



**FB-Sentry
WD500**

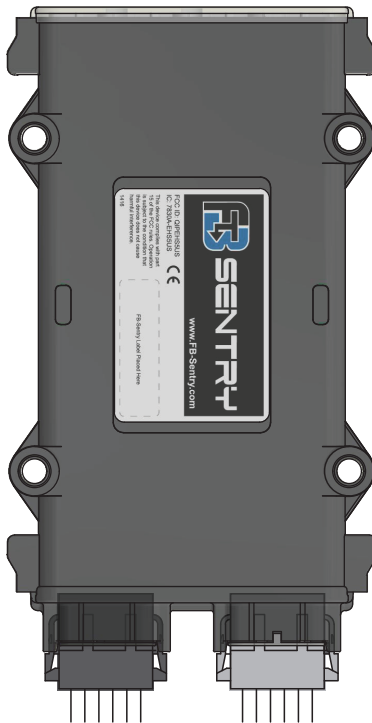
IS0393
Rev D ECR286 1/2018

Installation

Location:

Be sure to locate the WD500 MTU so the internal GPS and Cellular antennas have a clear view of the sky. The orientation of the MTU does not matter as long as it is not installed behind or below materials that can block radio transmissions.

The preferred mounting is with the harnessing coming from the bottom of the MTU with appropriate strain relief.

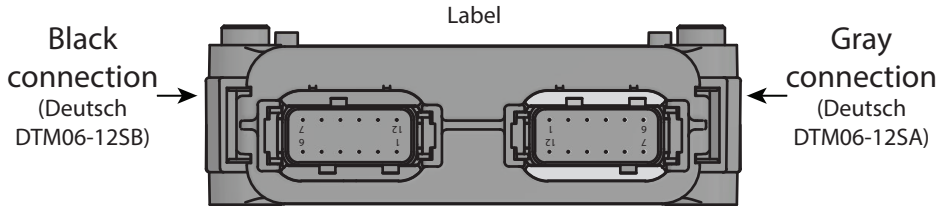


Note: Materials such as metal can interfere with the radio transmissions used by the MTU and can reduce service reliability. These types of materials should be avoided. Materials like fiberglass allow radio signals to transmit without interference. It is OK to mount behind or below these types of materials.

The MTU should be installed in a dry area, away from the elements. This unit is rated IP-66 and protected from Dust and Splashing water.

Installation

Locate the 2 12-pin Deutsch connectors. Insert the gray connector into the gray connection on the MTU. Insert the black connector into the black connection.



Wire Connection

Gray Connector

Bilge Pump #1	To Bilge pump counter #1 (pos)	1	Blue
Battery #2	To Battery #2 (positive)	2	Violet/White
Entry Alert	To door or motion sensor (NO)	3	Brown
Ground	To negative side of battery	4	Black
Battery #1	To Battery #1 (positive)	5	Violet
Bilge Pump #2	To Bilge pump counter #2 (pos)	6	Gray
High Water	High water switch (to ground)	7	Orange
Analog input	Analog input #1	8	Pink
Serial to CAN			CAN Connector

Black Connector

Temperature	To temperature sensor	1	Green/Black
Control #1	Relay coil sink (150ma) to ground	2	Tan/White
Boot-load	To boot-load ground	3	Blue/Black
Boot-load	To boot-load switch	4	Green
TBD	No Connections	5	Red/White
TBD	No Connections	6	Red/Blue
Shore Power	To DC adapter negative lead	7	Black
Shore Power	To DC adapter positive lead	8	White
Temperature	To temperature sensor	9	Red/Violet
Control #2	Relay coil sink (150ma) to ground	10	Tan/Black
Control #3	Relay coil sink (150ma) to ground	11	Tan/Blue
Temperature	To temperature sensor	12	Yellow

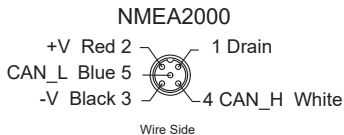
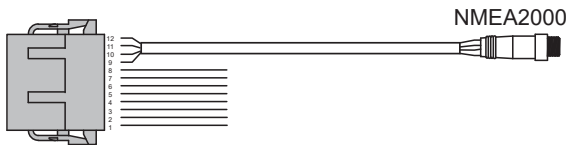
Connect the Violet Wire (pin 5 - Gray connector) to the main battery (12 or 24 vDC ready) or an un-switched power source with in-line fuse (3 A) installed.

Connect the Black Wire (pin 4 - Gray connector) to the negative side of the battery or vessel ground.

