

The USB-to-Serial Converter



Older type with
Prolific chipset



Current type with
FTDI chipset

Introduction

The USB Serial Converter attaches to a PC USB port and provides a serial port connector, to which any of the following serial DesignaKnit cables can be attached:

- Silverlink 3 (for PE1)
- Brotherlink 1, 2, 3, 4, or 5
- E6000 Link 1 or 2
- E8000 Link
- Screenlink

It is NOT suitable for use with the following legacy cables:

- Silverlink 1 or 2
- Singerlink

The Silverlink 4 and 5 have their own USB connection and therefore do not require the Converter.

A variety of USB serial converters are commercially available, but not all of them will work with DesignaKnit cables. This is because the Brother PPD and knitting machines, and Silver Reed PE1, were not designed to communicate with PCs, and our cables with magnetic switches for detecting carriage passes are also not standard serial devices.

The Converter may be connected to any type of USB port: 1, 2, or 3.

Installing the driver

This should be done by an Administrator Windows user (if your computer doesn't offer you a choice of user names when starting up, it almost certainly means you are an Administrator user).

When the Converter is first attached to a computer, it is likely that Windows will either already have a suitable driver or it will automatically download the driver from the internet. Using these instructions to install the driver from the CD is necessary only if the computer is not connected to the internet, or there is a problem installing the driver from the internet.

Installing the driver from the CD

Do not connect the Converter yet. If you bought the USB-to-serial converter after you bought DesignaKnit, use the CD that came with the converter, otherwise use the DesignaKnit CD to install the driver.

Insert the CD. If Windows offers to open a folder to view the files accept that option; otherwise open a My Computer window yourself, right click on your CD or DVD drive and select Explore, Browse, or Open in a new window.

For the current type of converter: Installing the FTDI driver

From the CD, run the program `USB_Links_Driver_Installer.exe`. On most Windows computers this can be done by double clicking the left mouse button on the program name.

Follow the on-screen prompts to extract and install the driver. After clicking the Finish button you may be presented with an option to restart the computer – if so, do it and wait for the computer to restart. Then connect the Converter to any USB port on your computer.

For the older type converter: installing the Prolific driver

From the CD, run the program whose name begins `USB_Converter_DriverInstaller`, or which has Prolific in the filename. On most Windows computers this can be done by double clicking the left mouse button on the program name.

You will now be offered 3 options: Modify, Repair, and Remove. Take the first of these – Modify. The driver will then be installed. Finally you may be presented with an option to restart the computer – if so, leave that option selected. Select Finish to complete the driver installation process. Wait for the computer to restart if necessary. Then connect the Converter to any USB port on your computer.

Finding the new port number in DesignaKnit 8

DesignaKnit 8 can do this automatically when the attached serial cable is one of the following:

- Brotherlink 2 or 5
- E6000 link 2
- E8000 link 1 or 2
- Screenlink.

For these cable types, proceed as follows. Make sure the USB Converter is attached to a USB connector on the PC, and that the DesignaKnit link is connected to the Converter. Start DesignaKnit 8 and go to Interactive Knitting. Close the opening dialogue and from the main Interactive Knitting menu select Options / Knitting machine. Make sure your knitting machine is selected from the list. Make sure that Magnetic Switch Link is selected in the list of link types. Select Setup / Find Link, and then Start Search. Finish by selecting OK twice.

If the attached cable is a serial Brotherlink 1, serial Brotherlink 3, serial E6000 link 1, or serial Silverlink 3, it will be necessary to use Device Manager as follows...

1. From "My Computer" select "Control Panel" (it may also be necessary to select "Performance and Maintenance" or "System and Security") then "System".
2. Select "Hardware" and then "Device Manager".
3. Select View / Devices by type.
4. In the list of devices, double click on "Ports (COM & LPT)".
5. This will produce additional lines in the list of devices, one for each port that the computer has. Each new line will be something like "Communications Port (COM1) or "Printer port (LPT1)".
6. Find one called "USB serial port" or similar. The COM number that the driver has assigned is shown in brackets. The COM number is the same as a port number. DesignaKnit 8 is able to use any port number up to 99.
7. Start DesignaKnit 8 and go to Interactive Knitting. Close the opening dialogue and from the main Interactive Knitting menu select Options / Knitting machine / Setup. Make sure your knitting machine is selected from the list. Set the serial port to the same number that you found listed in Device Manager. For the serial Brotherlink 1, make sure that Serial Brotherlink 1 is selected from the list of link types so that interactive knitting will work. Finish by selecting OK twice.

