

Operating Manual

This manual is free for download to all that are interested.

This manual will not be supplied with your BulletDoctor. This Pdf can be printed on your printer or viewed online.



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Warranty Card – Mail Today

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Included with your new Bullet Doctor Delivery

1. Your BulletDoctor meter.
2. Your 12 volt DC power supply.
3. A plastic bag containing.
 - Ten 1/4" OD rubber drive wheels.
 - Ten 5/16" OD rubber drive wheels.
 - 6" of 1/4 OD latex rubber tubing to cut your own wheels.
 - 6" of 5/16 OD latex rubber tubing to cut your own wheels.
 - One shorter drive arm for longer bullets.
4. A 175 Grain Sierra Match King bullet for checking calibration.
5. Free downloadable Operating Manual.
6. Free downloadable Mail in Warranty Card.

Bullet Doctor Views

BulletDoctor Front side View



Bullet drive tray View



BulletDoctor Rear View



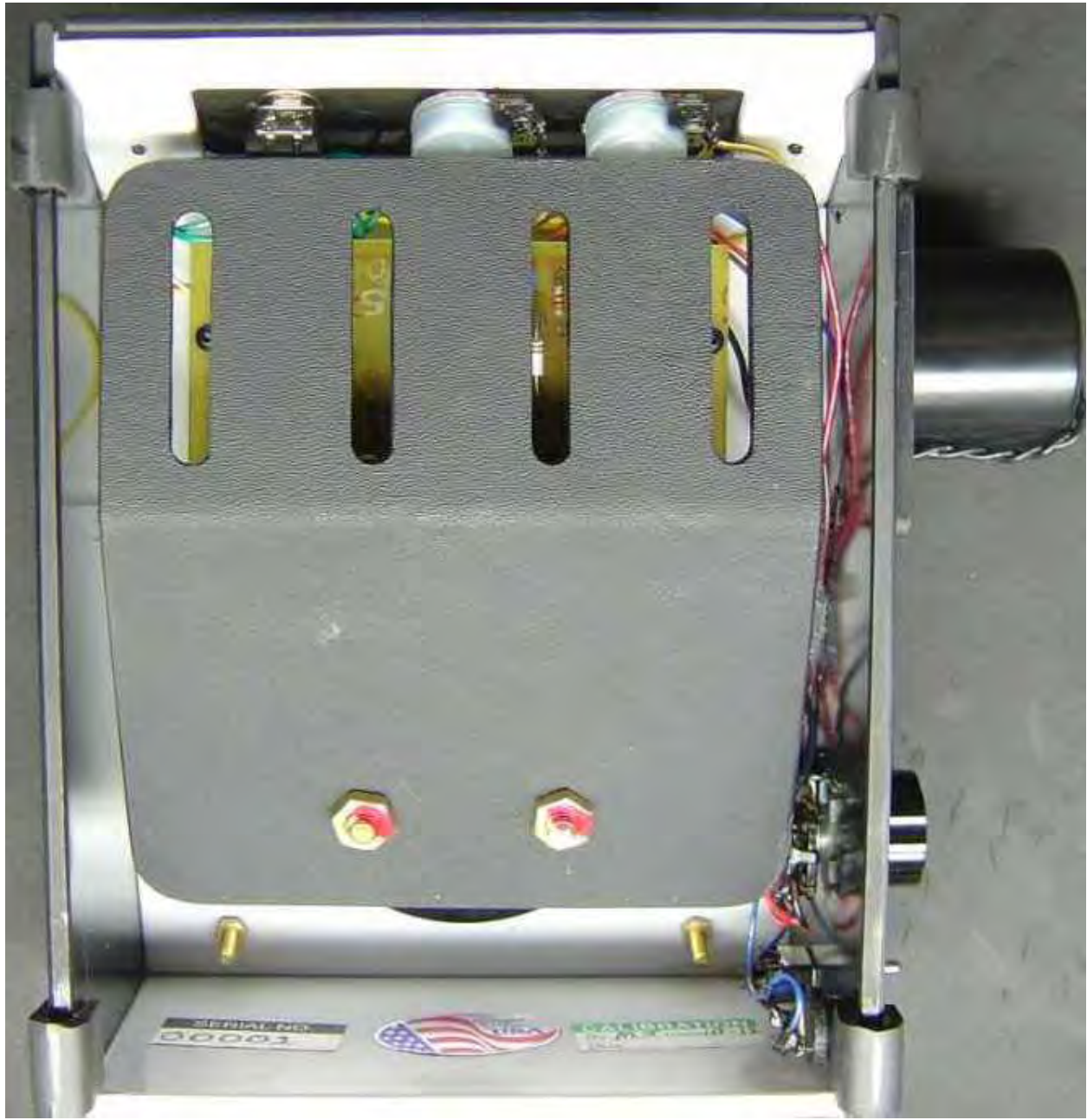
BulletDoctor Right Side View



BulletDoctor Left Side View



BulletDoctor Bottom View



BulletDoctor Meter Face View



How to connect your 12 volt DC Power Supply

Included with your Bullet Doctor Purchase is a 12 Volt DC 500 Milliamp Class 2 power supply. It is to be inserted into right side back corner power input connector, firmly pushing it in the entire way.



If the 12 volt DC power supply should fail to power your Bullet Doctor. Check that connector is inserted properly and that the light on the power supply is glowing red. If red light is not glowing check to see that 120 volt input voltage is present.

How to operating Variable Motor Control

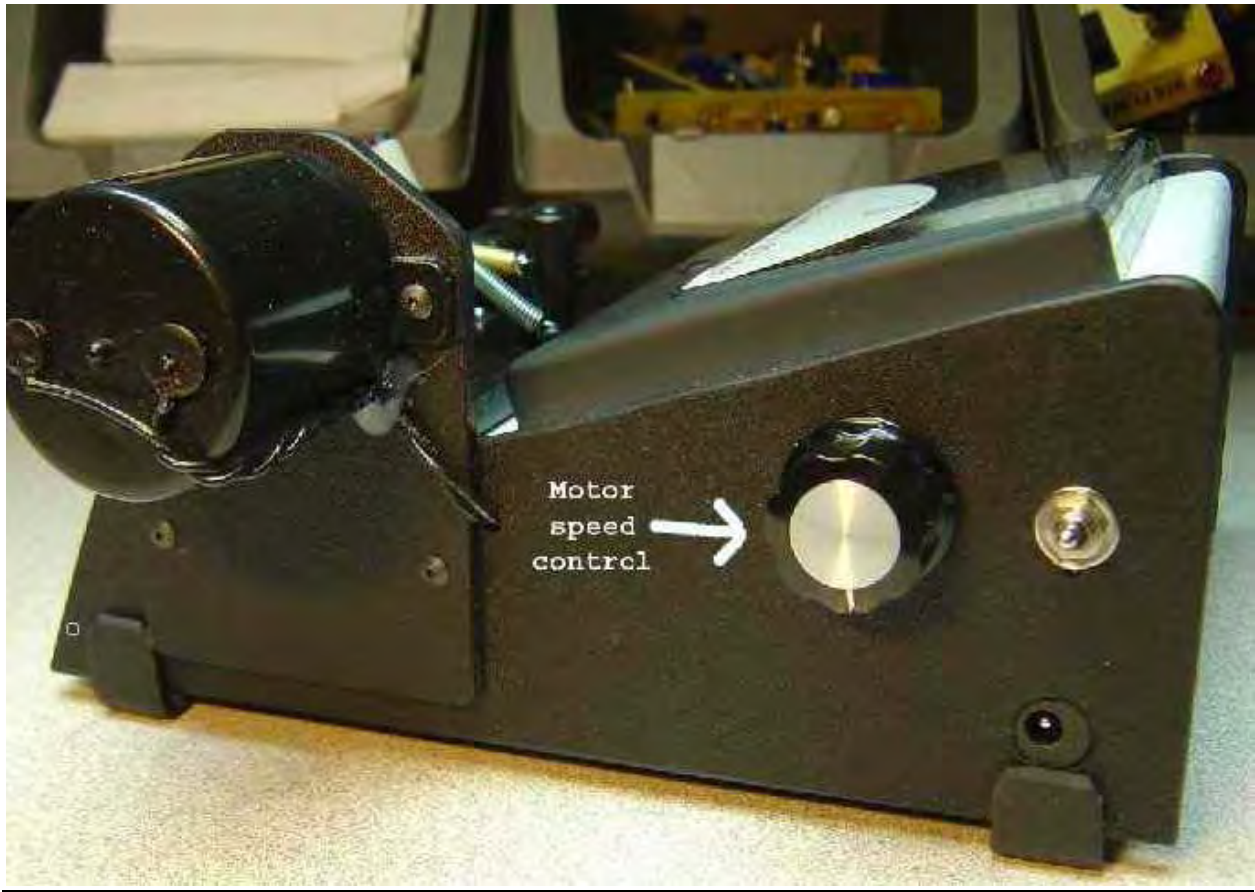
Your BulletDoctor has a variable motor speed control. It is designed to slow the bullet down to a crawl or to spin the bullet at about 30 rotations per minute.

