The Compu-Dobby III will arrive in a separate box. The Compu-Dobby III is comprised of two main parts: the Dobby set-up and the black Solenoid box. Unscrew the black thumbscrews on the sides of the black Solenoid box and lift it off of the Dobby set-up.

Now, bring the Dobby into position under the Harness Pulley Support (see Figure 1). Insert the two 5/16" x 2 1/2" carriage bolts into the top holes of dobby backboard and through the castle side. Secure each bolt with one washer and a hex nut.
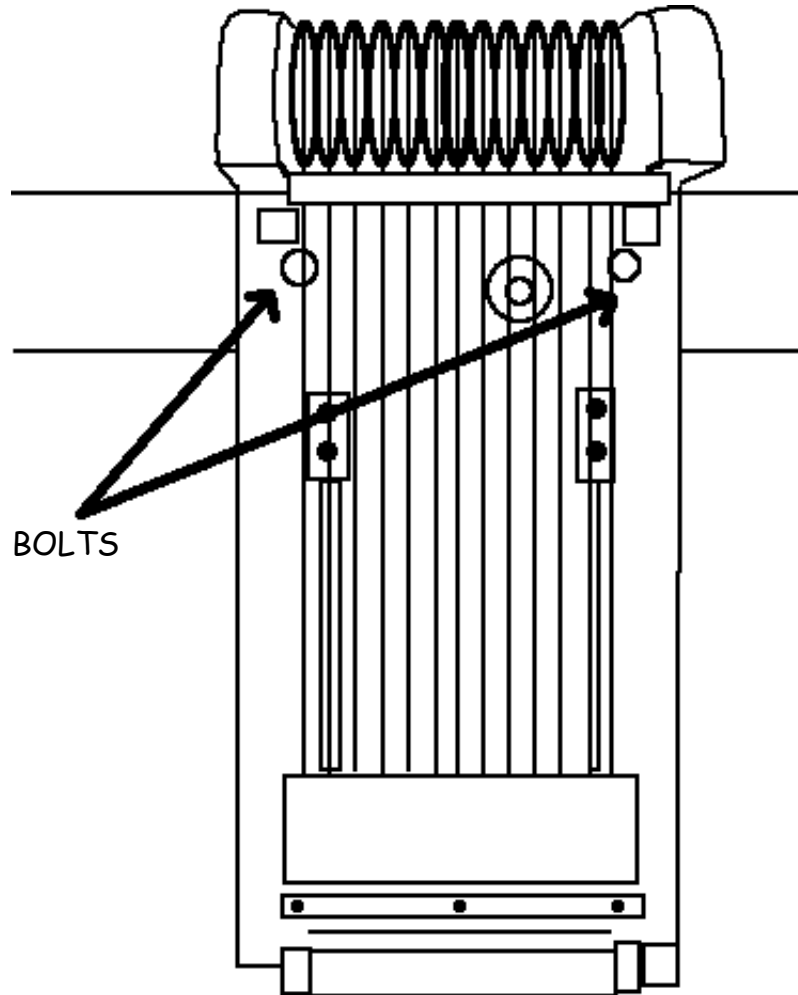

BOLTS

FIGURE 1

The clips on the ends of the harness cables connect to the corresponding dobby cables. Connect each.

On to the treadles. Find the two new treadles and four stop collars. The long treadle goes on the left side and the short treadle on the right. For each side of treadle axle, first slide on a stop collar, then the treadle, then another stop collar. Find the treadle end blocks and screw them back into place.

The treadles can be loose along the axle (this is only temporary). Once you install the treadle cables, you'll line the treadles up and tighten the stop collars.

On the end of the treadles where the large hole is, there is a pin that divides the hole. Partially remove the pins by unscrewing the nut and pulling the pins half way out; this is so you can connect the treadles to the cables.

