Thank you for purchasing our Cone Winder Adapter Kit (“CWA”). It will enable you to wind industry standard cones on your Heavy Duty Ball Winder™. We are pleased to offer this product to our many ball winder customers.

The kit consists of the following:
1 - Small Diameter Spindle SDS (replaces the standard spindle on your ball winder). Remove the existing spindle by loosening the screw in the Collar with the 1/8” Allen wrench. See instructions for properly re-installing collar on the shaft.
3 – Knob/stopper assemblies to fit 3 different style cones
5 – Paper Cones (picture shows 6)
1 – Yarn Ball Core (a sample to show you how our Cores can work with the SDS)
1 – Clear o-ring for use with cones that measure 1” opening at top
1 – Black o-ring for cones that measure 1-1/4” at top
1 – Glue Kit (plastic washers, super glue, and yellow paper tube)

The Small Diameter Spindle (the one on the bottom of the picture at right) is the version that is included in the CWA and also with the Heavy Duty Cone Winder. It measures 1.25” diameter along the spindle.

Tools Needed: a 5/16” Nut Driver (included with all ball winders sold after 1/2011) or a slotted screwdriver.

Assembly Instructions – Small Diameter Spindle
The first thing that you must do is install the plastic washers inside the spindle. This is necessary because each production batch of spindles and ball winders is slightly different and as a result, the spindle must be “tuned” to work properly on your ball winder. You accomplish this by installing some (but not all) of the plastic washers inside of the spindle (where the shaft protrudes from). The reason we tune each spindle to the ball winder is to make the items fit together such that the o-ring on the spindle flange makes contact with the pointy shaft on the ball winder about half-way to three- quarters up the slope of the shaft. That will ensure that the yarn wraps on the ball with the correct spacing between plies.
When installing the SDS onto the ball winder, you must adjust the o-ring so that it presses against the shaft with the proper tension. See the instructions attached which show how to adjust the o-ring tension. Also, we have videos on http://www.YouTube.com/nancysknitknacks which show you have to achieve the correct fit.

If washers are already installed inside spindle (if you bought SDS at same time as BW), then ignore below.

**Install washers inside of Spindle** - Experiment with the washers before you glue them in place. Put them on the shaft and see what combination of washers is needed to achieve the fit pictured on the right photo above. When you are comfortable with the fit (wind a small ball with the unit before gluing the washers in place just to be sure), then proceed to glue them in.

- **Insert washers onto shaft**
- **Use tube to hold down washer**
- **Washer(s) should be seated in hole**

Please follow the instructions in the separate attachment entitled “Instructions for installing washers...” which will explain in detail how to install the correct combination of washers. **Install metal collar on end of shaft! Use fold in half business card as a spacer when inserting collar – do not press against underside of spindle flange.**

**O-rings**
There are 2 O-rings provided with the kit. These are used to take up the slack in the cone when fitting a cone to the Small Diameter Spindle (SDS). The Clear o-rings is used for the cones we sell (5 are included). The Black o-ring is used for cones that measure 1-3/16” to 1-1/4” inside diameter at the top of the cone.
The O-rings are simply inserted onto the thicker portion of the spindle, about halfway up from the bottom. They will stay in place when you are inserting and removing cones. If they shift in position, simply adjust them. The clear o-ring is used with our cones.

**Using the Knob/stopper assemblies**

When winding onto the cones which are provided, you will use the clear o-ring and the knob with the smallest stopper. You simply insert the cone onto the SDS and then screw the knob/stopper thru the top of the cone and into the threaded metal inset in the top of the SDS. Do not over tighten the knob but do make it such that the cone will not turn easily. If the stopper you are using does not fit properly then try another one.

When starting to wind, snugly wrap the yarn around the middle of the cone a few times in the direction of the winding action (verify winding action by turning the handle or running the motor). Thereafter, as you wind the yarn it should adhere to the cone surface and not slip.

When done making the cone, unscrew the knob and remove it from the cone and lift the cone off of the SDS.

*Questions? Please visit our website or email or call us.* Plus, watch our videos on Youtube.com that pertain to this product and our Yarn Pet Cone holders which work great with this product.