Turning the Knob to the seven o'clock position will slow the bullet to about 0 RPM's.

Turning the Knob to the four o'clock position will speed the bullet to about 30 RPM's.

Turning the Knob to the twelve o'clock position will run the bullet to about 15 RPM's.

Clockwise increases the bullet speed. The motor has a maximum speed of 30 RPM's



The picture above is of the BulletDoctor's variable motor speed control.

Operating the drive arm assembly

The motor drive arm pivots up and down on a ball bearing. The end of the brass tube should be resting on the ball bearing under spring pressure. You use the white handle to move the up and down changing the bullet while in the up position.



Above: Drive arm is in the down position.



Above: Drive arm is in the up position.

Rubber Drive Wheel Replacement

The drive wheel that rests on top of the bullet, causing the bullet to rotate over the sensor is made of Latex Rubber Tubing. With your BulletDoctor will come ten 5/16" OD and ten 1/4" OD drive wheels. These are reversible, just pull them off and turn them around. You will also get Six inches of 5/16" OD and Six inches of 1/4" OD Latex Rubber tubing to cut your own wheels. Sometimes shorter wheel's work better. You can cut this tubing with the same High tech device we use here, a sharp pair wire cutters. You will also get a 3/16" shorter drive arm for longer bullets.



This bag will be included with your BulletDoctor purchase.

Checking the calibration of your BulletDoctor's Low setting

Included with your new bullet doctor meter is one .30 caliber 175 Grain Sierra Match King Bullet. This Bullet is for checking the calibration of your meter.

Place the .30 caliber 175 Grain Sierra Match King on your BulletDoctor's ball bearing drive tray and do not engage the motor before attempting to check the calibration. The bullet must not be rotating. Just sitting on the ball bearings with the rubber drive wheel resting on top of the bullet.

Setting the High- Low switch to the Lo Position then the medium Dial to about 4:00 and the fine dial to 12:00 turn the medium dial very small amounts back and forth and the needle will swing back and forth sweeping from 0 to 50. Try to get the needle to the center of the meter or as close as possibly to the center using only the medium dial. Then use the fine knob to fine adjust it precisely. If you cannot get your bullet to zero using this method. Your BulletDoctor is in need of repair.

Using the motor speed control, turn the knob up to full speed. You will see the needle swing back and forth about 2 to 3 Graduation every time the bullet makes one revolution. You should see no more than 3 to 4 Graduations using the test bullet. If you do your bullet doctor is in need of repair.



The picture above are the average setting to zero the BulletDoctor on Low using the .30 caliber 175 grain Sierra Match King test bullet supplied with your meter.

Checking the calibration of your BulletDoctor's High setting

Included with your new bullet doctor meter is one .30 caliber 175 Grain Sierra Match King Bullet. This Bullet is for checking the calibration of your meter.

Place the .30 caliber 175 Grain Sierra Match King on your BulletDoctor's ball bearing drive tray and do not engage the motor before attempting to check the calibration. The bullet must not be rotating. Just sitting on the ball bearings with the rubber drive wheel resting on top of the bullet.

Setting the High- Low switch to the High Position then the medium Dial to about 8:00 and the fine dial to 12:00 turn the medium dial very small amounts back and forth and the needle will swing back and forth sweeping from 0 to 50. Try to get the needle to the center of the meter or as close as possibly to the center using only the medium dial. Then use the fine knob to fine adjust it precisely. If you cannot get your bullets to zero using this method. Your BulletDoctor is in need of repair.

Using the motor speed control, turn the knob up to full speed. You will see the needle swing back and forth about 2 to 3 Graduation every time the bullet makes one revolution. You should see no more than 3 to 4 Graduations using the test bullet. If you do your bullet doctor is in need of repair.