Stand up and go over to the Dobby set-up. Take the long cable that dangles from the right of the Dobby and guide it down to the right pulley (next to the tear shaped Treadle Cam, see Figure 2), then under the harnesses and over to the far left pulley on the Treadle Pulley Support. Connect the cable to the pin on left treadle. Retighten the pin.
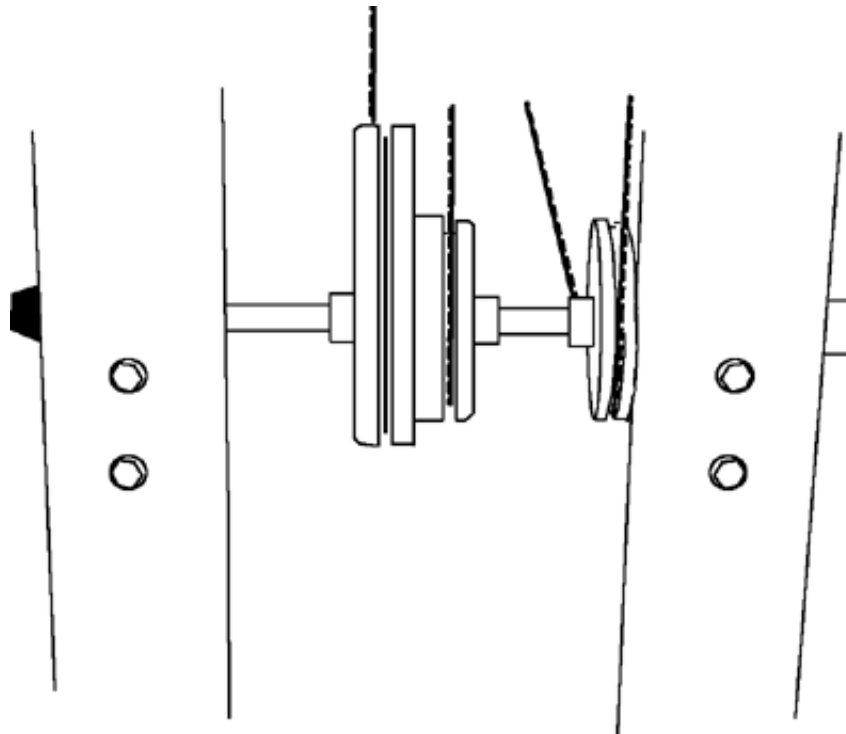
FIGURE 2

The line of the cable from dobby to pulley to second pulley to treadle should be straight. The cable should not be at a diagonal from any point to point. Therefore, you can slide the pulley into position on the axle and secure it into place by tightening a stop collar on either side of the pulley. Also, reposition the treadle to keep the cable straight, then secure the treadle into place by tightening the stop collars.

Connect the turnbuckle of the Dobby cable dangling from the center to the short cable on the Treadle cam. The line of the cable from dobby to pulley should be straight (this will help you position the Treadle cam on the axle). The cable should not be at a diagonal from any point to point. Therefore, you can slide the pulley into position on the axle and secure it into place by tightening a stop collar on either side of the pulley. You can also adjust the tension of the cable by turning the turnbuckle on the cable.

The cable attached to the tear shaped side of the Treadle cam connects to the right treadle. Slide the treadle pin through the loop at the end of cable and then retighten the pin into the treadle end.

Each of the cables (attached to the harness cables) in the Dobby should have a little tension. If there is not enough tension on the cables, locate the small springs at the end of the cables, below the bottom stop block of the Dobby set up (see Figure 3). Simply stretch the spring a little to give the cable more tension.
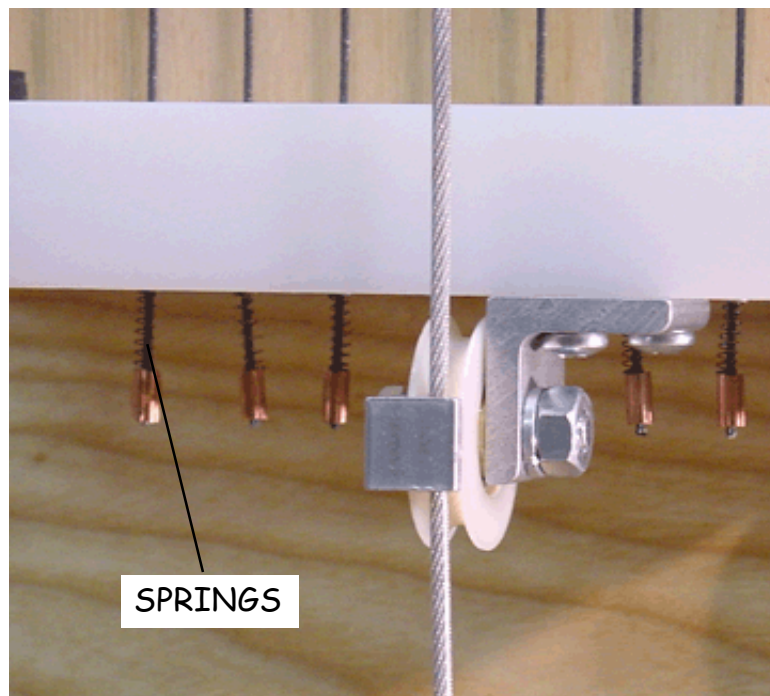

