



RUGGED. REMOTE. RELIABLE.

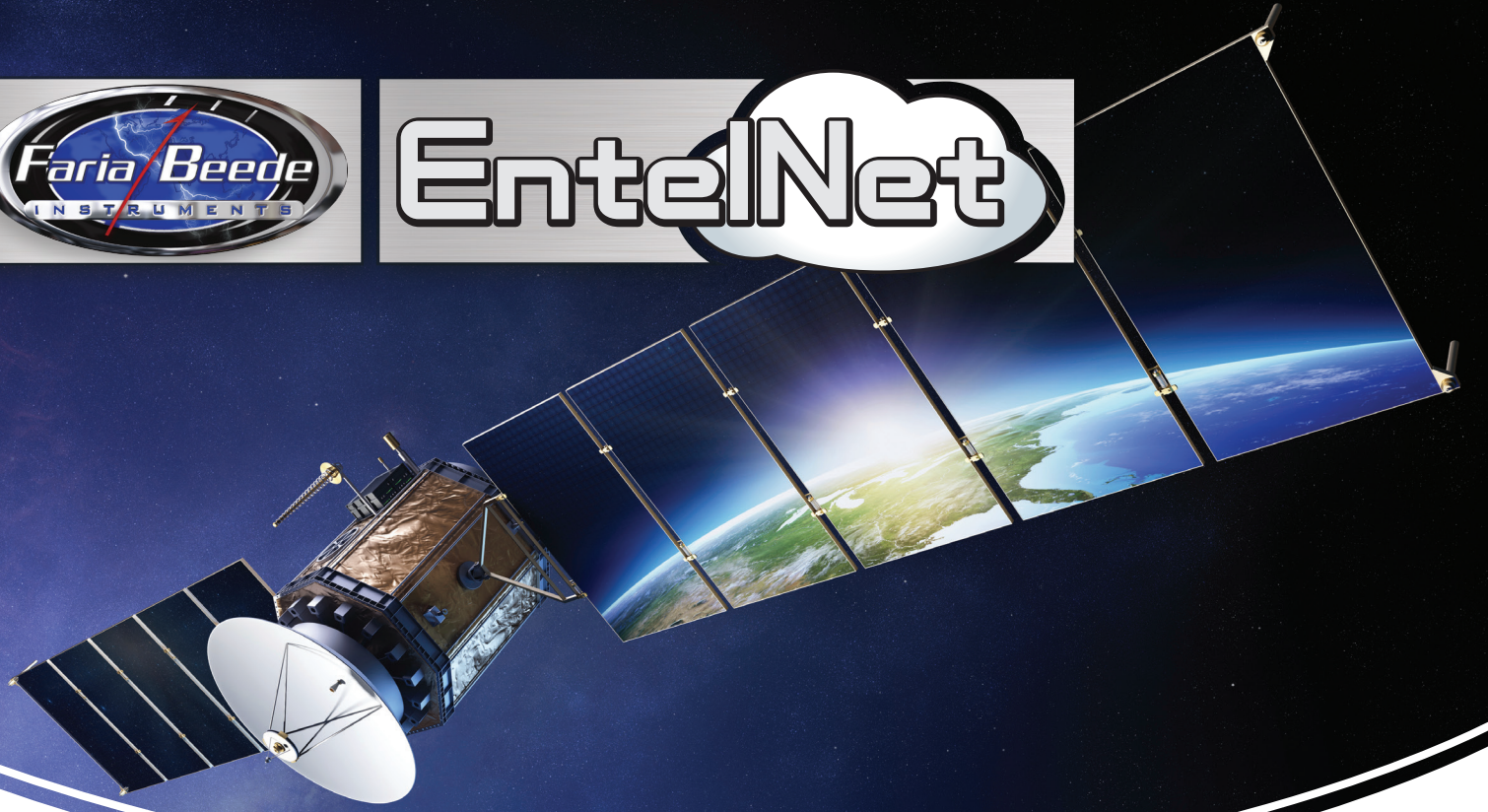


Boat Tracking, Monitoring,  
Diagnostic and Remote  
Switching Systems





# EntelNet



## ADVANCED TELEMATICS SOLUTIONS

Faria Beede EntelNet™ Telematics system is a cellular, wi-fi and satellite-based boat location tracking, monitoring, diagnostic, emergency notification and communication system.

Faria Beede's communication networks includes an extensive network of low-earth-orbit satellites and cellular carriers to provide worldwide coverage and ensure that your connections are not only reliable, but affordable too.

## Monitor & Track

EntelNet™ watches your boats while you are away by monitoring your engines and on-board critical systems. This includes bilge levels, low batteries, power interruption, and engine diagnostics - all while tracking the precise location of your boat.

## Secure & Protect

The EntelNet™ system will notify you immediately via e-mail or SMS of any alarm condition or unauthorized movement of your asset. You are instantly notified of detected intrusions and can set up boundary alarms based on GPS coordinates.







## Diagnose & Repair

With Faria Beede EntelNet™, your technicians can diagnose problems in near real-time. This allows you to find conditions before they become a problem.

## Communicate

EntelNet™ systems provides alert notifications, to designated responders, for emergency situations and alerts anywhere in the world.

Iridium® satellite e-mail services are available on the WD750 Satellite models. Stay in contact even when you're away from cell phone service.







Don't lose connection to your boat  
when you leave the dock.



Stay Connected with  
Telematics systems from Faria Beede  
Wherever you are - **24 Hours / 365 Days a Year**



Thousands of boats, worldwide,  
are connected today with



**Marine Link**



A cloud based application, no need for internal servers or IT Management, all that's needed is an Internet connection and staff can access boats in real-time, across town or across a continent.

**99.99% service level**

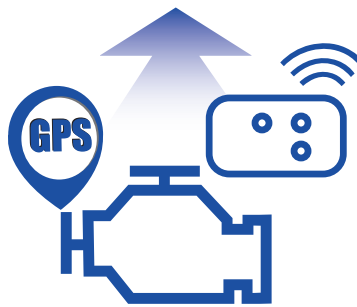




## Monitor Critical On-board Systems



Battery Voltage



Telemetry



Engine Hours



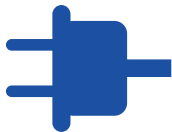
Bilge Pump



I/O



High Water Alarm



Shore Power

Control Lighting, AC/Heater  
and more with switchable IO.



GPS Tracks / Routes



Inside Temperature



Security Alarm



Weather



Anchor Alarm



Geo Fencing

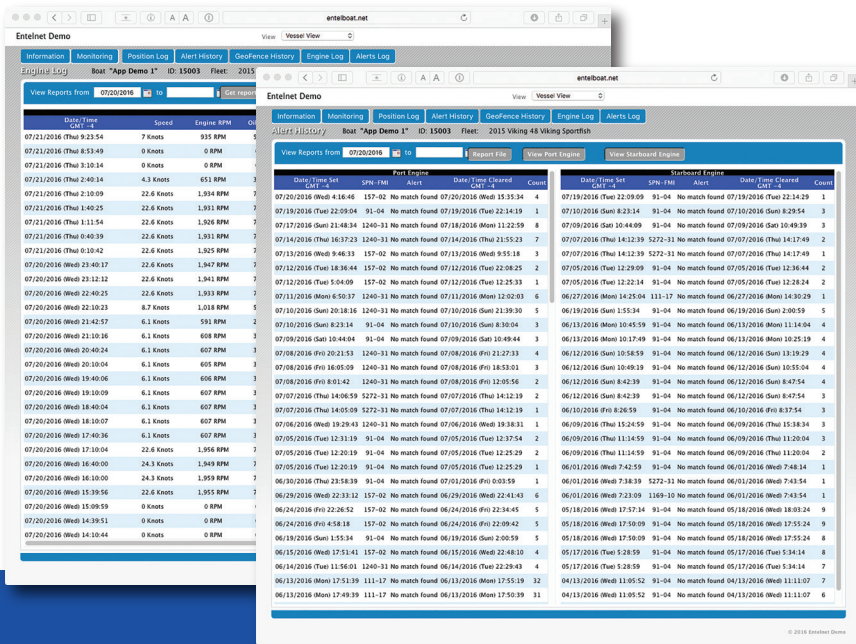
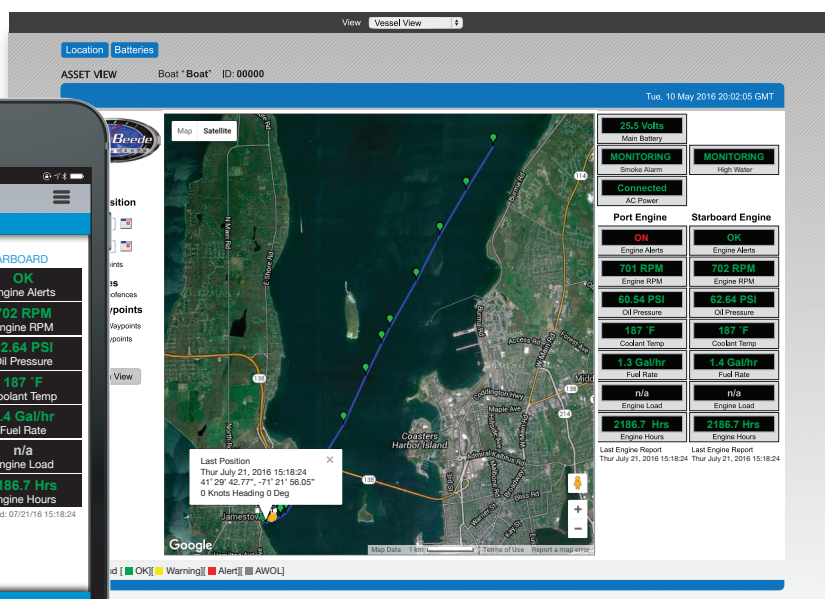
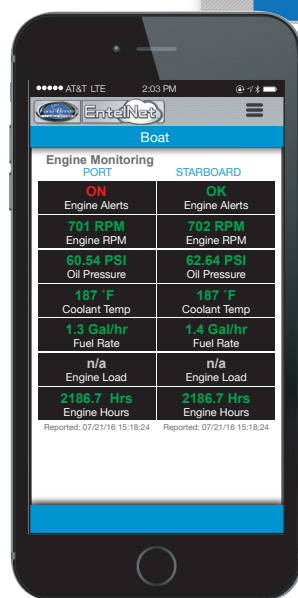


# Get Real-Time alerts from your engine.



## Engine Monitoring and Diagnostic Alerts

Provides real-time Engine Monitoring that changes the “service paradigm” by eliminating the first service call, reducing warranty cost and improving customer satisfaction.



