Megado Computer Dobby 2

Hardware installation Manual

Contents

Remark:

Store the packaging and buffers of the computer Dobby 2 carefully. You can use them if it is unexpectedly necessary to return the Computer dobby. We are not responsible for any damage on the computer dobby when the original packaging is not used.

Installing the Dobby 2

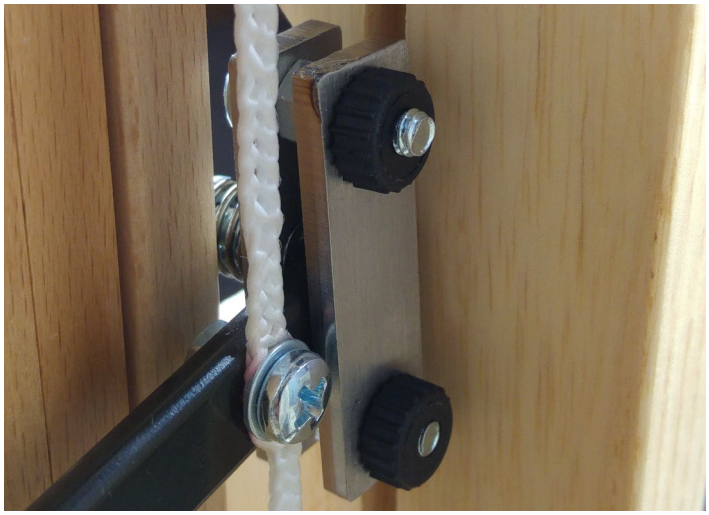
Before you can use the Dobby 2, it has to be attached to your loom. If your loom has a mechanical dobby system attached, you have to disassemble this system first. Please refer to the user manual of the mechanical dobby and follow the instructions in the reverse order.

Parts included with the Dobby 2 are:

1. 1 power cable
2. 1 USB A-B cable (use only this cable)
3. 1 Switch block
4. 2 Threaded ends, with 2 barrel nuts, 6 washers and 4 knurled nuts (newer looms use two extra of these sets)
5. 1 USB to Ethernet adapter

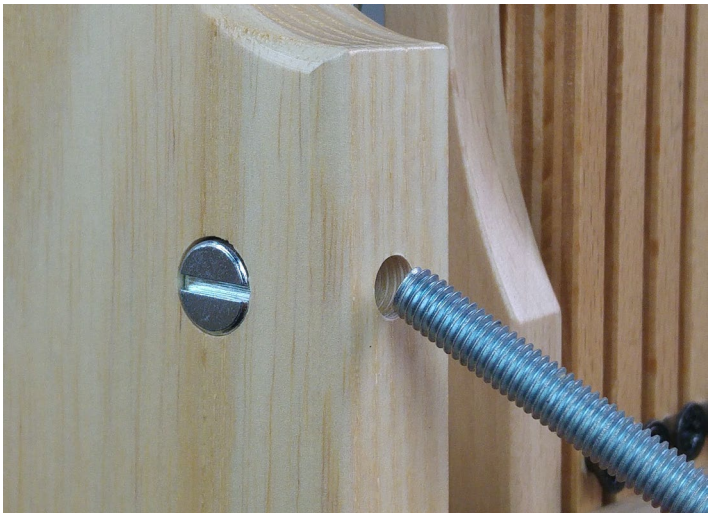
Attaching the Dobby 2

Mount the switch block onto the knife (the slanted metal strip that takes the activated dobby hooks down) on the front side of the loom, as shown. The switch block should be facing the dobby unit.



Don’t tighten the knurled nuts too much. You want to be able to move the block around until it is properly aligned with the dobby top sensor – after the dobby is attached.

Insert the barrel nut into the hole in the side of the middle section. The slots indicate the direction of the threaded hole in the nuts. Make sure these slots are facing outwards.



Insert the threaded rod into the hole and screw it into the barrel nut. Turn the end by hand until it sits tight.

