precision SFD1000 Storm Front Detector

precision SFD1000 Storm Front Detector User Guide

Contents

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Product Specifications

- Model: SFD1000 Storm Front Detector
- Battery: 4 AA size batteries (Lithium recommended for longest battery life)
- Water Resistance: Water resistant (do not immerse)

Product Usage Instructions

Installing the Batteries

The SFD1000 requires four AA-size batteries for operation. Follow the steps below to install the batteries:

1. Turn the SFD1000 upside down and remove the four Phillips screws securing the battery door.
2. Install the four AA batteries as shown.
3. Note: The SFD1000 has protection against incorrect battery installation.

Operating the SFD1000 Storm Front Detector

The SFD1000 is used to detect lightning strikes and estimate the distance of the storm front. Follow the guidelines below:

- **LED Display:** Displays storm front distance and alerts of potential disturbers.
- **ON Button:** Press to turn on the device.
- **OFF Button:** Press and hold for 3 seconds to turn off the device.
- **False Detection** / **Disturbers:** Be aware of potential false detections and verify with other sources in case of doubt.

FAQ

- **Q: Can the SFD1000 detect every lightning strike?**
  - A: No, the device may ignore additional strikes during data processing.
- **Q: What type of batteries should I use?**
  - A: It is recommended to use Lithium batteries for longest battery life, but alkaline batteries can also be used.
- **Q: How do I know if the device is detecting a storm front?**
  - A: The LED display will show an approximate distance of the storm front and beep 3 times with each lightning strike detected.

Quick Start Guide

Thank you for purchasing the Precision Measurement Technologies SFD1000 Storm Front Detector. This is a situational awareness device that alerts you aware of an approaching storm. This device is not intended to be relied upon as a safety warning device or for life safety. This device uses data collected from storm lightning strikes occurring to estimate the distance the storm front is from the user. This device is well suited to any outdoor activity where you might encounter lightning. In all cases, extreme caution should be exercised if there is a chance there is a thunderstorm and lightning in your area. Take cover immediately and get more information from your local television or NOAA radio. This device will not detect every lightning strike. It takes a finite amount of time to process the data collected from a lightning strike, and during processing, additional strikes will be ignored. Even the most sophisticated systems costing millions of dollars don't detect every strike. The SFD1000 cannot predict when or where a lightning strike will occur, so it cannot predict the bolt out of the blue. It detects lightning when it does occur and uses the information it collects from the lightning to estimate the distance the storm is away from the user.
The complete SDF1000 Manual is available online at **www.pmt-fl.com/SFD1000_User_Manual**

Register your SFD1000

Register online at **www.pmt-fl.com/Talos** to receive the one-year warranty.

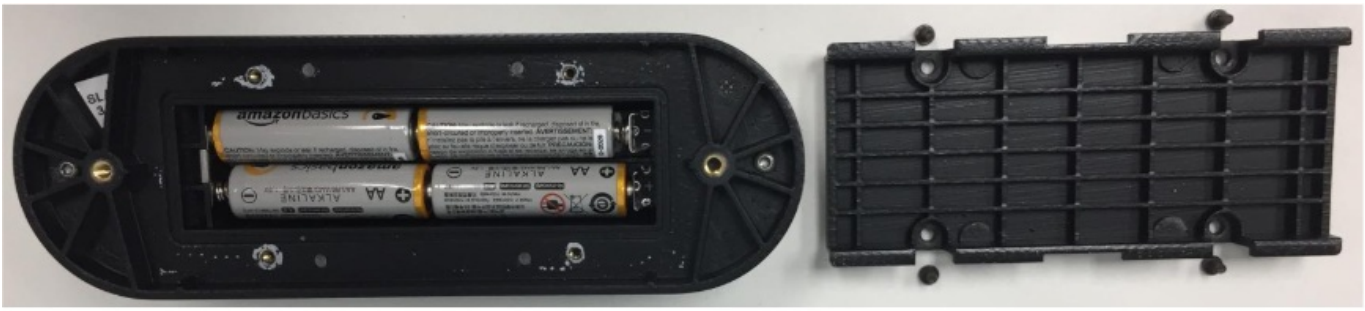
TO RECEIVE WARRANTY SERVICE

Note: Under no circumstances shall the SFD100, Precision Measurement Technologies be held responsible for any damages that may result from the use of or inability to use this product, including without limitation any indirect, incidental, special, exemplary or consequential damages, which are expressly disclaimed. This disclaimer of liability applies to any damages or injury caused by any failure of performance, error, omission, inaccuracy, interruption, deletion, defect, delay in operation or transmission software virus, communication failure, theft or destruction or unauthorized access to, alteration of, or use of the product, whether for breach of contract, tortuous behavior (including, without limitation, strict liability), negligence, or under any other cause of action, to the fullest extent permissible by law. This does not affect any statutory rights which may not be disclaimed. The contents of this product, including all lightning and weather data are provided "as is" and without warranty or condition of any kind, express or implied, including, without limitation, any warranty of merchantability or fitness for a particular purpose. Precision Measurement does not warrant that this product or the data that it provides will be free of errors, interruptions, viruses or other harmful components. Precision Measurement Technologies does not warrant