When a DM1 code is detected, the alert message is transmitted real-time via e-mail, SMS and by Smart phone notifications to the boat owner's designated contact.



e-mail



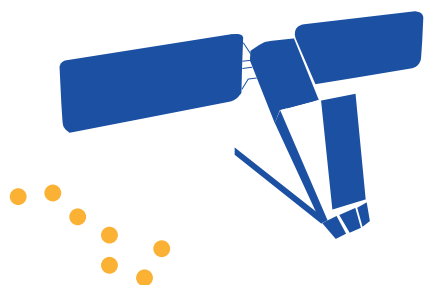
SMS



Notifications

The data is then logged for later review.





IRIDIUM

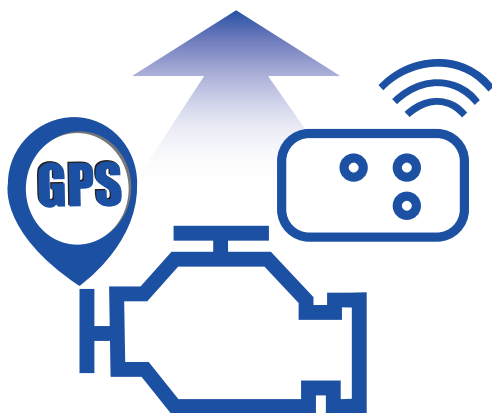
GSM services  
provided by,



T-Mobile



vodafone



Telemetry

Current GPS position, engine and  
environmental monitoring data is  
sent to the cloud servers.



SAE J1939







The Data is sent in a proprietary formate, then converted and stored for later use in a web browser or from a smart phone web app.





# An EntelNet™ for any need

## WD100



Connected directly to the CAN Bus, Real-World data is sent by the EntelNet™ Wi-Fi module.

The data, GPS speed, Map position, Instrument data and CAN error code information is displayed in an easy to read application built for the Android® operating system and can be view by any Internet capable device i.e. Smart Phone, Tablet or Computer. No wires needed.



## WD300



With the FB-Sentry installed boat owners can connect directly to their boat from any smart phones or Internet connected device. FB-Sentry web app is included and can be accessed anywhere there is Internet connectivity.



## WD310, WD315



Monitor your assets location and ambient temperature even without power. This small self contained device monitors your assets location with GPS and supports location with Cellular Tri-location using cellular tower information when GPS signal is not available.

WD310 - The rechargeable 5000 mAh lithium battery provides for long term reporting even over long lengths of time, up to 24 months.

WD315 - Adds a connection to power and 3 analog inputs.



## WD500



The WD500 has all of the same great features of the WD300 and adds Engine monitoring in a water proof enclosure.



## WD750



The Faria Beede MTU system provides reliable and cost-effective marine cellular and/or satellite tracking and communications anywhere in the world, including the northern A-4 waters, and has met the demanding requirements of the commercial fishing industry.












# Compare

	WD100	WD300	WD310	WD315	WD500	WD750
GPS	If on CAN network	•	•	•	•	•
NMEA2000	•	•			•	•
SAE J-1939	•				•	•
SmartCraft					Available	•
Yamaha					•	•
Modbus						•

## Monitors

Engine Monitoring	Direct*	w/MG3000			Direct	Direct
Bilge Pumps	If on CAN network	•			•	•
Battery Voltage	If on CAN network	•			•	•
Shore Power	If on CAN network	•			•	•
Environmental Temp.	If on CAN network	•	Ambient	Ambient	•	•
Engine Parameters	If on CAN network	•			•	•
Engine Hours	If on CAN network	•			•	•
Service Reminders		•			•	•
Logs Daily Boat Data		•			•	•
GPS Tracks and Routes		•	•	•	•	•
Inputs/Outputs		3 IO (200 ma)		2 - Gnd sense 1- Volt sense	3 IO (200 ma)	4 IO (500 ma)

## Communication

WiFi						
Cellular						
Iridium Satellite						

\* Can be viewed locally on Internet capable device.

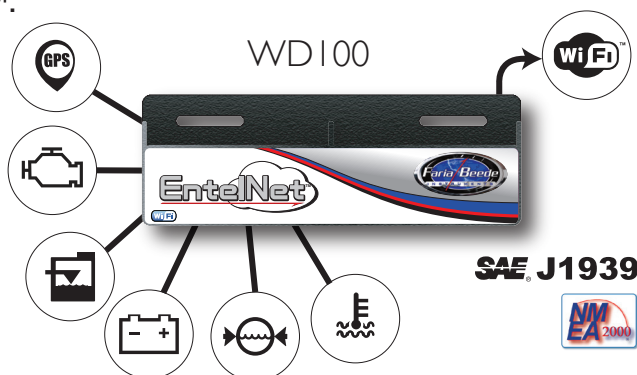




## WD100



Connected directly to the CAN Bus, Real-Time data is sent by the EntelNet™ wireless module via Wi-Fi™.



The data (GPS speed, Map position, Instrument data and CAN error codes) is displayed in an easy to read website by web browser or can be displayed on an Android™ device i.e. Smart Phone, Tablet using the Faria Beede app.

The engine information can then be sent to a repair facility, via e-mail, giving your repair technician a heads up that you're having problems.

### Standard Features

- No additional costs
- Send the engine and other critical data anywhere in the world to be diagnosed.
- Helps reduce warranty costs and can help lessen repair time.
- Data can be viewed on a secure website for remote systems diagnostics.

### Remote Dashboard App



Made for Android™



Coming Soon!



Faria Beede app built for Android™

- Standard and Secondary instruments
- Tank monitoring and control
- Fuel Management
- Error Codes

### Step 1

(Connect to EntelNet™ web browser)

### Step 2

(Send e-mail)

### Step 3

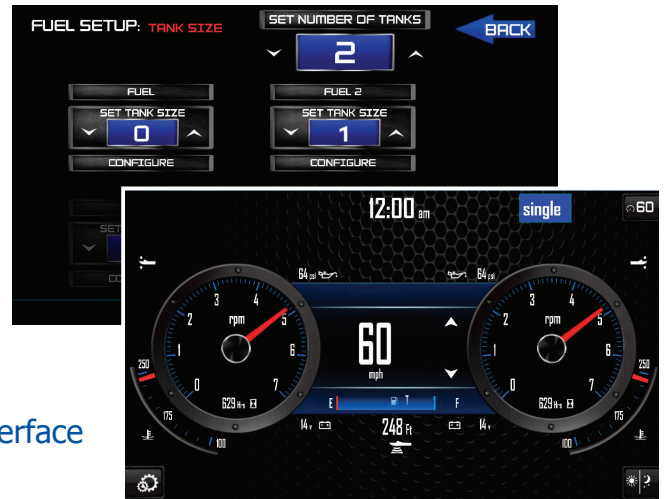
(Response)





Built from the ground up to be a touch-based user interface. Each screen is optimized to maximize the touch screen. Large target areas ensure smooth operations even in the harshest environments.

## Customizable User Interface



Specifications	Communication	Wi-Fi
	Coverage area	Local
Activation	Configured	
Wiring Harness	NMEA 2000, J1939 or Wire lead	
Environmental	Voltage:	12 ready (11.5 - 16 vDC)
	Maximum Draw:	
	Transmitting:	325 mA
	Receiving:	225 mA
	Reverse Polarity Protection:	Standard
	Load Dump:	Meets SAE J1113, 3 positive 80V transients one minute intervals
	Over Voltage:	Withstands 18V continuously for one hour
	Operating Temperature:	- 40 C to + 85 C
	Storage Temperature:	- 40 C to + 85 C 50% RH
	Humidity:	95% @ 110°F (43°C) non-condensing
	Salt Spray:	Front is Corrosion resistant per ASTM B117-73
	Shock (Non-Operating):	50 +/- 2 G and a half sine duration of 11 +/- 2ms. per MIL-STD-202, Method 213
	Vibration (Non-Operating):	4 G peak, 10 to 200Hz SAE J1455 Appendix A
Mechanical	Sealed	IP 67 compliant

Dimensions and Weight	
L:	5.93" (151 mm)
W:	.46" (12 mm)
H:	2.02" (51.3 mm)
Wg	3 oz. (85 g.)





# FB · SENTRYGPS



only 4.56" x 2.25" x 1.125"

## WD310

### Non-Powered Asset Tracking Solutions

FB-Sentry and the WD310 is a complete web based tracking package for your non-powered assets.

Monitor your assets location and ambient temperature even without power. This small self contained device monitors your assets location with GPS and supports location with Cellular Tri-location using cellular tower information when GPS signal is not available.

The rechargeable 5000 mAh lithium battery provides for long term reporting even over long lengths of time, up to 24 months.

This device, once activated, can not be tampered with and turned off mechanically. However, the owner has complete control using over the air technologies, preventing disabling.

