TECHTIPS
Firmware Update to 1.24 for HAPPY HCD-1501

Follow the procedures on this page to update your HAPPY HCD-1501 15-needle 1-head embroidery machine to firmware version 1.24. This update provides USB connection compatibility with Windows 64-bit operating systems, plus several interface improvements.

1. **Copy the firmware files onto a USB thumb drive.** In the root directory of the thumb drive, the following 6 files should be saved:

   - HCDHA124.bin
   - HCDHA124.upi
   - LCDHA103.bin
   - LCDHA103.upi
   - H_eng170.bin
   - H_eng170.upi

   When copied, insert the thumb drive into the port on the machine.

2. **Shut down your machine, then restart it while holding the MENU key down.** Continue holding the MENU key until the blue HAPPY screen appears. When it does, let go of MENU and press SET to continue as normal.

3. **The machine is at this point in Maintenance mode** instead of the normal operation mode. Use the arrow keys/SET key to select "INSTALL", then choose "INSTALL" again. The machine will list 3 files from the thumb drive:

   - H_eng170
   - LCDHA103
   - HCDHA124

   If you don't see these 3 files go back to step 1 and re-check.

4. **Select the language file (H_eng170) and allow it to install first.** This may take several minutes. Wait for the machine to return to the Maintenance screen again.

5. **Next install the LCD control panel update (LCDHA103).** Select it, press SET and allow it to install. This will be faster than the language file update. Wait for the machine to return to the Maintenance screen again.

6. **Finally install the main firmware update (HCDHA124)**. Select it, press SET and allow it to install. This will also be faster than the language file update. Wait for the machine to return to the Maintenance screen again or for it to reboot.

7. **Perform a normal restart** and re-set the machine with these 2 steps:
   a. From the main Drive screen, MENU -> OTHER -> SYSTEM. Allow the machine to perform this step which reboots the machine again.
   b. From the main Drive screen, MENU -> OTHER -> SPEED. You'll see a prompt warning you that the main shaft will turn. Allow the machine to perform this step which starts the main shaft turning slowly (needle bar will not engage) and accelerating fully to 1200spm before stopping.

8. **Re-start the machine as normal and confirm the update.** To confirm, from the Drive screen navigate to MENU -> OTHER -> VERSION.   The update should look like this:

- - CPU Board - -
1. OS   : HCD/H A1.24
2. Drive : CD1/   A 2.0

- - LCD Board - -
1. Control   : LCD   /H A1.04
2. Language: English/H 1.70

9. **Reset any personal preferences** (like custom hoops, stitch sweeper, centers, etc). If you performed this procedure to enable compatibility with 64-bit Windows, go to MENU - > OPTION -> machine icon -> 2nd page of text options -> USB MODE. Change USB Mode to "USB-COM" for 64-bit Windows, or leave in "Normal" mode for 32-bit Windows.

10. **If you are continuing to set up a live USB connection for a 64-bit Windows PC, do the following to continue setup:**
    a. ***Install the 64-bit Windows USB driver files*** on the PC if you haven't done so already.
    b. *Connect the machine to PC* via the USB port in the back (making sure the machine is in the main Drive screen).
    c. ***The 64-bit Windows PC should automatically find the machine*** and set up the drivers. To check, go to the Device Manager and look for the machine under Printers/Ports - it should be listed as "03 Happy Embroidery Machine". *Make note of the COM port# that is assigned here.*
    d. ***Set up HAPPYLINK for the virtual COM connection.*** In the program, click FILE -> OPTION. In the dialog box that appears, check the following:
        i. select "compatible with Happylink"
        ii. select the correct # of needles (15)
        iii. set Communication Type to USB-COM
        iv. select the port# from the Device Manager.

    e. ***Test connection:*** After this, you can try sending a design for test. *Note that the grey USB block will not appear as it usually does on the left side of the HAPPYLINK screen, even if the virtual COM port connection is successful.*