The picture above are the average setting to zero the BulletDoctor on high using the .30 caliber 175 grain Sierra Match King test bullet supplied with your meter.

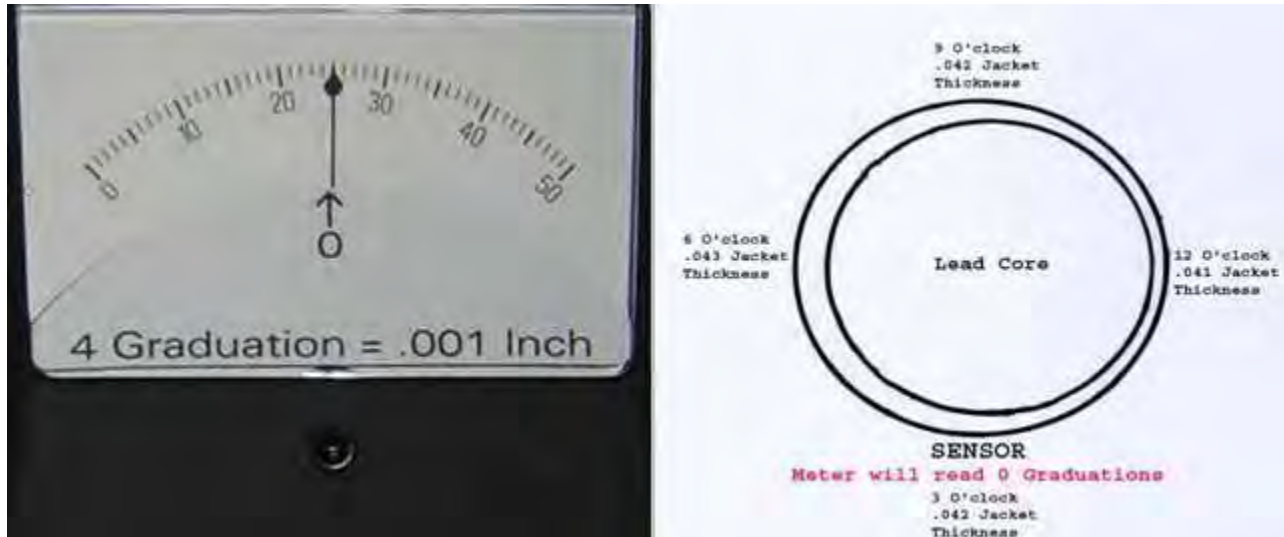
How to Zero your BulletDoctor

With your sample bullet placed on the bullet tray and the drive motor turned off Turn the course setting on Low. Turn the fine knob so it is pointing straight up. Turn the Medium knob to about the 4:00 O'clock point and move back and forth a little and the needle will swing back and forth real fast. Try to get the needle to point to the top of the meter. As close as possible. Then use the fine adjustment to get closer. Turn the motor speed control to max and watch meter.

