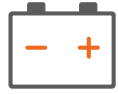




# **MTC** SETUP & INSTALLATION GUIDE

# Welcome to the Connected Boat™



Battery



High-Water



Security



Temperature



Shore Power



Engine



GPS Tracking



Control

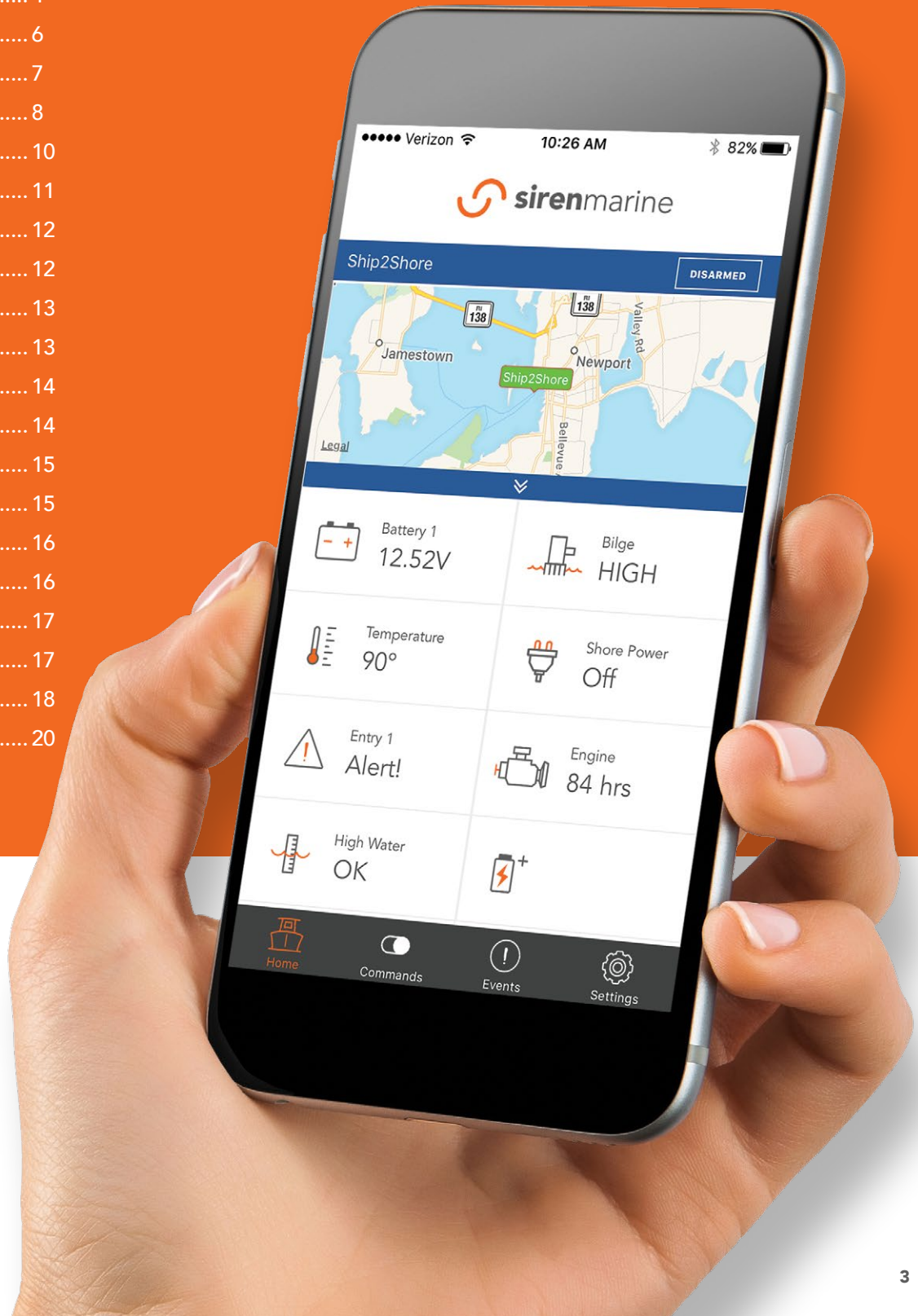
## A Better Boating Experience

Siren Marine's Connected Boat™ technology is revolutionizing the boat ownership experience by providing boat owners, fleet operators and boat builders with critical information, peace of mind, and a better boating experience.

