

# INSTALLING AND OPERATING AN E-LIFT™ II SYSTEM

## INSTALLATION

Complete this section if your A-Series Loom has been ordered with an **E-LIFT™ II**. Your new E-Lift II takes the work out of lifting your harnesses and is designed to provide years of dependable service.

### Package Contents:

- ◆ E-Lift II Motor-Controller Assembly (1)
- ◆ Mounting Blocks (2)
- ◆ Foot Switch and Attached Cord (1)
- ◆ Power Cord (1)
- ◆ Counterweight (1)
- ◆ Counterweight Cable (1)
- ◆ E-Lift II Cam-Pulley Assembly with Attached Cables (1)
- ◆ Cam-Pulley Axle Bushings
- ◆ Hardware Pack (1)

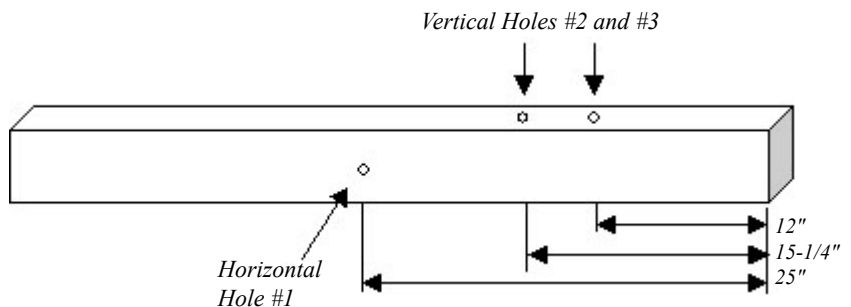
### Required Tools:

- ◆ 7/16" & 1/2" Wrench
- ◆ Socket Wrench
- ◆ 1/2" and 7/16" Socket
- ◆ 5/32" Allen Wrench
- ◆ Pliers

### Installing the E-Lift II Motor-Controller Assembly

- 1) Position the E-Lift II under the Treadle Pulley Support Crossmembers to align the holes in the E-Lift II mounting plate with Holes #2 and #3. Ensure that the E-Lift II Power Switch faces to the rear of the loom and the Foot Switch connector faces the front of the loom.

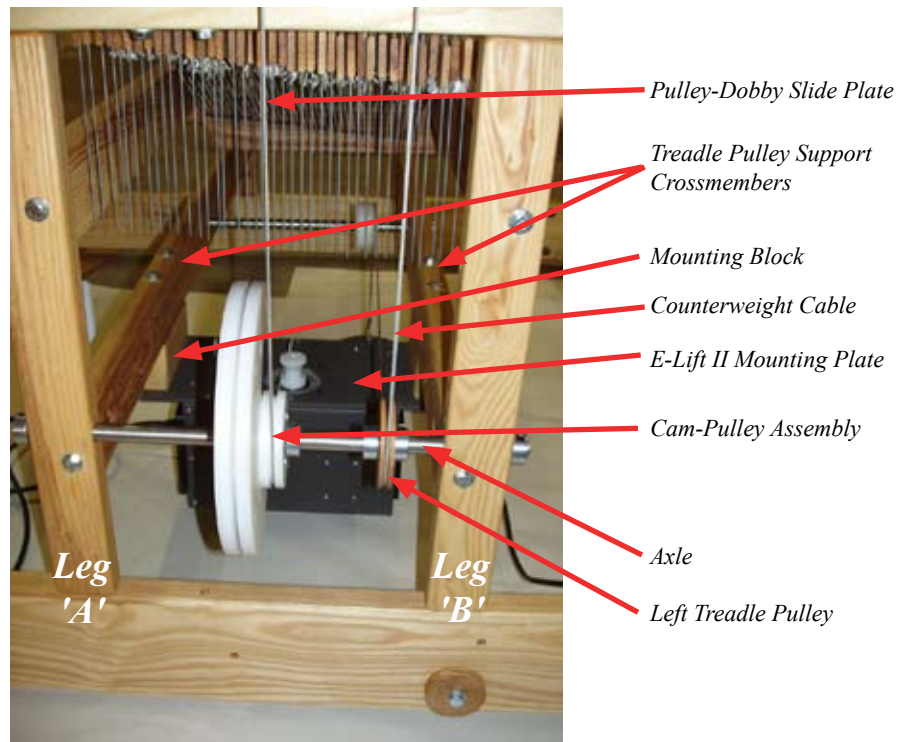
HOLE NO.	HOLE ORIENTATION	HOLE SIZE	DISTANCE FROM EDGE
1	Horizontal	33/64"	25"
2	Vertical	21/64"	12"
3	Vertical	21/64"	15-1/4"