the accuracy or reliability of any lightning strike alerts, weather data or other information provided by the product. Precision Measurement Technologies reserves the right to alter the product or withdraw it from the market at its sole discretion.

Installing the Batteries

The SFD1000 uses four AA size batteries and is designed for long battery life. We recommend using Lithium batteries for the longest battery life, but alkaline batteries can also be used. To install the batteries, turn the SFD1000 upside down and remove the four Phillips screws securing the battery door.



Install the four AA batteries as shown below. Note: The SFD1000 has protection to prevent damage should the four batteries be installed backwards.

Water Resistant

The SFD1000 is water resistant, but do not immerse

Operating the SFD1000 Storm Front Detector

LED Display

The LED display displays the distance the storm front is from the SFD1000 and lets the user know if there are disturbers close by that could prevent the SDF1000 from operating correctly.
The LED display uses colors to let the user know an approximate distance the storm front is from the user. The SFD1000 beeps 3 times and the display updates with every lightning strike detected.

- Purple: The storm is approximately 17 to 25 miles away – Be aware a storm is approaching
- Orange: The storm front is 7 to 16 miles away – Prepare to take cover
- White: The storm is zero to 6 miles – Danger, take immediate cover

The display will flash every second until there are no more strikes and a pre-determined time has elapsed.
Note: The SFD1000 should be used in conjunction with local NOAA information or your local television weather information.

ON Button

Press the ON button and the Status LED will illuminate purple indicating the SFD1000 is in the on mode and the display will walk a single purple LED across the display. While the Status LED is on (10 seconds), pressing the ON button a second time places the SFD1000 in the motion detect mode. This mode can be used if the SFD1000 is mounted on a vehicle, like a golf cart. While in this mode, the Status LED will be orange. When the vehicle starts to move, the SFD1000 will automatically enter the ON mode and the Status LED will flash purple. This mode is designed for vehicles, so the operator doesn't have to worry about turning the SFD1000 off or on. After the purple LED is displayed for 10 seconds, the SFD1000 enters the calibration mode. The start of calibration is indicated by the mode LED flashing quickly 3 times. Calibration takes ~12 seconds and then the mode LED flashes orange

quickly 3 times to indicate the SFD1000 is listening for lightning.

OFF Button

Press and hold the OFF button for at least 3 seconds to turn the SFD1000 off. As the unit turns off, the display will walk a single orange LED the opposite direction of when it turned on.
Note: If the SFD1000 is busy processing lightning data or is doing another task, the OFF button won't be immediately recognized. This is normal.
Note: Pressing the OFF button for 1 second will mute the beeper until the SFD1000 is turned off or goes back into the listening mode (display not flashing distance.

False Detection / Disturbers

The SFD1000 has complex algorithms that allows it to distinguish between real lightning and interference. While these algorithms are effective, in rare cases the SFD1000 may misclassify the interference as lightning. In these situations, be sure to verify there is no lightning nearby with web-based sources like **Weatherbug.com** or LightningMaps.org or local media. Once you verify there is no lightning, relocate the SFD1000 away from interference sources like cell phones, computers and other digital electronics. The SFD1000 indicates when it detects high noise or other disturbers by flashing three of the display LEDs red, blue and green five times in a row. If this occurs often, you are likely close to a source of interference that could cause false detections or prevent the SFD1000 from receiving correctly. In this case, please relocate the SFD1000 away from the noise source.

FCC Statement

This device complies with part 15 of FCC rules. Operation is subject to the following two conditions:

1. This device may NOT cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment. This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

Documents / Resources

	precision SFD1000 Storm Front Detector [pdf] User Guide SFD1000 Storm Front Detector, SFD1000, Storm Front Detector, Front Detector, Detector

References

- Real Time Lightning Map :: LightningMaps.org
- Local and National Weather Forecasts, Radar & News | WeatherBug
- User Manual