



AVL LOOMS

AVL Looms, Incorporated

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Compu-Dobby III N to Compu-Dobby IV, 4.5 or 5 N Conversion Instructions

This conversion document applies to all Compu-Dobby III negative configurations except the Workshop Dobby Loom. Conversion to the Compu-Dobby IV, 4.5 or 5 N has three primary steps:

- 1) Upgrade the dobbie head
- 2) Install support pins (optional, for larger floor looms only)
- 3) Setup software

Dobby Head Upgrade

This conversion eliminates the need for adjustments at the dobbie cable/wire. New-style dobbie cables are provided in the conversion for that purpose. This section addresses changing out the old dobbie cables/wires with new dobbie cables. The installation steps are:

- 1) Remove Compu-Dobby III from the loom.
- 2) Support the harnesses to allow easy removal of the dobbie cables. The three methods to choose from are:
 - a. Insert two long rods or strong sticks on top of the cloth beam, under the upper harness sticks, to the top separation roller in back.
 - b. Insert a heavy rod or stick at the split / junction in the harness cables on top of the harness pulley support.
 - c. Unhook the harnesses and remove from the loom.
- 3) Disconnect the dobbie cables from the Berkley clips (clip that connects the dobbie and harness cables).
- 4) Loosen screws for the dobbie cable retaining bars at top and bottom of the dobbie head enough to allow you to slide the old dobbie cables out. For some looms, a new lower dobbie cable stop is provided. If you have received this part, remove and replace the lower dobbie stop now.
- 5) Remove the old dobbie cables and replace with the new. The cables must be placed in the correct order with the swage balls ascending as with the shaft number.
- 6) Tighten screws for the dobbie cable retaining bars, connect the new dobbie cables to the Berkley clips and remove the sticks/rods you used to support the harnesses.

Support Pin Installation (not required)

Some conversion come with support pins that can be installed in your dobbie head. They are not required to be installed. The installation steps are:

- 1) Install the Compu-Dobby IV, 4.5, or 5 onto the dobbie head, making sure the sheet metal is flush with the dobbie back on both sides and all four thumb screws are tight.
- 2) Locate the notch in the lower portion of the Compu-Dobby sides. There will be one notch on each side. Use a #13 drill bit to drill a hole on each side of the dobbie head plywood for support pin placement. The hole should be centered side to side in the plywood dobbie back and placed slightly lower (approx. 1/32") below curve in the sheet metal. Drill each hole no more than 1" deep.
- 3) Tap one (1) pin into each hole.



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Software Setup

While software setup is left for the specific software manual, this instruction will provide some tips to ease setup. The tips are:

- 1) The Compu-Dobby IV and 4.5 require external software to drive their operations and supply the weaving pattern on a pick by pick basis. Currently, AVLDrive, WeavePoint and Fiberworks support loom operations for the Compu-Dobby IV and 4.5. The Compu-Dobby 5 is run via internal software that is accessed through any modern web browser.
- 2) All three Compu-Dobby types support USB communications. The Compu-Dobby IV and 4.5 require USB drivers be installed onto your PC. AVLDrive automatically installs the drivers when it is installed on the PC. When third party software such as WeavePoint or Fiberworks, the USB driver download links can be found here: <https://avllooms.com/apps/help-center#hc-usb-drivers-for-compu-dobby-iv-45-little-weaver-10-and-jacq3g>. The Compu-Dobby 5 does not require USB drivers to be installed.
- 3) Driver installation on Windows systems can take up to 45 minutes to associate the USB driver with the loom. This is especially true for PCs with slower processors and older operating systems. For the first time communicating after installing the USB driver, it is best to wait 45-60 minutes with the PC and Compu-Dobby IV or 4.5 powered and connected by USB cable.
- 4) The everyday start up protocol is:
 - a. Turn on the Compu-Dobby.
 - b. Start up the PC and loom control software.
 - c. Wait 60 seconds *after* the completion of the Compu-Dobby IV or 4.5 self-testing pattern (the powering of each solenoid to verify operation). For the Compu-Dobby 5, the Power LED will be lit yellow when ready in standby mode.
 - d. Enter weaving/loom control in the loom control software and begin weaving.
- 5) Some loom control software is better than others at clean USB communications. Additionally, poor performing PCs can drop USB communications during what the PC thinks are idle moments. Recovery from these issues requires re-establishing communications by rebooting the Compu-Dobby IV and 4.5, then waiting 60 seconds before trying to reconnect. The rule of thumb is to do this whenever you have a USB communications failure or error message.