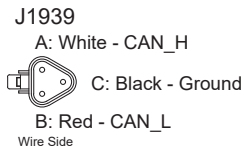
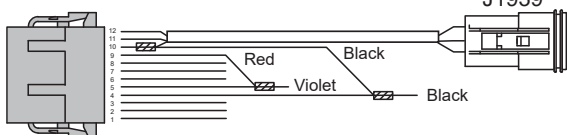
Connect the CAN connector to the CAN Bus.

Harness Connections

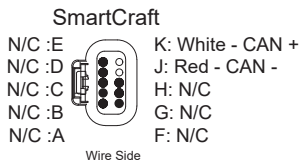
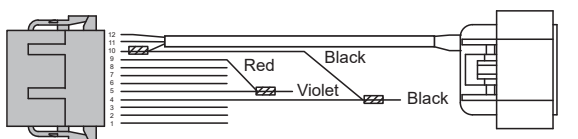
HN0915



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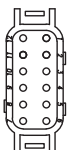


HN0916



Power/CAN Harness Gray Connector

- 12: Blue or Red
- 11: White
- 10: Black
- 9: Violet or Red
- 8: Pink
- 7: Orange

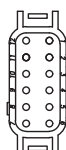


Wire Side

- 1: Blue
- 2: Violet/White
- 3: Brown
- 4: Black
- 5: Violet
- 6: Gray

HN0917 Accessory Harness Black Connector

- 12: Yellow
- 11: Tan/Blue
- 10: Tan/Black
- 9: Red/Violet
- 8: White
- 7: Black



Wire Side

- 1: Green/Black
- 2: Tan/White
- 3: Blue/Black
- 4: Green
- 5: Red/White
- 6: Red/Blue

Additional Monitoring

Bilge Pumps

If bilge pumps are to be monitored connect bilge pump 1 via the Blue Wire (Pin 1 - Gray connector) to positive side of pump #1. If a second bilge pump is to be monitored connect the Gray Wire (Pin 6 - Gray connector) to the positive side of the bilge pump #2.

High Water Detection

If a High Water Detection is required connect the Orange Wire (Pin 7 - Gray connector) to the ground side of the FB-Sentry High Water/Float Switch Part # SW0052.

Entry Door Monitoring

If entry monitoring is required connect the Brown Wire (Pin 3 - Gray connector) to the FB-Sentry Entry Door Switch Sensor Monitoring Kit (will do 2 doors, hatches, etc.) Part # SW0049 and follow the installation instructions

Shore Power Monitoring

If shore power is to be monitored connect the White Wire (Pin 8 - Black connector) and Black Wire (Pin 7 - Black connector) to the FB-Sentry Shore Power Sensor Part # SN0073 and follow the installation instructions.

Temperature Monitoring

If temperature monitoring is required connect the Green/Black Wire (Pin 1 - Black connector) to the Black wire (Sender), Red/Violet Wire (Pin 9 - Black connector) to the Red wire (Sender) and Yellow Wire (Pin 12 - Black connector) to the Yellow wire (Sender) to the FB-Sentry Temperature Sensor Part # SN0072 and follow the installation instructions.

Remote Digital Switching - Outputs are switched to ground

The FB-Sentry MTU will sink 150mA's to turn on various switches.

Device #1 (relay) connect the Tan/White Wire (Pin 2 - Black connector)

Device #2 (relay) connect the Tan/Black Wire (Pin 10 - Black connector)

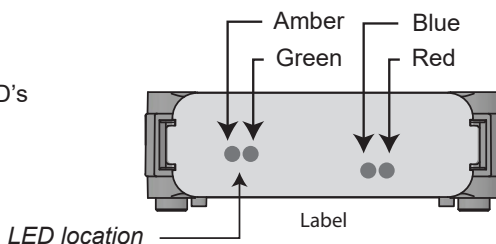
Device #3 (relay) connect the Tan/Blue Wire (Pin 11 - Black connector)

Connect to a FB-Sentry Control Relay(s) (12 vdc.) Part # SW0050 or FB-Sentry Control Relay(s) (24 vdc.) Part # SW0051.

LED Indicators

With power applied check for blinking LED's

- Amber for GSM Signal
- Green for GPS fix
- Red - Fault Code
- Blue - CAN Activity



Note: To view the LED look inside the clear plastic part of the case opposite the connectors. The LEDs are located inside the case.

To be fully operational both the Green and Amber LED must be solid (on) and the Blue LED blinking when engine running.

The tables below identify the meaning of the blinking sequence for diagnostic purposes.

LED #1 (Cellular signal - Amber)

Off	Modem Off
Slow Blinking (1 Hz)	Comm On - Searching
Fast Blinking (3 Hz)	Network Available
Alternates from Solid to Fast Blink (1 per second)	Registered but no Inbound acknowledgment
Solid (On)	Registered and Received Inbound acknowledgment.

