Nancy's Knit Knacks LLC

4 Yard Option Upgrade Kit

Assembly Instructions and User Manual

Thank you for purchasing our 4 Yard Option (4YO) Upgrade Kit.

To install this upgrade you are simply going to assemble the stand which is covered under separate instructions and then insert the main I-beam assembly of the Skein-winder (which you already own) into the new stand.

You will remove (from your 31" arms) and install various Yarn Guide Sled components onto the new 54" arms. This includes the stop screws and rubber bumpers on each arm, the end caps, and the Yarn Guide Sleds themselves. You may purchase additional sleds and have your arms permanently assembled if you wish, but otherwise, your two sets of arms will share many of the same components.

The following instructions are for the standard unit but the assembly process is almost identical.

This model includes a **special floor stand** because the unit is so large. It cannot be used on a tabletop. **The Floor Stand instructions are included separately. You must assemble the floor stand FIRST. Please refer to the Floor Stand instructions now and then return to this set of instructions**

Tools Needed: Philips #2 Screwdriver, 9/16 wrench/socket, 5/32 Allen Wrench for adjusting shaft collar (opt: Philips #1 screwdriver for yarn clip)

Assembly Instructions

You will need to complete the final assembly of the unit since it was not possible to efficiently ship this size unit in a fully assembled state. The benefit of doing this assembly, however, is that you will get to know your new machine and will see just how it is constructed. Plus, when you get it assembled and see it working, you can take special pride in the machine since you built it.

Assembly Overview (assembly time: 40 minutes after reading these instructions)

The unit is broken down into 3 major groups

1. Base, Socket, and I-Beam
2. Main Shaft, Bearings, Aluminum Arms, and hardware
3. Yarn Guide Posts, Sled Assemblies, Handle, and hardware

IMPORTANT - Many of the assemblies are packed in rigid paper bags to protect them as well as the other items in the box during transit. These are labeled and color coded. When proceeding to Step 1

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below, carefully remove the contents in each bag including any separate poly bags that may be inside. Keep the contents together. Alternatively, you can keep the parts in the bags until you are ready to use them but arrange the bags in the same manner as the loose parts are in the photo on the next page. NOTE! Be careful in handling the aluminum parts. They have some sharp edges which are accessible until they are capped and/or installed.

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Step 1 Arrange your parts on the floor or on a large table as pictured on the reverse side of this page.
This will help you in grouping parts together. Please note that the Base & Socket Assy can only be used with the std. 31" Arms. When using the 54" 4YO Arms, they can only be used with the special floor stand that comes with the 4YO unit.

* these items are only included with Skein-winders

Some parts may not be pictured above such as the optional Rotation Counter and black metal mounting bracket and tilt assy., a white plastic washer for the I Beam knob, lock washers for the Stop screws, 5/32" Allen Wrench, 54" Arms, Floor Stand, and possibly other parts.

The stop screws that are installed on the Arms have been left off to allow you to install the Yarn Guide Sleds and Handle assy. You will need to install these (one on each end of each arm) after installing the sleds. **Put a lock washer under each screw's head.**

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Step 2

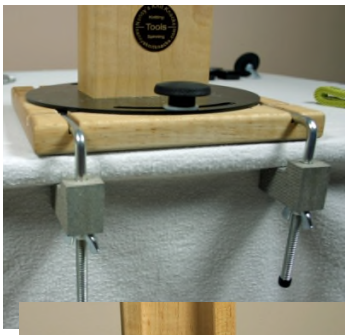

Table Top Use. SORRY you cannot use the table top mount with the 4 Yard Option so it is not included with your unit. **You must assemble the Floor Stand for the 4YO prior to performing the assembly of the main 4YO unit. You will insert the I-beam into the stand when completing this assembly.**

Step 3

Insert the I-Beam into the Socket Assy (the floor stand unit for the 4YO). **Make sure that the steel T-Nut that is in the tongue of the I-Beam is facing in the same direction as the Brass Logo plate as pictured at right (or on the opposite side of the knob hole).** Failure to do this may cause the T-Nut to come out of the unit and void your warranty. Then insert the knob that is in the hardware bag into the back of the Socket Assy. and into the I-Beam tongue. Tighten the knob securely. This locks the 2 units together.

Step 4

Next you will install the main shaft into the top of the I-Beam and through the 2 bearing housings. You will install the shaft from the BACK of the I-Beam (the side which is opposite of the Brass Logo plate). The shaft fits snugly through the bearings. You may have to jiggle the shaft and or yellow portion of the front bearing to get the shaft all the way through.

Note: you do not need to make any adjustments to the collar on the rear of the shaft.

Note: we no longer include nor do we recommend using a large washer on this shaft near the collar. It is not needed.