SPRINGS

FIGURE 3

Also below the bottom stop block is a pulley. It is important that the pulley keeper is in the correct position to hold the cable in place and not put any friction on the cable or pulley (see Figure 4). If need be, loosen the nut and bolt holding the keeper and adjust its position, then retighten the bolt and nut.
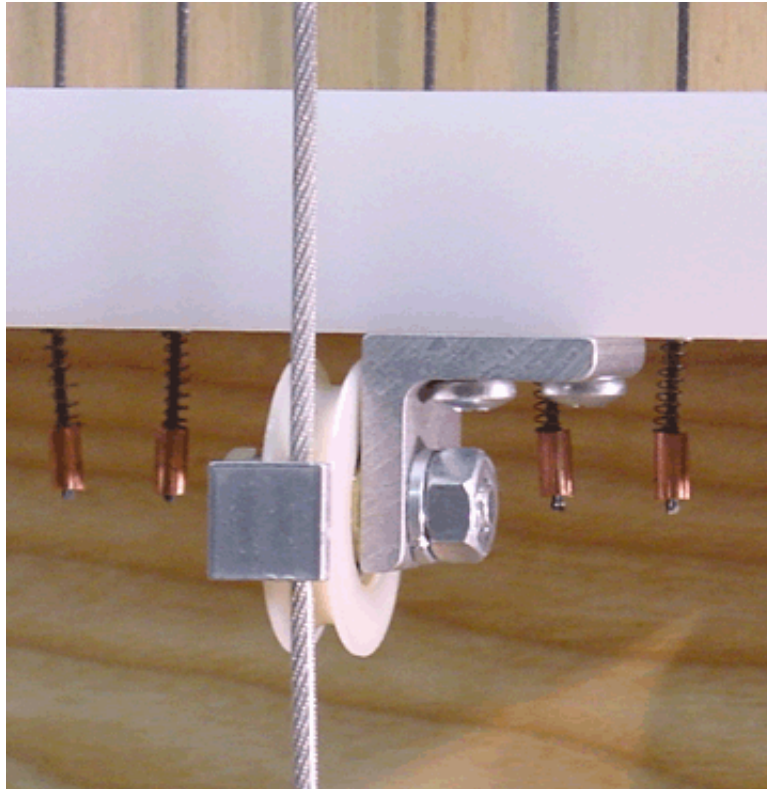
FIGURE 4 - PULLEY AND KEEPER

Check that all the bolts and screws holding the Dobby set up to the back board are tight.