View your assets location and get directions to your asset on the FB-SentryGPS.com website. The secure website is password protected and can view all activated assets on a single page. Drill down and get individual asset information.

### Benefits:

- Magnetically, Temporary or Permanent mounted for easy placement
  - Can be mounted inside or outside
- IP67 rated for Water and Dust resistance
- Built in GPS and Cellular antennas
- Magnetic Trigger Activation
- GPS and Cellular Geo-Location & Tracking
- Rated for temperature down to -50°C (-58°F)
- Built-in thermistor measures and reports temperature at the device
- Internally powered device with up to 1 year of daily reporting

#### Battery Life based on reporting cycles

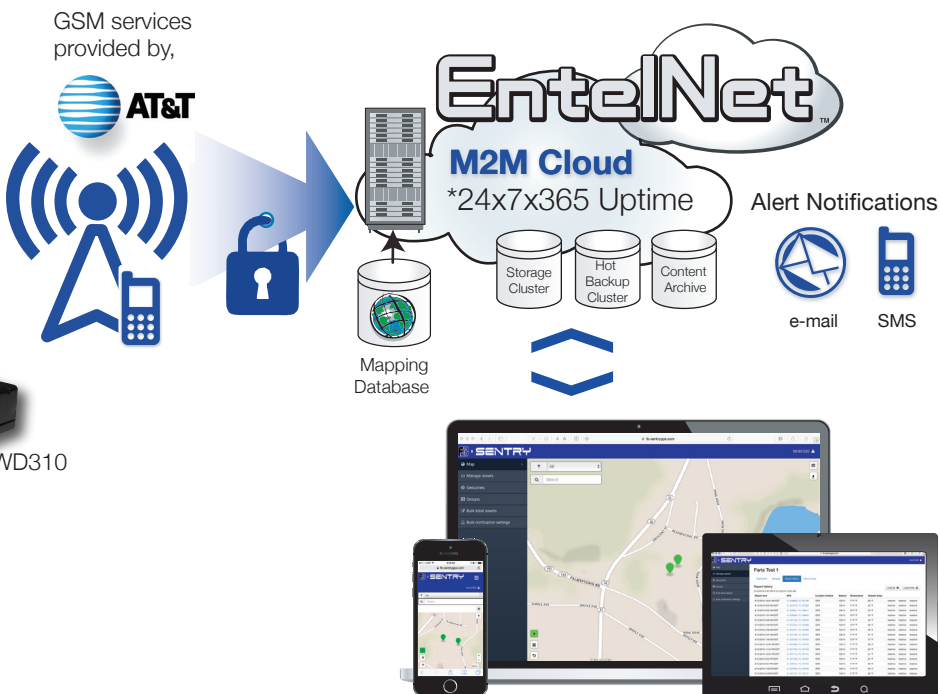
- 10 months reporting twice/day
- 12 months reporting daily
- 18 months reporting every other day
- 24 months reporting weekly
- Up to 1500 reports within first six months
- Up to 750 reports within first year



## How it Works



WD310



## Specifications

### Cellular Tri-location:

- If GPS signal is unavailable (for instance if asset is in metal building), the Faria Beede WD310 will use cellular tower information for a low-precision location. Accuracy is not possible, but reliable, general location information is available. Precision within ½ mile is about average at this time, but location within 50-300 yards is possible.

### USB charger:

- Works with any 5v cellphone charger with micro-USB connector
  - Works with portable “battery pack” chargers
  - Internal charging occurs at maximum of 1amp (fast charging not available)
- Optional charger is 5W (1A)

## Dimensions and Weight

L: 4.56” (115 mm)  
W: 2.25” (57 mm)  
H: 1.125” (28.6 mm)  
6.5 oz. (185 g.)

## GPS

12 Channel  
-157 dBm sensitivity  
< 2m (CEP50)

## Communication Modes

GSM/UMTS,  
HSDPA/EDGE/GPRS  
Packet data, TCP

## Certifications

FCC  
PTCRB  
Cellular Carriers

## Environmental

### Power:

- 5000 mAh lithium rechargeable battery, 3.6 volts
- <50 uA sleep
- <150 mA avg. active

- Operating temp. -20°C to 60°C (-4°F to 140°F)  
(Continued operation at temperature extremes may reduce battery performance)
- Storage temp. -40°C to 80°C (-40°F to 176°F)

### Ingress Protection Rating: IP67

- Totally protected against dust
- Protected against the effect of immersion up to one meter deep

**WD310**



# FB · SENTRYGPS

## WD315

### Powered Asset Tracking Solutions

FB-Sentry and the WD315 is a complete web based GPS tracking package.

Monitor your assets location and ambient temperature with or without power. This small self contained device monitors your assets location with GPS and supports location with Cellular Tri-location using cellular tower information when a GPS signal is not available.

Designed to be connected to 12 or 24 vDC power. When disconnected, the 5000 mAh lithium back-up battery provides for long term reporting even over long lengths of time, up to 24 months.

This device, once activated, can not be tampered with and turned off mechanically. However, the owner has complete control using over the air technologies, preventing disabling.

View your assets location and get directions to your asset on the FB-SentryGPS.com website. The secure website is password protected and can view all activated assets on a single page. Drill down and get individual asset information.

only 4.56" x 2.25" x 1.125"

### Benefits:

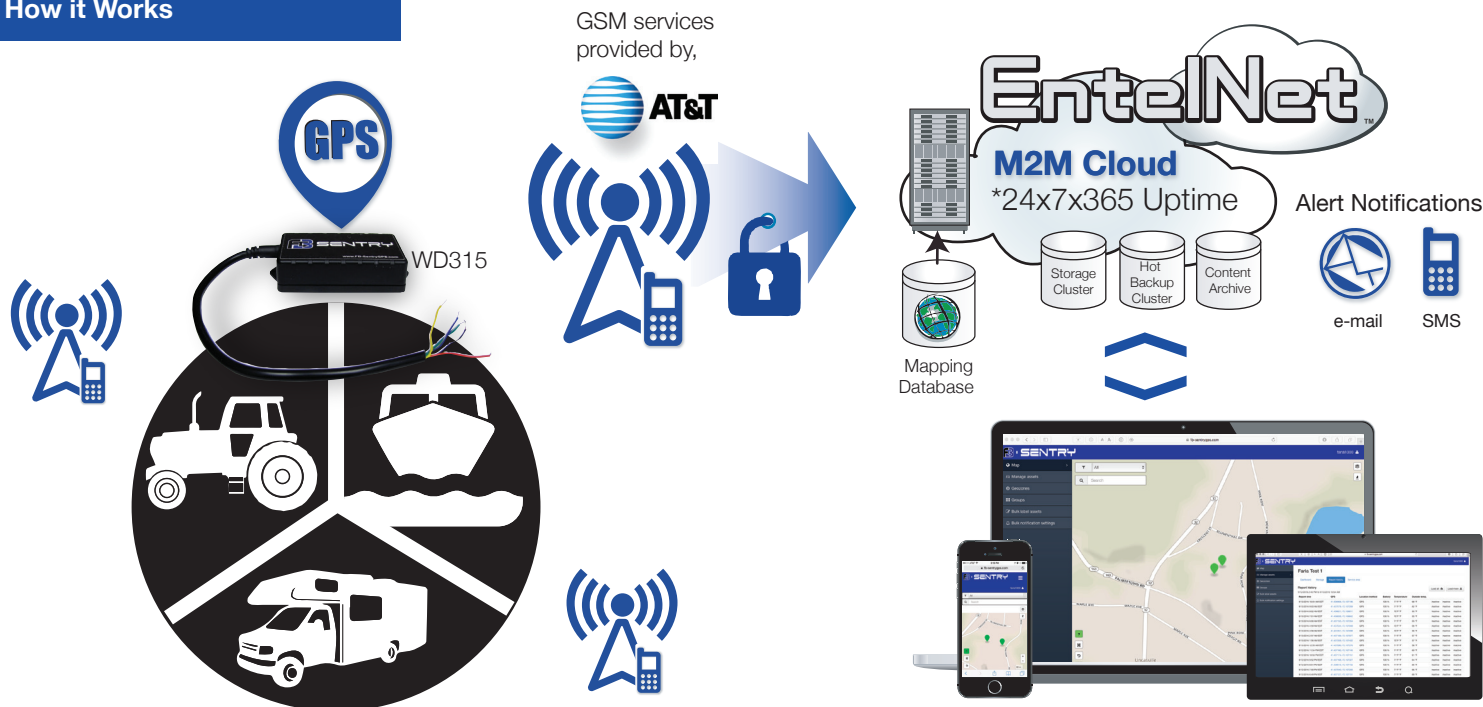
- Magnetically, Temporary or Permanent mounted for easy placement
  - Can be mounted inside or outside
- IP67 rated for Water and Dust resistance
- Built in GPS and Cellular antennas
- Magnetic Trigger Activation
- GPS and Cellular Geo-Location & Tracking
- Rated for temperature down to -50°C (-58°F)
- Built-in thermistor measures and reports temperature at the device
- Internally powered back-up battery with up to 1 year of daily reporting

#### Back-Up Battery Life based on reporting cycles

- 10 months reporting twice/day
- 12 months reporting daily
- 18 months reporting every other day
- 24 months reporting weekly
- Up to 1500 reports within first six months
- Up to 750 reports within first year



## How it Works



### Specifications

#### Cellular Tri-location:

- If GPS signal is unavailable (for instance if asset is in metal building), the Faria Beede WD310 will use cellular tower information for a low-precision location. Accuracy is not possible, but reliable, general location information is available. Precision within ½ mile is about average at this time, but location within 50-300 yards is possible.
- Continuously connected power
  - Recharges the 5000 mAh back-up battery
- Three (3) Analog Inputs
  - 2 - Ground Sensing
  - 1 - Voltage Sensing

### Dimensions and Weight

L: 4.56" (115 mm)  
 W: 2.25" (57 mm)  
 H: 1.125" (28.6 mm)  
 6.5 oz. (185 g.)