You will know it is all the way through when the thinner portion of the shaft (3/8" diameter) is completely exposed through the front bearing. Be careful that you do not accidentally bump it back thru the hole when installing other parts. If you do, just repeat the earlier process.
The 3/8" section of the shaft should be flush with the bearing as it comes thru the front.

Step 5

Now we will begin to install the aluminum arms and other related components and the Swift will start to take its final form.

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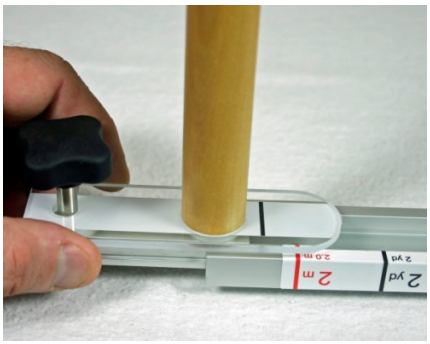
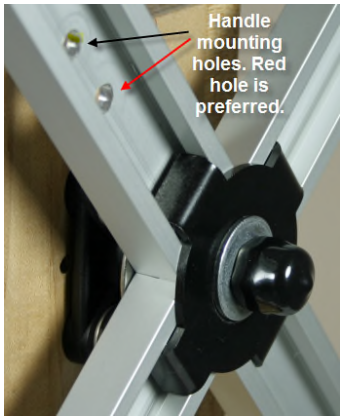
1 - The first step is to install the large 2" diameter steel washer onto the shaft. Press against the back of the shaft to keep it from moving out of position when installing all of these parts. Put the smooth part of washer against the bearing.

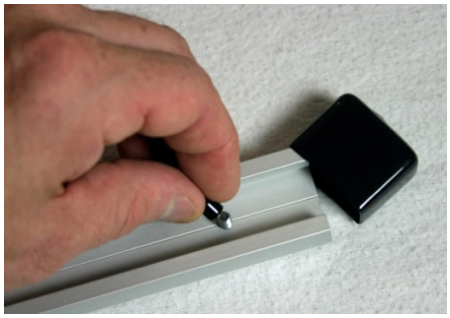
2- Next we need to slide the **Yarn Guide Post Assemblies** onto the Aluminum Arms. You will remove the 4 sled assemblies from their protective bags. These bags have a blue sticker on them.



You will insert 2 of these onto each arm. First, locate the end of the arm that does not have a black end cap on it. This is the end you will insert the sled into. Also, on Aluminum Arm B, this arm has 2 additional holes drilled into it near the center. **These holes are for mounting the Handle**. On this arm you will install the sleds and handle support in this sequence:



a. **Sled #1** – slide the end of the sled that has the wooden dowel closest to the end into the arm as pictured above. Slide this to the other end of the arm. Tighten the knob.
b. **Handle Mount** – slide the small **1" square aluminum slider** into the arm. Slide this to the area where there is a single hole in the arm (previously 2). Install the ¼-20 x 1.25" machine screw from the back of the arm thru the small 1" square handle mount (this is threaded and the screw must be screwed into it) and into the wooden handle. Make sure you also install the **lock washer** under the screw head. Tighten the screw firmly and while doing so, position the handle the way you want it so that the **yarn clip** is where you want it. You will be able to adjust the position after the machine is assembled, also. The handle must be tight but do not over tighten it.



c. **Sled #2** – slide the 2nd sled into the arm with the end that has the black knob first.
d. Once both sleds and handle mount are on the arm, then install the small Stop Screws and lock washers into the hole on each end from the **backside** of the arm. Lastly, place the small vinyl cap on the threads of the screw. This screw prevents the sled from going off the end of the arm.
e. **Important:** Install the large **black end cap** on the end of the arm.

Repeat this process on the other arm.

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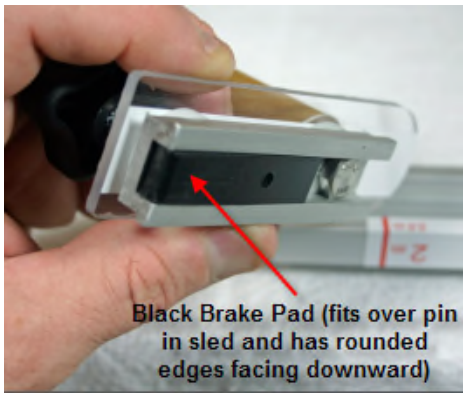
Note: Be sure to <u>tighten the knob</u> on each sled so they do not slide around on the arm while you are mounting the arms on the unit.

