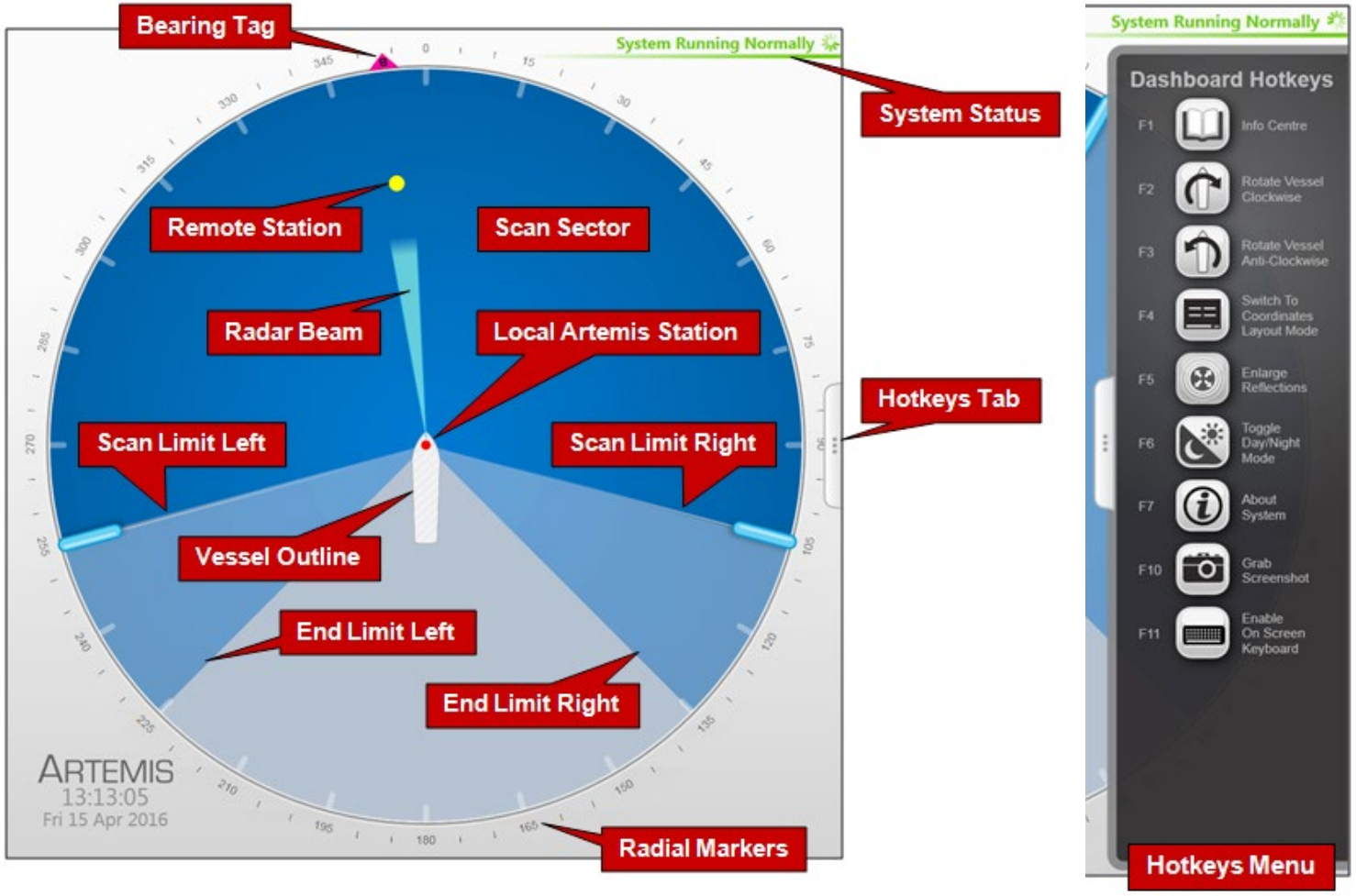
Where a vessel outline is shown, its direction is significant, but its size, exact shape and the position of the Artemis station within it are all arbitrary and cannot be altered.

Scan Limits

If the local station is not locked onto a remote station, and Auto Search is enabled, the beam moves to and fro across the configured scan sector. The size of this sector (the dark blue area) can be adjusted (see ***Adjusting the Scan Sector*** on page 21).

Radial Markers

These form an angular scale in degrees, clockwise around the circumference of the BEV. Zero is defined by the bow of the local vessel.



Screen Contents (Continued)

System Status

This consists of two fields:

Primary

The primary part of the status display is in the upper-right corner of the Main Pane. It indicates the current status of the system:

- System Running Normally
- System Suspended
- System Disconnected
- Local Connection Operational
- Communications ERROR