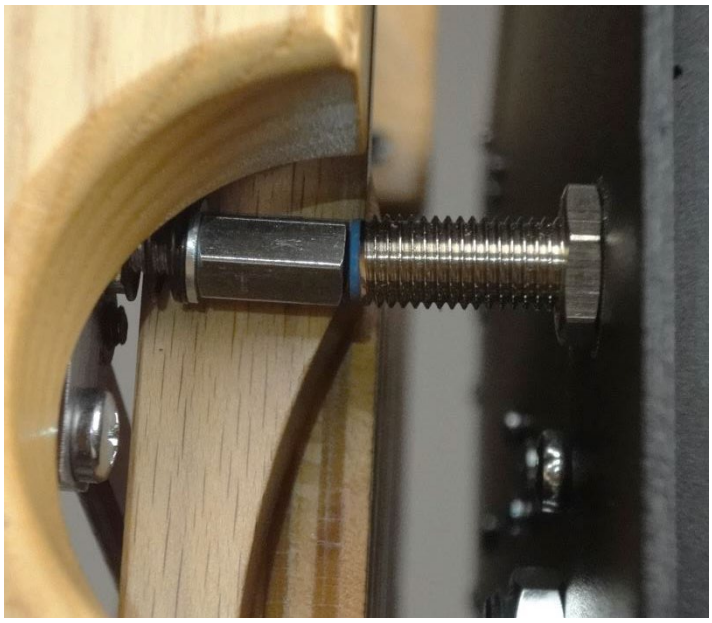
Slip on a washer, screw a knurled nut on and tighten it firmly onto the washer and place a second washer onto the end.

Repeat this assembly on the other side. If your loom has four mounting holes, repeat this procedure for the other two as well.

Slide the Dobby 2 over the threaded ends, and fasten it with the second knurled nut on each end.

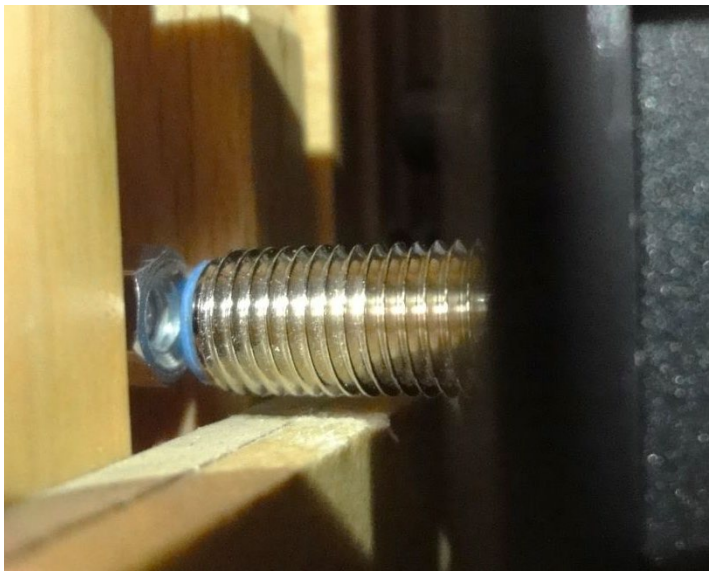
Now you need to check if the switch block is directly in line with the top sensors on the Dobby 2.

The distance between the switch block and the Dobby 2 sensor needs to be about 1 mm. You can change this distance by turning the long nut tension-ed by a spring, screwing it in or out.

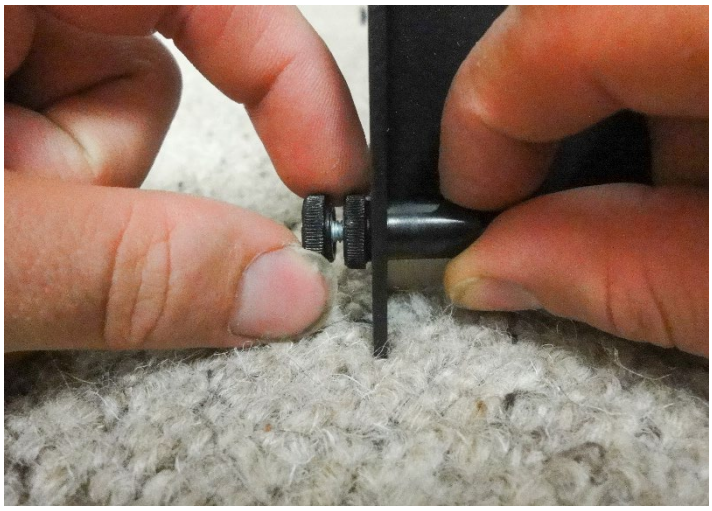


The easiest way to set the switch block is to take the sensor block and align it with the sensor. Tighten the black knurled nuts a bit so the switch block cannot move. Turn out the long nut until it touches the front of the sensor. Then turn the nut back two or three turns.

Press the treadle slowly watching the switch block and hold it down so the switch block and the lower sensor are aligned. If the switch block touches one of the sensors, do not force it, but turn the nut a fer turns away from the sensors. Check if the distance between the nut and the lower sensor is the same as the distance between the nut and upper sensor.