Every boater knows that small problems can become big problems if left undetected. Our products allow you to monitor, track, control, and secure your boat from a cell phone, tablet or computer. Siren Marine's years of boating experience has led to the development of a technology made "by boaters, for boaters" that solves real-world boating problems, bringing you peace of mind and greater control, enabling you to enjoy your day, your way.

# Table of Contents

MTC Standard Features .....	4
Package Contents .....	6
PIN Layout .....	7
Battery Connection .....	8
Battery 1 Monitoring .....	10
Battery 2 Monitoring .....	11
Ignition (Engine 1) .....	12
Manual Arm/Disarm Switch.....	12
Security 1&2.....	13
High Water.....	13
Shore Power .....	14
Engine Hours (Engine 2).....	14
Spare Input - DIG IN7.....	15
Temperature 1 .....	15
Outputs 1/2/3.....	16
Blue Sea Battery Switch .....	16
Status LED PINS .....	17
Bilge 1&2 .....	17
Technical Specifications.....	18
Terms & Conditions .....	20



# MTC Standard Features

The Siren Marine MTC is ushering in the future of the Connected Boat™. Now offering a brand new easy-to-use app, global 3G connectivity, the choice of wired and wireless sensors, and more inputs than ever before, the MTC is the most versatile and reliable system on the market.

## Sensors

You can add wired or wireless sensors to expand the system.

## Subscription Options

- Monthly - \$17.99
- Seasonal - \$125
- Annual - \$180



### GPS Position & Geo-Fence

Track the location and movement of the boat.



### Security

Add motion sensor, magnetic switch, canvas snap sensor, or pressure pad.



### Battery Monitoring

Receive alerts if battery voltage is low.



### Shore Power

Add sensor to power outlet to monitor shore power connection.



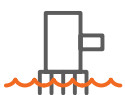
### Engine Metrics

Connect to the engine to monitor hours and receive service reminders.



### Temperature

Monitor temperature of cabin, engine room, fridge, or bait locker.



### Bilge

Connect to a bilge pump or high-water sensor.



### Control Devices

Add wireless or wired sensors to control lights, HVAC, Bilge Pumps, etc.