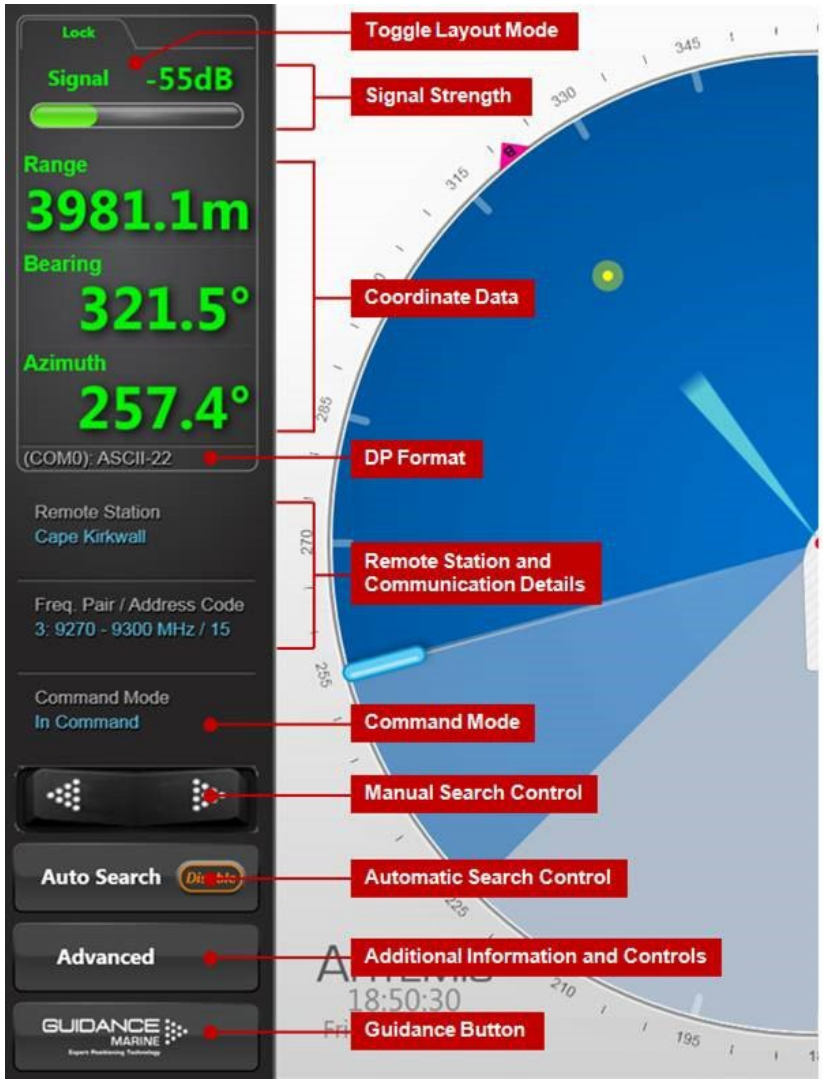
Secondary

The secondary status display is located in the lower right corner of the Main Pane and is normally hidden. It displays a flashing message for a number of seconds in order to confirm an action taken by the user (see below). It can also display a persistent, static message if there is a communications problem.

Screen Contents (Continued)

Side Bar

The Side Bar, the black pane to the left of the BEV, contains control and display components in addition to the coordinates pane.



After pressing the Guidance button:

Screen Contents (Continued)

Hotkey Buttons

Selecting the Hotkeys tab on the right-hand side of the Bird's Eye View (BEV) activates the **Dashboard Hotkeys** menu.

The following keys - and the corresponding buttons on the **Dashboard Hotkeys** menu - act as shortcuts to application functions.

F1 Help Menu.

F2 Rotates the vessel clockwise.

F3 Rotates the vessel counter-clockwise.

F4 Toggles between the default BEV Layout Mode and Coordinates Layout Mode.

F5 Toggles between enlarged and standard-sized representation of the remote station.

F6 Toggles between the day view and night view.

F7 Toggles between the **About System** pane and the full BEV or Coordinates display.

F10 Takes a snapshot of the screen and stores the image in the file **desktop.bmp**, at the configured location for data logging (defined by the **LogPath** parameter in the **config.ini** file, in the Artemis Dashboard installation folder).

F11 Enables or Disables the On Screen Keyboard function.

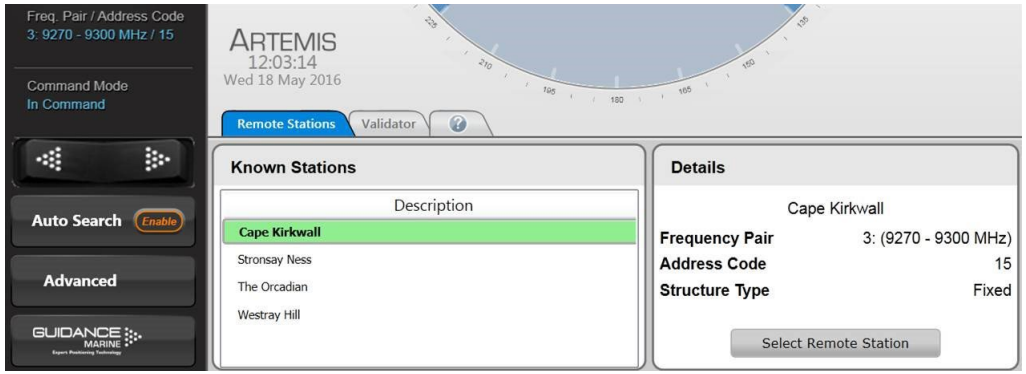
Esc When in operation confirmation mode, cancels the current operation request; in all other modes, brings back the full BEV or Coordinates screen.

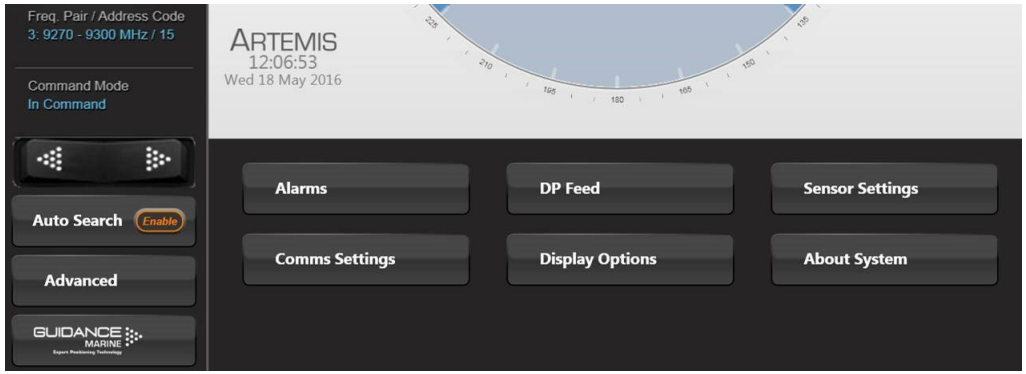
Return When in operation confirmation mode, confirm the current operation request.

Screen Contents (Continued)

Menu Pane

The menu pane, located across the bottom of the Dashboard screen, is not always visible. It appears when the **Auto Search** or **Advanced** buttons at the foot of the side bar are pressed, which causes the main screen to contract upwards. Clicking the same button for a second time causes the menu pane to disappear and the main screen to be restored to full size.