The next heading is only for interfaces using only two fixing assemblies. (Dobby 2 with four assemblies is always parallel to



the loom
If that is not the case you can improve the position of the Dobby 2 with the adjustable buffers. If there is more space between the nut and lower sensor the buffer should be turned in more. If there is less space between the nut and sensor the buffer should turned out.

Take of the interface. Turn the adjustable buffers a little in or out and tighten it firmly again. Place the interface back and check if the distance is correct. Continue until the distance between the nut and upper and lower sensors are the same.
If the height is still incorrect
you can change the height of the switch block on the knife slightly,. If that is still not enough, you can move the entire knife up or down, for this action, see the loom manual.

Is the block positioned correctly, then tightened the black knurled nuts on the back of the sensor block firmly.

The Dobby 2 comes with a foot rest. You can use the foot rest for your left or right foot.

Connecting the main power supply

First make sure the Dobby 2 is switched off by checking the power switch on the front. Connect the Dobby 2 with the cable from the power supply. After that connect the power supply to the main power supply. The flat side of the connector should face the wooden case of the dobby.

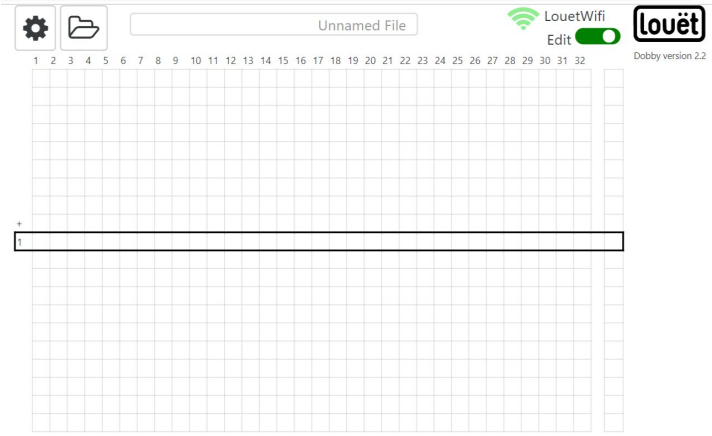
Turn on the Dobby 2 by the on/off switch under the screen. The screen will show “Please Wait” while the computer starts up. This will take about one or two minutes.

Using a Network cable

If you have problems with a unsteady wifi connection due to an external source of interference, or you do not want to use a wifi network, it is also possible to connect the Dobby 2 with the network using an USB to Ethernet adapter and an Ethernet cable (not included).
The cable should be routed through your working area in such a way as to prevent tripping yourself or others.

Put the USB to Ethernet adapter in one of the USB ports.
Connect the Internet cable with that adapter.
After a few moments, the IP address shown on the status screen changes when the Dobby 2 has established a stable connection via the attached cable and adapter.

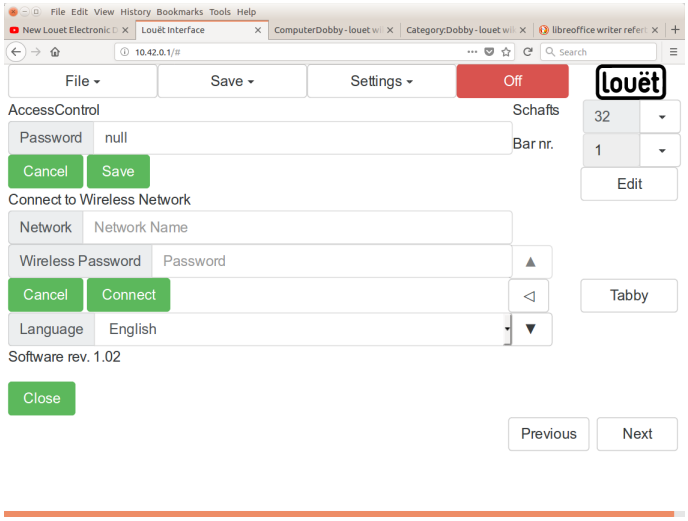
To control the Dobby 2 you need to open a web browser like firefox, internet explorer or Safari on your device. Fill in the IP address of the Dobby 2 in the address bar. By default and after a factory reset, this will be 10.42.0.1



The Louët interface web page to control the Dobby 2 will now appear on your screen.

Now the Dobby 2 is ready for use or, if you need your device to also connect to the internet, you can configure the Dobby 2 to attach to your home network.

Second step: Connecting the Dobby 2 to your network



On your device, open the Louët dobby web page: http://10.42.0.1

open the menu Settings and again click Settings. Here you could change your password and connect your Dobby 2 to your home network. Fill in the network name and password of your home network.

