

# Safe and Sound Micro 2.1 Operation Manual



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## ABOUT

Safe Living Technologies is pleased to introduce the Safe and Sound Micro 2.1 RF Detector. It is designed to meet our professional standards of accuracy and reliability - all in a comfortable wearable package with a discrete, active measurement and alarm feature.

This device represents the latest in compact RF detection technology. It has been tested in multiple third party labs and in both anechoic and reverberation chambers. The body shadow effects and temperature variation have been compensated in the calibration of each device.

This sensitive device is capable of measuring potentially harmful RF or microwave radiation from any continuous or pulsed digital source. Please visit our website [www.safelivingtechnologies.com](http://www.safelivingtechnologies.com) for more information.

- Third party lab tested with a full frequency response from 700 MHz -9 GHz
- Measurement range < 1 to > 1,000,000  $\mu\text{W}/\text{m}^2$
- Push button for fast visual RF measurements via 4 LEDs
- Alarm feature: 7 threshold settings for RF exposure
- Ability to detect very short pulses (< 5  $\mu\text{s}$ ) including 5G low and mid band
- Long battery life: up to 14 days in silent mode, up to 2 days in alarm mode
- Rechargeable Lithium Ion battery



## BACKGROUND

Biological damage from microwave radiation at a cellular level occurs at levels much lower than the current government safety standards. They only consider the heating of tissue to be a health concern. This meter reflects the latest science and Building Biology standards.

Environments with high levels of RF are often a reality now. The goal is to reduce your exposure as much as possible. This is especially important in sleeping areas.

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## OPERATION

There is only one button that is located in the centre face of the device. To turn on the unit, press the button. After one minute, the LEDs will turn off and it will go into “alarm” mode.

To turn off the unit, press and hold the button for 5 seconds.

Note: When any of the LEDs are on, the vibrate function is disabled.

### CHARGING

The Safe and Sound Micro 2.1 will automatically turn itself off when the battery is low. To charge, use the included (or any) adapter and USB-C cable. The LEDs will indicate the current charge level. The charge is complete when all the LEDs are on. We recommend daily charging for most efficient results. If the battery is extremely drained, it can take a few minutes for the Safe and Sound Micro 2.1 to wake up after plugging it in for charging.

### ALARM CONFIGURATION

1. To set the alarm exposure level at any time, simply press the button 2 to 8 times as shown in the chart below. The unit will “echo” the number of presses entered by vibrating the same number, and displaying the applicable LED RF level indicator.

To view your exposure levels continuously (display mode) for 1 minute, simply press the button once. After one minute, it will return to alarm mode.

| PRESS # | ALARM THRESHOLD                    |
|---------|------------------------------------|
| 2       | 10 $\mu\text{W}/\text{m}^2$        |
| 3       | 100 $\mu\text{W}/\text{m}^2$       |
| 4       | 1,000 $\mu\text{W}/\text{m}^2$     |
| 5       | 10,000 $\mu\text{W}/\text{m}^2$    |
| 6       | 100,000 $\mu\text{W}/\text{m}^2$   |
| 7       | 1,000,000 $\mu\text{W}/\text{m}^2$ |
| 8       | Silent Mode                        |



## NOTES

When the unit is On in alarm mode, the Safe and Sound Micro 2.1 will continually and discretely monitor your RF exposure levels. If RF is detected above your set threshold, it will vibrate. In silent mode it will not vibrate, and it will only display RF levels when the button is pressed.

Be aware that covering the face of the Safe and Sound Micro 2.1 with your hand or body can reduce its sensitivity.

## QUICK VIEW INDICATOR LIGHTS

- RED: Extreme**  
 Move away from this exposure.  
 Flashing indicates more than 10x extreme.  
 Fast flashing indicates more than 100x extreme.  
 Fastest flashing indicates more than 1000x extreme.
- ORANGE: High**  
 Try to limit the time of your exposure at this level.
- YELLOW: Moderate**  
 Reduce this level for long term exposure.
- GREEN: Slight**  
 Good for sleeping areas and long term exposure.  
 Flashing indicates best and ideal conditions.



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## RF / MICROWAVE EXPOSURE GUIDELINES

### 1> BUILDING BIOLOGY PRECAUTIONARY GUIDELINES (SBM-2015) For Sleeping Areas\*

| Power density (Peak)                                 | No Concern | Slight Concern     | Severe Concern  | Extreme Concern |
|--|------------|--------------------|-----------------|-----------------|
| microWatts per square meter $\mu\text{W}/\text{m}^2$ | < 0.1      | 0.1 - 10           | 10 - 1000       | > 1000          |
| microWatts per square cm $\mu\text{W}/\text{cm}^2$   | < 0.000,01 | 0.000,01 - 0.001   | 0.001 - 0.1     | > 0.1           |
| milliWatts per square meter $\text{mW}/\text{m}^2$   | <0.000,1   | 0.000,1 - 0.01     | 0.01 - 1        | > 1             |
| <b>Signal strength</b>                               |            |                    |                 |                 |
| Volts per meter $\text{V}/\text{m}$                  | < 0.006,14 | 0.006,14 – 0.061,4 | 0.061,4 – 0.614 | > 0.614         |

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2> **BIOINITIATIVE REPORT PRECAUTIONARY GUIDELINES (Dec 31, 2012) Updated 2014-2020** [www.bioinitiative.org](http://www.bioinitiative.org)  
**Bioinitiative Working Group**, Cindy Sage and David O. Carpenter, Editors. A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Radiation. Precautionary target level is **3 - 6  $\mu\text{W}/\text{m}^2$**  or **0.000,3 – 0.000,6  $\mu\text{W}/\text{cm}^2$**  (Peak)

3> **CANADA AND UNITED STATES GOVERNMENT GUIDELINES (1999, 2009, 2019)**  
 In Canada, guidelines for Radio Frequency Wave exposure lay under the jurisdiction of Health Canada. Safety code 6 was developed in 1999 and offers federal guidelines for safe RF exposure levels. These limits are in the range of **2,000,000 to 10,000,000  $\mu\text{W}/\text{m}^2$**  or **200 to 1000  $\mu\text{W}/\text{cm}^2$**  (**Time Averaged**) and are based solely on the short term thermal effects or the heating of body tissue. Adverse biological effects have been documented at levels far below Safety Code 6 guidelines. No Canadian biological exposure guidelines exist for long term exposure to low level Radio Frequency Radiation. This also holds true for the USA and their FCC guidelines.

## CONTACT US

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