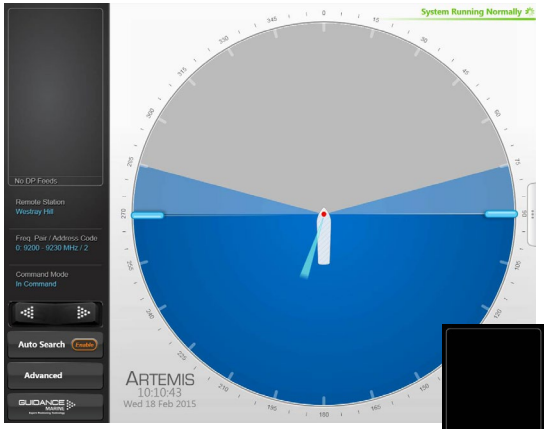
Display Options

Display View

To provide ample visibility during daytime operation and to limit glare during night shifts, the Artemis Dashboard offers two display modes: Day View and Night View. In either mode the brightness can be further adjusted by the Screen Brightness control.

To Change the Day/Night View and Adjust Brightness:

1. If the Guidance Home Menu is open in the Side Bar, close it by clicking on the Guidance button.
2. Navigate to **Advanced > Display Options > Display Settings**.
3. Click on the **Day View** or **Night View** symbol.
4. Click on the left side of the **Screen Brightness** control to dim the screen and on the right to make it brighter.
5. Alternatively, use the keyboard shortcut **F6** or the **Day/Night Mode** button in the Dashboard Hotkeys menu to switch between Day View and Night View.



Example Day View

Example Night View

Screen Layout Mode

By default, the main area of the Dashboard screen contains the Bird's Eye View (BEV) and if the local and remote stations are locked, the positional coordinates are displayed in the upper part of the side bar. However, it is possible to swap these around so that the main area shows the coordinates in extra-large text and the side bar contains a miniature BEV.

To Select the Screen Layout Mode:

1. Navigate to **Advanced > Display Options > Screen Layout.**
2. Select **BEV** or **Coordinates**.

OR

Click on the upper part of the side bar to toggle between the two layout modes.

Screen Layout Mode = BEV

Screen Layout Mode = Coordinates

Display Options (Continued)

Vessel Orientation

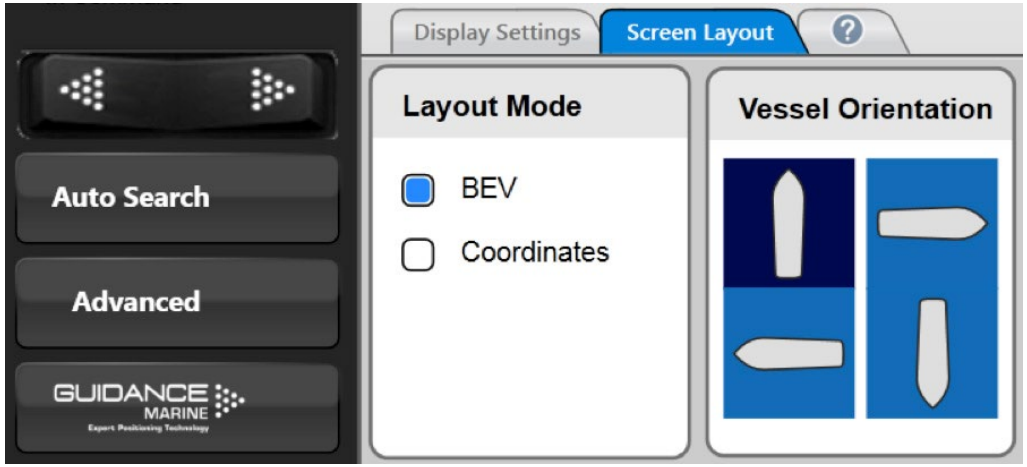
The Artemis Dashboard supports four different arrangements of the Bird's Eye View so that the operator can choose the one which best represents his surroundings.

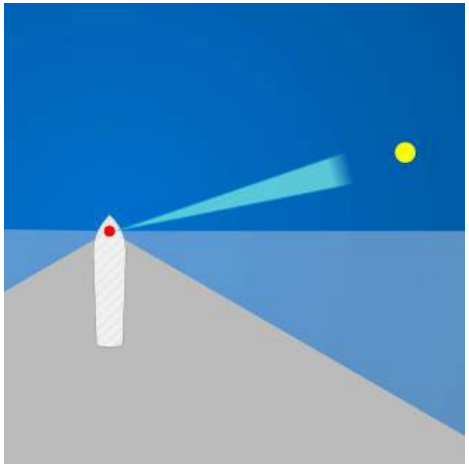
For instance, if the operator is facing forward when using the Dashboard, he would want the bow of the vessel in the BEV to point upwards, so that a remote station located on the starboard side of the vessel is shown on the right-hand side of the BEV.

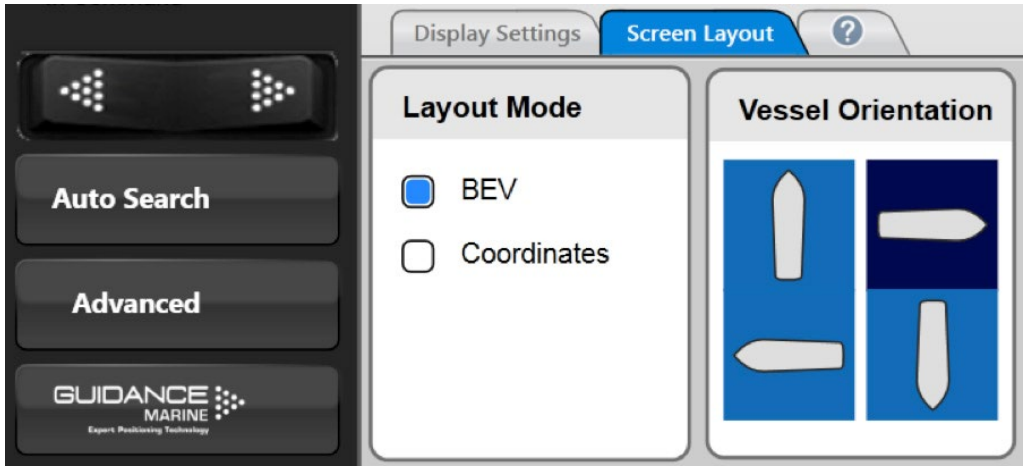
To set Vessel Orientation:

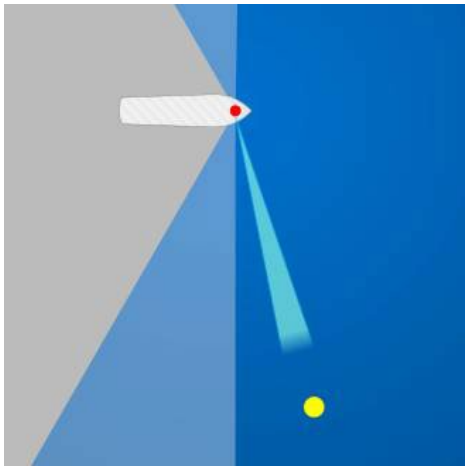
1. Click on **Advanced > Display Options > Screen Layout.**
2. Click on the vessel outline that points in the required direction.

Alternatively, rotate the vessel clockwise by clicking **F2** or the **Rotate Vessel Clockwise** hotkey. Rotate anti-clockwise by clicking **F3** or the **Rotate Vessel Anti-Clockwise** hotkey.









Basic Operation

In order for the Artemis system to output positional data to a vessel's DP system, the local station needs to be tracking a remote station. This section explains how to achieve this.

It contains the following pages:

Tracking Overview

When an Artemis-equipped vessel moves within operating range of a remote station, the two stations will lock on to each other if the following conditions are met:

- The correct remote station has been selected within the vessel's Artemis Control Software (see ***Selecting a Remote Station*** on page 20).
- The radar beams from both stations are illuminating the other.

In order to fulfil the second condition, the scan sectors of each station should be set up to include the direction in which the other is located. In the case of a fixed station mounted on a rig or on land, it should already be configured to search in the directions from which vessels normally approach. For the mobile station on board a vessel, it may be necessary to widen the scan sector in order to find the fixed station (see ***Adjusting the Scan Sector*** on page 21).

In order to locate the remote station within the scan sector, the beam direction can be altered either manually or automatically:

- Rotate the beam manually using the rocker switch on the side bar. Click the left-hand side of the switch to move the beam in a counter-clockwise direction by a small amount. Similarly, click the right-hand side to move in a clockwise direction. Click repeatedly or hold the switch down to move further.
- Click the **Enable** button embedded within the Auto Search button in order to search automatically. This causes the beam to sweep from side to side across the scan sector until it locks onto the remote station, or until Auto Search is disabled.

When the stations are locked, the remote station is represented on the BEV by a yellow dot, the size of which varies with the strength of the received signal. If the remote station has a structure type of **Floating**, an outline of its vessel is shown (with its bow aligned to 0° azimuth).

Once a lock has been achieved, DP feed messages are output via the configured DP channel(s). The position of the remote station and its signal strength are displayed at the top of the side bar (or on the main screen if Coordinates Layout Mode has been selected). (see ***Tracking Information Quality*** on page 22).

Leaving Auto Search enabled on the local station causes the beam to search for the remote station if it is lost (e.g. due to another vessel passing across the line of sight).

If the local vessel is station keeping, or is moving along a trajectory such that the bearing of the remote station remains about the same, you may wish to narrow the scan sector around the remote station. The advantage of this is to reduce the time required to find the remote station again after losing it.

Selecting a Remote Station

Although the local Artemis station tracks only one remote station at a time, it can be configured with a list of multiple prospective stations (see Artemis Mk6 Installer's Guide). The side bar of the Dashboard screen displays the description of the currently selected remote station, its address code and the frequency pair used when the local station communicates with it.

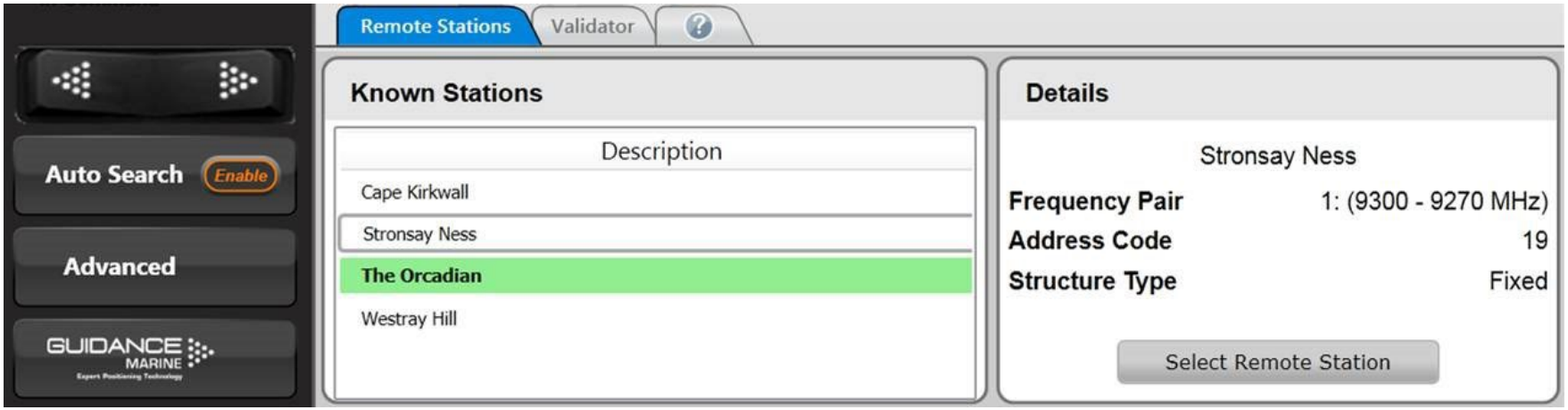
To Select a Different Remote Station:

1. Ensure that the Dashboard is In Command (if not, click on the **Guidance** button then **Take Command**).
2. Click on the **Auto Search** button on the side bar.

