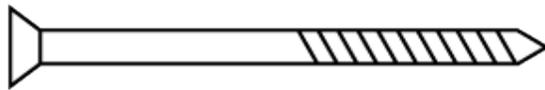


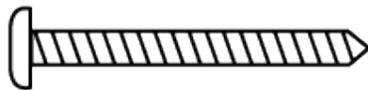
Assembly

The Warming Square has been partially disassembled for shipping. You will need a #2 Phillips screwdriver (the most common size)

1. Two piece base with casters
2. Stanchion
3. Beam Assembly
4. Square Hub Assembly
5. Four wooden arms
6. Four wooden hands
7. Parts Bag (one blue 3 3/4 inch screw, one 2 1/2 inch screw, two 2 inch screws, four 1 1/4 inch screws, eight 1 inch screws, three wood dowels, 10 dent reed, 12 dent reed)
8. Foot Pedal
9. Power Supply



(1) Blue 3 3/4 inch screw



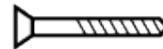
(1) 2 1/2 inch screw



(4) 1 1/4 inch screws



(2) 2 inch screws



(4) 1 inch screws

1. Unpack contents of box. Ensure that you do not miss anything as some smaller items are wrapped in paper.
2. Begin by assembling the two piece base. With the long side of the large base facing to your right insert the small base with the long side facing you. Secure with the 3 3/4 inch blue screw.

3. Locate the stanchion and the two 2 inch and one 2 1/2 inch screws (parts bag). Place stanchion with t-track facing you on the back right corner of base. There are three holes drilled in the base in that corner. Insert the 2 inch screws into the two holes in the long base section and the 2 1/2 inch screw into the single hole in the short base section. Tighten screws.
4. Locate beam assembly. Slightly loosen the two knobs on the assembly. DO NOT REMOVE knobs, as the order of the washers on the shaft is VERY important. Slide the assembly into the t-track of the stanchion. The head of the bolts will fit into the track. Tighten bottom (smaller) knob.
5. Locate hub assembly and the two arms. Place the arm with reed holder on the left hand slot of the hub assembly. Secure with two 1 inch screws from parts bag. The 1 inch screws do not go into the corner holes. Place other arm on right side of hub assembly and secure with two 1 inch screws. Locate dowels and place in the corner holes. Secure each with a 1 1/4 inch screw.
6. Remove the 2 1/4 inch black knob from the beam assembly. Make special note of the orientation and position of the washers. There are two "special" washers called belleville washers that have a cup to them (they are the silver ones sandwiched between black washers). Remove all the parts from the shaft. Insert the bronze bushing into the center hole of the hub assembly. Take the round drive belt and place it over the pulley on the back of the hub. Slide hub onto shaft leaving an inch or so of space in the back between the hub and beam (so you have space to get the belt over the motor pulley). Stretch drive belt over motor pulley and then slide hub all the way into position. Reinstall washers. Their order is: black washer, silver washer, black washer, silver washer, black washer, spacer with set screw (ensure set screw lines up with slot on shaft), large black knob. Tightening the large black knob increases resistance in the clockwise direction for beaming onto your loom. This knob does not need to be over tightened. Just tighten enough so that there is a reasonable amount of resistance when rotated clockwise.
7. Locate wooden hands and remove black knobs. Install hands into the slots in outer arms with the peg facing out.
8. Locate the foot pedal and power supply. Plug the power supply into the foot pedal and into a wall outlet. Plug foot pedal into the motor. Note that they snap together and that to release them you have to press the button on the metal connector. Turn variable speed knob (the gold knob on the end of the beam) all the way counterclockwise. Ensure that the foot pedal cord and any persons or pets do not interfere with rotating arms. Depress foot pedal and slowly turn the variable speed knob clockwise. Once desired speed is reached release foot pedal. The motor will now attain that rpm each time the pedal is depressed.

Tension adjustment

The design of the hub allows for precise adjustment of tension for warping onto your sectional beam. There is no need to use an additional tensioning device. To adjust tension rotate center knob clockwise to increase. Set tension before starting to warp onto the beam. Adjustment should then be left set for entire warp in order to maintain consistency. The Warping Square is designed to freewheel in the opposite direction so there is little resistance when winding onto the square.

Setting warping length

The function of a Warping Square is a hybrid between a warping board and a warping wheel. However, there are no pegs or spools to move. To change warp length the user simply changes the starting position of the yarn. The Warping Square has an inner hub consisting of four pegs. To change the length of the warp the user simply selects a combination of pegs to feed the yarn through at the beginning of each new warp thread. The Square is then used as standard warping wheel. There is a chart included with the Square for easy reference. You need look no further than the chart but for those who are interested I'll explain. The outside circumference of the Square is 2 1/2 yards. There are four positions possible and each position adds to the rotational length. Possible length additions are A - 1/2, B - 1, C - 1 1/2, and D - 2 yards. The addition is made only once for each warp thread. The combinations will get with 1/2 yard for any desired length.

Cross Maker

There is a built in cross maker on the upper arm. The cross maker allows the user to maintain thread order to facilitate threading the loom. The cross maker is not necessary for all warps but is helpful if the user is doing a pattern or warping into a chain for a non-sectional beam. To utilize the cross maker feed the thread through the two pegs from opposite sides every time you drop down from the reed to form a new warp thread. This will create a cross in between the pegs. Before warping onto the beam, tie yarn around the cross to maintain it. Once warping the beam is nearly complete the cross can be slid to leave the desired length of tail. The cross will need to be removed from the reed as it cannot be fed through. Secure with tape to your beam.

Motor Use

The motor is a variable speed design . The speed control knob is located next to the counter on the beam. Rotating knob clockwise increases speed. Speed is adjustable from about 5 - 100 rpm. To use motor plug in the foot pedal and power source assembly to the motor plug on the back of the Warping Square. Plug the power source into the wall. Check that foot pedal cord is not interfering with the rotation of the Square in any way. Ensure that the variable speed knob is turned all the way counterclockwise (the off position) and depress foot pedal. Slowly turn variable speed knob clockwise until desired speed is reached. Utilize motor as needed. Note that the Square can be rotated by hand even with the motor engaged and you might find making small adjustments easier that way. Also ensure that small people and critters are not around the foot pedal when the machine is plugged in. Unplug motor when not in use. The motor is of a design that it will continue to use a small amount of power even when idle.

The motor is a brushless design and therefore offer little friction when not plugged in. To utilize the square manually simply unplug the motor. Rotating the Square manually will not damage the motor whether the unit is plugged in or not.

Counter Use

The counter has two buttons labeled Pause and Reset. When depressed the pause button stops the counting until it is depressed again. The reset button set the counter back to zero. The counter is powered by single AA battery. To change the battery will require a small phillips screw driver. It is a pain in the butt, but these are the the best option I could find. We have been running the counter on our gen. 1 Square for over a year and it is still going strong.