### GPS

12 Channel  
 -157 dBm sensitivity  
 < 2m (CEP50)

### Communication Modes

GSM/UMTS,  
 HSDPA/EDGE/GPRS  
 Packet data, TCP

### Certifications

FCC  
 PTCRB  
 Cellular Carriers

### Environmental

#### Power:

- 12 or 24 vDC
  - 5000 mAh lithium rechargeable back-up battery, 3.6 volts
  - <50 uA sleep
  - <150 mA avg. active
  - Operating temp. -20°C to 60°C (-4°F to 140°F)  
(Continued operation at temperature extremes may reduce battery performance)
  - Storage temp. -40°C to 80°C (-40°F to 176°F)
- Ingress Protection Rating: IP67
- Totally protected against dust
  - Protected against the effect of immersion up to one meter deep

# Boat Tracking and Monitoring System

Measures Only  
4.5" x 3.94" x 1.5"  
Easy to Install.



## WD300

### Boat Monitoring Solutions

FB-Sentry and the WD300 is a complete tracking and remote monitoring package for your boat. FB-Sentry allows you to view all of your boat's vital systems directly in the palm of your hand.

### Keep Them On the Water™

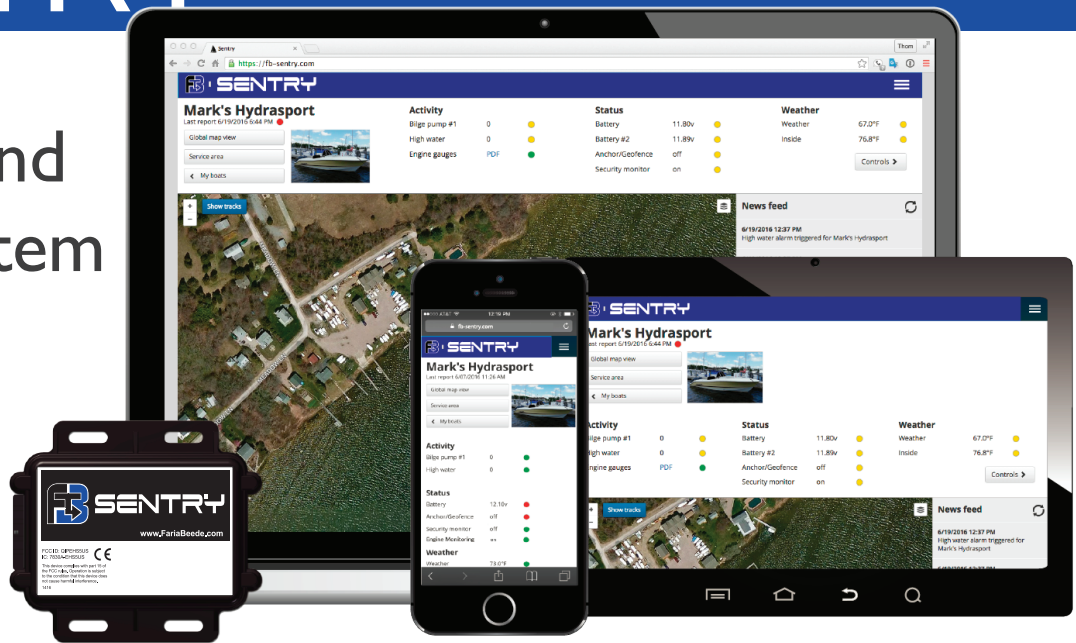
Who watches your boat when you are not there? FB-Sentry is a low cost boat monitoring system that won't cost you lots of money but will give you great peace of mind.

With the FB-Sentry installed boat owners can connect directly to their boat from any smart phones or Internet connected device. FB-Sentry is a free web app that can be accessed anywhere there is Internet connectivity.

From the web app the boat owner can monitor their boat's vital systems in real time, set up alerts for unusual activity and even control desired functions like lighting, refrigeration, or air conditioning. All of this for just a small monthly monitoring fee.

### Optional Sensors

Shore Power Sensor  
Temperature Sensors  
Magnetic Door Switch  
Control Relay (12 and 24 Volt DC)



### Benefits:

#### Monitor

- Bilge Pump (2)
- Battery Voltage (2)
- Shore Power
- Inside Temperature
- Engine Parameters

**Real-Time engine monitoring** available via RS232 with optional Digital Tachometer or EntelNet™ module.

#### Maintenance

- Monitors Engine hours
- Service Reminders
- Logs daily Boat data

#### Weather

- Provides weather at your boat's location.

*E-mail and text messages (SMS) alerts  
Unlimited Users*

### Easy to install.

Mounts directly under the dash with easy to connect flying leads.

#### Alerts

- Security Alerts (2)
- Dock/Anchor Alarms
- High Water Alarm
- Engine Alerts

#### Control

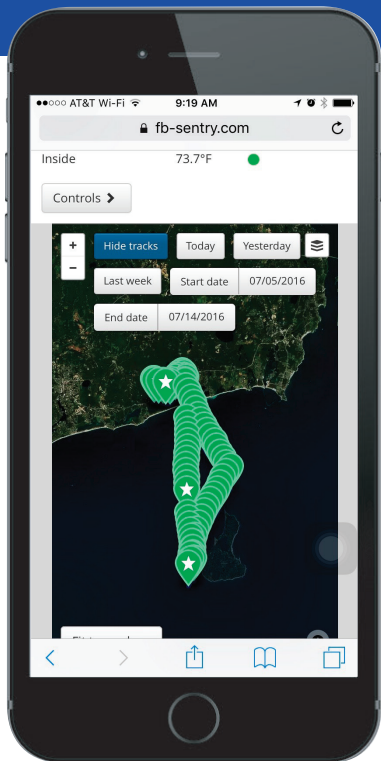
Switch outputs (3)

- Lighting
- AC/Heater
- Generators
- Gyros

#### Map

- GPS tracks and routes
- Geo-Fencing





The FB-Sentry module (WD300) is a compact, ruggedize, feature-rich and cost effective web-based GPS/Cellular Boat Tracking and Monitoring System. Combined with the monitoring web app you are never out of touch with your boat.

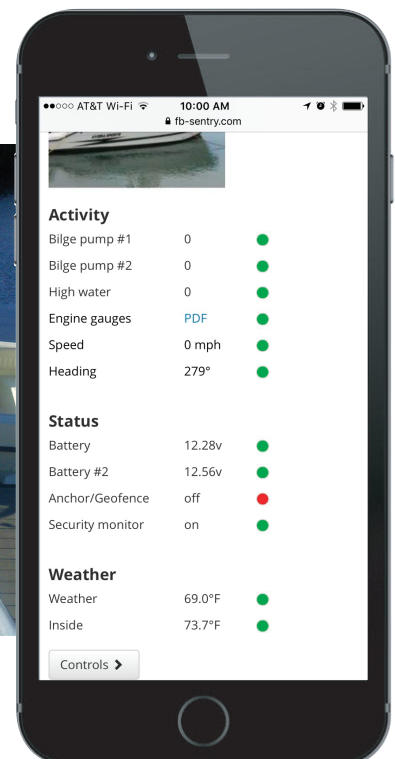
## Always on reporting

When you are away from Cellular service the system can store up to 20,000 reports and downloads when back in range.

Reports position every 7 minutes when in motion with comprehensive GPS Tracking and Routes.

Engine reports every 15 minutes

**Low Power Draw <20ma**



**Specifications**

Communication	Wireless; 2G/3G Cellular
Coverage area	Worldwide Cellular Coverage
Telemetry Address	IP; Dynamic (static optional)
Configuration States	Multiple; Primary; Conditional or Contingency Event/ Alert Driven
Battery Voltage Monitor	2 External
Activation	Connect to Voltage
Wiring Harness	15 22 AWG leads, 2 20 AWG power leads (Wiring diagram available)
Harness Connection	20-pin Molex type
Geo-Location & Tracking	GPS
Antennas	Internal; GPS and Cellular
Logs	Permanent time stamped logs of shore power, bilge activity, battery voltage (2), GPS location, temperature, security events, engine/generator hours.
Alerts	Independent alerts for logged activities and events.
I/O functionality	5 Digital Inputs 3 Digital Outputs (200mA) 2 Analog Inputs 1-Bit Bus (Serial) 1- RS232

**Environmental**

Voltage:	12 & 24V ready (9-30 vDC) < 20 mA during 12V sleep < 70 mA average while active
Operating Temperature:	- 30 C to + 75 C
Storage Temperature:	- 40 C to + 85 C

**Dimensions and Weight**

L:	4.56"	(115 mm)
W:	3.94"	(100 mm)
H:	1.5"	(38.1 mm)
	3 oz.	(85 g.)

**GPS**

50 Channel  
-162 dBm sensitivity  
< 2m (CEP50)  
(Circular Error Probability)

**Communication Modes**

GSM/UMTS,  
HSDPA/EDGE/GPRS  
Packet data, UDP

**Certifications**

CE  
FCC  
PTCRB  
Cellular Carriers





## WD500

### Vessel Tracking and Monitoring Solutions

FB-Sentry and the WD500 is a complete tracking and remote monitoring package for your boat. FB-Sentry allows you to view all of the vessel's vital systems directly in the palm of your hand.