**FIGURE #1: Treadle Pulley Support Crossmember Holes**

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- 2) Use the wood Mounting Blocks, four 5/16" x 6" hex bolts, washers, and hex nuts to mount the E-Lift II to the underside of the Treadle Pulley Support Crossmembers.
- 3) Place one bolt and flat washer in each of the #2 and #3 holes and let them hang with the exposed ends pointing to the floor. Thread a Mounting Block onto each set of bolts and then engage the bolts in the corresponding holes in the E-Lift II Mounting Plate. Apply the remaining washers and nuts and tighten. Check that the E-Lift II hangs securely below the Treadle Pulley Support Crossmembers.



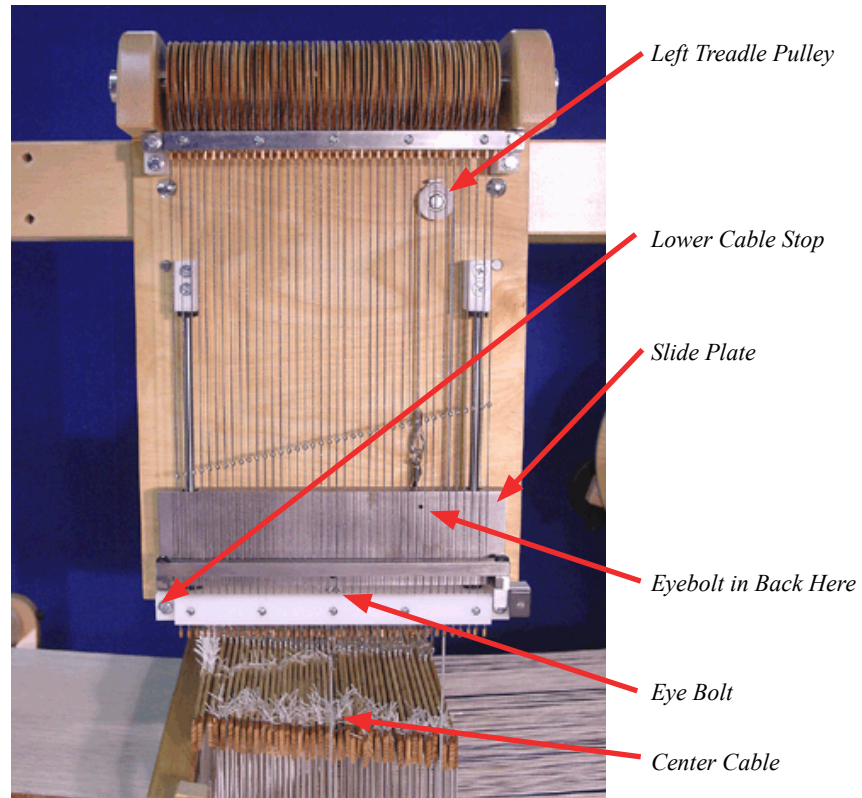
**FIGURE #2: Right Side View**

### Installing the Cam-Pulley Assembly and Cables

- 1) Insert the axle through Leg 'A' so the end extends a few inches into the middle space between Legs 'A&B'. As seen in FIGURE #2 and in this order, slide the following components onto the axle:
  - a. Stop Collar
  - b. Cam-Pulley
  - c. Two Stop Collars
  - d. Left Treadle Pulley
  - e. Stop Collar

Then slide the axle through Leg 'B' and put a Stop Collar on the axle outside Legs A & B. Tighten the outside stop collars.

- 2) Route the Pulley-Dobby Slide Cable around and under the Pulley as seen in FIGURE #2, then up the backside to the Dobby Slide Plate (or Dobby Arm). If you have a Slide Plate, connect the quicklink at the cable end to the lower eyebolt on the plate. If you have a Dobby Arm, the cable end will have a small barrel fitting in place of the quicklink. Connect this as you would the Turnbuckle-Dobby Arm Cable. (see FIGURE #3.)



