

Yarn Meter Plus Ver.2 by NKK™

- Innovative Solutions for Fiber Artists from Nancy's Knit Knacks -

Thanks for purchasing our new Yarn Meter Plus! Our Yarn Meter Plus includes an integrated yarn tensioner. We developed this version of our Yarn Meter product line to assist users with maintaining tension on their yarn more easily. The meter can be permanently installed or used as a portable meter. It will measure most weights of yarn. In order to take full advantage of the meter's capabilities and to better understand its use, please review the instructions below.

Here is how to use and care for the Yarn Meter:

1. Unpacking

- a. The meter comes packed in a box and the components are in their "storage and transit" positions. Loosen the wing nut that holds the clamp bolt and clamp block to the unit and insert the unthreaded end into the meter base. Insert the block and wing nut on the threaded end so that they hang below the wood base. The yarn MUST enter the TENSIONER first and then go through the meter. Position the wood base on the table and then position the bolt and clamp block such that it clamps onto the table from below the meter. Tighten the clamp. The meter mounting bar should be positioned to the RIGHT and the tensioning dowels should be positioned to your LEFT. This ensures that the yarn slots on the yarn guides are positioned toward the user and not away from the user or toward the rear of the meter base. Although you can reverse this mounting position, your yarn may "find" the yarn slots and accidentally pull out of the guides while in use. If your swift and ball winder are mounted in back of your meter, then the proper position is to mount the yarn guide slots toward you, otherwise, mount them to the rear which means that your yarn will flow from the right to the left.
- b. The meter is connected to the mounting dowel by means of its knurled knob. Simply loosen the knurled knob and loosen the meter from the dowel. Then rotate the meter so that it is in the middle of the dowel and level with the table surface. The meter will measure yarn from left to right when the small lever on the meter is on the right side of the meter. If you install the meter on the other side of the dowel (with the lever on the left side of the meter) it will measure yarn moving from right to left. Being able to move the meter from one side to the other allows you to position yourself, the yarn guide post slots, or the meter any way that you wish or to measure your yarn in either direction (please note earlier comments).



2. Inserting Yarn into the meter (Version 2 units have a new wireform yarn guide)

- a. First of all, you need to understand that installing yarn into either the guide posts or the meter requires that you use the "dental floss" method. That means that you must pull the yarn taut between your two hands and then slide the yarn into the post until it is free of the small slot.
- b. When inserting yarn into the meter, make sure the lever is in the down position (this opens the small metal bar that grabs the yarn inside the meter). Then using the same dental floss method, carefully insert the yarn straight across the meter opening and hold it downward while flipping the lever on the meter upward with your finger. This is especially important with thicker yarns and ribbon yarn. Otherwise, the small bar inside may not catch the yarn and it will not record a measurement.
- c. **Tensioner section** – this unit includes a built-in tensioner which includes a metal yarn guide and 4 dowels. When using this tensioner, simply weave your yarn around as many or as few dowels as you deem necessary to achieve the proper tension. The more turns that you make, the greater the tension will be. If you do not want to add tension, simply run the yarn through the middle of the dowels. You can also use this unit as a tensioner only (without the meter being used). Just run the yarn through the yarn guide towers on both ends of the tensioning section, and then weave your yarn around the dowels. This is especially helpful when going between a swift and a ball winder. Re-position your unit 180° if the yarn tends to come out of the yarn guide slots on the towers.
- d. If you discover that the meter is not recording your yarn, then simply remove it from the meter after you flip the lever down, and reset the yarn into the meter. Sometimes the yarn misses the drive wheel if it



wasn't installed correctly or if it pops out of place during use. This may happen more often to thicker yarns or ribbon yarns.

- e. If the meter ever jams, simply take a small **#0 Phillips screw driver** and remove one screw underneath the yarn slot. Once the screw has been removed, carefully pull the small plastic top off of the meter by pulling up and away from the meter body. DO NOT strip the screw. Then inspect the problem inside the meter housing and clear the jam. Never poke into the meter through the slot to remove a jam.
- f. If the yarn ever starts to "creep out" of the yarn guide slots during use, you must reposition the wooden base. Simply remove the meter and rotate the base 180° and re-install the meter. The problem should then be eliminated because the yarn will not creep into the slot.
- g. If a small piece of rectangular black rubber becomes loose inside the meter, do not worry about it. Simply open the meter as described above and discard this piece. This item was added to better handle ribbon yarn but is not critical to the meter's operation. If you use ribbon yarn, we can send you a replacement piece to re-install upon request.