### Keep Them On the Water™

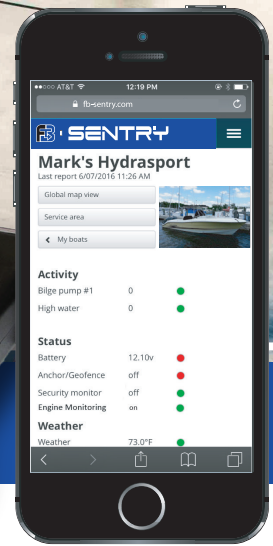
Who watches your boat when you are not there? FB-Sentry is a low cost boat monitoring system that won't cost you lots of money but will give you great peace of mind.

With the FB-Sentry installed boat owners can connect directly to their boat from any smart phones or internet connected device. FB-Sentry is a free web app that can be accessed anywhere there is internet connectivity.

From the web app the boat owner can monitor their boat's vital systems in real time, set up alerts for unusual activity and even control desired functions like lighting, refrigeration, or air conditioning. All of this for just a small monthly monitoring fee.

#### Optional Sensors

Shore Power Sensor  
Temperature Sensors  
Magnetic Door Switch  
Motion Sensor  
Control Relay (12 and 24 Volt DC)



### Benefits:

#### Monitor

- Bilge Pump
  - Battery Voltage
  - Shore Power
  - Inside Temperature
  - Engine (Built-in)
- Directly integrates with your engine ECU including NMEA 2000®, SAE J1939, Yamaha and ready for SmartCraft®
- Improve engine performance & fuel usage.

#### Map

- GPS tracks and routes

#### Maintenance

- Monitors Engine hours
- Service Reminders
- Logs daily Boat data

#### No hassle installation

Mounts directly under the dash with easy to connect Deutsch connectors. Enclosure is rated IP66 for Moisture and Dust control.

#### Weather

- Provides weather at your boat's location.

#### Alerts

- Security Alerts
- Anchor Alarms
- High Water Alarm
- Engine Alerts

#### Control

- Lighting
- AC/Heater

## How it Works



### Specifications

Communication	Wireless; 2G/3G Cellular
Coverage area	Worldwide Cellular Coverage
Telemetry Address	IP; Dynamic (static optional)
Configuration States	Multiple; Primary; Conditional or Contingency Event/ Alert Driven
Battery Voltage Monitor	2 External
Activation	Connect to Voltage
Wiring Harness	15 18 AWG leads, 2 18 AWG power leads (Wiring diagram available)
Harness Connection	Deutsch (Key located)
Geo-Location & Tracking	GPS
Antennas	Internal; GPS and Cellular
Logs	Permanent time stamped logs of shore power, bilge activity, battery voltage (2), GPS location, temperature, security events, engine/generator hours.
Alerts	Independent alerts for logged activities and events.
I/O functionality	5 Digital Inputs 3 Digital Outputs (200mA) 2 Analog Inputs 1-Bit Bus (Serial) 1- RS232

### Dimensions and Weight

L:	9"	(229 mm)
W:	4 5/8"	(118 mm)
H:	1.5"	(38.1 mm)
	1.5 lbs	(715 g.)

### GPS

50 Channel  
-162 dBm sensitivity  
< 2m (CEP50)  
(Circular Error Probability)

### Communication Modes

GSM/UMTS,  
HSDPA/EDGE/GPRS  
Packet data, UDP

### Certifications

CE  
FCC  
PTCRB  
Cellular Carriers

### Environmental

Voltage:	12 & 24V ready (9-30 vDC) < 20 mA during 12V sleep < 70 mA average while active
Operating Temperature:	- 30 C to + 75 C
Storage Temperature:	- 40 C to + 85 C





## EntelNet

Wherever you boat,  
the WD750, from  
Faria Beede, uses  
the lowest cost of  
service to keep you  
connected.

Available in;

- Cellular
- Iridium Satellite
- Dual-Band (Cellular/Iridium).

The WD750 Dual Band (DB) uses the very cost effective Cellular networks as the primary communications mode. In the event that cellular is not available it will automatically switch to the Short Burst Data (SBD) services on the Iridium® satellite network for continuous, highly reliable and near-real time reporting.



### World Wide Coverage



## WD750 DB



A powerful dual mode Iridium® Satellite and GSM MTU (Mobile Transmitting Unit).

Our Iridium® Satellite and GSM based solutions keep you connected at all times, anywhere in the world.\* Also available as Cellular or Satellite only systems. Offering a wide variety of cost effective systems to fit your monitoring needs.

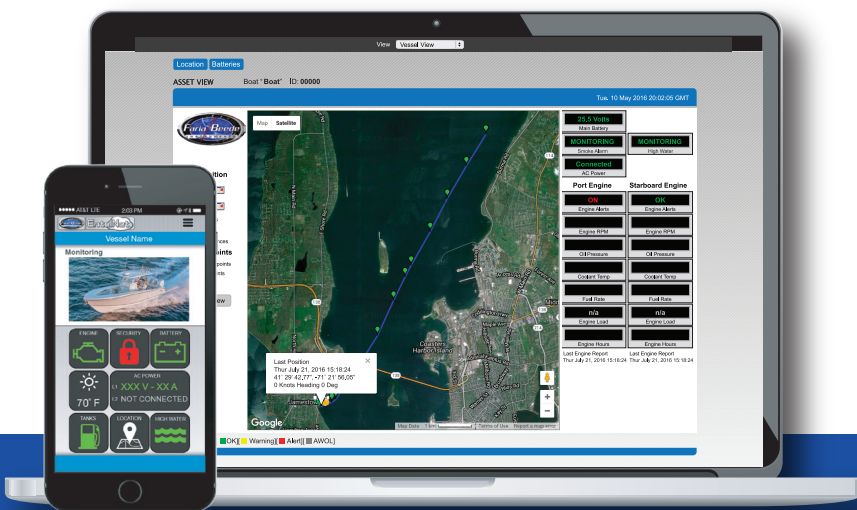
Packages are available to track your yacht in real-time via GPS, receive security alerts from the alarm system, set geofences (i.e. to manage charterers or other users), and remote-control switching equipment (lights etc.)

Direct engine integration allows your dealer to remotely diagnose engine issues, saving you time and money.



- Dual or single band Iridium® satellite and/or Cellular communicator, with integrated GPS.
- Directly integrates with select engine brands including Caterpillar®, Mercury® and Cummins® - speeding repairs by supporting remote diagnostics.
- Dual CANbus interfaces, for multi-engine boats
- Custom website access for owners
- Google® maps display, to track your yacht
- View engine performance data \*\*
- Monitor fuel and bilge levels \*\*
- Remote-control digital switching (lights, alarm system, air-conditioning etc) \*\*

*\*\* Available features vary by package*



Available Customized Web Portal and Smart phone app.



## Specifications

Communication	Wireless; Cellular, Iridium Satellite
Coverage area	Worldwide Cellular Coverage
Telemetry Address	IP; Dynamic (static optional)
Configuration States	Multiple; Primary; Conditional or Contingency Event/ Alert Driven
Battery Voltage Monitor	2 External
Activation	Connect to Voltage
Wiring Harness	15 22 AWG leads, 2 20 AWG power leads (Wiring diagram available)
Harness Connection	Harnessing meets ABYC standards, IMO and Iridium requirements and features marine industry Deutsch® “plug and play” water proof connectors
Geo-Location & Tracking	GPS
Antennas	External; GPS, Cellular and Satellite
Logs	Permanent time stamped logs of shore power, bilge activity, battery voltage (2), GPS location, temperature, security events, engine/generator hours.
Alerts	Independent alerts for logged activities and events.
I/O functionality	<ul style="list-style-type: none"> <li>• On-board J1708 and J1939 CAN and wired OBDII interfaces to provide vehicle data and reporting of diagnostic codes</li> <li>• RS232, RS422 and RS485 interfaces</li> <li>• 2MB of compact flash RAM for data logging that can be requested over the air or downloaded locally</li> <li>• Four factory configured I/O's</li> </ul>
Extremely Low power draw	

## Environmental

On-board power conditioning, and reverse polarity protection with internally re-settable fuses.	
Voltage:	12 & 24V ready (9.5-36VDC power)
Operating Temperature:	- 20C to +85C
Storage Temperature:	-40C to +85C
Water and Weather Resistance:	IP64
Humidity:	90% RH at 29°C for 24 hours
Shock Resistant:	MIL-STD-202, 50G
Vibration Resistant:	SAE J1455
Corrosion Resistant:	ASTM-B117-73, 48 Hr

## Dimensions and Weight

L:	9”	(229 mm)
W:	4 5/8”	(118 mm)
H:	3”	(76 mm)
	3 lbs.	(1430 gr.)

## GPS

U-blox 50 Channel GPS for highly accurate positioning

## Certifications

CE  
FCC  
PTCRB  
Cellular Carriers

All of our hardware is built on ISO-9001 certified production lines and tested for use in the harshest C&I, Mining, Oil&Gas and Maritime environments. From the North Slopes of Alaska, to Work boats in the North Sea, you can be confident that your Faria Beede EntelNet™ solution will continue to perform.



