

# Spin Doctor E. R. Magnet Meter



#### **Getting Started**

To start with, please do not attempt to remove the clear shrink-wrap plastic surrounding the Spin Doctor E.R.. It is there to protect the components and prevent shorting of the connections against metal objects. If it gets dirty it can be cleaned with window cleaner or alcohol on a paper towel. Also, do not press on the display as it is made of glass and can break if too much pressure is applied.

With the meter at least one foot away from any magnets, press the **ON** button once with your thumbnail. You will see the display activate and come to rest at zero gauss.

When no magnet is nearby, it is normal for the polarity to fluctuate between  $N\uparrow$  (north) and  $S\downarrow$  (south), or even bounce between 0 and 1 gauss occasionally. If it drifts and stays at a value other than zero you can re-zero the unit by switching it off and then on.

Hold the probe tip on top of a magnet, using the crosshair as a guide, as shown in the photo below. Imagine you are using the crosshair to aim the sensor at the pole face of the magnet. The sensor measures magnetic flux that is perpendicular to its face. You can use your thumb to press the probe flat against the surface and hold it steady.



Measuring a strong neodymium magnet

The Spin Doctor can be used to measure any type of magnet, including rubber, ceramic, alnico, samarium cobalt, neodymium, etc.

#### **Peak Value**

The peak value tracks the maximum field strength since the gauss value last exceeded 10 gauss. To reset the peak value, move the magnet away for a second or two. This feature allows you to scan an area and find the strongest value in that area.

#### **Range and Precision**

There is no need to adjust range settings on the Spin Doctor E.R. It is capable of measuring from 0 to 25,000 gauss, with a resolution of 1 gauss. If you place the probe in a field that exceeds 25,000 gauss, the meter will display "OVER" to indicate an overflow or out-of-range condition.

#### Accuracy

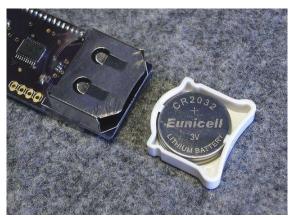
The Spin Doctor E.R. is calibrated using a certified reference magnet, so it is accurate to +/- 1% of the measured value.

#### **Battery Life**

The Spin Doctor has power conservation features that give a battery life of more than 72 hours of continuous usage. It will shut off automatically when idle (reading less than 25 gauss) for 2 minutes.

The battery status can be checked at any time by pressing the **Batt** button. When the battery is 4.5 volts or less, or the meter will not zero itself when first powered on, it is time to get fresh batteries. It does not matter whether the meter is near a magnet or not when checking the battery voltage.

To remove the battery tray, hold the edges of the battery holder with your left hand, then pull on the "ears" of the tray with your right. It will be snug, so don't be afraid to exert some force to remove it. It helps to use your fingernails to pry between the ears and the metal holder where the metal flares outward. Replace the CR2032 cells with new ones and reinstall the tray with the open side of the tray facing up, and the + side of batteries facing up. It is best not to insert an *empty* battery tray, since the spring metal contacts can catch on the edge of the tray and prevent removal.



**Battery tray removed** 

### **FCC Information**

This device complies with part 15 of the 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.

Any changes or modifications to this device could void the user's authority to operate the equipment.

Responsible Party: Gravitas Technology

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### **Warranty and Liability**

The Spin Doctor E.R. meter is warrantied against manufacturing defects for a period of one year from purchase date. By purchasing the Spin Doctor E.R. magnet meter, the buyer agrees that manufacturer liability is limited to the purchase price of the meter. The meter should not be used for applications where accuracy is critical to human safety.

## **Disposal**

The Spin Doctor E.R. meter is made with solder that contains lead and should be taken to your local E-waste recycling center for disposal.

# **Document Revisions**

Date	Change
6/22/2012	Initial release
7/29/2012	Added text about low batteries causing meter to fail to zero on power-up
10/24/2012	Added FCC info