LED #2 (GPS signal - Green)

Off	GPS Off
Slow Blinking (1 Hz)	GPS On - Searching
Fast Blinking (3 Hz)	GPS - Time Sync
Solid (On)	GPS - Fix

Activation

Go to www.fb-sentry.com

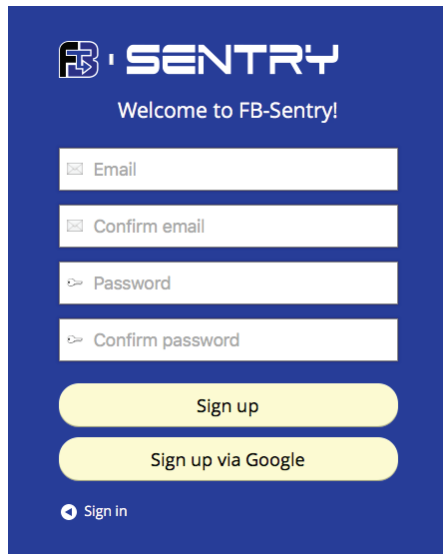
Click on the "Sign Up" link.



The screenshot shows the login page for FB-Sentry. At the top left is the logo, which consists of a stylized 'FB' inside a square followed by the word 'SENTRY' in a bold, sans-serif font. Below the logo is the text 'Welcome to FB-Sentry!'. There are two input fields: the first is labeled 'Email' with an envelope icon, and the second is labeled 'Password' with a key icon. Below these fields are two yellow buttons: 'Sign in' and 'Sign in with Google'. At the bottom right, there are two links: 'Forgot password' with a right-pointing arrow and 'Sign up' with a right-pointing arrow. A black arrow from the text 'Sign Up' on the right points to the 'Sign up' link.

“Sign Up”

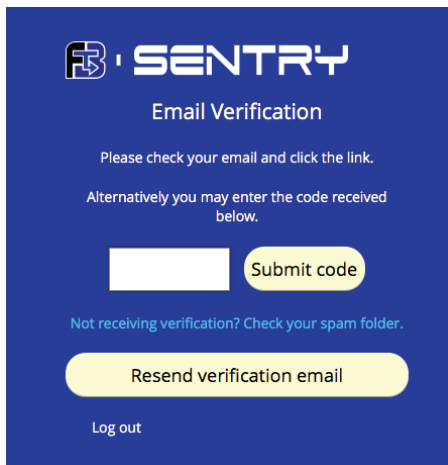
Enter your email and password at the prompts.



The screenshot shows the sign-up page for FB-Sentry. At the top left is the logo, which consists of a stylized 'FB' inside a square followed by the word 'SENTRY' in a bold, sans-serif font. Below the logo is the text 'Welcome to FB-Sentry!'. There are four input fields: the first is labeled 'Email' with an envelope icon, the second is labeled 'Confirm email' with an envelope icon, the third is labeled 'Password' with a key icon, and the fourth is labeled 'Confirm password' with a key icon. Below these fields are two yellow buttons: 'Sign up' and 'Sign up via Google'. At the bottom left, there is a link 'Sign in' with a left-pointing arrow.

From your email, record the verification code.

Enter verification code at prompt.

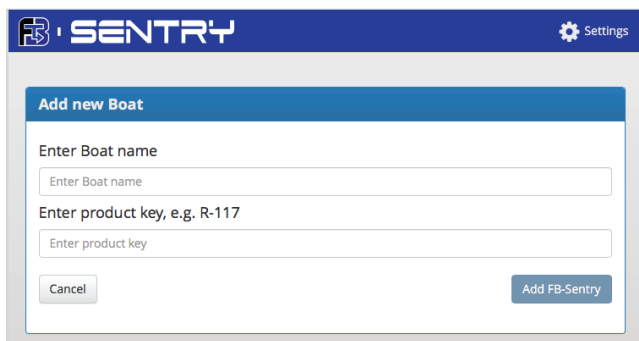


Enter your boat name.

Enter product key. The product key can be found on the MTU on the brand label.



The product key is also recorded on the label to the right.



Activation Serial Number

Follow the remaining prompts to complete activation

Web Application

For your convenience you can add the web application (FB-Sentry) to your home screen.

iOS

Launch the Safari browser and navigate to www.fb-sentry.com. Tap the share button on the browsers tool bar.



Android

Launch Chrome for Android and open the website www.fb-sentry.com. Tap the menu button.



Both

Tap the Add to Home Screen icon in the menu. Name the icon shortcut and save.



Faria Beede Instrument, Inc.
P.O. Box 983
385 Norwich-New London Turnpike
Uncasville, CT 06382