**SAE J1939**



# The Anatomy of a Connected Boat

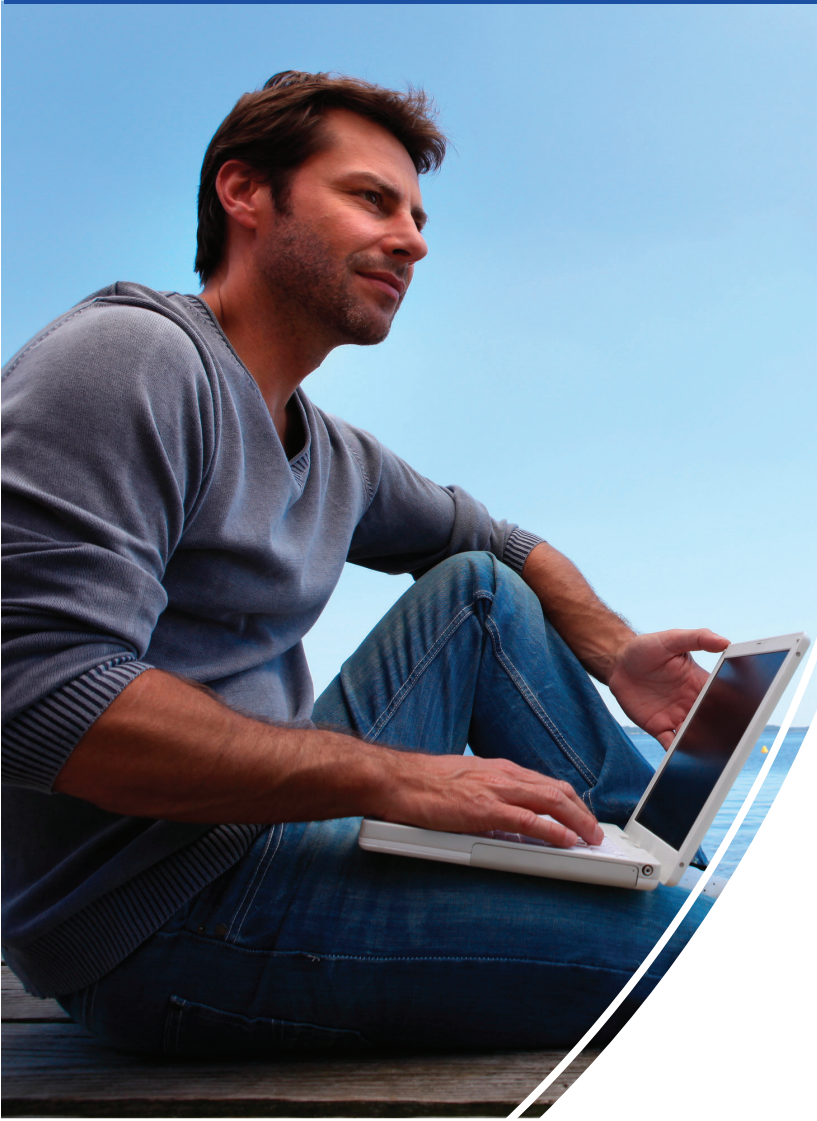
The "Connected" boat has become a reality.

Today we live in an environment where we're connected to the Internet at all times.



Faria Beede Telematics integrates Iridium Satellite, GPS, Cellular, Wi-Fi, CAN Technologies, Digital Switching Systems, on-boat sender/sensors & the Internet to provide real-time information about the status and location of boats, sensors and on-board systems.





# Know before you go!

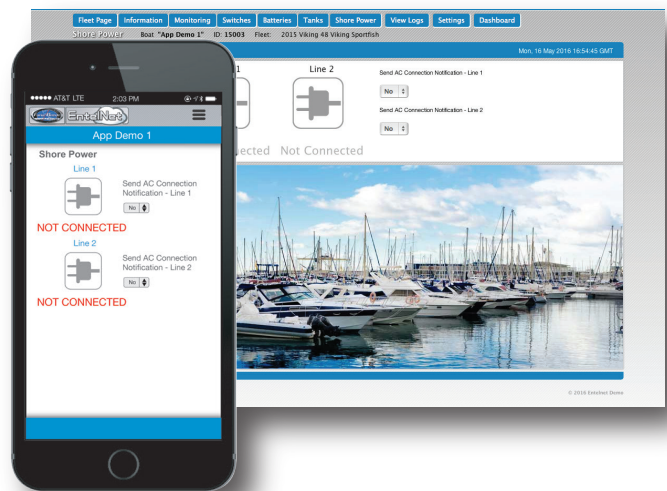
*Do I need to have someone charge the battery, before I get there?*

*Do I need fuel?*

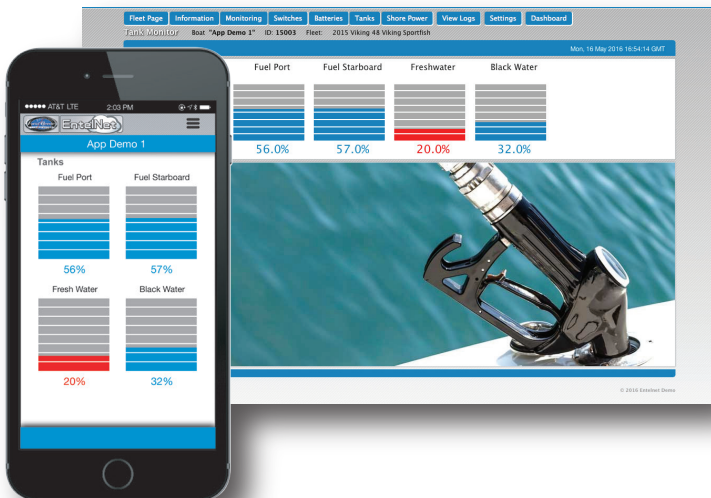
*Am I still connected?*

## Remote Monitoring

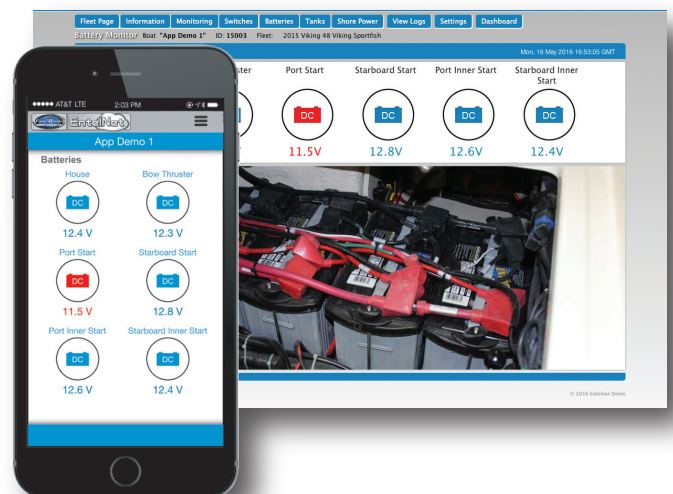
### Shore Power



### Tank Monitoring



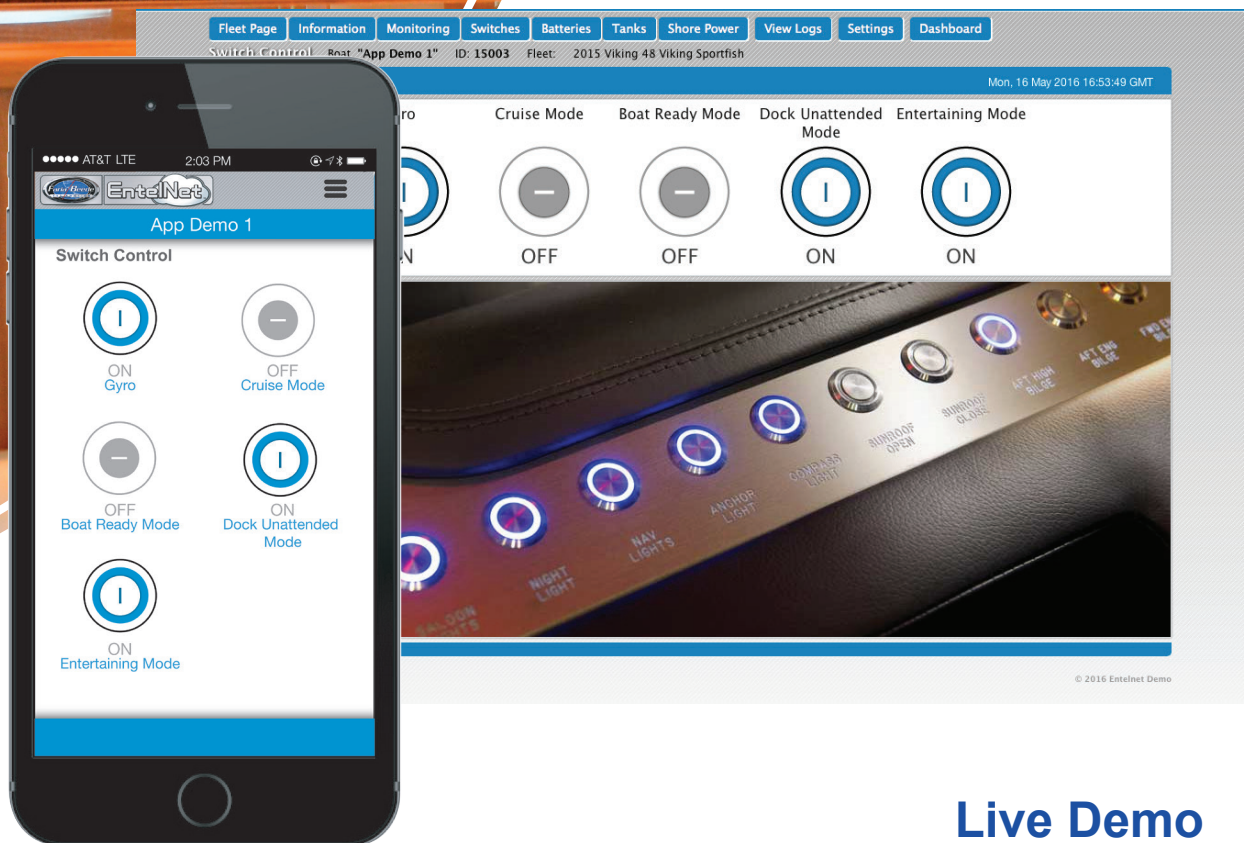
### Battery Monitoring





Be up and  
running before  
you get there!