# Package Contents

Mounting Bracket



Setup Guide



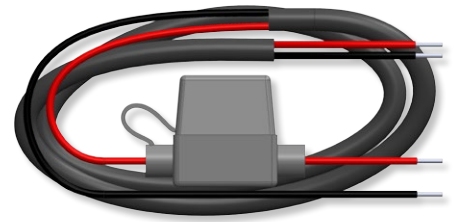
MTC Unit



App Guide



Battery Wire w/5amp Inline Fuse

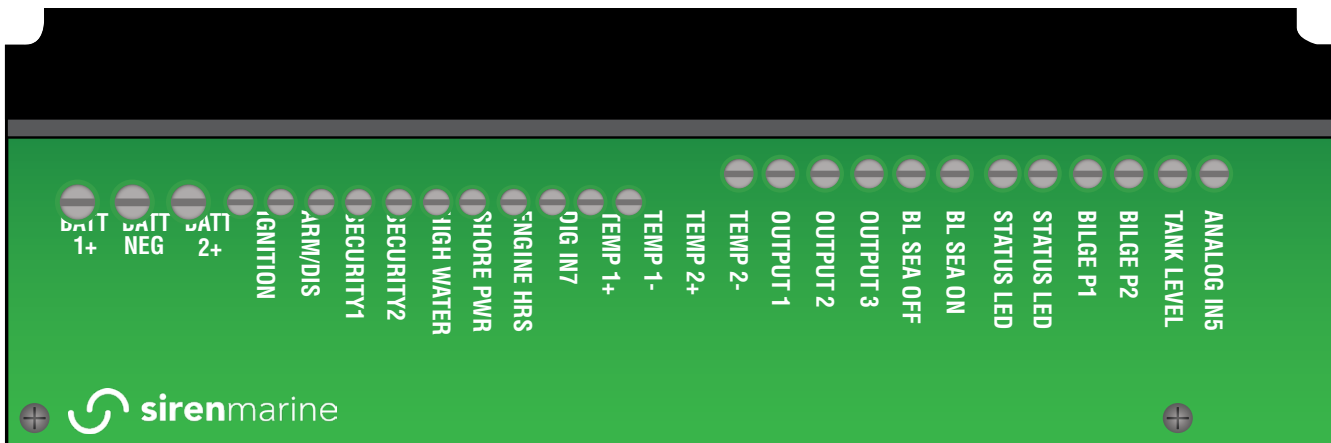


Flathead Screwdriver



# PIN Layout

⚠ REFERENCE THE MTC TERMINAL BOARD BELOW FOR HELP WHEN INSTALLING UNIT.



# Battery Connection

 READ BEFORE STARTING

The provided battery wire w/5 amp inline fuse connects the device to the boat's battery and:

- Powers the Cellular (GSM) modular
- Powers the internal GPS/Tracking (Geo-Fencing)
- Charges the internal back-up Li-Po battery
- Powers the internal device accelerometer

This hardwired connection can come directly from the battery posts or any 24/7 power circuit that is powered by that battery.

*Please note that this connection must be fused for over-current protection.*

**Important:** Do not wire the MTC to the switched side of the battery.



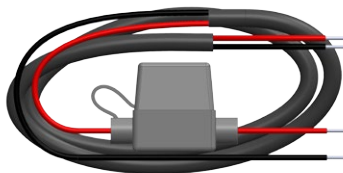
## Connect to Power

The Siren Marine MTC can be powered by either a **12 or 24vdc** system. The internal battery charges off of the boat's battery, and it is recommended that the unit be connected directly to the battery with a 5amp slow fuse fitted between the unit and the power supply. Please note that this connection must be fused for over- current protection.

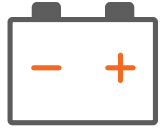
The **Positive(+)** or power side of the battery should be connected to terminal position **#1 Labeled BATT 1+**. The **Negative(-)** or ground side of the power connection should be connected to terminal position **#2 Labeled BATT NEG**.

## What You Need

- MTC Unit - *Remove lower cap to expose the terminal board*
- Battery Wire w/5amp Inline Fuse
- Your Boat's Battery



# Battery 1 Monitoring



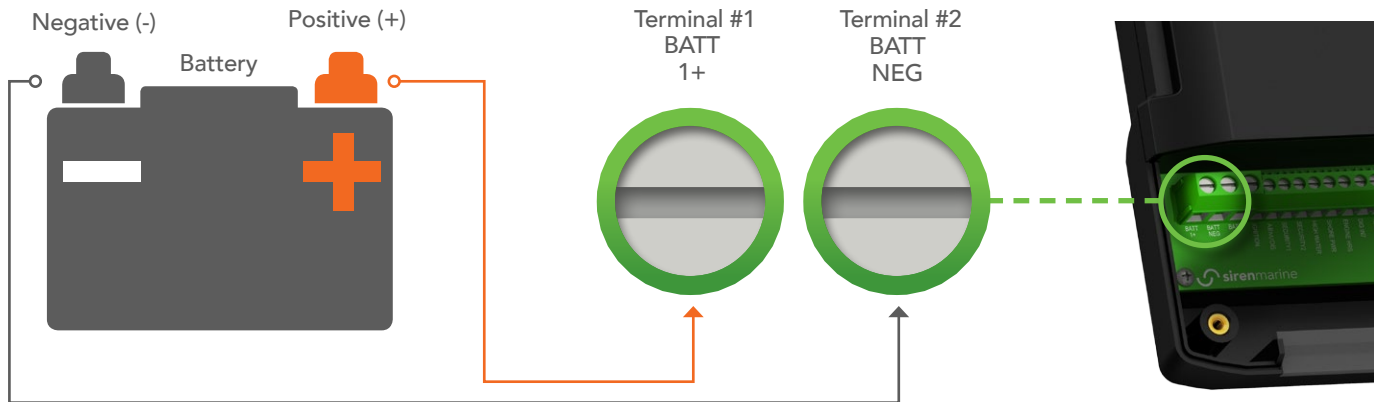
To connect the MTC to power, follow the instructions below:

## Step 1

Using the supplied battery wire, connect the **Red 12v Positive(+)** wire to the **Positive(+)** post on your battery and connect the other end to terminal #1 on the MTC labeled **BATT 1+**.