   This causes the Remote Stations menu pane to open. The description of the currently selected remote station has a green background.
3. Select a different remote station by clicking on its description in the list.

   The details of the selected remote station are displayed in the right-hand side of the pane.
4. Click on **Select Remote Station**.

   The description of the newly selected remote station now has a green background.



Adjusting the Scan Sector

The Dashboard operator can alter the size of the scan sector, the dark blue area across which the antenna sweeps when auto-searching.

A wider scan sector may be required in order to find a remote station. Once the stations are locked and if its bearing is not expected to change much, a narrower scan sector may be required in order to quickly re-establish the lock should it be interrupted.

To Adjust the Scan Sector:

1. Ensure that the Dashboard is In Command mode (if not, click on the **Guidance** button then **Take Command**).

In Command mode there are handles along each radial edge of the scan sector.

2. Click one of the scan sector handles on the BEV and, holding down the left mouse button, drag to the required position. Alternatively – on a touchscreen – touch and drag.

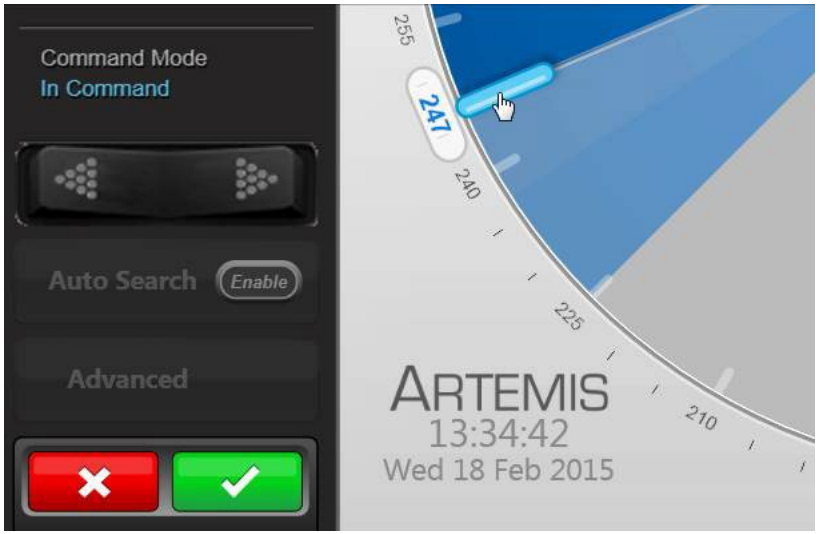
As the handle is moved, its current position (in degrees clockwise from the vessel bow) is displayed in blue numerals outside the perimeter of the circle.

This will cause the Apply and Cancel buttons to appear at the foot of the side bar.

3. If required, drag the second handle in the same way.

4. Click on the **Apply** (tick) button to confirm.

Note that the scan sector cannot be narrower than 5°, nor can it extend into the dark grey area of the BEV (defined by the End Limits - see Artemis Mk6 Installer's Guide).



Tracking Information Quality

When the system is locked, the coordinates of the remote station and the strength of the signal received from it are displayed at the top of the side bar (or on the main screen if Coordinates Layout Mode has been selected). This data is colour coded:

The colours denote signal strength:

Red: -80dB to -72dB

Amber: -71dB to -65dB

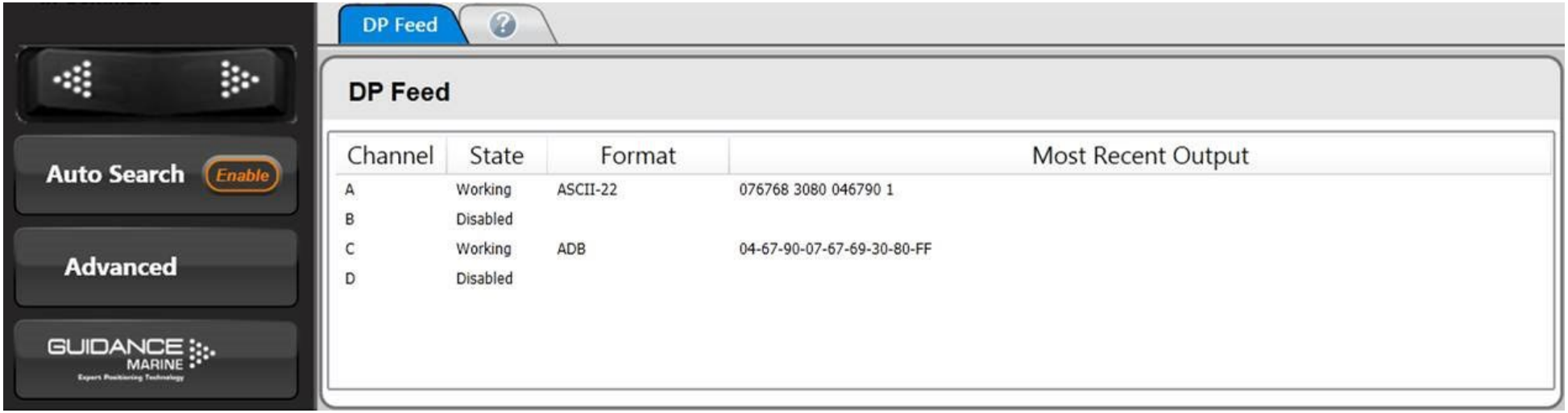
Green: -64dB to 0dB

DP Feeds

Up to four ports of the Artemis Control PC can be configured as DP Feed channels, in order to output positional data to the vessel's DP system (see Artemis Mk6 Installer's Guide). The state of each channel, its data format and the most recent data output can be viewed on the Dashboard.

To View DP Feed Details:

1. Click on the **Advanced** button on the side bar.
2. Click on the **DP Feeds** button on the menu pane.



Multi-Dashboard Artemis Systems

An Artemis system can include multiple PCs, each running the Dashboard program. At any given time all of the Dashboards may be in Monitoring mode, or else one Dashboard – and only one – may be in command mode.