Finding the new port number in DesignaKnit 7

It is necessary to use Device Manager as follows...

1. From "My Computer" select "Control Panel" (it may also be necessary to select "Performance and Maintenance" or "System and Security") then "System".
2. Select "Hardware" and then "Device Manager".
3. Select View / Devices by type.
4. In the list of devices, double click on "Ports (COM & LPT)".
5. This will produce additional lines in the list of devices, one for each port that the computer has. Each new line will be something like "Communications Port (COM1) or "Printer port (LPT1)".
6. Find one called "USB serial port" or similar. The COM number that the driver has assigned is shown in brackets. The COM number is the same as a port number.
7. DesignaKnit 7 is unable to use any number above 9. If the number that has been assigned by Windows is higher than 9, please see "Changing the port number" under Troubleshooting.

8. If the port number is 9 or below, start DesignaKnit 7 and go to Interactive Knitting. Close the opening dialogue and from the main Interactive Knitting menu select Options / Knitting machine / Setup. Set the serial port to the same number that you found listed in Device Manager. Finish by selecting OK twice.

Updating the driver from the internet

If the CD that contains the driver is more than a few months old, it may be necessary to update the driver. If your DesignaKnit PC is connected to the internet this can be done as follows.

Do steps 1 to 6 under “Finding the number of the new serial port”, right click on “USB Serial port” or “Prolific USB Serial port” and select Properties. Under the Driver tab, select Update Driver. If the option to search the internet (this time only) is offered, take it. The search can take a few minutes.

If your knitting PC is not connected to the internet, you can download the current driver from a PC that is connected to the internet by going to www.softbyte.co.uk . Transfer the downloaded driver to removable media and transfer it to the knitting PC. Use it in the way described under “Installing the driver” (for media other than CDs the same principles apply).

Troubleshooting

If after installing the USB-to-serial converter driver, DesignaKnit either tells you that your cable link cannot be found, or it doesn't work for some other reason, the first thing to check is that the port number entered in DesignaKnit matches that shown in Device Manager.

If DesignaKnit is still not able to use your link, update the driver from the internet (see the previous section). If that doesn't fix it, see the following points.

Removing a corrupted driver

Look at the list of devices shown in Device Manager, especially devices under “Other devices” and “Ports”. If any are marked with a small yellow icon containing an exclamation mark (!) and the name contains "serial port", "USB", or “Unknown Device”, delete them, disconnect the converter, and restart Windows. When Windows has started, install the driver again, following the instructions under “Installing the driver” above.

Another device is trying to use the same port

A variety of problems can result if another (unrelated) device's driver is also trying to use the same virtual serial port number. If this is the cause of the problem, it can be fixed by changing the port number of the USB serial port – see below.

Changing the port number

Having done steps 1 to 6 under “Finding the number of the new serial port”, right click on the "USB serial port" or “Prolific USB Serial port” and select Properties / Port Settings / Advanced.

In that dialogue box there is a drop-down list of possible com ports, with an indication of whether each port number is already in use. If possible choose a port number that is listed as available. If you are using DesignaKnit 7 and need a port number below 10, but there are no available port numbers listed below 10, try using one of the port numbers that Windows is telling you is unavailable. Port numbers that were once used but are now available are sometimes reported as unavailable. (If you do this and a device such as a printer or scanner stops working, please return to Device Manager and select a different number instead).

After choosing a different number, click OK, OK again, and close down Device Manager.

Start DesignaKnit and go to Interactive Knitting. Close the opening dialogue and from the main Interactive Knitting menu select Options / Knitting machine / Setup. Set the serial port to the same number that you have just selected in Device Manager. Finish by selecting OK twice.

Updates to this manual

The document you are reading was updated on 31st March 2017.

The most recent editions of cable link manuals including this one may be found at <https://softbyte.co.uk/cablelinkmanuals.htm>

For any latest information about USB to serial converters, please see <https://softbyte.co.uk/usbtoserialconvertermodels.htm>

The most recent version of the driver installer for the current type of converter is available here: https://softbyte.co.uk/download/USB_Links_Driver_Installer.exe

The most recent version of the driver installer for the Prolific converter is available here: https://softbyte.co.uk/download/USB_Links_Driver_Installer.exe

The most recent version of the zipped driver files for the Prolific converter is available here: https://softbyte.co.uk/download/Old_USB_Converter_Driver_Files.zip

Some users have found that the driver installer doesn't work but that this driver does work.

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