## Step 2

Using the supplied battery wire, connect the **Black 12v Negative(-)** wire to the **Negative(-)** post on your battery and connect the other end to terminal #2 on the MTC labeled **BATT NEG**.



# Battery 2 Monitoring



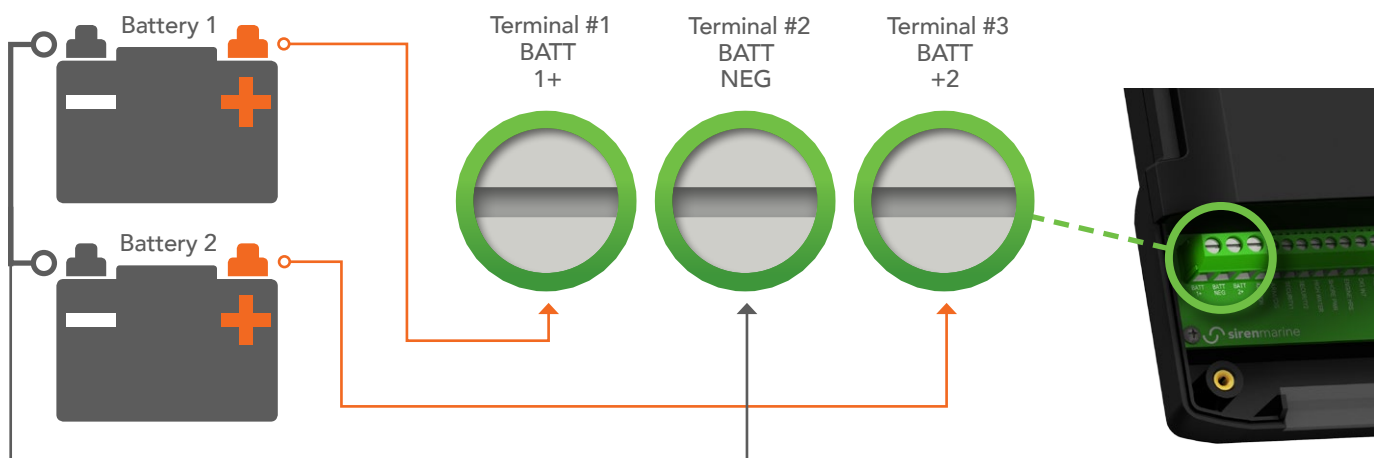
## Battery 2 Monitoring

The Siren Marne MTC has the ability to monitor 2 batteries on board. Both battery inputs share the same common ground(-) labeled **BATT NEG**.

### To connect the MTC to a second battery

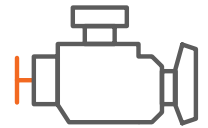
Connect one end of a **Red 12v Positive(+)** lead (*not supplied*) from the **Positive(+)** post on your second battery and connect the other end to terminal #3 on the MTC labeled **BATT 2+**.

Connect one end of a **Black 12v Negative(-)** lead (*not supplied*) from the **Negative(-)** post on your second battery and connect the other end to terminal #2 on the MTC labeled **BATT NEG**.



## Ignition (Engine 1)

This input is designated to detect when your engine is on or off as well as measure engine hours. Connect to the **Positive(+)** terminal from your ignition switch to the terminal labeled **IGNITION** on the MTC to sense voltage when the key is turned on. This input is looking for **Positive(+)** voltage.



## Manual Arm/Disarm Switch

This input is designated to be connected to a **Manual On/Off** switch located in a hidden area or mounted at the helm. This gives you the option to manually arm and disarm the system without using the Siren Marine app. Connect the **Negative(-)** side of the switch to the input labeled **ARM/DIS** on the MTC. To learn how to setup your arm and disarm functions see the **Siren Marine Quick Start Guide**.



## Security 1 & 2

These 2 inputs are designated for Siren Marine motion sensors, reed switches, canvas snap sensors, etc. Connect one wire from these accessories to the terminal labeled **Security 1/2** on the MTC, and the other to **Ground(-)**. Please reference the specific accessory wiring instructions included with the accessory.