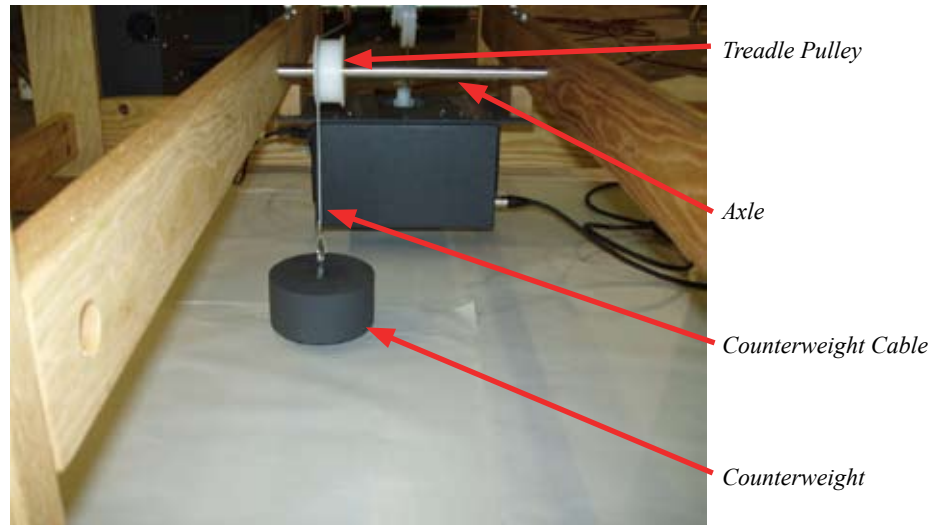
**FIGURE #3: VIEW OF DOBBY FROM RIGHT SIDE OF THE LOOM**

- 3) The cable should be vertical between the pulley and its attachment at the Slide Plate (or Dobby Arm) above. Adjust the Cam-Pulley Axle Stop Collars to position the Cam-Pulley to achieve this alignment. Tighten the stop collars.
- 4) For a Compu-Dobby III style dobbie, connect the quicklink in the upper eyebolt of the Dobby Slide Plate to the Counterweight Cable. Route the cable over the small white plastic pulley directly above the eyebolt, around and down the right side of the pulley, behind the slide plate, and out through the hole in the bottom of the Cable Stop. Guide the cable around the Left Treadle Pulley on the Cam-Pulley axle, then to the center of the loom, and finally over and down the far side of the Treadle Pulley. Connect it to the Counterweight.

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If you have a mechanical or Compu-Dobby I or II style dobbie, attach the Counterweight Cable to the Dobby Arm as you would with the Left Treadle Cable, which you removed earlier (see FIGURE #4). Guide the cable around the Left Treadle Pulley on the Cam-Pulley axle, then to the center of the loom, and finally over and down the far side of the Treadle Pulley. Connect it to the Counterweight.



**FIGURE #4: Left Side View**

- 5) Here again the Counterweight Cable should run vertically from the Dobby Slide Plate or Dobby Arm to the pulley, then 90° to the Left Treadle Pulley (parallel to the crossmembers). Adjust the pulleys to achieve this alignment and tighten the stop collars.
- 6) Un-tape the E-Lift II Pulley Cable, which is wound around the spindle on the top of the E-Lift II. Guide the cable end from the E-Lift II Pulley to the Cam, around the bottom of the nautilus lobe, and up around the horn. You will see a nickel-sized hole drilled through the side of the nautilus. Run the cable through the hole until it exits at the smaller hole in the Cam. Tie a knot in the Cable at the red line marked on the Cable. Rotate the E-Lift II Pulley clockwise to take the slack out of the cable. Ensure that the cable does not overlap itself. When you have finished, the horn of the nautilus should point to the two o'clock position, as viewed from the rear of the loom.

### OPERATION

- 7) Connect the Foot Switch cord to the front of the E-Lift II. Connect the female end of the Power Cord at the back of the housing (be sure it's completely inserted). Turn off the E-Lift II Power Switch. Plug the male end of the power cord into a surge-protected power strip, preferably the same one as used for your Compu-Dobby as this will allow you to turn on the loom more easily.

This completes your installation. You now need to make one adjustment, setting the home position, and you will be ready to weave.

The E-Lift II replicates the action of treadling. When you activate the Foot Switch, the motor turns and selected harnesses rise or fall. The motion is smooth, quick, and precise and does not jar the harnesses.