3. Tension & Meter Accuracy

- a. If you discover that the yarn is not recording properly, there is a good chance that it is slipping on the drive wheel. You need to have tension on the yarn as it enters the meter. We recommend that you use the built-in tensioner to add tension. Hold the yarn in your hand if necessary.
- b. Proper insertion of the yarn into the meter housing can also resolve tensioning related problems.
- c. Provided that you have good tension across the meter, the measurement accuracy of the meter should be acceptable. Keep in mind that any yarn operation (ball winder, meter, Niddy Noddy) may slightly stretch the yarn which will later relax and shorten slightly.
- d. Do not use this meter to measure yarn for commercial purposes since it may not provide a commercial level of accuracy. This meter is intended to provide a good approximation of yarn length. Depending on tension, yarn texture, yarn diameter, etc., the meter may measure short by up to 5-10%. We recommend testing a known length of yarn to provide a "gauge" for your particular meter, yarn, & setup.

4. Yarn Weights

- a. The meter will handle most weights of yarn. Yarn which contains "lumps" of fiber may not work, however, because they may not be able to enter the meter housing. Do not use any yarn that has lumpy construction.
- b. Ribbon yarns will work unless they are excessively wide. We have tested ¼" ribbons and provided that you carefully insert the yarn (using the dental floss method) and ensure that the lever catches the yarn, then the meter will measure ribbon yarn.
- c. Some yarns may be too thick to fit through the **yarn post slots**. If this happens, then simply insert the yarn through the large hole in the post instead of using the slot. If you use the dental floss method when inserting and removing the yarn from the slots, then you should be able to insert most yarns. We have made the slots narrow to avoid accidental yarn "escapes" from the posts during use.

5. Cleaning the Meter/Wood finish

- a. Over time, the meter will collect yarn fuzz. Simply remove the meter from the base and disassemble the front of the meter (see picture above) so you can access the drive wheel and manually remove any jammed yarn, etc. Be careful not to bend the small metal clamp inside or the drive wheel axle.
- b. Yarn caught around the wheel can cause the meter to not record properly. Always remove yarn which has wrapped itself around the drive wheel manually to ensure an accurate reading. Remove cover first.
- c. The Birch or Maple wooden base has a Danish oil finish. You may apply more oil if you wish, but avoid getting oil on the meter itself and do not oil the vinyl feet. Remove all oil residue from the wood.

6. Reset Button – the reset button may stick which can cause measuring issues. Push it until you hear a click.

We hope that you will enjoy many years of pleasure using our Yarn Meter. Please contact us if you need any assistance. We also sell spare parts for the meter (meter, bolt and ¼-20 wing nut and block assembly, vinyl feet, carry sack, etc.). Visit your LYS and ask them about our products. If they do not carry them, ask them to call us. If you do not have a LYS, then check our website or call 800-731-5648 www.nancysknitknacks.com Copyright © 2006 071120

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Yarn Meter Plus Knowledgebase Supplement

This supplement lists some of the findings that we have made relative to using the Yarn Meter by NKK. Our little meter is affordable but because of this, it does have its idiosyncrasies like any engineered product that is expected to handle many applications. By knowing what these issues are in advance, however, our customers are forewarned and will know how to avoid them and to make the best use of the Yarn Meter.

As we learn more about how our customers use the meter, we will list them on our website. If you own our meter, you should check our website periodically for ideas and tips. Feel free to send us your ideas or issues and we will list them on the website.

Yarns which can cause problems

1. Lumpy yarns - will not pass through housing of meter. If you feel hard lumpy sections in the yarn, do not use with the meter.
2. Wide ribbon yarns - will not sit properly in the drive wheel of the meter and will pop out. try to limit the width of ribbon yarn to 1/4" or less
3. Thick and Thin - large, thick sections will cause the meter to slow down and possibly stop or jam. Our worse jams have been the result of using thick ' thin yarns. We do not recommend these yarns.