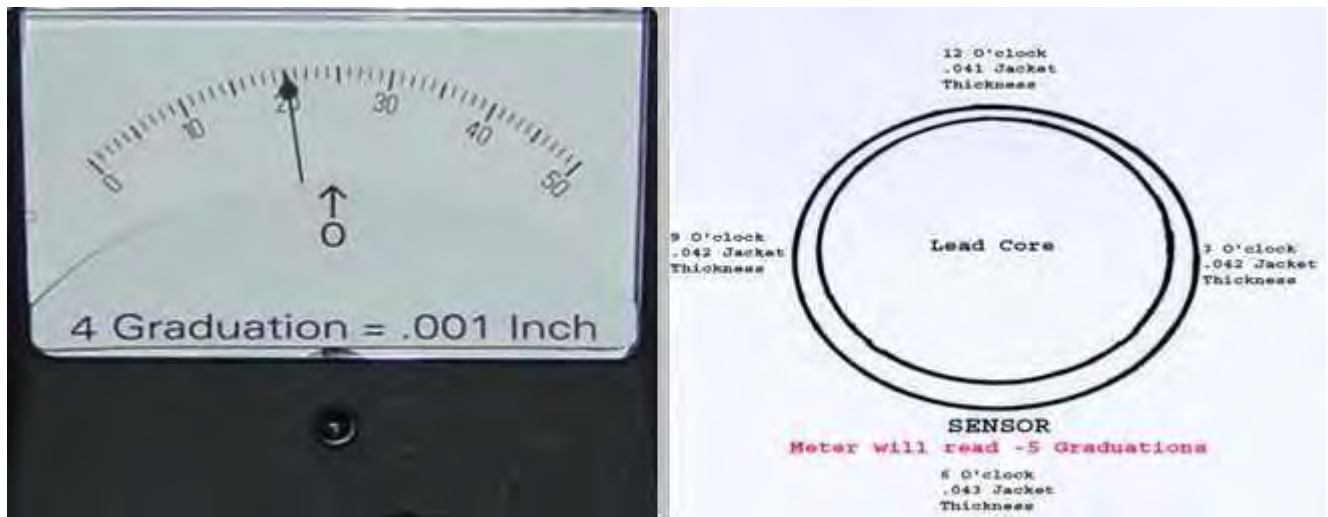


Understanding BulletDoctor Meter outputs

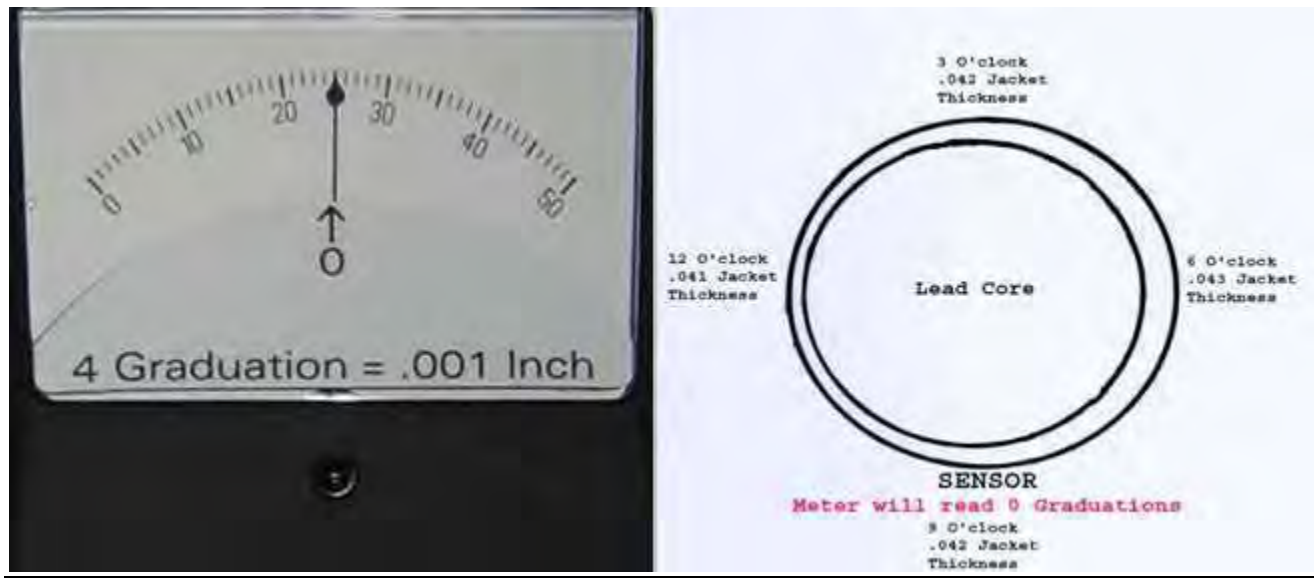
The meter will read 0 when the bullet is at **3:00** and because your BulletDoctor is sensing .042 thousandths thick jacket and is zeroed at .042 thousandths of an inch.