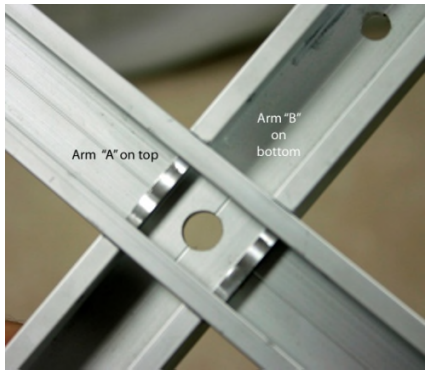
Info: Brakes on the Sleds



Each Sled has a built-in brake system that operates to stop the sled from moving and locks it in place on the arm just where you want it to stop. The brake is actuated by turning the black knob on the sled. That presses the brake against the inside of the aluminum. This system leaves no marks on the aluminum and allows the sled to stop at the same location repeatedly without any concern over creating an indentation in the arm. The brake slips onto a pin and remains in place as long as it stays in the arm. If you ever remove the sled, you will have to be careful not to allow the brake to fall out. If it does, simply reinsert it and slide the sled back into the arm.

Step 6 – Aluminum Arms

Next you will press the 2 large aluminum arms together. You will place arm labeled "B" (see chart on page 2) in your hand and then position Arm "A" into it by pressing them together in the center. Make sure they are fully pressed together. You may have to jiggle them into position since it is a tight fit. Make sure they are properly seated together.



Once the arms are pressed together, place them onto the main shaft and up against the large washer.

The shaft has a **groove** in it which is designed to accept a small metal tab from the **4 Lobe black washer**. This is an anti-rotation tab. When you press the 4 lobe washer onto the shaft, make sure this tab fits in the shaft slot. Because the 4 lobes on this washer must fit into the 4 open sections in the arms, you may need to rotate the shaft slightly (from the rear) to get the slot into the right position to install the 4 lobe washer.

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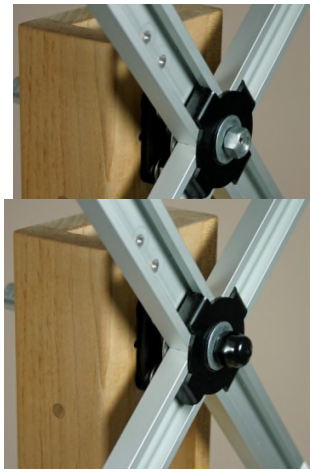

Install the small **3/8" ID steel washer** over the 4 lobe washer. Then install the 3/8" Split Lock Washer (not pictured). Install the 3/8" Hex nut onto the shaft over the lock washer. **You must tighten the nut securely.** Hold one of the arms for leverage when tightening this nut. Use a 9/16" wrench or socket. There should be very little to no movement (1/32" or less) when you tug on the arms after tightening the 3/8" hex nut. If you find there is too much play in this area, then loosen the set screw in the collar on the back of the shaft and press the collar inward toward the bearing and then re-tighten the set screw. The washer on the back should not rattle when the unit is turning, it should be snug but not tight. The shaft must turn freely! Finally, place the **black vinyl cap** over the hex nut.

Test the arms and the bearings now by holding the Handle and spinning the arms to make sure they spin freely. **Make sure that no one is in the area who could be hit by the rotating arms. The arms should easily spin and eventually coast to a stop.**

If for any reason they do not rotate freely, then examine your connections to see if something is rubbing where it shouldn't. Do not adjust the aluminum collar on the other end of the shaft – it was precisely set at the factory before shipment and this collar location determines the gap on the front. The rotating arms should not touch any wood or other parts other than the parts in this assembly.

The 4 arms have very accurate measurements on them to assist you when making a skein.

Skein-winder Owners

Skein-winder owners have a few other features:
Yarn Guide for Floor mounted yarn. This yarn guide clamps to your table and should be positioned under the right or left side of the Skein-winder (just below the end of the arm). Experiment with this position to find the correct one for you.

Rotation Counter – the Skein-winder now includes our state-of-the-art Electronic Rotation Counter. It will count rotations and a whole lot more. Please refer to the separate documentation for this unit

10 foot tape measure – For Skein-winders only - this is to assist you in getting a super accurate length around the yarn guide posts for strangely sized skeins.

ERC (Electronic Rotation Counter)

The tilt stand that holds the standard rotation counter will also hold the ERC which is our advanced rotation counter based on our Electronic Yarn Meter. The ERC is very powerful and measures rotations and converts to yards or meters and will sound a tone when your yardage has been measured. It will even automatically stop the motor drive is so equipped. More info is available on the website for this item.

Floor Stand

This unit can be used with either our standard swift or our Skein-winder. The user simply removes the swift from the base socket and inserts it into the Floor Stand. Tighten the knob which locks them together. The user can sit in front of the unit or stand. Using the floor stand frees up your table.

Motor drive

This option motorizes the Skein-winder. This option can be easily added in the field to any unit. It employs our special slip system which prevents the unit from breaking yarn in the event of as snag or jam. A must have for production winders. The 5/16" hole in the I-Beam that is unused is where you would connect the motor mount system. The motor mount has a fully adjustable belt tensioning system that is controlled by a single multi-purpose knob – a World-class engineering feature.