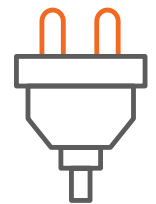
## High Water

This input is designated to detect high water in the bilge. Any normally open(N/O) water sensor or float switch that closes to ground(-) will work in this terminal position. Connect one wire from these accessories to the terminal labeled **High Water** on the MTC, and the other to **Ground(-)**.



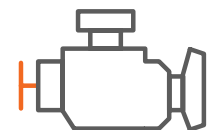
## Shore Power

This input is designated to detect the presence/loss of shore power. Use the **Siren Marine PAM-1 AC Relay** wired to the AC panel on the **Positive(+)** leg of AC power. A **Siren Marine Shore Power Sensor Plug** is also available. See instructions included with the accessory.



## Engine Hours (Engine 2)

This input is designated to track your engine hours. This input works best when connected to an oil pressure gauge as it will only count engine hours when the engine is running. Any switch that is **Normally Open(N/O)** and closes to **Ground(-)** will work on this terminal position. To monitor engine hours from a **Positive(+)** ignition source use the **Siren Marine PAM-4 DC Relay**.



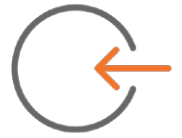
⚠ Reference the PAM 1 or 4 relay on the support page at [Sirenmarine.com](https://www.sirenmarine.com).  
Reference the MTC Terminal Board on page 7.



## Spare Input - DIG IN7

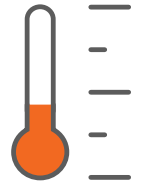
This spare terminal position is used to connect additional security sensors, high water (bilge) sensor, or any other sensor that closes to **Ground(-)**.

*\*To be used for future functionality.*



## Temperature 1

When using the Siren Marine temp probes, terminate the white wire to terminal position TEMP1+. It is important to then connect the red wire of the probe to terminal position TEMP1-. Please note that the red and white conductor cables are data and ground(-). Not positive(+) and negative(-). If you're looking to connect a second temperature probe, please reference the support page at [Sirenmarine.com](http://Sirenmarine.com).



## Outputs 1/2/3

The outputs that are available on the MTC unit have a max rating of 1 amp. For smaller applications such as a strobe light or siren that have a rating of less than 1 amp, no external relay is required.



For applications such as connecting to your bilge pump, air conditioning or refrigerator, please match the external relay to the load requirements for need of that application.

## Blue Sea Battery Switch

These outputs are designated for the Blue Sea remote battery switch that will allow you to remotely turn your battery on and off from the Siren Marine app. Connect the wires from the Blue Sea battery switch as shown below.

- Connect the **Orange Wire** out of the Blue Sea wire harness would be terminated on **BL SEA ON** on the MTC terminal board.
- Connect the **Brown Wire** out of the Blue Sea wire harness to the MTC to **BL SEA OFF**.

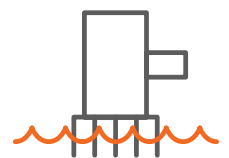


## Status LED PINS

Coming soon for alarm status indicator light.

## Bilge 1 & 2

This input is configured to track bilge pump activity. Wire into the **Positive(+)** side of the **12v/24v** indicator light at your helm that powers only when the pump is cycling. Or wire directly into the **Positive(+)** side if the **Bilge Pump**. If you are looking to power your bilge pump please refer to the device output section.



# Technical Specifications

## General

- Physical Dimensions.....6.5in x 4.5in x 1.25in
- Weight.....0.98lbs

## I/O

- Digital Inputs.....7 (0-30VDC)
- Digital Outputs.....3
- Remote Battery Control.....On/Off
- Analog Inputs.....5 (0-30VDC)
- 1-Wire Interface Inputs.....2 (Temperature Sensing)
- Status LEDs (2).....GPS (green)/Cellular (red)

## Electrical

- Operating Voltage .....10-30 VDC
- Power Consumption .....<20mA @ 12v (Sleep on network with SMS)  
70mA @ 12v (Active Tracking)
- Back-Up Battery .....3000mAh Lithium Polymer Battery
- Bluetooth .....4.0 Dual-Mode (future functions)