*Spin up the Gyro*  
*Turn on the Refrigerator*  
*Did I turn off the AC?*



Digital Switching

**Live Demo**

[www.entelboat.com](http://www.entelboat.com)



See it in action!  
1) Scan the code.  
2) Log in  
User name: **@Demo1**  
Password: **test**

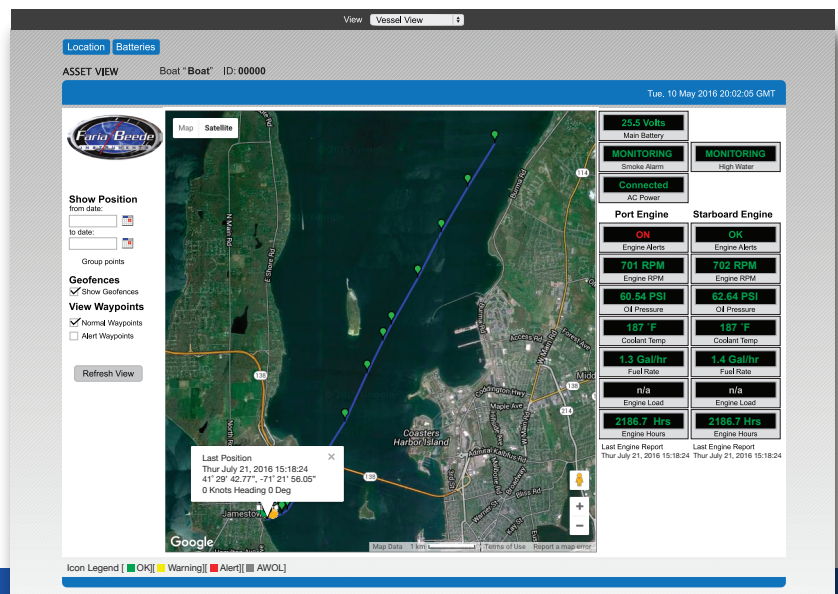
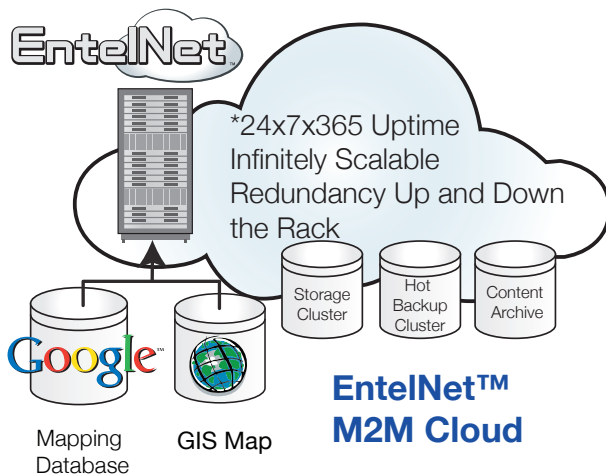
[www.entelboat.net](http://www.entelboat.net)



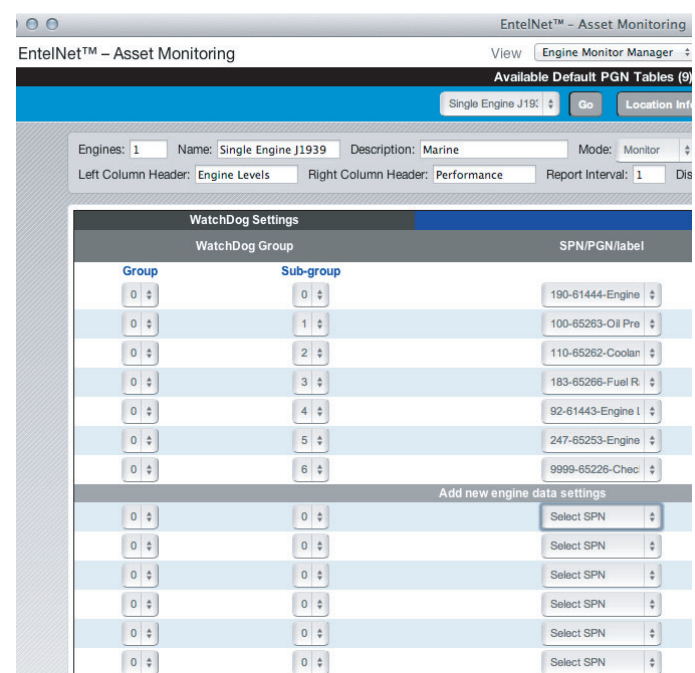
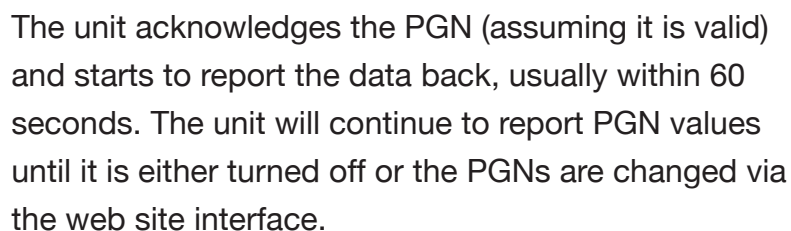
## Feature Rich Web-Based System

Faria Beede supplies an easy-to-use, secure (https) web-based application that requires no software to install or manage.

- The system provides a secured log-in and is password protected and provides for different user access/levels.
- E-mail, SMS and telephone notification mechanisms.
- A graphical view of all data, featuring the ability to visualize assets and data on “Google Earth” maps or GIS Maps with satellite imagery overlays.
- The ability to download tabular data in standard formats (such as .xls or .csv files).
- An interface to the telemetry hardware on the vehicle/asset to create a relationship between the MTU serial number, the on-board Iridium Satellite Modem (IMEI#), and vehicle VIN number/or ID number via secure login.
- Web 2.0 technologies that include a scripting language and a data access layer.
- A WSDL/SOAP or JSON/TCP interface enabling you to pull down all asset information to be used for other applications.

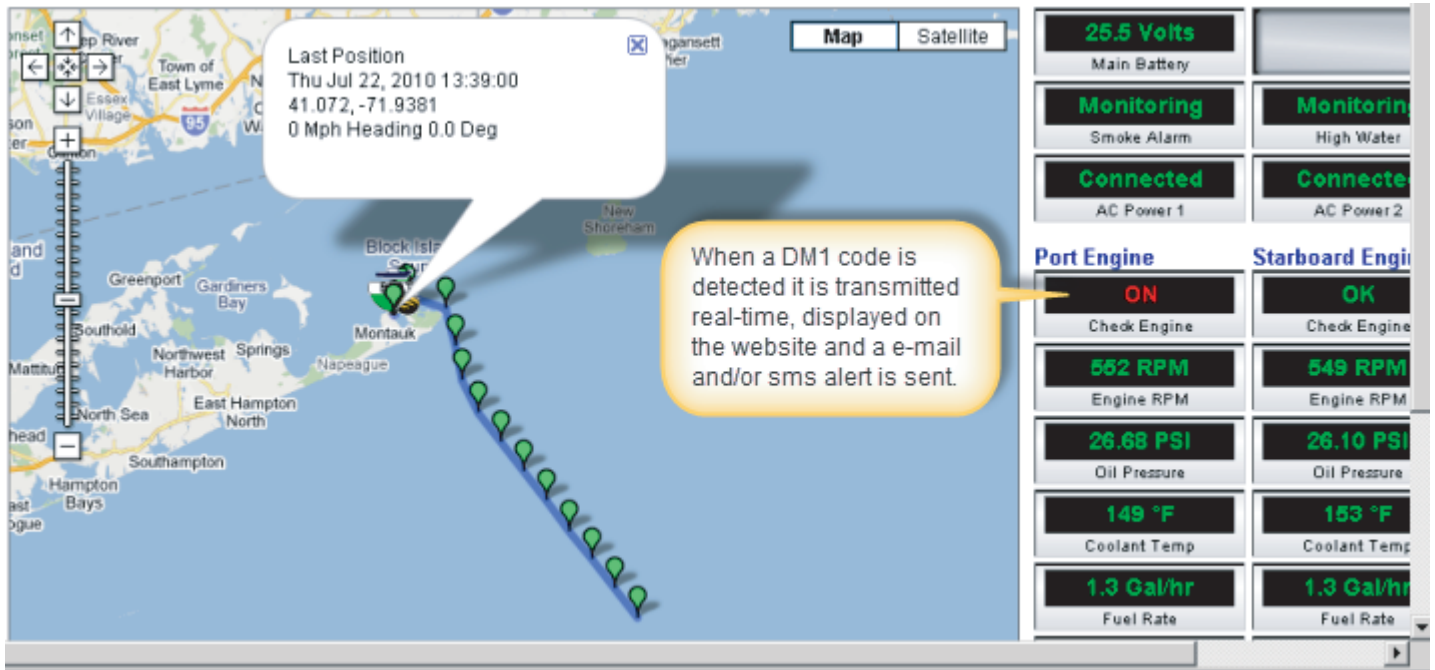


Fleet managers can get near real-time engine data to view engine hours, fuel burn, road speed and diagnostic alerts.





This real time Satellite Engine Monitoring and Tracking System changes the “service paradigm” by eliminating the first service call, reducing warranty cost and improving customer satisfaction.