Click Connect.

Louët Wifi

Dobby connected to a home network or hotspot

The Dobby 2 will reboot after a few seconds, noticeable by the “Rebooting” screen on the dobby. After the status screen reappears, note the different IP address in the status screen of the Dobby 2. In most cases this will be an address in the 192.186.x.x range. In the picture, this is 192.168.11.124
Now you can reconnect your device to you home wireless network and notice the “LouetWifi” no longer exists.

If you see the familiar 10.42.0.1 address instead of the 192.168.x.x address, connecting of the Dobby 2 to the home network did fail and the Dobby 2 is yet again in the Access Point mode.
You can confirm this by looking for the LouetWifi network. If it exists, the pairing did fail. Connect to the LouetWifi network again, check your credentials and try again. When problems persist, please consult the troubleshooting chapter op page 10.

Please refer to the separate software interface user guide for using the build in web interface of the loom

Controlling the loom with Dobby 2 and USB cable

Controlling the Dobby 2 with a USB cable is the second way to control a loom. For this you need third party software running on a computer with a usb connector.

Third party software

Since the introduction of our first electronic dobby loom, we have worked with several weaving software companies. By now, the following companies have developed drivers for our Dobby 2: Fiberworks PCW, PixieLoom, Proweave, Weave it, Weavemaker, WeavePoint and Winweef.

Computer installation

The computer requirements for the Dobby 2 and most weaving software are very modest, so both new and older computers can be used. The only requirement is the computer supports USB connectors.
The Dobby 2 works with various operating systems like windows and Mac OS X, but we only support installations on Windows 10 and 11.

You might need to install a driver for the dobby. In case your computer doesn't have an internet connection or it can't find the appropriate drivers, we have included an USB stick with these drivers. In the troubleshooting you find the instruction for the installation for the supported operating systems. (https://louet.zendesk.com/hc/en-us/articles/360050870314-Megado-Octado-Magic-USB-to-Serial-driver)

Connect the Dobby 2 to the power brick and connect the power brick to the mains (in that order). Connect the Dobby 2 with the included USB A-B cable to your computer or laptop

Warning!!

Always use the supplied USB A-B cable. This is the only cable that can control the Dobby 2 with third party software. When you use an USB A-A cable shipped with the older Louët interface as shown in the picture, the USB port of the Dobby 2 or the laptop may break.

First turn on your computer. With the power cord and USB cord hooked up, turn on the power switch of the Dobby 2. The status screen will show a “Please wait” message and after a minute from a brief status screen display to a “PC connected” screen.

Start the weaving program on the computer and select a pattern. Now activate the dobby control part of the weaving design software. This is different on the various weave design programs and is beyond the scope of this user manual. As long as the USB A-B cable is connected to a powered up computer, the built-in computer in the Dobby 2 is completely ignored by the solenoids.

During weaving with a connected computer using a weave design program, data for the active bar will go from the computer to the Dobby 2, activating the selected solenoids. Push down the treadle to raise the selected shafts. You will notice that after you have pushed down the treadle, the solenoids will deactivate. When the treadle is returned to the rest position, a new bar will be activated.

Trouble shooting

The Dobby 2 cannot connect to the home network

This problem can have several causes:

- The credentials are not entered correctly
  Double check your credentials and watch for caps, especially as some devices auto-capitalize the first character. The credentials are incorrect. Check if the credentials are the right ones for the network you want to join.
- The wireless signal is not strong enough.
  If the Dobby 2 is close to the edge of the wireless zone, the signal may be too weak to be able to properly connect to it. Detach the Dobby 2 and place it close to the access point and repeat the pairing procedure.

There is no IP address visible in the status screen.

The dobby may be previously paired with a network which it cannot longer find. This could be due to a weak access point signal or the dobby has been moved to another room or house. Perform a factory reset.

Factory Reset

To reset the Dobby 2 to a known default state, press the "Factory Reset" button on the status screen and press "Yes". This will erase all network settings, generate a new password and renewable the built-in wireless access point. Drafts and saved bars are untouched. After a factory reset, you have to pair your Dobby 2 again. Please refer to the heading "Connecting your Dobby 2" on page 6.

The Dobby 2 does not react to a command of the computer

Possible solutions:

- Time-out
  There is an automatic time-out function build-into the Dobby 2. This limits how long the solenoids can be activated. If this time-out occurs, just activate the Dobby 2 again in your weaving software or press the treadle.
- Run the self-test
  Pressing the small black button between the two usb connectors engages the selftest. When the first solenoid activates, you can let go of the red button. The Dobby 2 will cycle through all 16 or 32 solenoids, and then it will repeat. With a 16 shaft Megado there will be a time lag before it

repeats the process. This test shows the circuit board is working properly. You can stop the self-test by pressing it again.