Warnings:

- Always clamp your unit down to the table with the 2 bolt clamps.
- Always tighten the 2 knobs on the black rotator plate.
- Only use the handle to spin the unit or when wind yarn on while using it as a Skein-winder. **Never grab the yarn guide posts**.
- Always insert the I-Beam into the table and floor stand sockets with the visible T-Nut facing toward the front (where the brass logo plate is located).
- Never lubricate the bearings – they are self lubricating.
- Always be careful and do not allow someone to get too close to the unit while you are operating it. The spinning arms can hurt someone if they are hit by them.
- **Do not allow children to play with the unit.**

Contents	Qty	4YO Swift	4YO Skein-winder
I-beam with Top Cap	1	Y	Y
Base Socket Assy and Clamps	0	N	N
Yarn Guide Post Assy and Sleds	4	Y	Y
Handle Assy	1	Y	Y
Yarn Guide for cones (for floor stand)	1	Y	Y
Hardware Bag	1	Y	Y
Aluminum Arms, 54"	2	Y	Y
ERC (counter)/ metal tilt bracket	1	N	Y

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10’ Tape Measure	**1**	**N**	**Y**

User Manual

Swift

Lay the skein over the top-most Yarn Guide Post and then around the other three posts. You will have to adjust the Yarn Guide Posts to best fit the skein. Try to leave three of them “as is” and adjust only one as a rule.

When adjusting the Yarn Guide Posts (sleds), loosen the knob about ¾ of a turn so that the sled and its brake system do not “chatter” as you slide the sled in the aluminum arm. You may also pull them outward slightly as you slide them. Firmly tighten the knob when you get to the spot that you want.

Try to have all yarn guides in the same relative position on the 4 arms so that the unit spins evenly and not out-of-balance.

Be sure to connect one end of your yarn to the clip on the handle so that it will keep it out of the way. The other end will be connected to your ball winder or other device.

Always AIM the swift toward the ball winder or other device that is pulling the yarn from the swift. On the 4YO on its floor stand, you are generally better off adjusting the position of the ball winder or other device. You can also adjust the position of the floor stand.

Always tighten all knobs and clamps before resuming your winding!

Clip - Attach the beginning of the skein to the clip on the handle.
You can turn the clip in another direction if you loosen the screw with a screwdriver (#1 Philips). We provide 4 holes in the handle to mount the clip into.

When turning the swift’s arms for any reason, always use the handle and not the yarn guide post assemblies. There is a hole for mounting the handle on the aluminum arm. If you have 2 holes, then default position is the inner hole which results in a smaller turning arc.

The bearings and the shaft do not need lubrication. The bearings are self lubricating
The brake pad in each Sled assembly can be changed if necessary due to excessive use/wear.
The bearing assemblies can be changed by the user if necessary.
Neither of these parts should ever need replacement but they can be replaced, if needed.

Skein-winder

Works the same way as the swift does.

Only run the yarn from the yarn source through the separate Yarn Guide on the stand. A special Triple guide is used when the user installs the Triple Yarn Guide System. **When the user uses the 4YO with the Triple Guide system, it is also necessary to use the Horizontal Cone Stand.**

Use the tape measure to measure the exact length of your skein or use the yarn length indicator decals on each arm. Sorry but the tape measure only measures 10 feet and will not measure all the way around the 4YO.

Electronic Rotation Counter – See the separate handout on the use of the ERC

Clip - Attach the beginning of the skein to the clip on the handle.
You can turn the clip in another direction if you loosen the screw with a screwdriver (#1 Philips).

Make sure your handle is TIGHT. Also make sure that the lock washer is under the head of the screw that holds the handle onto the arm.

Specifications and Capacity

- 144" max. skein (27.5" minimum), 2+ Lbs (upper weight limit not determined)
- Height: 48" Width: 54" Depth: 25"
- Yarn Post Guide Assy's are 5.5" wide and have vertical containment surfaces on both ends
- Materials used:
    - Soft Maple hardwood
    - Birch Dowels
    - Aluminum arms and sleds
    - Steel: fasteners and L-Bolts, sheet metal
    - Plastic: Brakes, Yarn Guides on sleds, soft touch (TPE) knobs
- Designed and manufactured in the USA

New Options Available

Motor Drive - We now have a motor drive available for either the swift or the skein-winder. It mounts to the back of the unit on the I-Beam. It allows you wind yarn into skeins automatically if you have the ERC which is included with the Skein-winder.

Triple Skein Guide System – we also have optional arms that wind 3 skeins at one time. These have separate zones for the 3 skeins. Using the Triple Skein Guide system allows you to work much faster.

Note: Your 4YO Unit's shaft has a Pulley section diameter of: **5 / 8"** This is important when ordering a motor drive kit for this unit. Please advise NKK of the diameter of your pulley section.

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