

SentiLiter Owner's Manual

Thread Bioscience, INC.
SentiLiter Fluid Monitoring/Measurement System



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Introduction

Thank you for selecting Thread Bioscience, Inc. for your equipment needs. For maximized product performance and ease of use please proceed as follows:

1. Inspect the carton and unit for shipping damage. Notify the carrier immediately if damage is found.
2. Use the “Accessory Checklist” when unpacking to verify that all parts of the unit have been received. Do not discard packing materials until everything has been accounted for.
3. Read this operation Manual thoroughly before deciding on an appropriate location for the unit. You must consider the availability of power and other equipment requirements, as well as user convenience in operation.
4. Carefully follow directions in the “Installation” section of the manual.
5. Insist that each operator be familiar with the “Operating Procedures” section of this manual.
6. Follow the required preventive maintenance schedule for long equipment life.
7. Keep this manual in a safe location for ready reference to the “Operations Procedures” and “Maintenance” sections when needed.

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Model Description (1)

The SentiLiter is a revolutionary new device designed for use in the typical hospital environment. The SentiLiter takes precise measurements of fluid change in intervals and relays that data to a mobile app which compiles the readings and displays them for the medical staff. Each SentiLiter can be paired with a patient using either an IV or catheter bag and will act as the user's eyes while they are not present in that patient's room. The device will send alerts to the app and alert the medical staff when the fluid has increased or decreased to a threshold and can be programmed to give reminders at any time the user desires. It will also perform all fluid-flow calculations for the user automatically and display the flowrate and chronological graphical data directly in the app. With this device medical staff will have less of their time consumed by periodic check-ins and be able to prioritize those patients who need extra attention.

The SentiLiter pairs with the SentiLiter Base Station. The SentiLiter Base Station is a device designed to link multiple SentiLiter devices together and compile all of their data to be sent back to a database maintained by Thread Bioscience.

Unit Specifications (2)

Overall Dimensions and Materials of Construction

The overall dimensions are listed below. The materials of construction for the SentiLiter device include stainless steel (hook mounts), mylar (screen covering), and ABS plastic (case body). The SentiLiter base station materials of construction are ABS plastic (case body) and stainless steel (screws).

SentiLiter

4.5" W x 6" H x 2" D

(11.4 cm W x 15.2 cm H x 5 cm D)

SentiLiter Base Station

3.5" W x 2.5" H x 2" D

(8.9 cm W x 6.4 cm H x 5 cm D)

SentiLiter Maximum Load

The load applied to a SentiLiter device should not exceed 10 lb/5 kg.

Electrical Requirements

All electrical parts are UL listed/approved. The SentiLiter operates on an internal 3.8 volt rechargeable battery. The SentiLiter also comes with a USB-C power cable and outlet adapter for charging purposes. The SentiLiter Base Station operated on an external USB-Micro power cable and outlet adapter. Both can be powered by a power source of 110 to 240 VAC (50-60 Hz). Power consumption of the SentiLiter is 0 when not charging and less than 10 watts when plugged in and charging. The SentiLiter Base Station power consumption is less than 10 watts.

Suggested Cleaning

General cleaning of the outside of both devices is recommended after use. See the "Maintenance" section for further recommendations and procedures

Shipping Weight

The shipping weight of the SentiLiter is approximately 0.75 lbs/0.35 kg.
The shipping weight of the Base Station is approximately 0.2 lbs/0.10 kg.

Installation (3)

The SentiLiter should be attached to an IV stand for monitoring an IV or an appropriate mounting point on a bed or chair for monitoring a catheter bag using the provided hooks or any level mounting surface that the hooks will fit through and provide a stable hanging position. The SentiLiter Base Station should be placed on a flat, stable surface within a 100 foot radius of the devices you are pairing with it. Range may vary based on the environment of the location. Additional Base Stations can be used on the same network to link more devices.

Use a power source easily accessible to the unit to avoid stretching the power cord. If desired you may keep the SentiLiter device plugged in while in use.

Operating Procedures (4)

1. Unpacking and Assembly

The SentiLiter contains the SentiLiter unit, USB-C charger cable, and charger power adapter.

The SentiLiter Base Station contains the Base Station device, USB-Micro power cable, and power cable adapter.

2. Power Requirements

The SentiLiter is supplied with a 2 prong, 5 volt charger power adapter and cable unit that requires a power source of 110 to 240 VAC (50-60 Hz). This unit can be plugged into a normal wall outlet and then plugged into the power supply port on the bottom of the SentiLiter.

The SentiLiter Base Station is supplied with a 2 prong, 5 volt power adapter and cable unit that requires a power source of 110 to 240 VAC (50-60 Hz). This unit can be plugged into a normal wall outlet and then plugged into the power supply port on the bottom of the SentiLiter Base Station.

3. Powering the Unit On/Off

The SentiLiter device can be turned on by flipping the power switch on the bottom of the device into the “On” position. This position is signified by the red tab being visible. To turn the device off you flip the power switch to the “Off” position. The red tab will no longer be visible while the device is off.

The SentiLiter Base Station device can be turned on by having the power supply adapter and cord connected to your power supply and the power port on the Base Station. To turn the device off you may unplug the cable from the device itself or unplug the power supply adapter from the power source.

4. Pairing a SentiLiter and Base Station

To pair these devices together all you need to do is make sure both devices are turned on and in range of one another and they will pair automatically. We recommend at least 1 Base Station device for every 20 SentiLiter devices in use.

5. Zeroing the SentiLiter

Before taking any readings you must zero your SentiLiter device. On the device press and hold the “Tare/Zero” button and then press “Enter” after you have your fluid container hanging from the device. You will know the device is zeroed when you hear the auditory beep and it reads 0 on the screen. You will need to zero the SentiLiter for each new container you use on the device.

Maintenance (5)

Maintenance Recommendations

You may clean the SentiLiter and Base Station devices while they are plugged in and powered on.

General cleaning of the outside case is recommended after each use. Use isopropyl alcohol and a clean rag or alcohol wipes to clean all surfaces of the outside case and screens of both devices.

Preventive Maintenance Schedule

Following the preventive maintenance schedule will help ensure that CultureStat continues to function properly and that there are no unintended interruptions in service from the unit.

Both devices can run 24 hours a day without having to be powered off.

At minimum the devices should be thoroughly wiped down and cleaned each day, but several times a day is recommended for sanitary purposes in a medical environment.

Troubleshooting Guide (6)

Problem	Possible Causes
Device does not turn on	Unit is not plugged in or not plugged in to a proper working outlet Power supply unit/cord is not securely plugged into the device Power switch is in the “Off” position
SentiLiter screen readings do not change after weight is added to the device	Wait 30 seconds because readings only update periodically If readings do not update after 30 seconds return device for calibration
SentiLiter does not give audible alerts when alarm is active	Press sound button once/twice until display reads “SND ON”, then press enter. If sound button does not give auditory alerts return device for calibration
Unit does not respond to buttons being pressed	SentiLiter may be in Screen Lock mode which is indicated by an “L” on the left side of the screen To unlock press and hold the “Lock/Cancel” button for 5 seconds, device will beep 3 times and display either “Lock” or “Unlock” If lock button does not provide button response return device for calibration