- Determine whether the Dobby 2 communicates with the computer
  With the Dobby 2 taken off of the loom, switch on the power, select a pattern in the weaving software and tell the software to “WEAVE”. Hold a metal part like a screwdriver against the plastic top of the top sensor switch. The first “pick” should activate. Slide the screwdriver down to the bottom sensor. You should see all solenoids de-activate. Slide the screwdriver back to the top sensor, where the next pick will activate. This mimics the action of the sensor block on the loom. The top sensor selects the next pick. The bottom sensor de-activates the solenoids.
  If the solenoids activate according to the signals of the computer, while manipulating the screwdriver, the problem is the location of the switch block on the knife.
  Solution: You need to re-adjust the location of the switch block a bit on the knife or you can adjust the position of the knife bar itself(see adjusting the knife bar in the loom instructions).
  If the solenoids do not activate, there is no communication between the computer and the Dobby 2. Check that the USB cable is connected properly. Try another USB A-B cable to verify the cable is not faulty.

There are irregularities in advancing to the next pick

Probable cause:

- Misalignment of the switch block:
  You need to re-adjust the location of the switch block a bit on the knife or you can adjust the position of the knife bar (see adjusting the knife bar in the loom instructions).
- One of the sensors is loose
  gently tap bothe the sesors to see of they are fixed snug to the dobby2. If one of the is loose, they can be fixed again, using a spanner 12mm or small pip wrench. Take off the dobby 2 from the loom and lay it on a soft towel to protect the case. Hold the sensor with you hand and use the wrench to tighten the nut, attaching it to the case.
  Warning! Do not over tighten. The sensor is not a regular bolt and can easily break when over tighten.

The solenoids seem to have not enough power

The Dobby 2 could be too close or too far away from the loom. The solenoids produce the most power when completely extended. Check the movement of the dobby bars while a solenoid is activated.
Use the test button for this, located between the two USB connectors. Press the button for at least one second to activate the test mode. If you get the feeling that the dobby bars are extended all the way but fall back a little after the initial burst, the solenoids are too close to the loom. Release the knurled nuts of the dobby mount a little.

If the bars move properly but the knife does not catch the screws of the dobby bars, unscrew the screw heads that protrude at the inside of the dobby hooks half a turn. Otherwise, remove a washer from the dobby mount assembly at both sides. This will position the box closer to the dobby hooks. The switch block needs to be readjusted after this procedure as a collision will occur with the sensors.

Manually installing drivers

Windows 8

Installing the driver

Hook up the power cord and USB cord and turn on the power switch. Windows will search for the driver automatically. Unfortunately Windows will not find these automatically, but unfortunately windows will not find the driver.

To install the drivers manually, using the supplied USB stick, follow the next steps:

- click “Start”
- click on the down arrow - “All programs”
- go to “System” and click “Control panel”
- go to “Hardware and sound” and click “Device manager”
- in the list with “Unknown device” there is an exclamation mark at “Weave ctr”, right-click “Weave ctr”
- click “Update driver software”
- click the last option “Browse my computer for driver software” and go to the USB stick
- click “Next” and the driver will be installed

When the driver is installed you will see a new unknown device at “Device manager” “USB Serial Port”. Follow the steps above again to install the second driver. The Dobby 2 is ready for use.

Com-port

The weaving programs that are currently on the market use a simulated com-port to communicate with the Dobby 2. In “Device manager” of your computer you can check on which com-port the Dobby 2 is installed, so you can set this number in your weaving software.

- click “Start”
- click on the down arrow - “All programs”
- go to “System” and click “Control panel”
- go to “Hardware and sound” and click “Device manager”
- doubleclick “Ports (Com & LPT)”
- behind the name “USB Serial Port” the number of the com-port reserved for the Dobby 2 is listed

Changing the com-port

If the com-port number reserved for the Dobby 2 is too high for the weaving software, it can be changed in the following way:

- doubleclick “USB Serial Port”
- click the tab “Port settings”
- click “Advanced”
- select a low com-port number that will work with your weaving software and click OK. If this is the only virtual com port in use on this computer, ignore the warning about the port being “ in use” and select zero or one.

Warranty and contact

Louët has a standard warranty of 2 years for the electronic Dobby 2. If you still have a problem after reading this section, please contact your dealer or us directly.

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