Where is the best place to position your yarn to be measured?

On the floor below the meter with a center pull yarn ball. Also, you can measure yarn coming off of a swift. This creates an ideal tension for the yarn. As the ball lightens near the end, hold the yarn in your hand to add additional tension. You must use a ball winder to ensure a continuous pulling action. Do not pull by hand; accuracy will be off.

What conditions should I avoid?

Yarn balls which are tangled or too tight and will not pull correctly.

We have noticed that the ball winder becomes the "victim" to some of these conditions (the gears grind, etc.). This becomes a good early warning system that something is wrong. Also, if your yarn is wrapping too tightly on the ball winder, then this is a function of the yarn being too tight as it enters the meter. The meter does not put any tension per se on the yarn - the yarn simply passes through. Any tension problems that you have will be caused by something affecting the yarn before it enters the meter.

If your yarn is winding too tightly, minimize the number of twists and turns that it makes, loosen the yarn on the source of yarn, and make sure that the yarn source is not being held down or restricted in any manner.

What does it mean when the meter is running backward?

It can be one of two different problems:

#1, you are running the meter in the opposite direction. This is OK if you want to do this. However, to correct it, simply rotate the meter 180° and the meter will read correctly.

#2, this is a major problem. What has happened is that the yarn has popped off the drive wheel and it has gone underneath the drive wheel and although it is still driving the meter, it is going backward. You will need to remove the front cover of the meter (a # 0 Phillips screw driver is needed to remove the one screw on the bottom underneath yarn slot). Once the cover is off, simply pull the yarn out from under the wheel and clear the problem. Re-attach the cover, insert the yarn and throw the lever, and you are ready to use the meter again.

What do I do if I cannot get the yarn out of the meter?

DO NOT PULL the yarn out if it is jammed. The yarn probably got caught under the drive wheel. Remove the top cover with a # 0 Phillips screwdriver and remove the yarn from under the drive wheel. If you pull the yarn out without removing the cover, you may bend the drive wheel axle and void the warranty.

The meter seems to have stopped measuring even though the yarn is passing through

What may have happened is that the yarn has popped out of the drive wheel. Lower the lever and remove the yarn, then re-insert it carefully and throw the lever. It should then be OK.

If there is a jam, you will have to remove the screw in the bottom and inspect the inside of the meter. Clear jam and re-assemble. If you experience a lot of jams with a particular yarn, you may leave the front cover off of the meter and then you can clear jams more readily.

While you are using the meter, watch it to see if it is measuring properly. That way, if anything does go wrong, you can immediately stop measuring and correct the problem. Once you become familiar with its use, you can stop monitoring as often.

If yarn residue gets wrapped around the wheel, it can cause the meter to not record properly because other yarn will slip across the surface of the yarn residue. Always clear the wheel of any yarn residue.

If none of these things work, take both tops of the meter off and verify that the gears are turning while the wheel is turned. If the gears are not turning, even though the wheel is, then the axle may have become disconnected from the wheel. The meter must be replaced or the wheel can possibly be super glued to the axle (at your own risk).

What is the small knob on the end of the meter used for?

This is a tensioning knob and is used to provide more or less tension to the internal clamp that grabs the yarn when you throw the lever. We set it to medium because we do not want you to have the clamp fly off too easily. **It has nothing to do with Yarn tension.** It only adjusts the clamp and how freely it disengages when the lever is flipped. Feel free to adjust it, however. Do not over-tighten it. You are better off leaving it "as is" since it may fail if it is adjusted too tightly.

What tools do I need to have handy in order to use the meter?

Always have a #0 Phillips screw driver (small) available to open the case and clear a jam. If you use a larger #1 Phillips screwdriver, you will strip the screws, damage the housing, and void the warranty.

Footage versus yardage meter

Because we did not design the meter mechanism, we have had to accept the footage versus yardage measurements. Just remember to **divide** the number measured by 3 to get yards. If you are measuring a large ball, it may go beyond 999 so simply remember to add that number plus 1000 and then divide by 3.