View Port Engine					View Starboard Engine				
Date/Time Set GMT -5	SPN-FMI	Alert Text	Date/Time Cleared GMT -5	Count	Starboard Engine				
07/13/12 (Fri) 11:37:30	91-08	Throttle Position signal abnormal	07/13/12 (Fri) 11:41:58	2	07/13/12 (Fri) 12:02:22	110-17	Low Engine Coolant Temperature	07/13/12 (Fri) 12:27:37	127
07/13/12 (Fri) 11:37:29	91-08	Throttle Position signal abnormal	07/13/12 (Fri) 11:41:58	3	07/10/12 (Tue) 8:53:09	110-17	Low Engine Coolant Temperature	07/10/12 (Tue) 9:01:29	127
07/8/12 (Sun) 14:34:34	110-17	Low Engine Coolant Temperature	07/8/12 (Sun) 14:40:14	2	07/10/12 (Tue) 7:13:04	110-17	Low Engine Coolant Temperature	07/10/12 (Tue) 7:20:59	127
07/8/12 (Sun) 2:38:29	110-17	Low Engine Coolant Temperature	07/8/12 (Sun) 2:44:04	1	07/9/12 (Mon) 21:15:30	110-17	Low Engine Coolant Temperature	07/9/12 (Mon) 21:15:30	127
07/6/12 (Fri) 15:04:49	1382-11	Unexpected Engine Shutdown	07/6/12 (Fri) 15:14:59	36					

## Custom Reports Designed For Customer Specific Requirements

- The EntelNet™ system enables fleet managers to
  - Report the location and status of assets
  - View J1939 CAN Engine Data & Diagnostics
- Alert for excess idling, rpm's & fuel burn
- Directly integrates with select engine brands including Caterpillar® and Cummins® - to generate engine performance & fuel usage reports
- Extensive Alert, Notification and Reporting functions, to comply with conditions of charter, and to provide proof-of-performance for service/deliveries to your clients.
- Establish service intervals
  - Reduce operating costs
- Data integration with your in-house ERP or Scheduling System \*\*

\*\* Available features vary by package

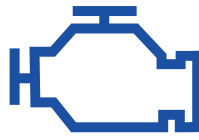
# About Faria Beede EntelNet™ Telematics



Faria Beede is a leading data and communications service provider, which is focused on extending the 'Internet of Things' into the Power Generation, Mining, Maritime, Oil & Gas and Rail sectors, via ruggedized Iridium Satellite, Cellular & Wi-Fi solutions, which are coupled with a Software-as-a-Service (SaaS) business model, that can be customized for any client's monitoring, control and data management needs.



Customized Website



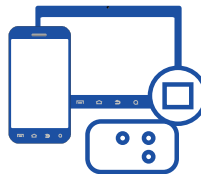
Telemetry



Communications



M2M Cloud



Hardware



Installation

## Tested Tough - Proven Reliable

Our proprietary ruggedized hardware solution is fitted on-board each asset - where it interfaces to engine management systems, data entry tablets (for operators), data-loggers ("black-boxes"), GPS, on-board systems, other sensors/senders (i.e. fuel level) and remotely can turn on/off devices.

Intelligence on-board selects and prioritizes the

information of most importance to the customer, which is transferred wireless over satellite and cellular networks to the web-tier—allowing Faria Beede to provide a seamless Software-as-a-Service (SaaS) offering tailored to each customer.

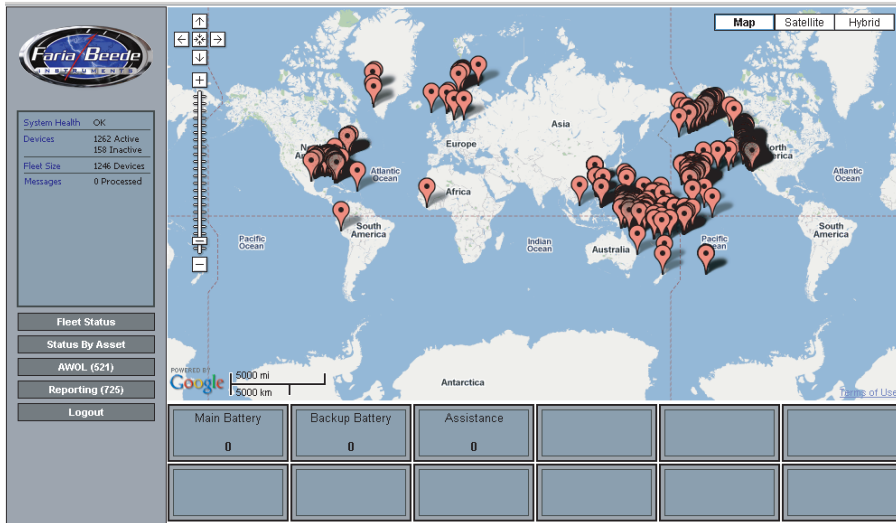






The 750VMS MTU is type certified by the US National Marine Fishery Service, Forum Fishery Agency, the IMO (International Maritime Association) for LRIT and 50 government agencies around the world.

Today we are tracking and monitoring thousands of vessels worldwide.



Faria Beede pioneered the use of Iridium Satellite's SBD (Short Burst Data) for vessel tracking, monitoring & communications. Today Faria Beede 750 MTU systems are transferring millions of position reports and messages monthly.

## Putting the Internet of Things to work for you!

The Machine-to-Machine (M2M), EntelNet, technology is used to monitor mobile assets including Oil & Gas Assets, Work Boats, Fishing Vessels, Mining Equipment, Trains and Individual Workers in high-risk areas.



Worker Protection



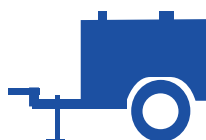
Oil & Gas



Mining



Work Boats



Mobile Assets



Yachts

M2M is an integral part of Internet of Things, one of the fastest growing areas of the technology. The information gathered by Faria Beede M2M systems is transformed into actionable intelligence—via sophisticated reports and alerts.

Enhance operational efficiency

Reduce warranty and operating costs

Increase time on the water and asset utilization

Comply with environmental and regulatory mandates

Schedule preventative maintenance

Improve safety

# The choice of more than 300 boat manufacturers worldwide.

Faria Beede Instruments, Inc. has been manufacturing gauges and instruments in Connecticut for more than 60 years. The company offers a full compliment of analog and digital engine monitoring and telematic solutions for a wide range of global marine, military, industrial and performance industries.

One of the few remaining vertically integrated U.S. manufacturers of SAE J1939 and NMEA 2000

instrumentation, Faria Beede provides some of the best turnaround times and responsive support in the industry. This is only possible by having total control of all aspects of design, engineering and manufacturing.

Whether your needs are for the simplest or the more advanced computerized engines, Faria Beede has the instrumentation solution that is right for you.



Chesapeake Black SS



Chesapeake White SS



Coral



Dress White



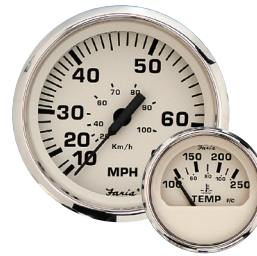
Essex Contour



Euro



Euro White



Euro Beige SS



Kronos



Heavy Duty - Black



Heavy Duty - Silver



Platinum



Professional Red



Spun Silver



Digital Black Fade



# GPS Speedometer



## Features & Benefits

- Available in multiple speed ranges in MPH, KPH, and KNOTs
- Premium LED back-lit.
- Available with and without LCD displays showing Compass Rose heading and actual heading (COG)
- Fast satellite acquisition time (TTFF)  
1 second from Hot Start
- Speed accuracy of +/- 1 MPH
- Heading accuracy of +/- 1 degree
- Digital stepper motor driven pointers
- Perfect for slow moving vessels where pitot tubes just don't work
- Ideal replacement for speed sensing devices (pitot tube and paddle wheel) that can fail over time

The GPS Speedometer is a drop-in replacement for your current speedometer.

The GPS antenna is built-in to the instruments and does not require an external antenna. No additional hardware is required.

The Faria Beede GPS Speedometer uses a highly accurate 48 channel GPS receiver. You can be sure that the GPS Speedometer is giving you the most accurate GPS information available on the market today.

Speed data is shown by an analog pointer. This pointer is driven by a digital stepper motor for increased accuracy and minimized pointer bounce.



## Antenna built in.

No additional parts needed.

# MG3000



## Features & Benefits

- Fuel Management built in.
- Seasonal and Trip Data.
- Pop-Up screens for quick information display and warnings.
- Alarm codes with suggested actions.
- Data log for fault codes.
- A single Gateway instrument can monitor up to 5 tanks or other analog signals.
- Calibrate Fuel Level and Speed in gauge.
- Initialization mode to assist in gauge set-up.
- Superior Sunlight readable display.
- Units can be displayed in US standard or Metric
- Gear position indicators

The **MG3000** Tachometer features large lighted buttons with tactile feedback, LED back lighted dial, fog-resistant polycarbonate lens and plug and play connectorized cases. The daylight readable LCD is visible even in direct sunlight. A user-friendly, intuitive design makes navigating the menu interface easy to use. Customize the MG3000 with user definable screens and alarms.

The MG3000 Tachometer connects to the CAN bus and communicates directly with the engine ECU. Engine data, fault codes and alarms are displayed on the Tachometer's LCD display\*.

The MG3000 Tachometer is so much more than just a digital repeater. There are 3 analog inputs which can be used for Air Temperature, Trim, Fuel Level and Water Pressure and a NMEA 0183 input for a GPS antenna for Lat/Long, Heading, COG and clock.

The **MG1000** Speedometer connects directly to the MG3000 Tachometer. Like the Tachometer, the Speedometer has the look and function of an analog gauge, but the pointer is driven with a digital stepper motor for increased accuracy. Speed data can be displayed from the CAN bus, GPS antenna or connected paddle wheel.

\*Note: Some proprietary engine manufacturer alarms may not display or may be displayed incorrectly.

# Satellite, Cellular and Wi-Fi Asset Monitoring Solutions



For more information contact



Tel: 860.848.9271  
Web: [www.FariaBeede.com](http://www.FariaBeede.com)