Beam Sensor Installation

Please Note: The Beam Sensor is an Italian-manufactured device, therefore wire colors will not be equivalent to NMEA wiring standards. Please refer to the wiring crossover diagram to wire accordingly to your MTC device.

Wire Type	Italian	NMEA
Positive/Hot	Brown	Red
Negative/Ground	Blue, White	Black
Output	Black	

Beam Sensor Operation

The beam sensor has a working range of 15" (38cm) from the lens of the sensor in a cylindrical shape of approximately 1" diameter. If an object enters between the sensor and the 15" cylindrical beam, the sensor will be triggered.

The sensor operates by reflecting the beam of light back to the sensor from an object that come in between the sensor and the 15" beam. If there is a surface or bulkhead opposite the sensor that is highly reflective or white, which is common on many fiberglass boats, the sensor may have a longer than normal working range, increasing the maximum distance of the sensor up to 17" or more. If this is the case and the adjacent bulkhead, seat, or other object is shorter than the working range of the sensor, the sensor will receive the reflected light and go into alert mode. In this case, the sensor will need to be customized for your installation by programming the sensor beam to be a shorter distance.

The beam sensor has two LED lights near the **back of the sensor** that indicate different functions. Depending on the activity of the sensor, a **green** and/or **amber** light will display in different modes. Please refer to the following table to understand the different light behaviors and functions:

Green	Amber	Indication
Solid	Solid	• Standby, or programming mode prior to programming
Solid	Flashing	• Bulkhead or object is at edge of maximum beam distance • Sensor will not decipher if intrusion is legitimate; sensor will alert app
Solid	Off	• Sensor has been triggered by intruding object; sensor will alert app
Flash 1x, Solid	Solid	• Entering programming mode
Flashing	Solid	• Programming mode

Programming Beam Sensor for Working Distance Shorter than Standard (15" / 38cm)

What you will need:

- Magnetic ferrous tool or rod (tool has been provided with beam sensor)
  - If provided tool is not available or has been misplaced, any magnetic rod such as a screwdriver will suffice.
- A loose object with sufficient surface area such as a piece of cardboard or a book. This will represent an intruding object when programming.

Before programming your beam sensor, ensure there are no objects positioned between the sensor and the working distance. *If the area of interest is a companionway or entry and is less than the 15" working distance, the sensor will automatically be in alert mode.

Please Note: Green & amber LED must be on solid prior to programming. If not, place ferrous tool on beam sensor notch and hold for **13+ seconds**. Green LED will begin to flash – remove tool while green LED is flashing. Ensure LEDs are on solid before continuing.

Programming Steps

- Place a loose object at desired distance between sensor and working distance that will indicate an intrusion and cause sensor to trigger. **Object must be within 15" of front of sensor**
- Once object is in position, amber LED will shut off
- Place ferrous tool on sensor notch and hold for **8+ seconds** – green LED will begin to flash
- Remove tool from notch
- Wait for green LED to turn solid
- Remove object from position – amber LED will turn solid

Locking Programming Settings

- Remove any objects in front of sensor prior to locking settings
- Ensure that green and amber LEDs are both solid
- Place ferrous tool on sensor notch for **13+ seconds** – green LED will begin to flash
- Remove ferrous tool from notch – amber LED will turn solid, green LED will turn off

Resetting Beam Sensor Distance

- Remove any objects in front of sensor prior to locking settings
- Ensure that green and amber LEDs are both solid
- Place ferrous tool on sensor notch for **8+ seconds** – green LED will begin to flash
- Remove ferrous tool from notch – amber LED should turn solid, green LED will turn solid

Following Installation

On standby, the beam sensor will display solid amber and green LEDs, indicating that it has been installed successfully and has no intruding objects in the sensor path.

Ensure that you test the beam sensor's functionality by placing an object in front of the sensor to simulate an intrusion. It is also recommended to monitor the Siren Marine app activity during this test as well*.

When an object is crossing the beam sensor path, the amber LED will shut off while the green LED stays on. On the Siren Marine app, you will notice the security tile* will turn orange indicating a security breach.

** If you are an installer, please contact Siren Marine support to have temporary installer login credentials for the user's MTC device*
*** This will alert the tile Security 1 or Security 2, unless re-labelled in the app, dependent on which input it has been wired on the MTC terminal*
**** Ensure that the Security 1 or Security 2 tile is turned on in the home page settings.*