This section explains the difference between the two modes and how to switch between them. It contains the following pages:

Artemis Dashboard – In Command Mode

It is necessary to run a Dashboard in command mode in order to use its system control functions (e.g. adjusting the scan sector or activating a different remote station). Any changes made in these areas will be evident on the screens of the monitoring Dashboards.

On the other hand, display options such as screen brightness or vessel orientation can be set differently on each individual Dashboard, whether it is in command or monitoring.

When the Dashboard in command is used to suspend the local station, a message will appear on the screens of the monitoring Dashboards indicating that the system is suspended.

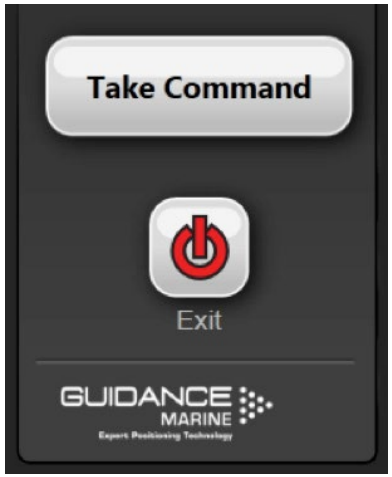
In this state, clicking the **Resume** button on any Dashboard will automatically put it in command mode.

If no Dashboard within the system is in command, the next Dashboard to be opened will default to In Command mode. Subsequently, new Dashboards will default to Monitoring mode.

To switch a Dashboard from Monitoring mode to In Command:

1. Click the **Guidance** button at the foot of the side bar.
2. Click the **Take Command** button.

If there was already another Dashboard in command mode, it will automatically switch to Monitoring mode when this Dashboard takes command.



A Dashboard cannot directly take command away from a Service Interface application.

If a Service Interface is currently in command, the Dashboard's Take Command button will be disabled and dark grey in appearance.

In order to enable it, click on the Relinquish Command button on the Service Interface.

Artemis Dashboard - Monitoring Mode

When the Dashboard is running in Monitoring mode the controls relating to the Dashboard itself will be active, but those relating to other parts of the system will be disabled.

Monitoring Dashboards display the same positional information as the Dashboard in command, but cannot search for a remote station, activate a different one or suspend the local station.

To switch a Dashboard from In Command mode to Monitoring:

1. Click the **Guidance** button at the foot of the side bar.
2. Click the **Relinquish Command** button.

Support Information

This section contains the following pages:

Serial Numbers and Software Versions

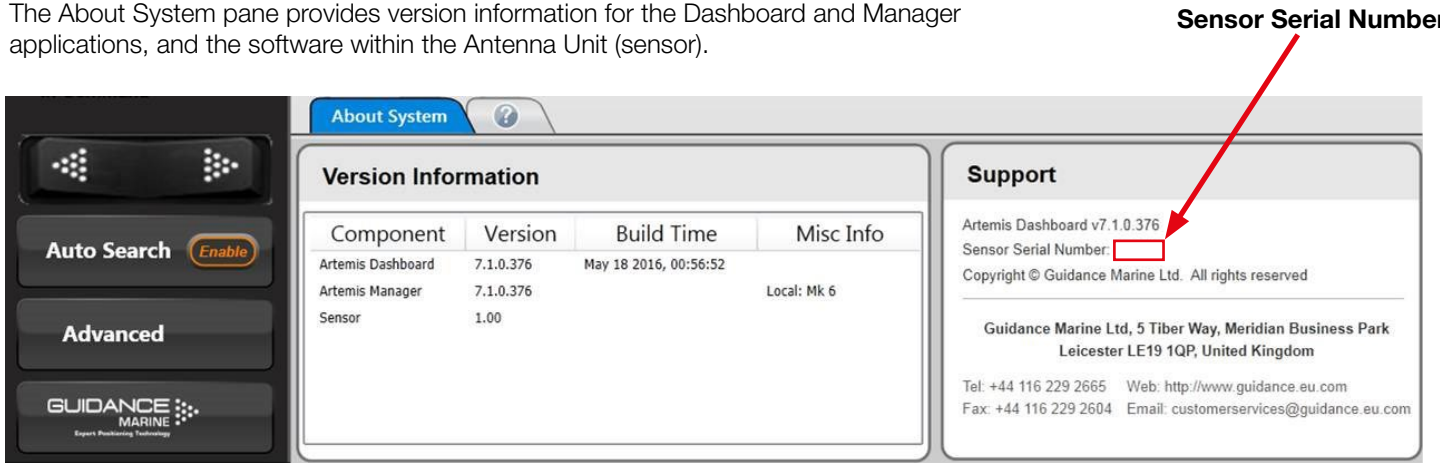
Serial Numbers and Software Version Numbers are used to identify the hardware configuration and product revision of the Artemis system. They will be requested by Guidance Marine in the event of a support call to the company.

Product Labels

The Part Number and Serial Number for an Antenna Unit can be found on the product label fixed onto the base.

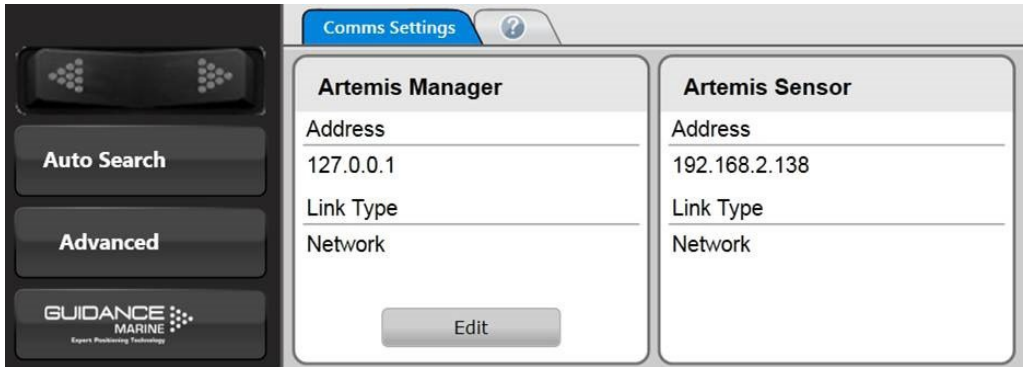
Software Version Information

The About System pane provides version information for the Dashboard and Manager applications, and the software within the Antenna Unit (sensor).