## Connectivity

- Cellular .....GSM North America and International versions available Internal Antenna
- GPS .....Internal Antenna, 56 channel GPS (SMA for optional external antenna)
- Wired .....26 gang terminal connector for wired sensors, power, and output control
- Wireless.....Up to 6 sensors. 900mHz wireless transceiver.  
Security, Bilge, Temperature, Shore Power, Battery, Smoke, CO\*

## Environmental

- Temperature .....-22°f to 167°f (Connected to Primary Power)  
-40°f to 185°f (Storage)
- Humidity.....95% R.H. (Relative Humidity) @ 122°F

**Certifications** .....Fully Certified FCC, CE, IC, PTCRB, All Applicable Carriers

## Mounting

- Mounting Bracket.....4.5in x 2.5in x 1.5in
- Bracket Screws .....4

**Optional Features** .....External GPS Antenna

\*Wireless sensors will be released mid 2017 and will continue to expand. Not all sensors initially available.

# Terms & Conditions

## Definitions

- **End User** refers to the owner of a Siren Marine Device (MTC).
- **Service Provider** is Siren Marine LLC.
- **Distributor:** The Service Provider's representative in the U.S.A. is Siren Marine, 221 Third St #200, Newport, RI, U.S.A.
- **Service** means the communication and access to infrastructure and telecommunication systems needed to alert the End User of an occurrence on board detected by the installed Siren Marine Device.
- **Network** means the public telecommunications system by which the Siren Marine Service is made available.
- **Service Contract Agreement** means the contract between the Service Provider, Siren Marine, and the End User.
- **Minimum Contract Period** means the period during which the End User has agreed to use, and pay for the Service.
- **Service Charge** means the monthly payments the End User pays for the Service during the Contract Period.
- **Siren Marine System Server** means the servers and other hardware and infrastructure needed in order to provide the Service.
- **Siren Marine Device** is any and all hardware that is sold by or distributed through Siren Marine LLC. Includes the Siren Marine MT, MTC, MTC Pro and all accessory sensors that are paired with the Siren Marine base unit.
- **Early Termination Fee** is a fee of \$9.00 will be charged to the End User via the Service Provider if or when the End User terminates their Service Agreement with the Service Provider prior to the assigned date.
- **Action Plan** is a pre-determined plan of events to be acted on when or if any major event occurs onboard that you are notified via the Siren Marine Device.

In order to use the Siren Marine System there must be a current Service Contract Agreement between the End User and the Service Provider. The Service Contract has a minimum Contract Period during which the End User is obligated to pay the monthly Service Charge. The Service Contract Agreement is normally entered online during the installation of the Siren Marine Device. The Service Contract incorporates and includes by reference the current Terms & Conditions for the Siren Marine Device.

## Scope of Service

The service includes cellular (GSM) communication between the Siren Marine Device and the Siren Marine System Servers, text (SMS) message communication between the Siren Marine Server and the end user's mobile phone, E-mail communication between the Siren Marine Server and the End User as well as access to the Siren Marine Web Portal through the Internet. The server also includes access to Support during the Contract Period and free software upgrades as well as the right to use any software included in the Service.

## Service Availability

The cellular (GSM) service is available both domestically within the U.S.A. and Internationally. All cellular (GSM) communication between Siren Marine Device and Siren Marine System Servers is included in the monthly Service Charge. There are no extra roaming charges for systems used outside the U.S.A. The End User hereby acknowledges that the availability of the service may be affected by factors outside the Service Provider's control such as, but not limited to, physical obstructions, availability of Internet connections, routing of data over the Internet, atmospheric conditions and other causes of radio interference and by faults in other telecommunication networks to which the Network is connected. In connection with any such adverse effect on the quality and availability of the Siren Marine Service, the Service Provider shall incur no liability to the End User whatsoever. Notwithstanding such effects to the Services during the Contract Period, the End User shall remain liable for the payment of the Monthly Service Charge.

## Contract Period

Each Service Contract Agreement has a defined Contract Period, which commences on the date the first Billing Cycle starts. The Contract Period is defined in the Service Contract Agreement. The End User agrees not to suspend service more than once in a 12 month period.