Black Solenoid Box

Take the Compu-Dobby III Solenoid box and thumb screws over to the Dobby set up. Now, slide the Compu-Dobby III box over the Dobby set up and hold it in place while you line the side holes of the box up to the holes in the dobby backboard (see Figure 5). Insert each of the four thumb screws through the holes and into the barrel nuts. Tighten each one.
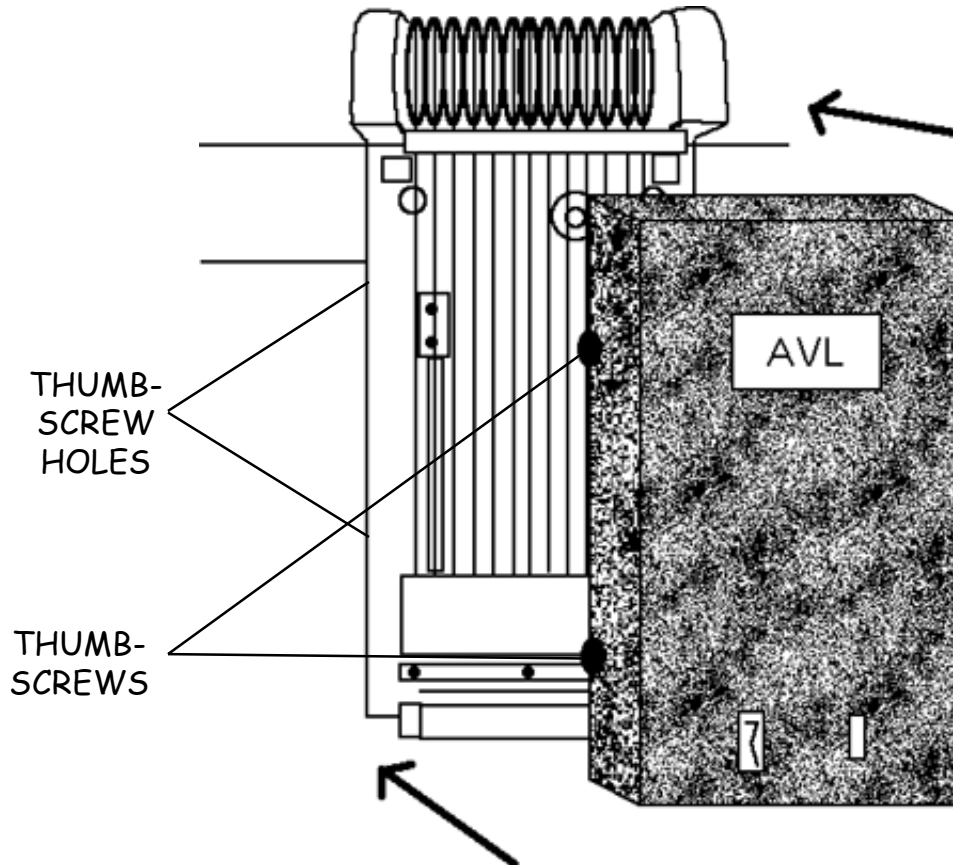

THUMB-SCREW HOLES

THUMB-SCREWS

AVL

FIGURE 5

Connecting Compu-Dobby III to Your Computer

Serial Cable (RS-232)

The serial cable, generically call an RS-232, is different depending on whether you have a Macintosh or IBM computer. In either case, one end will have a male connector with two rows of pins, nine in all. The connector at the other end will be clearly different and may be male or female.

Find this cable and push the pin end into the port that is front lower middle of the Compu-Dobby III box.

Use your small blade screwdriver to run the side screws in. These provide strain relief.

Allow the free end of the cable to hang for now. Later, you'll connect it at the rear of the computer.

<u>Power Cord</u>

You've one cord remaining, the power cord.

Connect the single prong into the port (front lower left) of Compu-Dobby III box. Let's wait a bit before we add power.

<u>Set-Up Your Computer</u>

If you haven't already, set your computer up at the right side of the loom. Once you make the necessary connections, you can move it to a position you find most user-friendly.

Leave the computer unplugged for the moment.

You're going to plug the free end of the serial cable (RS-232) into a port on the back of your computer. You left this cord hanging from the second port on the Compu-Dobby III.

First, you need to locate the serial port on the back of your computer. Here's what to look for:

*   Most recently manufactured, name brand, PCs are configured with one 9-pin external serial port (always a male port).

        Older PCs will usually have two or more external serial ports, 9- and 25-pin. The 9-pin port is used for the mouse. The 25-pin port is available for other peripherals, including your Compu-Dobby III.

        When we take your order, we try to establish which configuration you have so that we can provide the right cable. If you did not receive a serial cable that corresponds to your particular port configuration, please call AVL Customer Service. Unless you have access to a full-service computer store, it's unlikely you'll find the cable you need. One decided advantage of rapid change in the computer industry, is the difficulty we all have in staying current with the latest trends.

        We have supplied you with an adapter from 9 to 25 pins, so if your computer has a 25-pin port, it will still work.

*   Newer Macs use USB ports. You'll need a serial-USB adapter to connect the Mac to the Compu-Dobby III. We recommend the Dual Adapter from KeySpan or the Belkin adapter.

*   Older Macs usually have two serial ports. These are round and contain holes for eight pins and are labeled modem or printer - you may connect to either.

*   If you have a Macintosh system, you'll be asked to specify which port you connected to. This happens later and you'll be prompted by your weaving software.

Adjusting the Solenoids

If you find that the solenoids do not push the corresponding cables, then a small adjustment is needed. Locate the two screws on the front of the Compu-Dobby III. Loosen them slightly. Now, from above the Compu-Dobby III, look down the cables to where the solenoids are. Make sure they are lined up with each of the cables. Slide the Compu-Dobby III box to the right or left for alignment. When aligned, retighten the screws on the outside front of the box.