Super thin Yarn/Thread (Lace weight 35 WPI or greater)

When measuring these lightweight yarns/threads (which are typically on a cone or spindle), position the spindle in a horizontal plane to the floor (not vertical) so that the yarn will easily roll off of the spindle to the meter. In a vertical orientation, we have found that the yarn is too tightly wrapped and is not easily removed from the spindle. Place the spindle slightly lower than or even with the meter's height. Take the yarn in your hand between the spindle and the meter and apply a slight back tension to keep the yarn taut as it goes into the meter. See note about our Yarn Tensioner below. Our tensioner was designed to handle these lightweight yarns and threads.

Removal of Top Main Cover – although you should never need to go into the main meter section, if you do, then simply squeeze the bottom sides of the plastic housing and then pull off the cover (remove screw first). Do not jam a screwdriver into the seam between the upper and lower sections. There are no repairable items inside this section. You can, nonetheless, look around inside but you cannot repair anything.

Alignment – Always align Yarn Swift, Yarn Meter, and Ball Winder in a straight line – avoid making the yarn turn 90°

If the meter does not work and it appears to be broken, then contact us before attempting to repair it yourself. You may make matters worse and void the warranty by trying to repair it.

We have run the meter with a wide variety of yarns. In the vast majority of cases, the meter runs well and we think you will enjoy using it. Just remember the types of yarn that can cause problems and avoid them. Tension is the key.

If you have any questions, feel free to contact us at: 800-731-5648. Copyright © 2006 All Rights Reserved
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Warranty – This Yarn Meter Plus is warranted against defects in material and workmanship for a period of 90 days from the date of purchase. This does not include damage, modification, cross-threading of the screw holes, stripping of the screws, or abuse inflicted by the user either intentionally or accidentally. You **MUST** contact NKK for a return authorization & return instructions. Proof of purchase date required. User pays return freight to NKK and NKK pays freight to user. Only the meter should be returned if defective. Do not return the wooden parts or metal clamp.

Notice to Customer – Yarn Meter Use

Thanks for purchasing one of our Yarn Meters!

We want to let you know some background info on the proper use of a meter so that you will be pleased with your purchase.

1. **Yarn Tension is KEY** to making the unit measure properly. Not Meter tension.
2. Adding some tension on the SUPPLY side (i.e. the side where the yarn is coming from) is very important to using the meter. Some tension should be added by any of the following means to the yarn while using the meter:
 - 2.1. By hand – allow the yarn to run through your hand prior to it entering the meter housing by adding some back tension. Do not add too much or too little.
 - 2.2. Use a yarn swift on the supply side only (DO NOT use a swift to pull the yarn through the meter). Normally swifts create enough “drag” on their own to add the right amount of tension but often times this drag is irregular and jerky. We still recommend allowing the yarn to pass through your hand, just do not add any additional tension when using a swift, just add “guidance” with your hand.
 - 2.3. A Yarn Tensioner or use our Yarn Meter Plus. These devices have the ability to control the tension prior to having the yarn enter the meter unit.
 - 2.4. Ball Winder – aim the yarn guide arm on the ball winder TOWARD the meter. Do not have the ball winder pull at a 90° angle because this will add too much tension on the take-up side of the meter and make tight balls or make your ball winder’s gears grind. (Better yet, use our Heavy Duty Ball Winder which will not grind and can be aimed wherever you want it to).
 - 2.5. IMPORTANT - If the Ball Winder, Meter, and Swift are not aligned in a straight line, you can also get incorrect yardage measurements in addition to tight yarn balls. Always try to align your equipment in as straight a line as possible, avoid 90° turns in the yarn path.
 - 2.6. The small knob on the Yarn Meter will not adjust tension of the yarn, do not adjust.
3. In approximately 1% of the cases, the meter can be defective and refuse to measure accurately. Typically, this is manifested by the “number wheels” only turning up to a point like 99 (or 199 or 299) and refusing to move the hundreds wheel. This is rare. Normally if the wheels are all turning and the measurement is SHORT, then that means that Tension is not being added properly prior to the yarn entering the meter or there is too much tension at the Ball Winder end. Note: A Ball Winder must be used, you cannot get a good measurement by pulling yarn through the meter by hand.

Questions? Please call us. We have shipped thousands of meters since first offering them and believe that we know (and have heard of) every problem or issue that can exist. If used properly, the meter will do a good job of measuring your yarn’s length.

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