## Use of the Built-in SIM Card

The Siren Marine Device has a built-in SIM card, the title to which belongs to the Service Provider and not the End User. The Service Provider reserves the right to cancel the service and permanently terminate the SIM card if:

- The End User repeatedly fails to pay the monthly service charge agreed during the contract period.
- If the system remains unused and the service agreement is not renewed or terminated after a period of six (6) months after the initial contract period has expired.

- If the SIM card is abused in any way or is removed from the Siren Marine Device.
- If the Service is canceled the Siren Marine System may be sent to Service Provider or Distributor for a replacement SIM card. A minimum service fee of US \$100.00 will be charged for this. In case the Siren Marine Device and/or its internal SIM card are lost or stolen the End User is required to immediately notify the Service Provider. Until such notification has been received by the Service Provider the End User is liable for any and all charges incurred by the use of the Siren Marine Device and/or the SIM card.

## Monthly Service Charge

The End User is required to pay the monthly Service Charge on time during the Contract Period or as long as the Service Contract Agreement is valid. The monthly Service Charge is automatically billed to End User's credit card on the 8th of each month (Billing cycle). The End User is required to maintain and enter valid credit card information into the system through the Siren Marine Web Portal, so that the Service Charge can be billed each month. Upon failure to pay the Service Charge the Service Provider reserves the right to limit the use of the system and/or terminate the Agreement. If terminated in such a way the End User shall remain liable to pay the Early Termination Fee. The Service Provider reserves the right to adjust price, terms and conditions when forced by factors outside its control. A minimum three (3) months notice applies before any such changes can take effect.

## The Reinstatement Fee

The Siren Marine Service Agreement may be terminated before the expiration date of the Contract Period, upon payment, to Service Provider, a Reinstatement Fee of US \$9.00.

## Automatic Continuation of Service Contract

After the initial Contract Period has ended the service will be automatically extended until terminated by the End User. After the initial Contract Period the End User has the right to terminate the Service Contract Agreement by giving notice, in writing, to the Service Provider. A three (3) month termination period shall apply during which the End User is liable to pay the monthly Service Charge.

## Termination of Contract

After the Contract Period has ended the Agreement may be terminated by the End User by giving notice, in writing, to the Service provider or its distributor in the U.S.A. either by mail or by fax. The agreement will be terminated after three (3) months, starting from the first date of the month after the notice has been received by the Service Provider. A confirmation of Termination will be sent by the Service Provider to the End User. The termination notice shall be addressed to the Service Provider or its distributor in the U.S.A., Siren Marine. For address information see Contact details above under Definitions.

## Confidentiality

The Service Provider agrees not to make available to anyone not directly affiliated with the Service Provider, any data stored on its Siren Marine Service Servers, unless the End User has agreed so. This includes, but is not limited to, positions or movements of the boat, information regarding the End User's address, status of alarms and warnings, telephone numbers, e-mail addresses as well as user name and password. The End User hereby agrees to the Service Provider's and its Distributor's right to access data stored on the Siren Marine System Servers in order to help the End User in case of support and for trouble shooting as well as for system maintenance and software upgrades. The Service Provider and Distributor reserves the right to contact the End User, using the contact information stored on the Siren Marine System Servers, in order to notify the End User of any potential problems, improvements or other things that affect the quality and security of the Service. The Service Provider will not knowingly make data stored on the servers available to persons not affiliated with Siren Marine except as agreed to by the End User and except as required by applicable law.

## Liabilities

The Service Provider is not liable for any goods stolen or damages incurred as a result of the Service not being available. Siren Marine is not liable for defects in the Siren Marine Device or in the Service. The End User recognizes that factors outside the Service Providers control may affect the quality of the Service. Furthermore it is the responsibility of the End User to act on notifications sent by the Siren Marine Device and for maintaining an up-to-date Action Plan online so that alarms and warnings can be sent to the right person(s). It is also the End User's full responsibility to inform any person(s) entered in the action plan of the desired action, should an alarm or warning be received. The Service Provider takes no responsibility for any data stored on the Siren Marine System Servers by the End User that may be offensive, incorrect or fraudulent.



Monitor



Track



Control

**sirenmarine.com**

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