Before you use the E-Lift II, you must set the “home” or neutral position:

- 1) Turn off the E-Lift II Power Switch. Unwind the E-Lift II pulley to allow the Dobby Slide Plate (or Arm) to move to its upper most position.
- 2) Rewind the E-Lift II pulley, bringing the Dobby Arm or Dobby Slide Plate to a stop approximately ¼” above the ball on the rear most Dobby Cable or cylindrical crimp if you have Dobby Wires. If you have a 16 harness Production Dobby Loom, this would be the Dobby Cable for harness 16. Turn on the E-Lift II Power Switch.

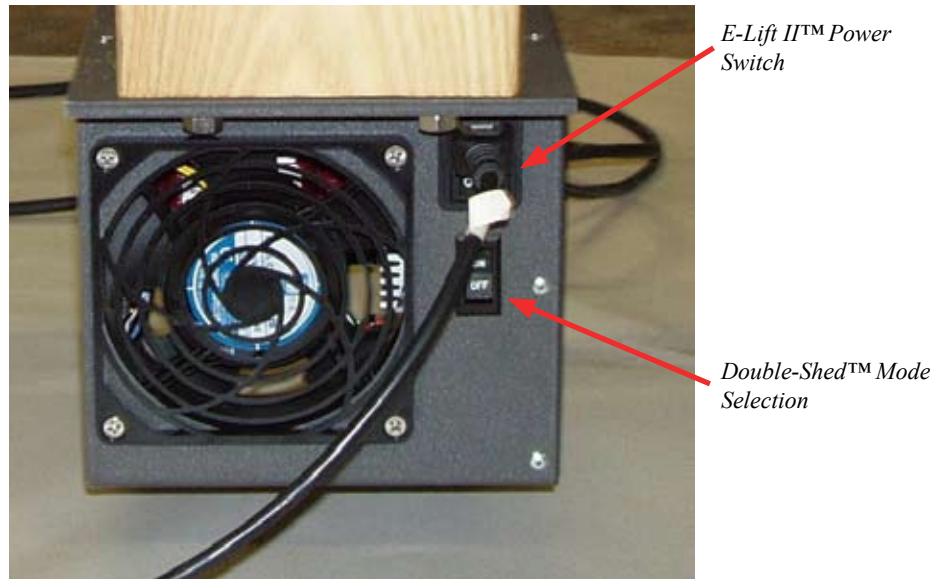
You have now set your home position and may start to weave!

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## MODE SELECTION

The E-Lift II is programmed with two modes: double or single shed selection.

The Double-Shed™ mode completes every lifting cycle with the shed open. For example, assume you've just completed a shot and the shed is still open. You depress the foot switch and the shed closes, the dobbie advances to the next pick, and the shed opens — all as a single continuous movement. You'll very quickly develop a rhythm and will find there's ample time to beat while the shed is transitioning between Open-Close-Open. To use the Double-Shed mode, find the selector switch located at the rear of the E-Lift II and set it to the "On" position. (see FIGURE #5).



**FIGURE #5: Selecting E-Lift II Mode**

In single shed mode, you activate the foot switch once to open the shed; and again to close the shed. In other words, you achieve one action per activation. If you wish to use the single shed mode, ensure that the Double-Shed mode selector switch in the "off" position.

## MAINTENANCE AND REPLACEMENTS

### Required Maintenance

- ◆ You'll need occasionally to clean the air filter, which is located on the front of the E-Lift II housing. To clean, unsnap and remove the plastic baffle. Remove the foam element and carefully wash it in warm soapy water. Be sure the element is completely dry before you replace it.

### Suggested Maintenance

- ◆ The E-Lift II Pulley-Cam, Pulley to Slide Plate and Counterweight Cables may stretch with extensive use. If after setting your home position, you find that the Counterweight is hitting the floor with the shed open, this is likely the cause. To adjust, simply push the cable through the Cam-Pulley and re-tie the knot to a shorter length. For the Counterweight Cable, tie a knot in the cable at a location where it won't run over a pulley in normal operation.
- ◆ Inspect the cables for wear, especially where they move over a pulley. Do this monthly if you weave regularly.
- ◆ Check the supporting hardware and re-tighten if loose.

Your E-Lift II is designed to provide years of dependable service. When replacement parts, such as the air filter or cables are needed, AVL is your source. AVL can also rebuild your E-Lift II when it reaches the end of its wear cycle. Please contact us at 530-893-4915 or [info@avlusa.com](mailto:info@avlusa.com) to place your order or to arrange service.