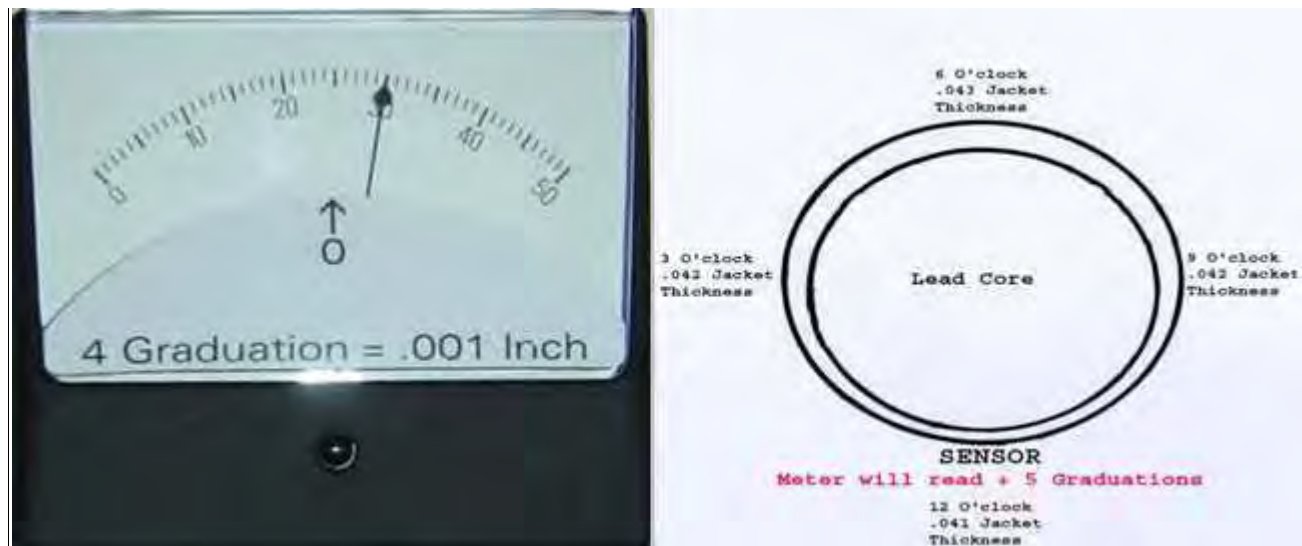
The meter will read -5 when the bullet is at **6:00** and because your BulletDoctor is sensing .043 thousandths thick jacket and is zeroed at .042 thousandths of an inch. When the BulletDoctor is seeing the .001 thousandth of an inch thicker jacket. It will read -4 Graduations.



The meter will read 0 when the bullet is at **9:00**. Because the sensor is now seeing the other side of the bullet which is .042 thousandths of an inch, the same as 3:00. We were original zeroed at .042 so the meter will return back to 0.



The meter will read +5 when the bullet is at **12:00**. Because at **12:00** the sensor is reading the .041 thousands of an inch. We are zeroed on .042 the meter will read +5.



The Bullet has made one complete revolution.

<u>Meter movement</u>	<u>Meter reading</u>	<u>Amount of movement in degrees</u>
3:00 O'clock	Started at 0	0 Degree
6:00 O'clock	Swung to -5	90 Degree
9:00 O'clock	Went Back to 0	180 Degree
12:00 O'clock	Then swung to +5	270 Degree
3:00 O'clock	Finished at 0	360 Degree

When you are watching the meter. The bullet spins at approx. 30 RPM at full speed, 1 Revolution in 2 seconds. The meter will swing approximately 4 to 5 graduations for every .001 thousands of an inch in jacket thickness change the sensor detects. Some bullet jackets are thicker than others. So the number of graduation you see can be different depending on the Bullet. Keep this in mind.

The meter head we are using in this meter is the only one we found to be the smooth enough to read properly and not swing wildly. We tried about ten different meters heads trying to keep the cost down. The Simpson meters with the Taut Band dampening system are very expensive, but they work the best. They are the standard by all others are judged. This is the same meter head used on the later versions of the Vern Juenke machines. I guess he came to the same conclusion and picked this one to.

Which bullets can my Bullet Doctor Detect?

The bullet Doctor was designed to detect variations in copper jacket thickness. Jacket manufacturers use machines with dies that wear out. As this wear occurs the thickness variations become more pronounced. As you use your Bullet Doctor you will be able to identify bullets with these variations. This version of the BulletDoctor will only work with longer .22 caliber bullets. Anything below 55 Grain won't be long enough to sit on the bearings. This version of the BulletDoctor will not spin bullets over .34 caliber. The larger diameters will sit too far away from the sensor and won't register on the meter right. If you want to spin .50 caliber we are thinking of making a 50 cal. version if there is enough interest.



This bullet looked like the rest when examined by eye, but went wild on the bullet doctor.

This is what we saw when we sectioned it. I think this one would have been a flier.