Network Communications Settings

The Comms Settings menu pane displays the configuration of communications between the Dashboard and Manager and between the Manager and Sensor (local station).



To Change the IP Address of the Artemis Manager:

1. Ensure that the Dashboard is not in communication with the manager. If necessary, click on the following buttons:
   i) **Guidance**
   ii) **Relinquish Command**
   iii) **Disconnect**
2. Navigate to **Advanced > Comms Settings**.
3. Click on the **Edit** button within the Artemis Manager panel.
4. Amend the IP Address.
5. Click on the **Apply** button to confirm.

To Change the Comms Settings for the Artemis Sensor:

Use the Service Interface (see the Artemis Mk6 Installer's Guide); the Artemis Sensor panel on the Comms Settings pane of the Dashboard is for information only.

Sensor Settings

The following two functions of the local Artemis station can be controlled from the Dashboard:

Power Mode

Normal power mode is suitable when the range between the local and remote stations is 200m or more.

Reduced power mode is suitable for ranges less than 200m.

Automatic causes the power mode to be automatically switched between Normal and Reduced depending on the current range between the stations.

Anti-Icing

When this is set to **Auto** and the temperature falls towards freezing point, the heating inside the Artemis antenna will automatically be switched on.

To Change the Sensor Settings:

1. Click on the **Advanced** button on the side bar.
2. Click on the **Sensor Settings** button on the menu pane.
3. Amend the Power Mode and/or Anti-Icing settings.
4. Click on the **Apply** button.

Using the On-Screen Keyboard

The Artemis Dashboard provides an On-Screen Keyboard (OSK), which allows ttext to be input using a mouse, trackball or touch screen.

To enable the on-screen keyboard

The OSK will already be enabled if you selected this option during installation of the Dashboard. Otherwise, the OSK can be enabled and disabled by clicking **F11** or by clicking **Enable On Screen Keyboard/Disable On Screen Keyboard** on the Dashboard Hotkeys menu.

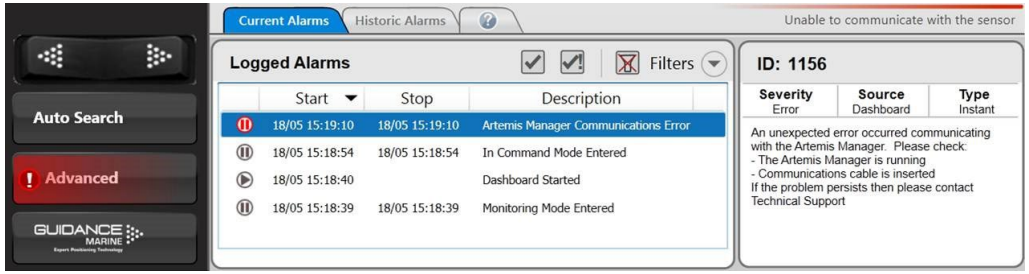
To use the on-screen keyboard

Simply click on any text entry field and the OSK will pop-up ready for use:

Click on the necessary keys on the on-screen keyboard using your mouse or by tapping the touch screen.

Working with Alarms

During operation, the Artemis system produces an audit trail of event messages. These range in increasing order of severity from: Information, Warning, and Error to Fatal. As these alarms are raised, the Dashboard lists them within the Alarms pane. Click on any alarm to display details about it in the right-hand section of the Alarm pane:



The severity and current state of an alarm are reflected in its colour and shape:

- Information—grey symbols
- Warning—orange symbols
- Error—red symbols
- Fatal—red symbols

The arrowhead symbol indicates that an alarm condition is persisting; an alarm in this state will show a Start time but not a Stop time.

The square symbol means that the alarm condition no longer exists, therefore the alarm will show both Start and Stop times.

The pause symbol indicates an instantaneous alarm. In this case, the Start and Stop times are identical.

When an Error or Fatal alarm is raised, the Alarms pane is opened automatically and its Side Bar button is shaded red as in the example above. If the pane is closed and re-opened, the Side Bar button returns to its normal light grey shading.

When a Fatal alarm occurs, communications with the sensor are disabled.

In order to return to normal operation, ensure that the fault condition has been cleared, close the Dashboard and re-open. If communications are not re-established, power the sensor off, wait for 20 seconds then power back on.

Filtering Alarms

A filter is available to suppress the display of particular alarm types. By default, the filter is activated and causes information messages to be hidden.

Click on the Alarm Filter button to toggle between activated and de-activated .

Click on the Filter Selection button to choose which types of alarm are to be filtered out:

A tick means that alarms of the corresponding severity are always viewable in the alarms list. No tick means that alarms of that severity are hidden when the filter is activated.

Working with Alarms (Continued)

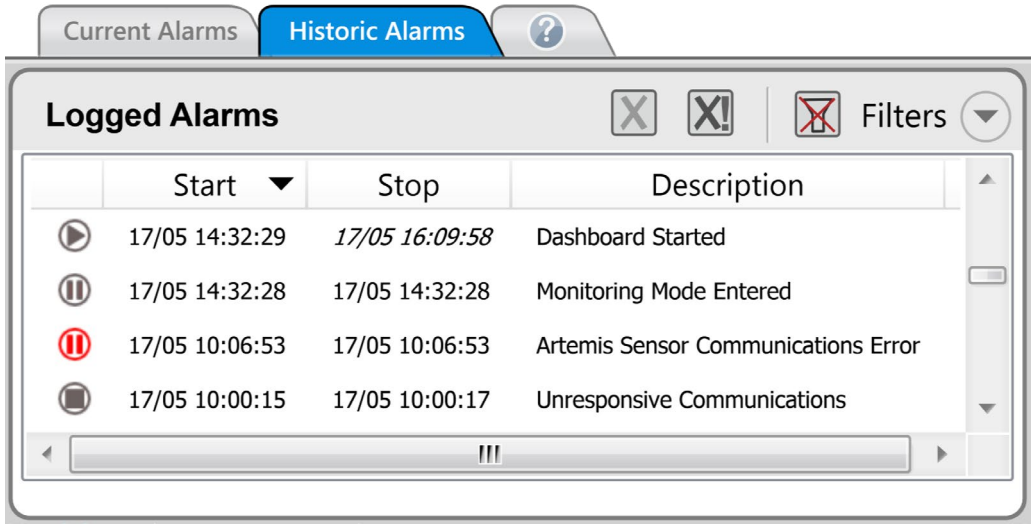
Using the Current and Historic Alarms Tabs