Your Bullet Doctor can only detect bullets with a copper jacket and a lead core. The lead core inside the copper jacket cannot be detected. Voids in the lead cores are not detectable either. Your BulletDoctor can detect bullets that are egg shaped also. The jacket may have a uniform thickness, but as the bullet is spinning on the ball bearings, it will bob up and down moving closer then farther away from the proximity sensor causing the meter to fluctuate. A bullet that is egg shaped as little as .001 of an inch can hardly be detected, but that .001 of an inch will move the meter needle about 4 graduations making it easy for your BulletDoctor to sort these out to.

As you use your BulletDoctor the vast majority of the bullets you check will be fine. Save the ones that are not and shoot them against the ones that were fine. You will see the difference and your flier problem will be greatly reduced.

Troubleshooting

Your BulletDoctor is a complicated device and it requires training to understand how to operate it. I have tried to explain the meter operation's as simply as possibly. If you are familiar with the earlier Vern Juenke meters you will have no problem with the BulletDoctor. It works on the same Principals. If you can't figure it out don't get frustrated. Email us and we will try to get you help. If there is a problem that is not covered in the online manual Email us and well get it in there.

Thank you for your support

WARRANTY CARD – MAIL TODAY

PLEASE TAKE A MINUTE TO REGISTER YOUR NEW BULLETDOKTOR METER!

PLEASE PRINT CLEARLY

FIRST NAME _____ LAST NAME _____

STREET _____ APT# _____

CITY _____ STATE _____ ZIP/POSTALCODE _____

Dealer where Purchased _____ Purchase Date _____

Serial Number _____.

E-mail Address _____

Note: BulletDoctor will not sell, gave away, or use your contact information for solicitation purposes.

Your BulletDoctor has a warranty period of 60 Days parts and labor from the purchase date. The warranty is only good to the original purchaser and is not transferable unless we authorize it in writing. A copy of this authorization must be sent in with your BulletDoctor for warranty. BulletDoctor will determine whether you qualify for warranty. If we determine your BulletDoctor was returned due to a material or workmanship defect, you are the original purchaser and one year has not past sense the date of purchase. We will fix it free of charge less shipping, tracking and insurance charges. Be honest when you fill out the problem with your Bulletdoktor form. If it is something small, like a problem with calibration visit. We will probably fix it for free anyway. But if the dog ate you're BulletDoctor, you're going to have to pay for the repair. That's only fair.

This is a Depot warranty, which means you must ship it to us for repair. Then pay for the return shipping. You must also include insurance and tracking with your Parcel both ways. The Carrier is responsible for lost or damaged packages. Consider this when choosing a carrier. In the event of a lost or damaged package. Contact your carrier.

Return for Warranty

or

YOU FIND YOUR BULLETDOKTOR IS IN NEED OF REPAIR

SEND E-MAIL to Support@BulletDoctor.com with a brief message of the problem you are experiencing. Before you ship your BulletDoctor back to us. We will Contact you by E-MAIL, with a mailing address and return authorization #. We will not accept packages without a Return Authorization #.

Please include the following when returning your BulletDoctor for warranty or repair.

- 1: Full name and address.
- 2: Your E-Mail address
- 3: Your Phone # Home and Cell.
- 4: Serial # of your BulletDoctor.
- 5: A brief description of the BulletDoctor's problem.
- 6: Return Authorization # printed clearly on the package next to the label.
- 7: Please add Insurance and tracking to your return. We are not Responsible for lost or Damaged Packages, contact your carrier.

Your BulletDoctor has a warranty period of 60 Days parts and labor depot warranty from the original purchase date. The warranty is only good to the original purchaser and is not transferable unless we authorize it in writing. A copy of this written authorization must be sent in with your BulletDoctor for warranty. BulletDoctor will determine whether you qualify for warranty. If we determine your BulletDoctor was returned due to a material or workmanship defect, you are the original purchaser and one year has not past sense the date of purchase. We will fix it free of charge less shipping, tracking and insurance charges. Be honest when you fill out the problem with your Bulletdoctor form. If your BulletDoctor is out of calibration and is in need of service. We will probably fix it for free anyway. But if the Dog ate you're BulletDoctor, you're going to have to pay for the repair. That's only fair.

This is a Depot warranty, which means you must ship it to us for repair. Then pay for the return shipping. You must also include insurance and tracking with your Parcel both ways. The Carrier is responsible for lost or damaged packages. Consider this when choosing a carrier. In the event of a lost or damaged package. Save the box and the packing material it was shipped in. You will need these to process your claim. Contact your carrier.