There are two tabs on the Alarms pane, each containing a list of alarms:

- The **Current Alarms** tab displays new alarms (raised since the Dashboard was last opened).
- The **Historic Alarms** tab displays alarms that have been cleared from the Current Alarms tab.

Current alarms are automatically transferred when the Dashboard is closed or when the maximum number of Current Alarms has been reached.

Items on the Current Alarms tab cannot be deleted, they may only be moved to the Historic Alarms tab. Only items on the Historic Alarms tab can be permanently deleted.



To accept alarms on the Current Alarms Tab

1. Click on **Advanced > Alarms** and ensure that the **Current Alarms** tab is in focus.
2. Select the alarms that you wish to move into the Historic list:

   To accept one alarm—Click on the alarm and click on the ✓ button.

   To accept all alarms—Click on the ✓! button.
3. Click **Apply** to move these alarm(s) onto the Historic Alarms tab.

!This will not apply to alarms that have been hidden by the filter mechanism.

To clear alarms on the Historic Alarms tab

1. Click on **Advanced > Alarms** and ensure that the Historic Alarms tab is in focus.
2. Select the alarms to delete:

   To delete one alarm – click on the alarm entry and then on the ✕ button.

   To delete all alarms – click on the X! button.
3. Click **Apply** to confirm.

!This will not apply to alarms that have been hidden by the filter mechanism.

International Standards Compliance

Artemis Mk6 Equipment

European Union

The equipment is permitted to be used in all EU member states without the need for a specific administrative licence.

Artemis Mk6 equipment meets the requirements of Directive 2004/108/EC and complies with EN 60945:2002.

CE

Norway

Note that in Norwegian waters a maritime radio licence is required for the use of the Artemis Mk6 system.

Please contact Telenor Maritime Radio to obtain a licence:

Telenor Maritime Radio
Radio Licensing Department
N-1331 FORNEBU
NORWAY

Tel: +47 22 77 43 50
Fax: +47 22 42 70 72
Web: www.maritimradio.no

USA

Authorisation by the Federal Communications Commission for the use of Artemis Mk6 equipment in the United States of America is pending. FCC ID: **VYMARTEMIS**.

System Specifications

Antenna Unit (Mobile and Fixed Station)

Frequency			
Frequency band	9200 - 9300 MHz		
Four fixed, user-selectable frequency pairs	Pair	Mobile Station	Fixed Station
	0	9200 MHz	9230 MHz
	1	9300 MHz	9270 MHz
	2	9230 MHz	9200 MHz
	3	9270 MHz	9300 MHz
*Automatic frequency control on Mobile Station			

Connections	
Power supply cable	3 x 1.5mm² with screen; outside diameter 7 – 13mm
Ethernet cable	STP (Shielded Twisted Pair) outside diameter 4.5 – 10mm; connector RJ45 units with an EOR board have a 10MB connection
Keypad cable	STP (Shielded Twisted Pair) outside diameter 4.5 – 10mm
Overall absolute accuracy	0.02° standard deviation

Distance Measurement	
Range	10m – 10,000m
Display resolutions	0.1m
Data update rate	0.25s
Overall absolute accuracy	1m standard deviation

Environmental Conditions	
Temperature operating range	-20 °C to +55 °C
Storage temperature range	-40 °C to +70 °C
Weather protection antenna and Antenna Unit	IP66 (exposed conditions)
Safety	Machinery Directive 2006/42/EC
	EMC Directive 2004/108/EC
	Low Voltage Directive (LVD) 2006/95/EC
Resistance to corrosion	Suitable for salt water environment

Azimuth Measurement	
Range	360°
Display resolutions	0.1 on Dashboard 0.01 on Artemis Service Interface
Data update rate	0.25s
Overall absolute accuracy	0.02° standard deviation

Dimensions and Weights	
Antenna	1248 x 206 x 176.5mm/approx. 5kg
Antenna Unit	Ø 366 x 500mm/32.8kg
Re-usable container for Antenna Unit	520 x 650 x 590mm (l x w x h)
Re-usable container for Antenna	1320 x 250 x 220mm (l x w x h)

Power Requirements	
Supply voltage	220-240 VAC, 50-60 Hz
Power consumption	75 W

Supported DP Telegram Formats
ADB, BCD, ASCII 16, 17, 22
Custom strings may be available on request

System Specifications (Continued)

Beacon

General Specifications			
Frequency band	9200 - 9300 MHz		
Four fixed, user-selectable frequency pairs	Pair	Mobile Station	Fixed Station
	0	9200 MHz	9230 MHz
	1	9300 MHz	9270 MHz
	2	9230 MHz	9200 MHz
	3	9270 MHz	9300 MHz
Radiated power	100 mW max	100 mW max	100 mW max
Polarisation	Vertical	Vertical	Vertical
Range			
With omni directional antenna type AT-120	10m – 2,500m		
With semi omni directional antenna type AT-010	10m – 5,000m		
With horn antenna type ATH-010A	15m – 1,000m		
Supply voltage	220-240 VAC, 50-60 Hz	220-240 VAC, 50-60 Hz	220-240 VAC, 50-60 Hz

Guidance Marine reserves the right to alter or amend this published specification without notice.

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